#### FEBRUARY 3, 2010 STAFF DRAFT - NOT APPROVED BY AGENCY



P.O. Box 99 • Ray Brook, New York 12977 • (518) 891-4050

APA	Proj	ject	Permi	it
	2009	9-25	6	

In the Matter of the Application of

TOWN OF LAKE LUZERNE

for a permit pursuant to 9 NYCRR Part 578

To the County Clerk: This permit must be recorded on or before \_\_\_\_\_\_. Please index this permit in the grantor index under the following names:

1. Town of Lake Luzerne

### SUMMARY AND AUTHORIZATION

Town of Lake Luzerne is granted a permit to control Myriophyllum spicatum (hereinafter: M. spicatum, Eurasian watermilfoil, or milfoil), on conditions, authorizing the restricted use of an aquatic herbicide with the active ingredient triclopyr as EPA registered product Renovate® On Target Flakes(OTF), EPA Registration No.67690-42, at an eleven acre wetland site (in a portion of Lake Luzerne) in an area classified Hamlet and Moderate Intensity Use by the Official Adirondack Park Land Use and Development Plan Map in the Town of Lake Luzerne, Warren County.

This project may not be undertaken until this permit is recorded in the Warren County Clerk's Office. This permit shall expire unless so recorded on or before \_\_\_\_\_\_2010, in the names of all persons listed on the first page hereof and in the names of all owners of record of any portion of the project site on the recordation date.

This project shall not be undertaken or continued unless the project authorized herein is in existence within two years from the date the permit is recorded. The Agency will consider the project in existence when the application of Renovate® OTF has been completed in the treatment area identified herein.

Nothing contained in this permit shall be construed to satisfy any legal obligations of the applicant to obtain any governmental approval or permit from any entity other than the Agency, whether federal, State, regional or local.

### AGENCY JURISDICTION

The project consists of the use of an aquatic herbicide involving emergent and deep water marsh wetlands and is a regulated activity pursuant to 9 NYCRR 578.2 and 578.3(n)(2)(ii) and 578.8(i).

## PROJECT SITE

The project site is an 11±-acre portion of the 111± acres of Lake Luzerne in the Town of Lake Luzerne, Warren County. The NYS Office of General Service (OGS) has determined that the State of New York does not have title to the bed of the lake, but rather the Town of Lake Luzerne has ownership interest to the lands under water.

# PROJECT DESCRIPTION AS PROPOSED

The project as proposed and conditionally approved herein is summarized as follows: The applicant proposes the management and control of the invasive non-native Eurasian watermilfoil in an 11±-acre area of Lake Luzerne known as the "South End" using the aquatic herbicide Renovate® OTF (EPA#67690-42). A total of 1560 pounds of the granular formulation of Renovate will be applied to achieve an initial target concentration of 0.75 parts per million (ppm) in order to sustain a concentration of 0.5 ppm for 72 hours. The Lake Luzerne public beach area located at the northwest end of the proposed treatment area will be the staging area where the herbicide will be stored and, on the day of treatment loaded onto the treatment boat. The proposed herbicide treatment is scheduled for May 2010.

The objective of the herbicide treatment is to manage an area with moderate to dense beds of milfoil growth in order to improve the ecological, recreational, and aesthetic values of Lake Luzerne. Future management efforts will include monitoring the treatment area and using hand harvesting to remove any remaining M. spicatum plants after treatment. It will also include continuing a long-term aquatic plant management program which includes installation of benthic barriers in areas with dense milfoil beds and diver-assisted hand harvesting of smaller, less concentrated areas of M. spicatum found throughout the lake.

A detailed aquatic plant survey will be required following the herbicide treatment and will be completed by September 2010. Continuing education to inform the lakeshore owners of spread prevention techniques and posting of milfoil warning signs at all public access points will be done to complement the control program. A map showing the general location of the Eurasian watermilfoil beds in Lake Luzerne, as of September 2008, is attached as part of this permit.

# SEQUESTERING CURTAINS

A 300-foot sequestering curtain will be placed across the opening of the treatment area to maintain the desired herbicide concentration, increase the efficacy of the treatment, reduce the potential for herbicide drift, and reduce impacts to non-target aquatic plants. The curtain is composed of an impermeable vinyl material which will have a weighted bottom and flotation at the top to keep the curtain extended vertically in the water column. The curtain will be maintained until the triclopyr residual levels within the treatment area drop below the NYS established potable water standard of 50 parts per billion (ppb). There are no inlets or outlets located within the treatment area.

#### TRICLOPYR MONITORING

Triclopyr monitoring will be completed using the FasTEST laboratory analysis. A total of 6 sample stations will be sampled 24 hours after treatment, 7 days after treatment and then weekly thereafter until triclopyr concentrations drop below 50 ppb. One additional round of sampling will be completed in order to verify when concentrations fall below 1 ppb, at which time the ban on using treated lake water for irrigation purposes will be lifted. Sample locations include 2 within the treatment area, 1 immediately outside the curtain, 1 near the northeast cove where the NYS protected plant, Bidens beckii, is located, 1 located at mid-lake and 1 located near the outlet dam. sample site located adjacent to the treatment area will evaluate the curtains for any leakage which may occur. If at anytime triclopyr residuals are found to be above a concentration of 50 ppb outside the treatment area, additional triclopyr sampling will be required and aquatic plant monitoring will be initiated to evaluate any impacts to non-target plants.

### CONDITIONS

# BASED UPON THE FINDINGS BELOW, THE PROJECT IS APPROVED WITH THE FOLLOWING CONDITIONS:

- 1. The project shall be undertaken as described in the completed application, the Project Description as Proposed and Conditions herein. In the case of conflict, the Conditions control. Failure to comply with the permit is a violation and may subject the applicant, successors and assigns to civil penalties and other legal proceedings, including modification, suspension or revocation of the permit.
- 2. This permit is binding on the applicants, all present and future owners of the project site and all contractors undertaking all or a portion of the project. Copies of this permit and all the approved maps and plans referred to herein shall be furnished by the applicants to all contractors prior to undertaking the project, and to all subsequent owners or lessees of the project site prior to sale or lease.
- 3. The Agency may conduct such on-site investigations, examinations, tests and evaluations as it deems necessary to ensure compliance with the terms and conditions hereof. Such activities shall take place at reasonable times and upon advance notice where possible.
- 4. A total of 1560 lbs of Renovate® OTF shall be applied to achieve an initial target concentration of 0.75 ppm to insure that concentrations are sustained above 0.50 ppm for a minimum of 72 hours. It is expected that the application of the herbicide will be completed in one day.
- 5. The application of the aquatic herbicide, Renovate® OTF, shall be applied in accordance with the EPA label and NYS Supplemental Labeling and shall only be applied by a certified pesticide applicator registered with the NYSDEC.
- 6. The treatment shall occur between May 1 and June 15, 2010. For treatments after June 15 a pre-treatment plant survey will first be conducted by a qualified consultant to evaluate the growth stage of the M. spicatum. If it is determined that the milfoil is fully grown or to the water surface and the potential for maximum herbicide efficacy diminished, the treatment shall be postponed until the following spring.
- 7. Sequestering curtains shall be positioned across the entrance to the south bay of Lake Luzerne prior to the application of the herbicide. The entrance to south bay shall be marked with buoys

or other hazard warning markers to warn boaters of the curtain location. The sequestering curtain shall be maintained until triclopyr concentration levels within the treatment area decrease to below the NYS potable water threshold of 50 ppb, which is estimated to be within 2-3 weeks after treatment.

- 8. The Renovate® OTF granular formation shall be evenly dispersed throughout the treatment area using a calibrated eductor system which delivers the herbicide via a stream of water sprayed over the surface of the lake.
- 9. The disposal of all Renovate® OTF product containers shall be completed according to product label requirements and federal and state law.
- 10. A detailed aquatic plant survey completed by an aquatic consultant, other than the pesticide applicator, shall be completed by September 15, 2010 and a copy of the final report provided to the Agency by December 15, 2010. The aquatic plant survey shall be a whole lake assessment using the Point Intercept Rake Toss Abundance Methodology (PIRTAM) Tier III approach developed by US Army Corps of Engineers and researchers at Cornell University. It shall include the 62 sample sites surveyed by Larry Eichler in September 2009 and shall provide a detailed analysis comparing pre- and post-treatment aquatic plant community composition, including details of any non-target impacts which may have occurred inside and outside the treatment area.
- 11. Prior to any treatment occurring in Lake Luzerne, the applicant shall provide the Agency with written documentation that describes the spread prevention measures which have or shall be undertaken for all equipment to be used, to ensure that no non-native aquatic species will be introduced into Lake Luzerne. This shall include documentation that the sequestering curtain has been properly cleaned, dried and sanitized prior to it being deployed to Lake Luzerne.
- 12. The Town of Lake Luzerne shall maintain milfoil warning signs at all public boat launches and access points on Lake Luzerne at which it has authority to post signage. The Town of Lake Luzerne and/or Aquatic Conservation Taskforce (ACT) shall continue their efforts to implement the management strategy outlined in the long-term lake management plan.

#### Public Notification and Water Use Restrictions

13. Notification of the herbicide treatment shall be published in a local newspaper of general circulation and also in the local free ads paper (Pennysaver). All public notices shall be published at

least one week prior to the treatment. In addition, adjacent shoreline landowners and lake association members with valid and known e-mail accounts shall be notified of the treatment by e-mail which shall be sent by the Lake Luzerne Aquatic Conservation Taskforce at least one week prior to the treatment. All notifications shall contain language notifying the public of the swimming restriction for 3 hours after the treatment, use of lake water for potable water is prohibited until concentrations have dropped below 50 ppb, and the ban on the use of lake water for irrigation purposes for a minimum of 120 days or until triclopyr levels have dropped below 1 ppb.

# Renovate® OTF Monitoring

14. The lake shall be monitored for triclopyr concentrations at 6 distinct sample locations including 2 within the treatment area, 1 located immediately outside the sequestering curtain, 1 located in the northeast bay where the NYS protected plant, Bidens beckii, was identified, 1 located approximately equidistant from the treatment area to the outlet and 1 located at the outlet. Samples shall be collected at a minimum 24 hours after treatment and 7 days after treatment, and shall continue weekly thereafter until triclopyr concentrations decrease to below 50 ppb. additional round of samples shall be collected at the two sites located within the treatment area and if required, at the four sample sites located outside the curtain, in to verify when triclopyr concentrations are no longer detectable (less than 1 ppb). Water samples collected shall be analyzed using the FasTEST laboratory analysis. A copy of all triclopyr residue sample results shall be reported to the Agency when received by the applicant or authorized representative.

If triclopyr concentrations of 50 ppb or more are detected outside the treatment area, then additional triclopyr monitoring shall be completed every 3 days at the 4 sample sites located outside the treatment area until levels have dropped below 50 ppb. In addition, post-treatment aquatic plant monitoring shall be completed within 7 days as follows:

(a) If a triclopyr concentration of 50 ppb or more is detected at the sample site located immediately outside of the sequestering curtain and concentrations at the mid-lake and outlet sampling stations are less than 50 ppb, then only the 62 locations sampled during the September 2009 plant survey shall be replicated.

- (b) If triclopyr concentrations of 50 ppb or more are detected at the mid-lake sample site, the northeast bay site or the outlet site, then the aquatic plant survey would be expanded to include the entire littoral zone of Lake Luzerne.
- (c) In addition to the 50 ppb triclopyr residue exceedance criteria for additional plant monitoring, if leaf "clubbing" or other visual evidence suggests sub-lethal triclopyr exposure of M. spicatum plants located outside the curtain, then the post-treatment aquatic plant monitoring would be expanded to the entire lake.

A report summarizing triclopyr concentrations and observed impacts to the aquatic plant community composition in Lake Luzerne shall be submitted to the Agency within 60 days of completing the additional aquatic surveys.

# Review of Future Aquatic Plant Management

15. Beyond those authorized herein, any other milfoil or wetland control efforts which constitute "regulated activities" involving wetlands shall require prior Agency review and approval in the form of an amended or new permit. Any application shall thoroughly evaluate the new or additional control alternatives and a discussion regarding the ability of the applicant to undertake the project. It shall also include a current plant inventory at milfoil harvest sites and non-harvested sites, scaled mapping showing boundaries of the milfoil areas in Lake Luzerne prepared by a qualified scientific consultant, options for the maximum protection of native wetland plants and communities and their values and functions, the extent of water use interference by the nuisance plants, and status of a comprehensive aquatic plant management plan.

#### Wetlands

16. Beyond prior Agency Permit 2007-52 and the one time application of the aquatic herbicide Renovate® OTF authorized herein, no "regulated activity" as defined in the Agency's Freshwater Wetland Regulations (9 NYCRR Part 578) shall occur on the project site without prior Agency approval. Such activities include, but are not limited to, dredging or filling of a wetland, or any other activity, whether or not occurring within the wetland, which pollutes it or substantially impairs its functions, benefits or values.

# FINDINGS OF FACT

# Background/Prior History

1. The project site was the subject of Agency Permit 2007-52 which allowed the Town of Lake Luzerne to use hand harvesting and benthic barrier techniques to control Eurasian watermilfoil in Lake Luzerne. The 2007 permit is valid until May 2011, at which time the Town will be eligible for General Permit 2008G-1 to continue aquatic plant management using hand harvesting and benthic barrier techniques.

# Existing Environmental Setting

- 2. Lake Luzerne (Pond # 05318) is 111 acres in size, with a mean depth of 24 ft., maximum depth of 52 ft., and is classified as a "B," waterbody (suitable for contact recreation and fishing) by DEC. The outlet of the lake drains to the Hudson River, which is located approximately 1,500 feet from the outlet dam. There is only one inlet stream, known as Towner Brook, which is the outlet flow from Second Lake.
- 3. The current inventory of the deep water marsh wetlands in Lake Luzerne is found in "Aquatic Vegetation of Lake Luzerne" prepared by Lawrence Eichler, dated October 30, 2009. The focus of this survey was the south bay of Lake Luzerne. An additional aquatic vegetation survey completed in September 2008 by Richard King included aquatic vegetation sample sites throughout the littoral zone. In both instances, the point intercept aquatic plant survey methods were employed to meet NYS DEC Tier III survey requirements.

The aquatic plant survey completed by L. Eichler showed a total of 33 aquatic plant species to be present in Lake Luzerne, with Eurasian watermilfoil identified as the third most abundant plant by frequency of occurrence at the monitoring sites. Other significant species found during the aquatic surveys included muskgrass (Chara spp.), bladderworts (Utricularia spp.), eel grass (Vallisneria americana), northern watermilfoil (Myriophyllum sibiricum), leafless watermilfoil (Myriophyllum tenellum), pondweeds (Potamogeton spp.), and bushy pondweed (Najas flexilis). In addition, four protected plant species are located in the lake, including Myriophyllum alterniflorum and Bidens beckii which are known to be highly susceptible to triclopyr. The two other protected plants are Isoetes lacustris (large spored quillwort) and lesser bladderwort (Utricularia minor) which have low susceptibility or are not susceptible to the herbicide. Myriophyllum alterniflorum is listed on the NYS Rare Plant List and was found in a few shallow areas (less than 1

meter) of the lake during an inspection in 2006 by Adirondack Ecologist, LLC. This rare plant was not found to be present in the proposed treatment area in either the Eichler (2009) or King (2008) surveys.

4. Generally, deep water marshes provide valuable functions, such as providing fish and waterfowl habitat and protecting water quality. The vegetation provides shelter and food for fish and the organisms upon which fish feed, and enhances water quality by stabilizing the lake bottom, reducing turbidity and trapping suspended organics and silt. Deep water marsh wetlands generally have a value rating of "3" pursuant to 9 NYCRR 578.5. However, where the site is part of a larger wetland of 20 acres or more or where associated with threatened or endangered plant species, the wetland has a "1" value rating. Due to the presence of threatened or endangered plant species, wetlands within the mean high water mark, and deep water marsh and emergent marsh covertype wetlands, the proposed treatment area has an overall value rating of "1" pursuant to 9 NYCRR 578.5 and 6.

#### Eurasian watermilfoil Past Control Efforts

Eurasian watermilfoil was first identified in the lake in 1989 5. and subsequent surveys have documented a spread of milfoil throughout the lake. In 1992, an effort was made to hand harvest scattered milfoil plants in the lake, but no control was applied to areas of dense growth and milfoil continued to expand throughout the lake. Lake Luzerne shoreline owners worked with the Town to implement a more aggressive milfoil control program from 2007 to 2009. During the first year of management in 2007, a total of 0.25 acre of benthic mats were deployed in areas with heavy to moderate beds of milfoil. The benthic barrier management effort continued in 2008 with a total of 1.5 acres of milfoil matted and in 2009 a total of 1.5 acres of dense to moderate beds of milfoil were matted. The total cost for the 3year milfoil program to manage 3.25 acres using benthic barriers is estimated to be \$49,564.

# Renovate Mode of Action

6. Triclopyr is the active ingredient in the EPA and DEC registered aquatic herbicide product Renovate® OTF, being 14% triclopyr and 86% inert ingredients. Renovate® OTF is the dry flake (granular) formulation manufactured by SePRO Corporation. The dry flake formulation allows the triclopyr to be carried to deeper waters and localizes it where the target plants are growing, making it more effective in treatment areas where dilution may be a problem. Triclopyr is a systemic herbicide which enters through a plant's leaves and stems and translocates to the root system, thereby disrupting the plant's metabolism. As a systemic

herbicide, killing the entire plant, including root system, will have greater efficacy and will provide for a longer period of control of the target plant. Additional information concerning the mechanism of uptake, non-target studies and environmental and human health impacts are found in the NYS Supplemental Environmental Impact Statement(March 2007) for Triclopyr and pesticide registration document.

# Native Plant Susceptibility

7. Renovate® OTF is an aquatic herbicide which targets dicotyledons (dicots) and broadleaf species of plants. Native dicots including native milfoils (Myriophyllum spp), pickerelweed (Pontedaria cordata) yellow (Nuphar spp) and white (Nymphaea spp) lilies, watershield (Brasenia schreberi) are highly to moderately susceptible to triclopyr concentrations. Most native monocotyledons (monocots), such as pondweeds (Potamogeton spp) and sedges, are generally not affected by triclopyr. Individual plant sensitivity is dependent on application rate, concentration time, dilution potential and time of year of treatment.

# Toxicity to Other Aquatic Organisms

8. Triclopyr triethylamine salt (TEA) is practically non-toxic to fish, freshwater invertebrates, and mammals. Laboratory tests show 96-hour LC50 values of 552 and 891 ppm for rainbow trout (Oncorhynchus mykiss) and bluegill (Lepomis macrochirus), respectively. Based on waterflea (Daphnia magna), acute 48-hr acute LC50 was 1,170 ppm, while the chronic 21-day LC50 was 1,140 ppm. The acute oral LD50 for rates was determined to be 729 mg/Kg/day. Non-target effects on fauna are not expected given the relatively high concentration required for these effects mentioned above, the maximum allowable application rate of 0.75 ppm for Lake Luzerne, the relatively quick dissipation half lives, and negligible rates of accumulation in the aquatic environment.

# NYS Product Label and Water Use Restrictions

9. The US EPA product label including the NYS Special Local Need (SLN) Registration Label for Renovate® OTF were approved in New York State in 2007. The federal product label allows for a maximum concentration of 2.5 ppm and prohibits the use of Renovate treated water for irrigation purposes for 120 days after application or until triclopyr residue levels are 1 ppb or less. The NYS SLN label prohibits swimming in the treatment area for 3 hours after treatment and restricts the use of lake water treated with triclopyr as potable water until triclopyr residue levels are less than 50 ppb.

10. There are a variety of land uses in and adjacent to the proposed treatment area, including a public swimming area, public boat launch, private docks, children's summer music camp, and private residences and the water uses of the lake include boating, fishing, and swimming. The applicant has advised that there are no known public or private potable water intakes within the treatment area or elsewhere on the lake.

# Other Regulatory Permits and Approvals

11. The project requires approval from NYS DEC pursuant to DEC Article 15 Title 3 Aquatic Pesticide Permit. The application is pending with the NYS DEC for use of a restricted use pesticide for aquatic vegetation control. No local government permits are required.

# Public Notice and Comment

12. The Adirondack Park Agency notified all adjoining property landowners and those parties as statutorily required by §809 of the Adirondack Park Agency Act and published a Notice of Complete Permit Application in the <a href="Environmental Notice Bulletin">Environmental Notice Bulletin</a>. The Agency has received twenty-four letters commenting on the project. Twenty-three letters, including letters from the Town of Lake Luzerne and the Lake Luzerne Association, were received in support of the project. One letter requested that the project require an adjudicatory hearing.

## Economic/Fiscal Factors

- 13. The cost of the control program to the Town of Lake Luzerne is expected to be \$18,000. This cost includes the purchase of Renovate® OTF, rental of sequestering curtains, residual monitoring and a follow-up aquatic plant survey.
- 14. Areas of moderate to dense beds of Eurasian water milfoil are known to inhibit swimming in lakes and can interfere with boating. A reduction of recreational opportunities due to milfoil infestation can reduce the value of shoreline property. The adoption of a more aggressive management strategy, as proposed to include the use of an aquatic herbicide, is expected to increase native plant diversity and the overall health of the lake thereby improving recreational opportunities for shoreline owners and the general public.

# PROJECT IMPACTS

#### Wetlands

As a wetland species, M. spicatum provides many of the functions 15. and benefits provided by other wetland species. However, M. spicatum is an opportunistic and aggressive invasive plant that has demonstrated an ability to grow faster than most native plants and poses a potential threat to the diversity of wetlands and biota. The plant surveys and observations to date indicate that M. spicatum is currently the third most dominant plant in Lake Luzerne and if left uncontrolled, the wetland benefits and values provided by native wetland vegetation will likely be reduced as it will likely become the dominant plant species. Further, the non-native plant interferes with recreational uses in shallow water areas in the lake and may have economic impacts if not managed effectively. The control of the relatively small area of the exotic M. spicatum proposed by this project will likely benefit the wetland complexes and reduce the potential of M. spicatum to displace the more valuable native aquatic vegetation. It also allows for physical control of M. spicatum by reducing the population to a more manageable level. Continuing to survey for the presence of M. spicatum and monitoring of the entire aquatic plant community and its response to selective removal of milfoil by an aquatic herbicide is fundamental to future lake and aquatic plant management programs.

#### Water Resources

16. As an aquatic herbicide, Renovate® OTF targets aquatic plants identified as dicots and works slowly on eliminating Eurasian watermilfoil, thereby avoiding a sudden increase in decomposition of organic material on the lake bottom. Applying the herbicide early in the growing season when native vegetation is beginning to emerge and when water temperatures are colder will further avoid problems with dissolved oxygen depletion and phosphorous increases which are associated with aquatic plant die-off. The proposed treatment program will not adversely affect the water quality of Lake Luzerne.

#### Long-Term Management of Eurasian Watermilfoil

17. Continuation of the long-term management program using hand harvesting and benthic barriers will control Eurasian watermilfoil growth and spread to other areas in the lake. Continuing to monitor the lake and identifying areas with moderate to dense beds of milfoil and continuing public education programs, including maintaining spread prevention signage at public launch sites, are all important components of an aquatic

plant management program. The practice of implementing other recommendations of the Lake Luzerne Watershed Management Plan will continue to enhance water quality and improve aquatic plant species diversity.

18. Improper project implementation and dispersal of the herbicide could result in herbicide drift and the loss of non-target plants, including susceptible NYS protected plant species, in the aquatic community which could alter the value and function of the wetlands. Timing the application of the herbicide to early spring, using sequestering curtains to confine the herbicide release to an eleven acre portion of the lake, using a lower concentration of Renovate® OTF, and using a water-based delivery system to apply the granular formulation will limit non-target impacts outside the treatment area and will increase the efficacy of treatment by limiting the effects of dilution and herbicide drift.

# Native Aquatic Plants

19. Triclopyr enters the milfoil leaves and stems, eventually translocating to the root system, killing the entire plant by disrupting its metabolism. Since triclopyr is highly selective for M. spicatum and other dicots, completing the treatment in spring, when Eurasian watermilfoil is typically the first emergent plant, will reduce impact to other native dicots which have not yet emerged. Many of the native dicots, such as Bidens beckii, which are susceptible to triclopyr, were identified inside and outside the proposed treatment area. These plants are commonly found in many Adirondack waters and are known to recolonize an area following Renovate treatments in other NYS waters. The protected plant, M. alterniflorum, was not found to be present in the treatment area and will not be impacted by the treatment. Native monocots show little to no effect from exposure to triclopyr.

# Fate of Triclopyr

20. Triclopyr is highly soluble in water and primary routes of degradation are aquatic photolysis and microbial breakdown. Dissipation half-lives of triclopyr range from 0.5 to 7.5 days in water and 2.8 to 7.5 days in sediment. Field dissipation studies also indicated that Triclopyr does not accumulate in sediments, shellfish and fish.

#### Evaluation of Alternatives

21. Additional milfoil management options, including no action, are identified in the report prepared by the Lake Luzerne Aquatic Conservation Taskforce and submitted to the Town in 2008. Other aquatic herbicides, biological and water control (winter

drawdown) options were determined to be too costly or not suitable or practical for Lake Luzerne. Based on physical methods employed to date (hand harvest and benthic mats), the characteristics of the milfoil sites located in south bay which are in a need of management, and after consideration of environmental and financial costs, the use of a selective herbicide treatment is an appropriate technique to supplement ongoing physical controls. Detailed discussions of alternatives and impacts are found in the "Supplemental Environmental Impact Statement" (March 2007) for Triclopyr registration in New York State.

22. Issuing this permit for the use of an aquatic herbicide will aid in the efficient use of time and money for the management of the nuisance milfoil. An annual assessment to determine the priority areas for control and occasional plant surveys are important to the effective implementation of the program. Continuing hand harvesting at sites with scattered to light milfoil plant growth and the use of benthic barriers in areas with moderate to heavy infestations should also be included as part of the management program on an annual basis.

# Historic Sites or Structures

23. Based on review of available resource inventory, the project as proposed and authorized herein will not cause any change in the quality of "registered," "eligible," or "inventoried" property as those terms are defined in 9 NYCRR 426.2 for the purposes of implementing §14.09 of the New York State Historic Preservation Act of 1980.

#### CONCLUSIONS OF LAW

If undertaken in compliance with the conditions herein:

- 1. The project would not have an undue adverse impact upon the natural, scenic, aesthetic, ecological, wildlife, historic, recreational or open space resources of the Park or upon the ability of the public to provide supporting facilities and services made necessary by the project, taking into account the economic and social benefits that might be derived therefrom.
- 2. The Agency has considered the public policy of the State set forth in ECL 24-0103, the statement of legislative findings set forth in ECL 24-0105, and the effect of the project upon the public health and welfare, fishing, flood, hurricane and storm dangers, and the protection and enhancement of the several wetland functions and benefits. The applicable findings of 9 NYCRR Part 578 can be made.

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3. The project would be compatible with preservation of the entire wetland with a value rating of "1" and would not result in degradation or loss of any part of the wetland or its associated values.

PERMIT issued this day of , 2010

ADIRONDACK PARK AGENCY

BY:
Holly E. Kneeshaw
Acting Deputy Director (Regulatory Programs)

STATE OF NEW YORK)
) ss.:
COUNTY OF ESSEX )

On the day of in the year 2010, before me, the undersigned, a Notary Public in and for said State, personally appeared Holly E. Kneeshaw, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

HEK: ESS: MJG: DMS: LPP: SME: mlr