



1. This permit is valid upon signing and shall expire five years from the date of signing (see conditions 2, 3 and 4 for the time frame of the authorized control activity).
2. In one of the years 2008 or 2009, the Permittee and Co-Permittee are authorized to conduct one spot/partial-lake treatment of up to 50 acres total in the littoral areas of Lake Morey approved by the Department as soon as the watermilfoil is actively growing prior to the water temperature reaching 60 degrees, or after June 22, with the aquatic herbicide, Renovate OTF, active ingredient triclopyr, EPA Registration No. 67690-42, to achieve a target triclopyr concentration of 1.85 parts per million in the bottom four feet of water depth. The areas approved by the Department are described in Attachment C.
3. If treatment is to occur after June 22, the Co-Permittee shall conduct a pre-treatment survey to determine the growth stage of the watermilfoil in the areas to be treated. If the watermilfoil is fully grown or to the water surface, no treatment shall occur.
4. The treatment shall only occur on a Monday, Tuesday, Wednesday or Thursday to avoid the need to close Lake Morey to recreational use over a weekend.
5. The Co-Permittee shall take adequate precautions to assure that no off-target drift of Renovate OTF blows onto the shoreland.
6. The specific product(s) used, Renovate OTF, must be registered with the Vermont Agency of Agriculture, Food and Markets for use in Vermont at the time of the treatment, and shall be applied in full conformance with all label requirements and state and federal regulations in effect at the time of the treatment.
7. The disposal of surplus Renovate OTF, container rinseate, and empty product containers shall be conducted according to product label requirements and federal and state law and regulations.
8. Renovate OTF shall only be applied by a pesticide applicator certified by the Vermont Agency of Agriculture, Food and Markets in Category Five - Aquatics, and only by a Co-Permittee of this permit. Renovate shall only be applied in the presence of someone with prior experience in its application.
9. The Permittee and Co-Permittee shall submit to the Department an herbicide application record form (Attachment A) along with chemical treatment quantity calculations associated with the treatment within seven calendar days following the date of the Renovate OTF treatment.
10. Prior to treatment taking place, the Permittee and Co-Permittee shall submit to the Department the name(s), current address, and telephone number of all owners of property along the outlet stream downstream to the US Route 5 crossing of the outlet stream.
11. Prior to any treatment occurring in Lake Morey with equipment that has been in or on any other waterbody, the Permittee and Co-Permittee shall provide the Department with written documentation that describes the spread prevention measures to be taken to assure that no non-native species will be transported into or out of Lake Morey with the project equipment. At a minimum, the Permittee and Co-Permittee shall ensure that the following occur before and after equipment is placed in Lake Morey: all visible plants, plant fragments, and animals shall be removed from the project equipment; all water from bilges, etc. on all project equipment (boats, motors, etc.) shall be drained; all project equipment shall be rinsed with

water at a temperature at or above 140F for a minimum of one minute and/or washed with an appropriate disinfectant; and all absorbent items that have come into contact with water (e.g. felt-bottom wading boots) shall be soaked in an appropriate disinfectant for a minimum of thirty minutes to ensure complete decontamination. As an alternative to rinsing or washing, the project equipment may be thoroughly dried and kept dry for at least five days before and after being placed in Lake Morey as a means of preventing the introduction of non-native species into or out of Lake Morey. Documentation of the spread prevention measures to be taken shall be submitted to the attention of Susan Brittin, Water Quality Division, either by Internet ([Susan.Brittin@state.vt.us](mailto:Susan.Brittin@state.vt.us)) or facsimile (802-241-4537). No project equipment shall be placed into Lake Morey until the Department has given the Permittee written approval of the spread prevention measures and those spread prevention measures have been implemented. No project equipment shall be removed from the Lake Morey shoreland until the approved spread prevention measures have been implemented. The Permittee shall be responsible for making certain that the party or parties using/transporting the project equipment adhere to the approved measures.

12. The Permittee shall remove all benthic barrier material from the areas treated with Renovate by September 30<sup>th</sup> in the year of Renovate OTF treatment. Documentation describing the amount and location of removed benthic barrier shall be submitted to the Department by December 31<sup>st</sup> of the same year.
13. A duly authorized representative(s) of the Department may at any time inspect the project, including the operation and maintenance thereof. Agency of Natural Resources staff may boat on Lake Morey to conduct official business as soon as the Renovate OTF application has been completed.
14. The Permittee shall notify the Department of the treatment date(s) via Internet ([Susan.Brittin@state.vt.us](mailto:Susan.Brittin@state.vt.us)) at least five days prior to the treatment taking place. A copy of the electronic message shall be sent to [Rich.Kirn@state.vt.us](mailto:Rich.Kirn@state.vt.us) and [Bob.Popp@state.vt.us](mailto:Bob.Popp@state.vt.us). Alternatively, the Permittee may call Susan Brittin (802-241-3786), Rich Kirn (802-485-7566) and Bob Popp (802-476-0127) to notify them at least five days prior to the treatment taking place.
15. The Permittee shall meet with the Department on an annual basis to discuss the level of watermilfoil control achieved/maintained, the impacts to non-target species, and other pertinent issues as well as the most effective strategy to be implemented as the next phase of the five-year integrated management plan. The Permittee shall implement each phase of the integrated management plan as mutually agreed upon by the Department and the Permittee at the annual meeting and shall not change the management plan without prior written approval from the Department. The Permittee's obligations under this condition shall continue until the five-year integrated management plan is completed.
16. The Permittee shall maintain all data and records relating to the activities authorized by this permit and the associated five-year integrated management plan for a period of one year following the completion of the integrated management plan. The Co-Permittee shall maintain all data and records relating to the Co-Permittee's obligations under this permit for a period of two years following completion of the Renovate treatment.
17. There shall be **no use** of Lake Morey and the outlet stream downstream to US Route 5 as shown in Attachment C for any purpose beginning the day of the Renovate OTF treatment through the entire day after the treatment, which includes but is not limited to:

- swimming/wading
- boating
- fishing
- irrigation
- domestic use, including toilet flushing.

18. There shall be **no irrigation use** of the water from Lake Morey and the outlet stream downstream to US Route 5, including use for watering lawns, trees, shrubs or plants, beginning the day of the Renovate OTF treatment and continuing for 120 days or until the Department provides notification to the Permittee that the restriction has been lifted, whichever comes first. [If lifted prior to 120 days, the Department intends to base lifting the irrigation use restriction on the results of chemical analyses of representative water samples, as specified in conditions 23 and 24 below, that indicate that the concentration of triclopyr is equal to or less than 1.0 part per billion by laboratory analysis].
19. **Recreational uses such as swimming/wading, boating and fishing** may resume at the beginning of the **second** day following the Renovate OTF treatment.
20. **Domestic uses other than** drinking and using waters to prepare food or drink may resume at the beginning of the **second** day following treatment.
21. There shall be **no use of the water** from Lake Morey and the outlet stream downstream to US Route 5 **for drinking or to prepare food or drink** beginning the day of the Renovate OTF treatment and continuing until the Department provides notification to the Permittee that the restriction has been lifted. [The Department intends to base lifting this restriction on the results of chemical analyses of representative water samples, as specified in conditions 23 and 24 below, that indicate that the concentration of triclopyr is at or below 75 parts per billion by laboratory analysis].
22. The Permittee shall supply bottled water for the duration of the required water use restriction to all persons affected by the restricted use of the waters for drinking and/or to prepare food or drink, unless other arrangements are made by those affected.
23. The Permittee and Co-Permittee shall collect water from at least ten sites in Lake Morey and one site in the outlet stream as shown in Attachment C for the analysis of triclopyr. Samples shall be collected within the bottom four feet of water at each sample site using sampling equipment designed to collect samples at a discrete depth, beginning approximately 24 hours after completion of the Renovate OTF treatment and continuing at least weekly until all sample results demonstrate that triclopyr is at or below 75 parts per billion by laboratory analysis. Sampling at one or more sites may be discontinued prior to this time if the Permittee and Co-Permittee receive prior written approval from the Department to discontinue the sampling. Additional sampling locations and samples may be required if sample results from the sampling site in the outlet stream of Lake Morey reveals detectable amounts of triclopyr.
24. Water samples collected in accordance with condition 23 above shall be analyzed at the SePRO Corporation laboratory or another laboratory qualified to analyze triclopyr. The Permittee and Co-Permittee shall submit all sampling results to the Department as described in condition 25, below. Individuals collecting water samples for analysis shall be trained directly by SePRO Corporation or the Co-Permittee.

25. The Permittee and Co-Permittee shall arrange for the laboratory performing the analyses to fax (fax number 802-241-4537, attn: Susan Brittin) or send via Internet ([susan.brittin@state.vt.us](mailto:susan.brittin@state.vt.us)) the sample results to the Department within 24 hours of completion of analysis.
26. The Permittee and Co-Permittee shall conduct public notification in the following manner:
- a. An informational notice and map of the treated and restricted use areas shall be hand-delivered or sent with a stamped, Permittee/designated contact-addressed return postcard to all property owners of land that abuts Lake Morey and the outlet stream downstream to US Route 5 as shown in Attachment C at least 15 days prior to the treatment taking place. A list of all property owners who were sent notices and a list of those property owners who returned postcards shall be provided to the Department no later than 7 days prior to the treatment taking place. A list of those property owners who did not return the postcards shall also be provided along with a photo of each posted notice or a detailed description of where and when the notice(s) were posted to ensure that each of these property owners who did not return postcards will receive the notice and map describing the treatment and water use restrictions. The informational notice shall include:
    - The proposed date of the treatment;
    - The aquatic herbicide to be used;
    - A map of the treated and restricted use areas;
    - A statement that signs posted along shoreline properties and roadways will provide the exact treatment date/time;
    - A statement that signs posted along shoreline properties and roadways will provide specific water use restriction dates;
    - A list of all water use restrictions:
      - NO USE of Lake Morey and the outlet stream downstream to US Route 5 FOR ANY PURPOSE, including boating, fishing, swimming, domestic (household) use or irrigation, on the day of and the entire day after the treatment.
      - Swimming/wading, boating, fishing and domestic use (**except drinking or for food or drink preparation**) may resume the beginning of the second day following treatment.
      - Use of water from Lake Morey or the outlet stream downstream to US Route 5 for drinking or for food or drink preparation shall not resume until water sample analyses reveal that the active ingredient in Renovate OTF (triclopyr) is at or below 75 parts per billion by laboratory analysis.
      - Use of water from Lake Morey or the outlet stream downstream to US Route 5 for irrigation, including use for watering lawns, trees, shrubs or plants, shall not resume for 120 days or until water sample analyses reveal that triclopyr is at or below 1.0 part per billion by laboratory analysis, whichever comes first;
    - A statement that bottled water will be provided, if requested, to any person restricted from using their domestic water supply for drinking or in the preparation of food or drink; and
    - The contact name(s), address(es), and telephone number(s) for the Permittee and Co-Permittee for further information.

The notice shall also state that notification of the exact treatment date will be posted in the locations described in condition 26c below. The notice shall inform property owners in bold print that if a residence or cottage will be rented at any time after the treatment and

prior to December 31 of the year in which the treatment occurred, the property owner is responsible for informing all tenants of the treatment and the water use restrictions. A copy of the notice shall be provided to the Department when the notice is sent to property owners.

- b. The same informational notice described in condition 26a above shall be provided at least 15 days prior to the Renovate OTF treatment to any commercial camps abutting Lake Morey or the outlet stream downstream to US Route 5 as shown in Attachment C, and shall be provided, prior to the children attending, to all parents of children who will be attending the camps in the year of treatment. A list of those commercial camps shall be submitted to the Department prior to the treatment taking place.
- c. Signs and maps of the treated and restricted use areas shall be posted (1) along the road facing the approaching traffic, at least once every 1000 feet along the lakeward side of the roadways (except Interstate 91) in the vicinity of the Lake Morey shoreline and the downstream area restricted by the treatment; (2) at all public and private Campgrounds, Inns, and access points where the public might enter or use the treated or restricted areas; and (3) at the Fairlee town office. The signs posted at locations (1) and (2), above, shall be at least 25 inches in height by 19 inches in width. The signs posted at location (3), above, shall be at least 11 inches in height by 8.5 inches in width. Signs at locations (1) and (2), above, shall be mounted on wood or similar material and staked into the ground at vehicle and/or eye level in locations where they will be most visible to shoreline property owners and potential lake users. All signs shall be made of waterproof paper and printed with waterproof ink. The signs shall state:

<p><b>WARNING</b>  <b>AQUATIC PESTICIDE IN USE</b></p> <p>The areas shown on the map have water use restrictions due to a treatment with the aquatic herbicide Renovate on _____ (date).</p> <p><b>IN THE AREAS SHOWN ON THE MAP THERE SHALL BE:</b></p> <p><b>NO USE</b> of the water in the areas shown <b>for ANY PURPOSE</b> the day of treatment and the entire day after treatment.</p> <p><b>NO USE</b> of the water for <b>Drinking or for Food or drink preparation</b> UNTIL FURTHER NOTICE (may resume on _____)</p> <p>Domestic uses <b>OTHER THAN</b> drinking or food or drink preparation may resume on _____</p> <p><b>NO USE</b> of the water for Irrigation for 120 days (may resume on _____)</p> <p><b>NO USE</b> of the water for Recreation (swimming, boating, fishing) until the second day following the treatment (may resume on _____)</p> <p>For information contact: _____                  Permittee contact name/telephone number</p>
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The signs and maps shall be posted at least 24 hours prior to the Renovate OTF treatment. A representative copy of the sign and map shall be provided to the Department when the signs and maps are posted. When water use restrictions have been lifted, the signs shall be updated to indicate which use of the waters may resume as of the date specified by the Department.

- d. When all use restrictions have been lifted by the Department, the Permittee and Co-Permittee shall clearly indicate on all signs that the aquatic herbicide treatment is completed, all water use restrictions have been lifted, and all normal uses are again allowed. These signs shall remain posted for a minimum of two weeks. The Permittee and Co-Permittee shall remove the signs after the two-week period has passed. The signs shall remain posted for no longer than four weeks after all water use restrictions have been lifted.
27. The Permittee shall submit to the Department three copies of an annual report on the treated areas, and any other areas where sample analysis showed the concentration of Renovate OTF was at or above the treatment target concentration (collectively termed “Renovate-treated areas”), in the year of Renovate OTF treatment and for two consecutive years thereafter on or before December 31 of each year. An extension of time may be granted for cause. A request for an extension must be received by the Department prior to the December 31 due date. The annual report shall include (a) a qualitative assessment of the status of Eurasian watermilfoil growth and distribution in the Renovate-treated areas; (b) a map of the Renovate-treated areas with Eurasian watermilfoil growth and distribution depicted; and (c) a log of the non-chemical control strategies used in the Renovate-treated areas including the dates, activity, length of time spent, and the names of the individuals conducting the activity.
  28. The Permittee shall conduct three post-treatment qualitative aquatic plant surveys of the Renovate-treated areas using the same survey methods and during approximately the same time period each year (August to early-September) as the pre-treatment plant survey conducted by Aquatic Control Technology, Inc. for comparative purposes. The post-treatment plant surveys shall occur in the year of treatment and two consecutive years thereafter. The Permittee shall submit three copies of a report to the Department within 45 calendar days following each post-treatment plant survey. The report shall include at a minimum (a) the date(s) of the post-treatment survey; (b) the names of survey crew members; (c) treatment effectiveness on Eurasian watermilfoil; (d) specific information on impacts on non-target aquatic plants in the Renovate-treated areas; and (e) a map depicting specific areas surveyed, with associated text describing species present and their abundance (include abundance key) for each area.
  29. The Permittee and Co-Permittee shall conduct the Renovate OTF treatment and implement the integrated management plan in strict accordance with the permit application dated December 10, 2007 (Permittee) and December 11, 2007 (Co-Permittee), received on December 12, 2007; additional materials received December 31, 2007, February 4, 2008 and February 14, 2008; the following Findings; and the conditions of this permit, with such minor modifications as may be approved in writing by the Department.
  30. In the event that Aquatic Control Technology, Inc. represented herein by Gerald Smith is not the project applicator, the new project applicator shall become the Co-Permittee, submit the required documentation (see Attachment B) to the Department, and receive written authorization from the Department to become the Co-Permittee before performing any and all activities required of the Co-Permittee under this permit.

31. This permit may be modified for cause upon written request for modification that contains facts or reasons supporting the request, or upon the Department's own motion. If the Department determines that modification is appropriate, only the conditions subject to modification shall be reopened. Any modification under this condition shall be performed in accordance with the public notice requirements of the *Public Review and Comment Procedures for Aquatic Nuisance Control Permit Applications and General Permits* under 10 V.S.A. § 1263a dated January 30, 2003 and approved by the Secretary of the Agency of Natural Resources on February 18, 2003. Cause for modification of this permit includes, but shall not be limited to:
  - a. Alterations to the activities authorized by this permit which occurred after permit issuance and which justify the application of conditions that are different or absent in the existing permit; or
  - b. The receipt of information concerning the activities authorized by this permit which was not available at the time the permit was issued and which would have justified different permit requirements at the time of permit issuance.
32. After notice and opportunity for a hearing, this permit may be suspended or revoked for cause in whole or in part, upon a written request for suspension or revocation which contains facts or reasons supporting the request, or upon the Department's own motion. Cause for suspension or revocation includes:
  - a. Violation of any of the terms or conditions of this permit;
  - b. Failure by the Permittee or Co-Permittee to disclose all relevant facts during the permit application process;
  - c. Misrepresentation of any relevant fact or providing false information at any time during the permit application process;
  - d. A determination by the Department that a reasonable non-chemical alternative is available;
  - e. A determination by the Department that the risk to public health resulting from the activities authorized by this permit is more than negligible;
  - f. A determination by the Department that the risk to the non-target environment resulting from the activities authorized by this permit is unacceptable; or
  - g. A determination by the Department that this activity does not provide a public benefit.
33. Nothing in this permit shall be construed to relieve the Permittee, Co-Permittee or their agent(s) from civil or criminal penalties for noncompliance with the conditions of this permit.
34. Nothing in this permit shall be construed as having relieved, modified, or in any manner affected the Permittee's obligation to comply with all other federal, state or local statutes, regulations or directives applicable to the Permittee, nor does it relieve the Permittee of the obligation to obtain all necessary state, local and federal permits.
35. Issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.



36. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
37. If a permit renewal is desired, an application should be filed at least 180 days prior to the expiration date of this permit. A decision to issue or deny a permit will be based on the relevant statutory criteria and Department rules, procedures and policies prevailing at that time.

## FINDINGS

The Department has reviewed all the information received from the Town of Fairlee (Applicant), Aquatic Control Technology, Inc. (Co-Applicant), and others relative to the proposed project to use Renovate OTF in Lake Morey to control Eurasian watermilfoil and makes the following Findings as required under 10 V.S.A. § 1263a(e).

### 1. Jurisdiction

Lake Morey is located in Fairlee, Vermont. The waterbody is designated as waters of the state. Since the proposed activity is to use an aquatic pesticide to control an aquatic nuisance in portions of these waters, the Secretary of the Agency of Natural Resources has jurisdiction under 10 V.S.A. § 1263a. Furthermore, 10 V.S.A. § 1263a(e) directs the Secretary to issue a permit for pesticide use when the Secretary can make the following five findings:

- 1) There is no reasonable non-chemical alternative available;
- 2) There is acceptable risk to the non-target environment;
- 3) There is negligible risk to public health;
- 4) A long-range management plan has been developed which incorporates a schedule of pesticide minimization; and
- 5) There is a public benefit to be achieved from the application of the pesticide, or in the case of a pond located entirely on a landowner's property, no undue adverse effect upon the public good.

The Secretary has designated the Commissioner of the Department of Environmental Conservation or the Commissioner's designated representative to act on the Secretary's behalf in the issuance or denial of these permits.

### 2. Background and General Description

Lake Morey in Fairlee, Vermont is a 547-acre waterbody with a maximum depth of 43 feet and an average depth of approximately 24 feet. Several named and intermittent inlet streams feed the lake. The outlet is located at the southernmost point of the lake. Outlet waters flow south for approximately two miles through a series of small impoundments before emptying into the Connecticut River.

Eurasian watermilfoil (*Myriophyllum spicatum*) is an aggressive, non-native aquatic plant that was first identified in Lake Morey in 1991 in three separate locations; Breezy Bay, the north end, and along the middle of the east shore. In 1993, the Applicant applied for and was issued a permit to use Garlon 3A, active ingredient triclopyr, on approximately 5 acres of dense watermilfoil. The permit was appealed before the Vermont Water Resources Board. The Water Resources Board reversed

the Agency of Natural Resources' permit decision and declared the permit null and void. No treatment occurred.

The Applicant, in conjunction with the Lake Morey Protective Association (LMPA), the Lake Morey Commission, the Department and many individuals, worked in an integrated fashion from 1991 through 2005 using non-chemical methods in an attempt to control and prevent lakewide spread of Eurasian watermilfoil. Components of the Applicant's non-chemical control activities, conducted by the Town, LMPA, individuals with residences on the lakeshore, and/or private contractors, included: use of benthic barrier material, augmentation of the indigenous watermilfoil weevil population in 2005, use of diver-operated suction harvesting, pulling of individual watermilfoil plants by hand, use of boating restrictions in one area due to dense watermilfoil (closed by the Department at the request of the Applicant; now reopened), and numerous education and outreach initiatives. The use of benthic barrier material, diver-operated suction harvesting, handpulling, and education and outreach is ongoing. These efforts have been conducted using private and municipal funds and funds received from the Department's aquatic nuisance control grant-in-aid program.

Beginning in 2004, the watermilfoil infestation rapidly expanded from a few dense patches and many scattered plants around the lake to approximately 45 acres of watermilfoil beds as reported in the 2006 late-season watermilfoil survey. Complaints regarding watermilfoil's interference with swimming, boating and fishing also increased.

Due to the sudden expansion of Eurasian watermilfoil in the lake, the Applicant and the LMPA contracted with Aquatic Control Technology, Inc. (ACT, Inc.), Co-Applicant, in 2006 to conduct an aquatic vegetation survey and prepare a Long-Term Aquatic Vegetation Management Plan for Lake Morey. The abundance and distribution of watermilfoil in the lake as observed during the August 2006 survey was too extensive to be effectively managed with the non-chemical control methods employed up to that time (handpulling, suction harvesting and benthic barrier installation). Those methods have proven to be effective and are widely used to control small or widely scattered infestations. The Applicant proposed that the non-chemical methods remain part of an integrated management program for Lake Morey following spot/partial-lake treatment with the herbicide Renovate. Utilizing non-chemical strategies to control low-density regrowth following herbicide treatment will continue to stress the Eurasian watermilfoil population and reduce the frequency and scope of future herbicide applications.

On May 15, 2007, the Applicant was issued ANC Permit #2006-C25 authorizing a spot/partial-lake treatment using Renovate 3 in one 30-acre area of abundant Eurasian watermilfoil growth and Renovate OTF in three areas totaling 15 acres. The Co-Applicant indicated that the benefit of the dry flake in Renovate OTF is that it carries the triclopyr to target plants in deeper water and localizes it where the plants are growing, effectively holding it "on target." Therefore, the flake formulation was used in three areas of higher dilution.

The Applicant and Co-Applicant are proposing to treat a maximum of 50 acres along the east, west and southern shorelines of the lake in 2008 in ten treatment blocks, targeting all remaining Eurasian watermilfoil beds as mapped during the Co-Applicant's August 2007 aquatic plant survey. A "buffer" area for treatment is included around each bed that extends lakeward to the 20-foot depth contour. The Applicant and Co-Applicant believe that the "buffer" is needed to address product dilution in the treatment areas, which are located in more open, deeper water areas along the shoreline where Eurasian watermilfoil plants can be found scattered out to a depth of 20 feet.

A 20-foot depth contour line, the maximum depth of colonization for most plant species, was delineated based on the point-intercept data recorded during the Co-Applicant's August 2006

aquatic plant survey, yielding a littoral zone area of 108 acres, or approximately 20% of the lake's total surface area. The 50-acre area proposed for treatment in 2008 represents approximately 46% of the lake's littoral area. The stated objective of the treatment is to selectively control Eurasian watermilfoil while preserving and promoting the recovery of a healthy native plant community.

#### **A. Aquatic Herbicide Description**

Renovate On Target Flakes (OTF) is a U.S. Environmental Protection Agency-registered aquatic pesticide (EPA Registration No. 67690-42). Manufactured as a flake formulation by SePRO Corporation, the active ingredient in Renovate OTF is triclopyr: [(3,5,6-trichloro-2-pyridinyl)oxy]acetic acid, triethylamine salt. Triclopyr comprises 14 percent of the formulation. Inert ingredients comprise the remaining 86 percent of the formulation. The inert ingredients are known to the Vermont Agency of Agriculture, Food and Markets, and the Vermont Department of Health (DOH).

On January 25, 2008, the Department requested Confidential Statement of Formula (CSF) information from SePRO Corporation regarding a stated change to the inert ingredients/carrier formulation for Renovate OTF. On February 6, 2008, the Department received the information and forwarded it to the DOH for their review. The DOH found no change in formulation indicated in the materials provided by SePRO staff. Following a request for clarification, additional materials missing from the original submittal were received by the Department from SePRO staff on February 15, 2008 and forwarded to the DOH. The DOH indicated via a February 15, 2008 electronic message that the change in formulation would not result in any change from the comments DOH provided for ANC Permit #2006-C25. The DOH provided comments on the Applicant's current application (#2007-C13) as noted in Section 5 of this document.

The Renovate OTF label indicates that the product should be applied as a surface application using mechanical or portable granule-spreading equipment to control Eurasian watermilfoil. As in 2007, the product will be evenly applied throughout the treatment areas at the prescribed treatment dose. The 2007 application was conducted using a granular blower system. The Co-Applicant indicated that the blower system may have caused some off-target drift in 2007 and been the basis for several complaints that were received from shoreline property owners indicating that product was observed on their lawn following the treatment. Therefore, the Co-Applicant has proposed a different type of equipment be used for delivering the product to the waterbody in 2008. The flake will be sprayed over the surface of the water in a stream of water using a calibrated eductor system. This should help limit dust and the potential for off-target drift. However, the granular blower system used in 2007 will be the backup system in the event that there is a problem with the eductor/injector system.

The active ingredient in Renovate is triclopyr. Triclopyr is a selective broadleaf herbicide that can be used to control a variety of nuisance and invasive aquatic plant species in ponds, lakes, reservoirs, marshes, wetlands and non-irrigation ditches or canals. Triclopyr rapidly enters through a plant's leaves and stems, then translocates down into the roots, disrupting the plant's metabolism. Replicated pond studies conducted by SePRO at their Research and Technology Campus in 2006 indicate that approximately 50% of the triclopyr is released from the flakes in less than an hour, with the remainder of the triclopyr released within 24 - 48 hours. The product label indicates that triclopyr should be applied when Eurasian watermilfoil is actively growing.

Laboratory tests show that photodegradation is a major route of triclopyr degradation in aquatic environments. Field dissipation studies indicate that microbial degradation is also important. Field and whole pond studies indicate that the first order half life for Renovate OTF (once the product

has released from the granules - (with in first 24 hours) in the aquatic environment ranges from 0.5 to 7.5 days.

Unlike Sonar A.S., active ingredient fluridone, which typically requires a contact time of up to 90 days or more to be effective on watermilfoil, triclopyr is taken up by the plants in just 1 to 2 days, with control of watermilfoil generally seen within approximately 3 to 4 weeks.

Triclopyr is highly selective for watermilfoil and other dicot (broadleaf) plants so impacts to non-target species are anticipated by the Applicant and Co-Applicant to be minimal.

## **B. Proposed Chemical Treatment Plan**

Based on the success of the 2007 Renovate herbicide treatment, the Applicant and Co-Applicant are requesting the use of Renovate OTF in 2008. The Applicant and Co-Applicant indicate that the non-target plants observed in the 2007 late season survey showed that Renovate OTF was selective for and effective on Eurasian watermilfoil in three of the four treatment areas. The results warrant targeting all remaining watermilfoil beds during the 2008 season.

The proposed treatment areas (remaining watermilfoil beds) as identified by the Co-Applicant during the 2007 late season survey include a total of 50 acres located in the littoral area of the lake extending to a water depth of 20 feet. Most of the beds are located in narrow bands along steeply sloped shorelines. In many cases, the beds only extend 100 feet from shore or less. The use of Renovate OTF (On Target Flakes) will help overcome the effects of dilution at these sites.

To further improve the efficacy of the treatment, the Applicant and Co-Applicant request the use of Renovate OTF to achieve a target triclopyr concentration of 2.25 to 2.50 parts per million (ppm) in the bottom four feet of the water column.

The Co-Applicant indicated in the December 11, 2007 final report on the 2007 aquatic plant survey that the treatment took place during the active growth phase (June 24, 2007). However, while watermilfoil was actively growing at the time of the treatment (typically observed at 1 to 3 feet below the water surface at three of the four treated areas), watermilfoil along the west shoreline was observed as having dense mats at the water surface, topped-out with flowering spikes in water depth up to 10 feet. The west shoreline was the area least affected by the treatment and the treatment was generally considered to be unsuccessful at controlling the watermilfoil in that area. Therefore, the Applicant and Co-Applicant propose to treat earlier in the growing season in 2008 when all watermilfoil plants are less than 4 feet tall. The treatment is proposed for mid-May.

The Applicant and Co-Applicant also propose to treat a minimum of 2.5 acres around each watermilfoil bed to overcome the effects of dilution. When asked for clarification regarding how the 2.5-acre buffer was determined, the Co-Applicant explained that the buffer involved treating out to the 20-foot water depth, which would also treat any scattered watermilfoil plants growing near the dense beds. The proposed treatment area of 50 acres includes treating to the 20-foot water depth around the dense watermilfoil beds. The final configuration of the treatment blocks will be determined based upon a pre-treatment spring survey.

The Renovate treatment in 2007 represented the first phase of a five-year program to chemically treat all of the dense Eurasian watermilfoil growth in Lake Morey with spot/partial-lake treatments using Renovate OTF. The proposed 2008 treatment will consist of a single application of Renovate OTF to areas determined at the end of the growing season in 2007 to be too dense for non-chemical control methods. Non-chemical control strategies will continue to be used to target scattered

watermilfoil regrowth in the areas treated in 2007 and any watermilfoil plants remaining once the full effects of the 2008 treatment are realized.

The Renovate OTF treatment will be performed by Vermont-licensed aquatic applicators. The flake will be sprayed over the surface of the water in a stream of water using a calibrated eductor system. This application method should help limit dust and the potential for off-target drift. A granular blower system will be the backup application method in the event that there is a problem with the eductor injection system. The boundaries of the areas to be treated will be marked with temporary buoys and a GPS system will be used to track the path of the airboat to ensure an even distribution of Renovate OTF throughout the designated treatment areas at the prescribed dose. The Applicant and Co-Applicant expect the treatment to be completed in one day.

There is municipal water provided by the town of Fairlee to a portion of the town's residents. Some of the homes/businesses on Lake Morey are supplied by either private wells or direct water intakes. There are domestic and irrigation uses of Lake Morey. For the purposes of reviewing this project, the Department made the very conservative assumption that shoreland residents drink the lake water. There is a Town Beach on the southern end of the lake, a Vermont Department of Fish and Wildlife access area located on the west side of the lake, and two summer camps on the northwest shore of the lake. The Lake Morey Country Club draws water from the outlet stream at the south end of the lake and uses it to irrigate a golf course. The Course Superintendent indicated that an early treatment (early to late May) might eliminate their need to use an alternate water source. It was noted that the approximate cost to the Lake Morey Resort of using an alternate water source in 2007 was just over \$20,000.

The Applicant and Co-Applicant propose that at a minimum, the temporary water use restrictions specified on the current label will be followed. They recognize that additional restrictions may be applied in the conditions of a permit, restrictions that could extend to the use of the outlet stream in addition to the use of the lake. The Applicant and Co-Applicant are prepared to carry out these restrictions as required.

### **3. No Reasonable Non-chemical Alternative**

Eurasian watermilfoil (*Myriophyllum spicatum*) was first identified in Lake Morey in 1991 in three separate locations; Breezy Bay, the north end, and along the middle of the east shore. As noted above, the Applicant, in conjunction with the Lake Morey Protective Association (LMPA), the Lake Morey Commission, the Department and many individuals, has worked in an integrated fashion since that time in an attempt to control and prevent lakewide spread of Eurasian watermilfoil. The non-chemical control activities used include: use of benthic barrier material, augmentation of the indigenous watermilfoil weevil population, use of diver-operated suction harvesting, pulling of individual watermilfoil plants by hand, use of boating restrictions in one area due to dense watermilfoil (closed by the Department at the request of the Applicant, now reopened) and numerous education and outreach initiatives.

Due to the expansion of the watermilfoil population in spite of the diligent ongoing non-chemical control measures, the Applicant initiated a long-range integrated management plan (IMP) in 2007 that included the use of Renovate. Renovate 3 and Renovate OTF were used to control 45 acres of dense watermilfoil beds in the 2007 growing season. As part of the implemented IMP the Applicant is requesting the use of Renovate OTF in 2008 to control approximately 50 acres of remaining watermilfoil beds identified during the 2007 late season survey.

## A. Potential Alternatives

Before an Aquatic Nuisance Control Permit can be issued authorizing the use of a chemical pesticide under 10 V.S.A. § 1263a, the Applicant must demonstrate and the Secretary must find that there are no reasonable non-chemical alternatives available. Based on the Department's own work on Lake Morey and the other lakes around the state where non-chemical methods have been used, and based on the information submitted by the Applicant and Co-Applicant, the Department does not know of a reasonable non-chemical alternative available for use in the areas designated for Renovate treatment that would be effective at reducing watermilfoil growth to a level that would not jeopardize the gains realized from the 2007 treatment and the ongoing long-range management plan. All known non-chemical alternatives have significant drawbacks that prevent them from being acceptable, either alone or in combination, to significantly reduce watermilfoil growth in the areas proposed for Renovate OTF treatment and promote successful long-range management of Eurasian watermilfoil in Lake Morey.

- Installation of benthic barrier and associated barrier maintenance has been used for many years in Lake Morey in areas determined to be of appropriate size and density for effective control with benthic barrier. The Town of Fairlee currently has an ANC permit authorizing the use of benthic barrier material in up to 3.28 acres of Lake Morey (ANC Permit 2005-C05). To install benthic barrier material in an area the size of that proposed for chemical treatment (approximately 50 acres) would be extremely labor intensive and expensive. In addition, benthic barriers are not selective for watermilfoil. The areas proposed for chemical treatment contain numerous native plant species as well as dense Eurasian watermilfoil. All plant species beneath the barriers would be killed in the 50 acres covered by benthic barrier, and the barriers would have significant adverse effects on benthic organisms. The use of benthic barrier on this scale would cause significant destruction of aquatic habitat and pose an unacceptable risk to non-target organisms, making the use of this method infeasible.
- Diver-operated suction harvesting has been used in Lake Morey for many years, beginning in 1992. It is currently authorized by ANC Permit 2002-H01. Suction harvesting is primarily designed to control small infestations because it is slow and labor intensive for SCUBA divers to manually remove the plants. The areas of watermilfoil growth proposed for treatment are too extensive to control effectively with suction harvesting. To attempt to do so, the Applicant would need to redirect existing resources away from managing Eurasian watermilfoil regrowth in areas where watermilfoil was treated with Renovate last year, and away from managing other areas of scattered watermilfoil growth. This action would lead to an increase in the density of watermilfoil in those areas as well as ineffective control in the areas proposed for chemical treatment.
- Handpulling has been conducted in Lake Morey since the discovery of Eurasian watermilfoil in 1991. However, it is slower and more labor intensive than suction harvesting. The watermilfoil growth in the areas designated for Renovate treatment is too extensive and too dense to be effectively controlled by handpulling.
- Mechanical harvesting poses a significant risk of spreading highly invasive species like Eurasian watermilfoil that propagate through vegetative fragmentation. As a result, harvesting is not an appropriate technique to use to control an infestation of Eurasian watermilfoil that has not completely infested all of the littoral area such as is found in Lake Morey. Mechanically harvesting watermilfoil in Lake Morey would exacerbate the current situation.

- Drawdowns of Lake Morey are not an option because the existing outlet structure does not enable a significant lowering of the lake. Even if a significant lowering of the lake could be achieved, drawdowns are not selective for watermilfoil and they can have severe negative impacts on many native plants that are important for fish and wildlife habitat, as well as having negative impacts on other aquatic biota.
- Weevils have not yet proven to be effective in open-water field settings where the insects have been intentionally introduced. No conclusive data is available at this time that documents that weevils can be used as a predictable and reliable watermilfoil control method. Weevils were first found occurring naturally in Lake Morey in 1993, and the population has been augmented since then. A natural decline in watermilfoil that may be attributable to weevils was observed in the north end of Lake Morey in 1996, and occasional declines have been observed since then. However, each time the watermilfoil growth quickly rebounded. Weevils have not been successful at controlling the watermilfoil in the lake to-date. Allowing the watermilfoil to continue to grow in the areas proposed for treatment in hopes that weevils will eventually control the growth would enable the watermilfoil to auto-fragment and spread to other areas of the lake, exacerbating the current situation and jeopardizing the success of the control methods being used elsewhere in the lake.

Based on the above information, the Department finds that the Applicant has met the statutory requirement to demonstrate that “there is no reasonable non-chemical alternative available.”

#### **4. Acceptable Risk to the Non-target Environment**

Renovate OTF is a selective broadleaf herbicide that can be used to control a variety of nuisance and invasive aquatic plant species in ponds, lakes, reservoirs, marshes, wetlands and non-irrigation ditches or canals. The active ingredient, triclopyr, rapidly enters through a plant’s leaves and stems, then translocates down into the roots, disrupting the plant’s metabolism. Triclopyr’s auxin-type herbicidal activity generally controls woody and broadleaf (dicot) species while most monocot species are tolerant.

Potential impacts to non-target organisms from the use of Renovate OTF may be through direct toxic effects, or indirectly, through a physical change in habitat or shift in water quality conditions caused by the chemical that may affect some other component of the lake ecosystem.

##### **A. Potential Direct Effects of Renovate**

The aquatic plant community in Lake Morey is still diverse in spite of the watermilfoil infestation that has been in the lake for more than 17 years. A survey conducted in August 2006 prior to the first Renovate treatment reported 22 species including Eurasian watermilfoil; 16 were submersed, 3 were floating-leaved and 3 were macro-algae. Seventeen additional species have been found at least once in various surveys conducted by the Department since 1981. The Nongame and Natural Heritage Program of the Vermont Department of Fish and Wildlife informed the Department that there are records of two rare plants in Lake Morey, *Najas guadalupensis* (not seen in the lake since 1968) and *Potamogeton vaseyi* (not seen in the lake since 1994). Neither of these two rare plant species known from the lake was identified during the Co-Applicant’s aquatic plant surveys conducted in 2006 and 2007.

There are 50 acres proposed for treatment in 2008 in ten areas located along the lake’s east, west and southern shoreline extending out to the 20-foot depth contour in the lake. The proposed areas do not include the areas in the northern end of the lake and on the east shore that were treated in 2007,

and areas along the remaining shoreline where watermilfoil either was not observed during the August 2007 survey or was observed at very low densities.

Due to the extent of the areas proposed for the 2008 treatment the Department reviewed aquatic plant species lakewide regarding potential susceptibility and non-target impacts based on the susceptibility information provided for the 2007 Renovate treatment as well as the results of the August 2007 post-treatment plant survey conducted in Lake Morey. The Co-Applicant used the same data points for the August 2007 aquatic plant survey as were used in the August 2006 pre-treatment survey. Twenty-one non-target plant species were identified in the lake in the August 2006 survey. The Co-Applicant's Year One Report in December 2007 provided a comparison of the August 2006 and the August 2007 Frequency of Occurrence data for the 21 non-target species and Eurasian watermilfoil both lakewide and in the specific areas treated in 2007.

The following aquatic plants were found more frequently in 2007 than in 2006, as determined by the number of occurrences at 116 data points in 2006 and 2007: *Ceratophyllum demersum* (occurrence increased from 37.9% to 47.4% of data points); *Zosterella dubia* (18.1% to 28.4%); *Potamogeton robbinsii* (16.4% to 27.6%); Chlorophyta (12.9% to 23.3%); *Megalodonta beckii* (11.2% to 19.0%); *Nitella* sp. (2.6% to 18.1%); *Potamogeton pusillus* (6.0% to 12.1%); *Potamogeton praelongus* (8.6% to 11.2%); *Potamogeton illinoensis* (0.9% to 8.6%); and *Nymphaea odorata* (1.7% to 2.6%). Four of these increased by more than 10%.

The aquatic plants found less frequently in the data points in 2007 than in 2006 include: *Najas flexilis* (30.2% to 28.4%); *Potamogeton amplifolius* (26.7% to 23.3%); *Vallisneria americana* (26.7% to 21.6%); *Potamogeton gramineus* (13.8% to 12.1%); *Potamogeton zosteriformis* (14.7% to 5.2%); *Musci* sp. (5.2% to 2.6%); *Elodea canadensis* (10.3% to 3.4%); *Eleocharis* sp. (2.6% to 0%); *Brasenia schreberi* (0.9% to 0%); *Utricularia purpurea* (0.9% to 0%); and *Nymphoides cordata* (0.9% to 0%). None of these decreased by more than 10%. *Chara* sp. was found at the same frequency of occurrence both years (3.4%).

Eurasian watermilfoil, *Myriophyllum spicatum*, experienced a decrease lakewide from 61.2% to 43.1%.

In addition to the lakewide data above, the 2007 Year One Report included pre- and post-treatment Frequency of Occurrence data for the non-target plant species and Eurasian watermilfoil located in the Renovate OTF-treated areas as follows:

The aquatic plant species found in the treated areas more frequently in 2007 after the Renovate OTF treatment than in 2006 before the treatment, or with the same frequency, as determined by the number of occurrences at 15 data points within the Renovate OTF-treated areas include:

*Ceratophyllum demersum* (53.3% to 80.0%); *Potamogeton robbinsii* (33.3% to 40.0%); *Vallisneria americana* (33.3% to 40.0%); *Nitella* sp. (0% to 26.7%); *Potamogeton praelongus* (6.7% to 26.7%); *Zosterella dubia* (6.7% to 20.0%); *Potamogeton illinoensis* (0% to 13.3%); *Potamogeton pusillus* (6.7% to 13.3%); *Potamogeton zosteriformis* (6.7% both years); and *Najas flexilis* (20.0% both years). Five of these increased by more than 10%.

The aquatic plants exhibiting a decrease in frequency of occurrence in the treated areas following treatment include: *Potamogeton gramineus* (20.0% to 13.3%); Chlorophyta (20.0% to 13.3%); *Megalodonta beckii* (13.3% to 6.7%); *Brasenia schreberi* (6.7% to 0%); *Potamogeton amplifolius* (33.3% to 20.0%); and *Elodea canadensis* (20.0% to 0%). Two of these decreased by more than 10%.

*Myriophyllum spicatum* experienced a decrease in frequency of occurrence in the treated areas from 86.7% to 53.3%. The level of watermilfoil control achieved by the treatment is better illustrated by the watermilfoil percent cover remaining in the treated areas. Eurasian watermilfoil percent cover in



the northwest bed treated in 2007 was 1.6% in the August 2007 post-treatment survey. Watermilfoil percent cover in the east shore bed was 9.0%. In the west shore bed, where control was less effective, the watermilfoil percent cover in August 2007 was 26.2%.

The data above reveals that the species list of plants encountered lakewide during the 2007 survey is consistent with the 2006 survey findings. Four species with limited distribution in 2006 were not recorded in 2007, *Eleocharis* sp., *Brasenia schreberi*, *Utricularia purpurea*, and *Nymphoides cordata*. All of these species were found at a very low frequency of occurrence in 2006. The Co-Applicant's Year One Report noted that the lakewide frequency of occurrence of *Myriophyllum spicatum* was reduced from 61.2% in 2006 to 43.1% in 2007 due to the control achieved by the herbicide treatment program. Significant increases (>10%) in frequency of occurrence were noted lakewide as well as in the treated areas for *Zosterella dubia* and *Nitella* sp. *Potamogeton robbinsii* increased more than 10% lakewide as well, due in part to a significant increase in the areas of the lake treated by Renovate 3. *Ceratophyllum demersum*, *Potamogeton praelongus* and *Potamogeton illinoensis* all increased by more than 10% in the areas treated with Renovate OTF. No significant decreases (>10%) in frequency of occurrence lakewide were noted. Two species decreased in frequency by more than 10% in the Renovate OTF-treated areas, *Elodea canadensis* (from three data points to no data points) and *Potamogeton amplifolius* (from five data points to three data points). Some of the variations noted in the species frequency of occurrence can likely be attributed to sampling variability, low frequency of occurrence in 2006, and/or seasonal variability (note the seasonal variability observed in the study below).

Specific information was required in post-treatment aquatic plant surveys of the treated areas regarding the abundance of the nine native species found in the areas that may be susceptible to triclopyr, including *Brasenia schreberi*, *Ceratophyllum demersum*, *Elodea canadensis*, *Megalodonta beckii*, *Nymphaea odorata*, *Potamogeton amplifolius*, *Potamogeton gramineus*, *Potamogeton zosteriformis*, and *Zosterella dubia*. As noted above, the frequency of occurrence of *Ceratophyllum demersum*, *Potamogeton zosteriformis*, and *Zosterella dubia* in the Renovate OTF-treated areas either increased or remained the same following the treatment. The frequency of occurrence of *Megalodonta beckii*, *Potamogeton amplifolius* and *Potamogeton gramineus* decreased in the treated areas following treatment, but all three species were found in the areas after treatment. *Elodea canadensis* was found at three of the fifteen data points before the treatment, and was not present at any of the data points after the treatment. *Brasenia schreberi* was found at one data point prior to the treatment, and not found at any of the data points after the treatment.

In the areas of Lake Morey treated with Renovate 3, a liquid formulation of triclopyr, the frequency of occurrence of *Ceratophyllum demersum*, *Megalodonta beckii*, *Nymphaea odorata*, *Potamogeton gramineus*, and *Zosterella dubia* increased in the treated areas following the treatment. The frequency of occurrence of *Elodea canadensis* (4.2% to 0%), *Potamogeton amplifolius* (33.3% to 29.2%) and *Potamogeton zosteriformis* (50.0% to 8.3%) decreased in the Renovate 3-treated areas following treatment. *Elodea canadensis* was found at one of the 24 data points in the treated areas before the treatment, and was not present at any of the data points after the treatment.

With the exception of *Elodea canadensis*, all plant species identified in 2007 in the areas proposed for treatment in 2008 were also present in the areas treated in 2007 following the treatment. *Elodea canadensis* was found at four data points in Lake Morey in 2007, all in areas that had not been treated. Three of the places where *Elodea canadensis* was found are in areas at the southern end of the lake that are not proposed for treatment in 2008. *Elodea canadensis* present in areas proposed for treatment in 2008 will most likely be negatively impacted by the treatment.

In addition to the aquatic plant surveys conducted by the Co-Applicant, Department staff designed and conducted a study to qualitatively assess non-target plant impacts from 2007 triclopyr treatments in two Vermont lakes (Lake Morey and Lake St. Catherine).

The study design compared plant composition, pre- and post-treatment, at both treated and untreated sites (plots). Two control plots (untreated) and four plots within treated areas (treatment plots) were included for Lake Morey. Study plots were a subset of data points established by the Co-Applicant in the above aquatic plant surveys.

Plots were sampled once prior to treatment and at approximately one-month intervals following treatment for three months in Lake Morey. Snorkeler observations of aquatic plant species occurrence (presence/absence) at each site were recorded during each sampling event. Photographs were taken at each plot to visually assess plant structure and physical presence during the course of the summer months. The study authors assigned a numerical value to the coverage of plant density (target and non-target) found in each photo as follows: heavy - 3, moderate - 2, light - 1 and no vegetation - 0. Numeric plant density estimates from the photos taken at each plot were averaged to represent the density for each plot per visit.

The results of the study indicated that in Lake Morey, plant species richness in the two untreated plots remained the same or dropped during the three post-treatment visits. The two untreated plots went from a June high of 9 species each, to September densities of 9 and 8, respectively. Plant species richness at one untreated plot was more consistent over time than the other. Species richness over the summer at treated plots was also inconsistent, with some plots showing 50% or more of the species present during all visits, while other plots experienced far fewer reoccurring species. No consistent trend was observed in species richness over time nor was there any clear loss of species noted after treatment. In fact, it was documented that more species were identified during each visit after treatment than before treatment at three of the four treated plots.

Photographic assessments of relative plant density at the two untreated plots failed to show any consistent seasonal trend in plant density. As a result, no expectations for trend could be established for the treated plots. Comparison was made however, of post-treatment densities between treated and untreated plots. The mean August-September density value for the untreated plots was 1.5 (range 1.0-2.0). The mean August-September value for the four treated plots was 1.9 (range 0.9-2.8). At treated plots, Eurasian watermilfoil dominated pre-treatment photo frames and was absent or dramatically reduced during later visits.

There was no significant loss of native species richness or relative density at any of the treated sites following treatment. Bottom cover as assessed by the top-down photo showed luxurious, dense and often diverse growth during all assessment periods. The appearance of taller-growing plants varied after treatment but was always judged from light to heavy-to-moderate in the treated plots. Even when observed growth was light within the photo frame, lower-growing plants still thickly covered the bottom, out of view of the directional photographs but documented in the top-down photos.

The snorkelers observed effective control of Eurasian watermilfoil at treated sites in both lakes with the exception of one Renovate OTF site in Lake Morey (west shore) where watermilfoil was poorly controlled by the treatment. End of season aquatic plant survey reports for both lakes submitted by the Co-Applicant indicated that Eurasian watermilfoil responded favorably to the treatment in most areas with significant reductions of watermilfoil density and distribution observed.

The snorkelers observed the seasonal dynamic nature of aquatic plant occurrence and species richness at fixed locations in both Lake Morey and Lake St. Catherine. Many aquatic plant species

would be identified one month and not the next at both untreated and treated plots. This changing species assemblage during the growing season could confound before- and after-treatment species richness counts. The dynamic nature of these plant communities must be taken into account when evaluating lake herbicide treatments, not only within a single growing season but on an annual scale as well. The snorkelers reported that their in-the-water impressions of the plots and the surrounding areas after the triclopyr treatment in both lakes were an appearance of healthy, normal aquatic plant growth with no indications of any reduction in native plant structure.

Seventeen plant species not found during the 2006 and 2007 aquatic plant surveys conducted by the Co-Applicant have been found at least once in various surveys conducted by the Department since 1981. Of these species, ten are considered to be intermediate in susceptibility or tolerant of triclopyr. Control of one species, *Phragmites maximus*, would be desirable if it occurred, as this is an invasive wetland plant. Five species found previously in Lake Morey may be susceptible or affected by a triclopyr treatment if they occur in the areas proposed for treatment: *Nuphar* spp., *Nymphaea* sp., *Pontederia cordata*, and *Ranunculus* sp. *Ranunculus* sp. may not be growing in Lake Morey, as the only sighting has been a single piece of plant found in 1988. The other species are common in Vermont. Since 1981 the DEC has found one rare species in Lake Morey - *Potamogeton vaseyi*. In 1993, this plant was found in five places in the lake. Three of those locations were dense watermilfoil beds that were treated with Renovate in 2007. *Potamogeton vaseyi* was not found in those three areas or anywhere else in the lake in 2006 or 2007. It is very possible that it has been out-competed by Eurasian watermilfoil. *Potamogeton vaseyi* is a monocot, and should not be affected by the proposed Renovate treatment. If some *Potamogeton vaseyi* plants do still exist in areas of the lake proposed for treatment, the removal of the watermilfoil should benefit them.

No comments were received from wildlife biologists with the Vermont Department of Fish and Wildlife regarding the proposed 2008 Renovate OTF treatment.

No comments were received from wetlands ecologists with the Department's Wetlands Office regarding the proposed treatment.

Renovate is not directly toxic to aquatic organisms such as fish, waterfowl, and invertebrates when used at the rates recommended on the product label - no greater than 2.5 parts per million in lakes. These levels have been found to be safe to the environment and non-target animal species based upon testing conducted for US EPA registration purposes. There was a low order of toxicity for the fish species tested. The Department does not anticipate direct toxicity to amphibians or reptiles.

A fisheries biologist with the Vermont Department of Fish and Wildlife and a botanist with the Department of Fish and Wildlife Nongame and Natural Heritage Program reviewed the application and requested that any treatment be timed early in May, preferably during the week of May 5 or May 12, or earlier if the Eurasian watermilfoil is actively growing. The fisheries biologist indicated that he has concerns regarding potential direct toxicity of Renovate OTF from direct contact and ingestion of the flake by fish. Once the lake water temperature reaches 60°F in the spring, several of the fish species in Lake Morey (largemouth bass, smallmouth bass, rock bass, pumpkinseed, bluegill, and redbreast sunfish) will be in the process of constructing and actively guarding nests containing incubating eggs. The use of a solid formulation (Renovate OTF) will result in the deposition of chemical in these nests and in direct contact with eggs. The potential for direct ingestion of the chemical can occur as the result of guarding behaviors of adult males, as well as during egg predation by other species. To minimize the potential for Renovate OTF to impact spawning fish and incubating eggs, the treatment should take place either before the water reaches 60°F or after June 22.

The factors required for an effective treatment along with the greatest possible protection for non-target species (both fish and aquatic plants) need to be considered when determining the most appropriate timing for a Renovate treatment in Lake Morey. It is desirable to conduct the treatment as early as possible to reduce impacts to non-target plants, as many native plants will not be actively growing early in the season. However, the Eurasian watermilfoil must be actively growing for the treatment to be effective. Eurasian watermilfoil begins to grow very early in the year in Vermont, and it should be actively growing shortly after the ice goes off the lake. By the time the water reaches 60°F, watermilfoil will be actively growing.

If the treatment cannot occur prior to the water temperature reaching 60°F, and is thus scheduled to occur after June 22, the potential exists for the watermilfoil to have reached a growth stage that is too mature to be effectively controlled by the treatment. The Department therefore intends to require the Co-Permittee to conduct a pre-treatment survey to determine the growth stage of the watermilfoil in the areas to be treated if the treatment is scheduled for after June 22. If the watermilfoil is fully grown or to the water surface in an area or areas designated for treatment, no treatment will be allowed to occur in those areas.

The Applicant and Co-Applicant proposed to treat to a target triclopyr concentration of 2.25 to 2.50 parts per million (ppm) in the bottom four feet of the water column, which is higher than the target concentration of 1.85 ppm used in 2007. The reason given for the higher treatment rate was to overcome the effects of dilution and provide a more effective treatment. However, the fisheries biologist, the NNHP botanist and the Department are concerned that a higher rate could have negative impacts on the non-target aquatic plants known to be susceptible to triclopyr, and on species, particularly rare species, whose susceptibility is unknown. No information was submitted by the Applicant or Co-Applicant to indicate that dilution resulted in an ineffective treatment in 2007. Renovate OTF (On-Target Flakes) is specifically designed for use in areas where dilution could be a problem. The Applicant and Co-Applicant have also proposed to treat a buffer area extending out to the 20-foot depth contour to minimize the impact of dilution along the steep shorelines of the lake. The Department intends to accept a buffer area extending out to the 20-foot contour. However, in order to minimize pesticide use and potential impacts on non-target aquatic plants, the Department intends to restrict the target triclopyr treatment concentration in the bottom four feet of the water column in Lake Morey to 1.85 ppm, the same treatment concentration that was used in 2007.

The Department of Fish and Wildlife fisheries biologist and botanist also requested that benthic barrier material located in the designated treatment areas be removed to enable native species to re-colonize those areas following treatment. The Department intends to require the removal of all benthic barrier material from areas treated with Renovate by September 30 of the year of treatment.

Renovate may have a direct toxic effect on some terrestrial crop plants. The current label for Renovate OTF has an irrigation precaution that states: "Water treated with Renovate OTF may not be used for irrigation purposes for 120 days after application or until triclopyr residue levels are determined by laboratory analysis, or other appropriate means of analysis, to be 1.0 ppb or less." If these precautions are followed it is unlikely that there will be toxic effects on terrestrial plants.

A representative from SePRO Corporation, the manufacturer of Renovate OTF, provided a copy of an amended product label indicating that the amended label includes the following language regarding irrigation with treated waters: "There is no restriction on use of treated water to irrigate established grasses." The representative indicated that amended labels are sent to the states on a quarterly basis and thus it would not be until the first week of April 2008 that the label update would be mailed to Vermont. An evaluation by the Agency of Agriculture, Food and Markets would

follow. Therefore, at this time the Department will continue to use the existing label language, which does not include the above reference to established grasses.

Dense watermilfoil beds, particularly those that cover a high percentage of a lake's surface area or littoral zone, have the potential to cause many changes in the lake environment, which can both directly and indirectly impact aquatic organisms. Some of these impacts include reduced oxygen levels; a significant increase in water temperature; changes in lake nutrient dynamics and sediment loading; displacement of native and/or endangered, threatened or rare aquatic plant species; changes in fish spawning site availability; changes in horizontal and vertical fish distribution; and reduction in feeding success of predatory fish.

The displacement of native aquatic plants in particular has been seen in other lakes in Vermont where Eurasian watermilfoil has become widespread and dense. While the 2007 Renovate treatment provided watermilfoil reduction/control in three of the four treated areas in Lake Morey, dense watermilfoil beds remain in the areas not treated in year one of the IMP. The use of Renovate OTF in year two of the IMP as proposed by the Applicant and Co-Applicant will extend the length of time that watermilfoil growth can be controlled in additional areas of the lake through non-chemical means and provide available habitat for the native aquatic plants in the lake. Uncontrolled, the Eurasian watermilfoil will out-compete the native plants. The Department therefore finds that the direct impacts of the proposed Renovate OTF treatment, as described above, pose an acceptable risk to the non-target environment.

## **B. Potential Indirect Effects of Renovate**

Indirect impacts to non-target organisms such as fish, waterfowl, and macroinvertebrates can occur from the use of an aquatic herbicide if the product used is not selective for the target plant or if the target plant growth is so extensive that it comprises a significant portion of the habitat in the lake. Extensive vegetation removal results in loss of substrate, cover, and food for these organisms. This situation is not expected to occur in Lake Morey because Renovate is relatively selective at low concentrations. As noted above under Potential Direct Effects of Renovate, Department staff observations of study plots and the surrounding areas after the triclopyr treatment in Lake Morey were an appearance of healthy, normal aquatic plant growth with no indications of any reduction in native plant structure. The August 2007 aquatic plant survey revealed an increase in frequency of occurrence from the 2006 survey for numerous native aquatic plant species in the treated areas following the treatment. *Potamogeton amplifolius* and *Elodea canadensis* decreased in frequency of occurrence by more than 10% in the treated areas, but *P. amplifolius* was still present at 20% of the data points. *Elodea canadensis*, which may be negatively impacted by the proposed treatment, was only found in the areas proposed for treatment at one data point in August 2007, at 1% cover.

When fast-acting herbicides are used in lakes, there is potential for aquatic organisms to be impacted indirectly due to temporarily depressed oxygen levels caused by rapidly decomposing aquatic plants. In 2007, the loss of watermilfoil in the treated areas was gradual and did not result in immediate and significant dying off after the Renovate treatment. In addition, if the treatment occurs when water temperatures are still relatively cool, the potential for oxygen to be depleted to a critical level will be reduced. No critical oxygen depletions are anticipated following the proposed treatment.

Another potential impact of herbicide treatments can be the release of the nutrient phosphorus from decomposing vegetation. While it was thought to be possible that an algae bloom caused by increased phosphorus levels could occur as a result of the Renovate treatment in the northern end (30 acres) of Lake Morey in 2007, no algal bloom was noted. No algae blooms due to phosphorus release from decomposing vegetation are anticipated to result from the proposed treatment.

In Vermont, it has been demonstrated that chemical control methods that reduce watermilfoil growth result in an increase in native plant populations over time if a successful long-range management plan is implemented to address watermilfoil regrowth. In Lake Morey, it has been demonstrated that the sole use of non-chemical control methods can no longer manage the Eurasian watermilfoil population. The Department believes that the components of the Applicant's long-range management plan including spot/partial-lake treatment in year one and year two or three will extend the length of time that diver handpulling, suction harvesting and benthic barrier installation conducted by the strong organization of volunteers on Lake Morey with contracted assistance will be able to manage the watermilfoil.

Having reviewed all of the potential negative impacts of the proposed treatment on the non-target environment of Lake Morey, and the potential negative impacts of not treating the Eurasian watermilfoil population in the areas proposed for treatment, the Department finds that the proposed spot/partial-lake Renovate OTF treatment targeting the remaining areas of watermilfoil in Lake Morey poses an acceptable risk to the non-target environment if it is conducted at a target concentration of 1.85 parts per million and in accordance with the product label, the submitted proposal, and the conditions of this permit.

## **5. Negligible Risk to Public Health**

The Vermont Department of Health has reviewed the proposed project to use Renovate OTF in a spot/partial-lake treatment of Lake Morey. The Department of Health has examined the potential level of concern for public health that may be associated with exposure to water that has been treated with this product and has made the following comments, among others:

The federal product label for Renovate OTF establishes minimum setback distances for application to waterbodies that contain functioning potable water intakes. The label also specifies that if the product is to be used around or within the appropriate setback distance "...the [potable water] intake must be turned off until the triclopyr level in the intake water is determined to be 0.4 parts per million (ppm) or less by laboratory analysis or immunoassay."

However, due to the influence of many site-specific factors, the label cannot indicate what the maximum concentration of active ingredient is expected to be in the waters of concern at any location at any point in time after application. In addition, it is not possible to predetermine the exact extent of product use that will occur as actual treatment needs will be finalized based on the results of pre-treatment surveys conducted shortly before application.

Therefore, if Renovate OTF is to be used as proposed, the Department of Health recommends that certain water use restrictions beyond the federal label requirements should be instituted in order to ensure protection of public health.

The following recommended water use conditions are based upon review of the most current scientific information available for triclopyr including any potential health effects, the half-life of the compound, an evaluation of the time for complete dissolution of the OTF flake formulation conducted by the DEC Aquatic Nuisance Control Program, consideration of who is likely to come into contact with treated waters and in what manner, several very health protective assumptions and standard risk assessment procedures, and the assumption that only one product will be applied per growing season.

Please note, based on a review by the State Toxicologist for the Department of Health, it is reasonable to conclude that human exposure to the inert compounds contained in the product proposed for use at the concentrations that would result under the following conditions, is not likely to result in an increase in the level of concern for public health.

### **SPECIFIC RECOMMENDATIONS**

#### **RENOVATE OTF (flake formulation)**

No use of the treated water body and its associated outlet stream(s) (for one mile downstream of the effluent) for any purpose (including recreational uses such as boating, fishing and swimming **and** all domestic uses including toilet flushing) is recommended on the day of application and the entire day after.

Recreational uses such as boating, fishing and swimming may resume at the beginning of the **second** day following application.

Domestic use other than drinking and using such waters to prepare food or drink, may resume at the beginning of the second day following application.

Drinking and using such waters to prepare food or drink should not resume until the conditions that follow have been met.

Forty-eight hours after the initial application of Renovate OTF, representative samples of the treated water body and its outlet stream(s) (within one-quarter mile of the effluent) should be chemically tested to determine if triclopyr is present at less than or equal to 75 ppb. Analysis of multiple samples is necessary in order to account for the influence of many chemical, media and site specific factors.

If triclopyr is confirmed to be at or below 75 ppb, full use of the treated water body, its waters and outlet stream(s), including **all** domestic uses may resume. However, if triclopyr is detected in representative samples from these waters above 75 ppb, an additional 24-hour waiting period should occur during which time the treated water body and its outlet stream(s) (within one mile downstream of the effluent) should again not be used for drinking water or in the preparation of food or drink. At the end of this second 24-hour waiting period, representative samples of the treated water body and its outlet stream(s) (within one-quarter mile downstream of the effluent) should again be taken and chemically analyzed for triclopyr. This process should be repeated until representative sampling indicates that the level of triclopyr in the treated water body and outlet stream(s) is at or below 75 ppb.

Only once residues of triclopyr are confirmed to be below 75 ppb should full use of the treated water body and/or its outlet stream(s) resume. Until full use can be resumed, bottled water should be supplied by the Applicant to those who may depend upon the treated water body and/or its outlet stream(s) (within one mile of the effluent) for their domestic drinking water or food and drink preparation water supply.

Public notification of property owners and residents of the treated water body areas as well as commercial camps and parents whose children are attending camps which use the water body of concern and/or waters within one contiguous watermile of this water body will occur 30 days prior to application. Water body access areas as well as any nearby campgrounds should be posted.

The entire lake and the outlet stream downstream to where the stream flows under US Route 5 will be included in the restricted-use area. This encompasses a distance of 1 mile downstream of the lake, exceeding the required setback distance listed on the Renovate OTF label for the Lake Morey treatment scenario (approximately 2,200 feet if all 50 acres to be treated were located adjacent to the outlet of the lake).

Based on the above information, the Department finds that the proposed project will pose a negligible risk to public health if permit conditions are followed.

## **6. Long-range Management Plan**

Vermont law (10 V.S.A. §1263a) requires that a long-range management plan be developed that incorporates a schedule of pesticide minimization before a permit may be issued to use pesticides in Lake Morey. The long-range integrated management plan (IMP) proposed by the Applicant for the 2007 Renovate treatment combined the use of chemical and non-chemical control methods over five years to manage the infestation of watermilfoil in Lake Morey. The goal of the five-year IMP, as modified after year one, is to effectively control the dense areas of watermilfoil growth with spot/partial-lake chemical treatments using the aquatic herbicide Renovate (Renovate 3 and Renovate OTF initially and then Renovate OTF only) in the first two years of the IMP. Non-chemical control methods will be used simultaneously to control scattered watermilfoil growth and regrowth to maximize the length of time that watermilfoil can be effectively controlled in the lake and reduce the frequency and scope of follow-up pesticide treatments. The IMP includes annual early- and late-season watermilfoil surveys to determine if there are areas of dense watermilfoil requiring chemical treatment in the coming year as well as determine the areas where non-chemical control methods - handpulling by volunteers and contract divers, suction harvesting, and benthic barrier installation - will be effective.

The Applicant will conduct educational and volunteer training efforts in each year of the IMP to increase awareness of the control program, recruit volunteers to assist with the IMP, and reduce the likelihood that the lake will be reinfested with watermilfoil or a new invasive species. The Applicant publishes a newsletter and will provide regular updates on the IMP in the newsletter.

To effectively evaluate the best follow-up watermilfoil management strategy as the IMP is implemented, the Department intends to maintain the requirement in ANC Permit #2006-C25 for a meeting with the Applicant on an annual basis prior to initiation of each phase of the IMP.

The Applicant and Co-Applicant have outlined a preliminary budget for the IMP. Full implementation of the five-year plan is estimated to cost \$430,500 in 2006 dollars, \$183,500 for the chemical component of the plan, and \$247,000 for the non-chemical components of the plan. The actual cost will depend on factors such as the amount of area needing spot/partial-lake treatment and the extent and type of non-chemical methods needed. The first year of the IMP was estimated to cost \$141,000, \$69,000 for the Renovate treatment and associated activities, and \$72,000 for non-chemical control methods. The actual cost for the Renovate treatment in 2007 was \$66,877. The cost for implementing non-chemical control methods in year one was \$81,049. The cost of the Renovate treatment in year two of the IMP is estimated to be \$83,350. Non-chemical control methods implemented in year two are estimated to cost \$54,000. Future annual costs for the chemical portion of the IMP (aquatic plant surveys, reports, etc.) are estimated by the Co-Applicant to be: year three - \$29,500; year four - \$10,000; and year five - \$29,500. Annual costs for non-chemical components in years three through five are estimated by the Lake Morey Protective Association to be: year three - \$44,000; year four - \$42,000; and year five - \$35,000.



By continuing to employ all of the components identified above in an integrated fashion over five years, the Applicant is seeking to selectively control watermilfoil in Lake Morey to restore recreational uses while preserving and promoting the recovery of a healthy native aquatic plant community. The long-term objectives of the management program are to (1) target control of the dense Eurasian watermilfoil beds; (2) prevent the establishment of other non-native and potentially invasive species; (3) preserve a diverse native plant assemblage for fish and wildlife habitat; (4) avoid any adverse impacts on water quality; and (5) improve recreation for multiple user groups, including: fishing, rowing, sailing, power boating and swimming.

While the IMP is only a five-year plan, the Applicant recognizes that eradication is not attainable and management of watermilfoil will be an annual undertaking that needs to continue well beyond the five years. A diligent and sustained effort in the years in the IMP and beyond will be required to prevent Lake Morey from becoming reinfested with Eurasian watermilfoil to the point where recreational uses and the ecology of the lake are threatened.

The Department finds that the Applicant has incorporated a schedule of pesticide minimization over the long term by developing a plan that reduces watermilfoil growth using spot/partial-lake treatments during the five-year plan, with all dense watermilfoil beds treated in the first two years of the plan, rather than a whole-lake treatment in a single season with follow-up treatments during the IMP. Substantial non-chemical control efforts are also planned to reduce the need for follow-up pesticide treatments. The Department finds that the five-year IMP has a reasonable chance of achieving its goal. The Department recognizes that there is a potential for the chemical treatment and the non-chemical control efforts to be unsuccessful at managing the watermilfoil population. Any request by the Applicant to conduct a future chemical treatment to control the watermilfoil population will be evaluated in light of the success of the Renovate treatments to-date and the intensity of the non-chemical control efforts conducted by the Applicant.

The Department would consider the IMP to be successful if at the end of the five-year IMP, watermilfoil in Lake Morey is manageable by efforts other than chemical treatment, and a strong framework exists for continuing the management efforts indefinitely.

## **7. Public Benefit**

The use of the aquatic herbicide Renovate OTF to selectively treat up to 50 acres of Eurasian watermilfoil in Lake Morey as part of an integrated management plan that combines chemical and non-chemical control technologies will provide a public benefit. In a 2006 town-wide survey conducted by the Fairlee Planning Commission, 96% of the 294 respondents stated that “the milfoil in Lake Morey is the greatest economic and environmental issue for the town of Fairlee.” In 2006 the abundance and distribution of watermilfoil in the lake suggested that the population was poised to rapidly spread throughout the remainder of the lake’s littoral area unless a more aggressive management program was initiated. The 2007 Renovate treatment did significantly reduce watermilfoil growth in three of the four treated areas. The proposed spot/partial-lake treatment of the remaining watermilfoil beds in the lake will further reduce the lakewide watermilfoil population and extend the length of time that diver handpulling, suction harvesting and benthic barrier installation conducted by the strong organization of volunteers on Lake Morey with contracted assistance will be able to manage the watermilfoil. This extended time of watermilfoil control will benefit the native aquatic plant community and promote habitat diversity in the lake by allowing native plant species to successfully compete against watermilfoil. The proposed project will also improve the recreational use of the lake for multiple uses including swimming and boating. The Department intends to require that treatment occur only on Monday through Thursday to avoid the

need to close the lake to recreational use on a weekend. Weekends are typically when the highest recreational use occurs, and the opening of the fishing season and fishing tournaments are typically scheduled for weekends.

Continued control of Eurasian watermilfoil in Lake Morey will also help prevent watermilfoil fragments from being easily transported from this lake to other bodies of water on boat motors and trailers.

## **8. Appeal of this Decision**

Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the Clerk of the Environmental Court within 30 days of the date of the decision. The appellant must attach to the Notice of Appeal the entry fee of \$225.00, payable to the State of Vermont.

The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the Applicant or any permit involved in the appeal.

The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at [www.vermontjudiciary.org](http://www.vermontjudiciary.org). The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641-8701 (Tel. 802-828-1660).

Dated at Waterbury, Vermont this   2   day of   April   2008

Laura Q. Pelosi, Commissioner  
Department of Environmental Conservation

By \_\_\_\_\_/S/\_\_\_\_\_  
Peter Laflamme, Director  
Water Quality Division

**Attachment A**  
**Herbicide Application Record Form**

1. Name and location (town) of lake(s) treated \_\_\_\_\_
2. Date of treatment \_\_\_\_\_
3. Time of treatment \_\_\_\_\_
4. Product trade name and formulation of herbicide used \_\_\_\_\_
5. Product manufacturer \_\_\_\_\_
6. Objective(s) of herbicide treatment \_\_\_\_\_
7. Total amount of herbicide used (gallons, quarts, etc.) along with chemical treatment quantity calculations \_\_\_\_\_
8. Date thermocline measured and the thermocline depth (m) along with water column temperature profile measurements used for herbicide amount calculation \_\_\_\_\_  
\_\_\_\_\_
9. Number of acres treated \_\_\_\_\_
10. Target concentration of herbicide in water column (ppb) along with target concentration calculations \_\_\_\_\_
11. Herbicide application technique \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
12. Equipment used \_\_\_\_\_
13. Amount of time required to complete herbicide application \_\_\_\_\_
14. Weather and lake conditions at the time of treatment (rain, wind, wave action) \_\_\_\_\_
15. Describe procedures taken to dispose of surplus product, empty containers, and rinseate.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
16. Problems encountered \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
17. Name of Company (Co-Permittee) conducting treatment \_\_\_\_\_
18. Name(s) of all company personnel on-site during treatment \_\_\_\_\_  
\_\_\_\_\_
19. Comments: \_\_\_\_\_

Signed:

Permittee \_\_\_\_\_

Co-Permittee \_\_\_\_\_

Dated \_\_\_\_\_

Dated \_\_\_\_\_

**Attachment B**

**State of Vermont  
Department of Environmental Conservation  
Request for Co-Permittee Status**

I hereby request authorization, on behalf of myself as an individual or for

\_\_\_\_\_ (Company), to become a Co-Permittee to use Renovate as approved by issuance of Aquatic Nuisance Control (ANC) Permit #2007-C13 to control Eurasian watermilfoil in Lake Morey in Fairlee, Vermont. I hereby certify that I have read and am familiar with the terms and conditions of the aforementioned permit and agree to comply with all permit conditions that pertain to the Co-Permittee and/or work conducted by the Co-Permittee.

Name of Permittee: \_\_\_\_\_

Signature and Title of Permittee's Authorized Representative:

\_\_\_\_\_

Date: \_\_\_\_\_

Name of Proposed Co-Permittee's Representative:

\_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Business Phone/FAX: (\_\_\_\_)\_\_\_\_\_/ (\_\_\_\_)\_\_\_\_\_

Signature and Title of Proposed Co-Permittee's Representative:

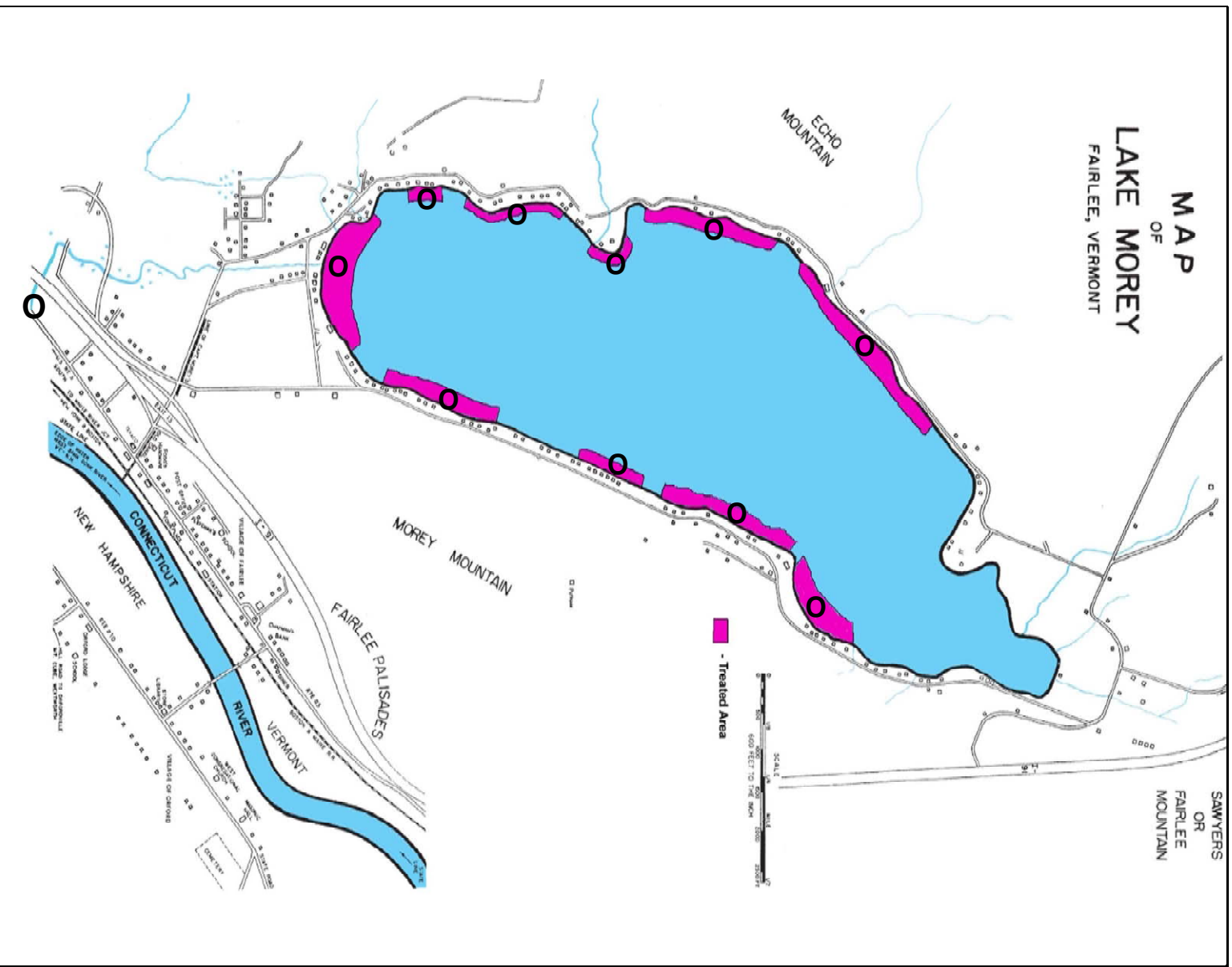
\_\_\_\_\_

Date: \_\_\_\_\_

Submit request to: VT Department of Environmental Conservation  
Water Quality Division  
103 South Main Street, Building 10 North  
Waterbury, VT 05671-0408

Attachment C

Areas Approved for Renovate OTF Treatment and Sample Locations



- Sample Sites ○
- Renovate OTF Treatment Area █
- Restricted Water Use Area – Entire Lake and Outlet Stream to U.S. Route 5