

New Hampshire
Department of Agriculture,
Markets & Food

June 7, 2021

Shawn N. Jasper, Commissioner

Mr. Marc Bellaud
Solitude Lake Management
590 Lake Street
Shrewsbury, MA 01545

RECEIVED

JUN 14 2021

**SELECTMEN'S OFFICE
TOWN OF SANDOWN NH**

RE: Aquatic Special Permit – Town of Sandown, Phillips Pond

SPECIAL PERMIT – SP-251

Dear Mr. Bellaud:

Your 2021 application for a Special Permit on behalf of the Town of Sandown to apply pesticides to up to thirty-seven (37) acres of Phillips Pond, located in Sandown, New Hampshire for control of Fanwort (*Cabomba caroliniana*) and Variable milfoil (*Myriophyllum heterophyllum*), as specified in your application, is hereby approved subject to the following conditions. Final approval is contingent upon compliance with Condition #22 of this permit.

1. This permit is approved for the use of *Procellacor EC* (EPA Reg. No. 67690-80), to be applied in late-June or early-July and the use of *Red Eagle Flumioxazin 51% WDG-NonCrop* (EPA Reg. No. 85678-35), to be applied on or about July 14, 2021, as conditions dictate, as specified in your special permit application and in accordance with the conditions of this special permit.
2. Prior to commencement of treatment, the applicant shall coordinate with a NHDES biologist (Amy Smagula – amy.smagula@des.nh.gov) regarding pre-treatment surveying to determine if and when a treatment will be made and to specify the areas slated for treatment from within the original footprint proposed. The timing of any survey or surveys shall be near enough to the anticipated treatment dates to gain a realistic assessment of the distribution of the target species for the purposes of designating areas to be treated. *Applications under this permit shall be limited to those areas where there is active milfoil and/or fanwort growth, as determined by such survey, and where herbicide use is the only practical means of controlling such milfoil and/or fanwort. Multiple pre-treatment surveys may be necessary due to the proposed herbicide application schedule and identification of state-listed species.*
3. **NHB report NHB21-0684 identifies two (2) state listed plant species as being found within or in close proximity to Phillips Pond. While conducting such survey(s) pursuant to Condition #2, the surveying party is instructed to survey for the occurrence of American featherfoil (*Hottonia inflata*) and climbing hempvine (*Mikania scandens*). If either species is located in the survey, the surveyor shall collect data to include GPS coordinates of location(s), an estimate of the size of the patch(es), the presence of invasive milfoil and/or fanwort in proximity to these species, and photos.**

This information shall be forwarded as soon as possible to Amy Lamb of the NH Natural Heritage Bureau (603-892-5162 or amy.lamb@dnr.nh.gov) and to the Division of Pesticide Control (matthew.bosiak@agr.nh.gov). NHB will respond with recommendations as to how to avoid and/or limit impacts. *An additional pre-treatment survey may also be necessary prior to the July treatment, in order to further identify the presence of climbing hempvine (contact Amy Lamb of the Natural Heritage Bureau for recommendations).*

4. If either species listed under Condition #3 is located during the pre-treatment survey, the location of such species shall be shown on the pre-treatment survey map(s). Such map(s) shall be provided to the applicator. In addition, post-treatment survey(s), as per Condition #8, shall include an assessment of the impacts to these species. **This information shall be included in any follow-up reports as required under Condition #20 of this permit.**
5. Upon completion of any pre-treatment surveys under Condition #2, the applicant shall submit a map of the areas selected for each treatment to the Division (matthew.bosiak@agr.nh.gov) as soon as reasonably possible, with *sufficient lead time to allow the Division to amend final sampling site(s) if necessary (See Condition #12).*
6. Prior to commencing treatment under this permit, the *applicator shall confirm the average depth of the treatment areas and adjust the application rate of the pesticide as necessary to maintain the target Procellacor EC application rate of 2 PDU/ac-ft and the target Flumioxazin 51% WDG-NonCrop application rate of 4.2 pounds/acre.* Be aware that the depth along shoreline is likely to be less than the average depths noted in the LTMP. **Also, the applicator shall include a statement in the year-end report (Condition #20) of the average depth of the areas treated that was used to calculate the application rates.**
7. Following each treatment, a map of the areas that were *actually* treated under this permit shall be submitted to the division (matthew.bosiak@agr.nh.gov) by best and quickest available means as soon as reasonably possible following completion of the application. If the *actual* treatment sites deviate from those identified in the pre-treatment surveys (i.e. one or more of the areas are not treated), **the maps of the areas treated shall be submitted no later than twenty-four (24) hours following the application** (*the short turn-around time regarding the map is so that the Division can confirm, and amend, if necessary, the sampling sites it designated on the basis of the pre-treatment survey maps sufficiently ahead of the required sampling date(s) so that the applicator has time to properly set up and schedule the sampling*). Otherwise the map shall be submitted **no later than (7) days** following the application.
8. At an appropriate time, determined in consultation with NHDES and/or NHB biologists (Amy Smagula – amy.smagula@des.nh.gov or Amy Lamb – amy.lamb@dnr.nh.gov), a post-treatment survey shall be conducted to assess the effectiveness of the treatments and impacts to target and non-target species, including

American featherfoil and *climbing hempvine*, if located. This shall include an assessment of the impacts to vegetation outside of the treatment areas. **This information shall be included in any follow-up reports as required under Condition #20 of this permit.** If *American featherfoil* and/or *climbing hempvine* are not located during any surveys, that fact shall be stated in any follow up reports.

9. Because of the possible presence of **Blanding's Turtle (*Emydoidea blandingii*)** and the **Spotted Turtle (*Clemmys guttata*)** - state listed species – in the area, if the applicator discovers the presence of either of these species, the applicator shall make no pesticide applications to scrub shrub, tussock emergent marsh areas in or adjacent to the treatment area.
10. If, in the professional judgment of the applicator at the time of treatment, based on such variables as variable milfoil and/or fanwort density, flow, and other pertinent factors, there is reasonable likelihood that oxygen levels will be sufficiently impacted as to pose undue threat to aquatic fauna, the applicator shall take appropriate action, such as a reduction in treatment area, to assuage this threat. Constricted areas might be particularly susceptible, so the applicator is advised to give careful consideration to such areas when considering potential impact. If such an action is taken, the area(s) selected for non-treatment shall be prioritized on the basis of potential threats to non-target species, to the extent possible.
11. *As a consequence of a 2009 ruling by the 6th Circuit Court, pesticide applications that leave residue in Waters of the United States are subject to the need for a National Pollutant Discharge Elimination System (NPDES) permit. A Pesticide General Permit (PGP) was issued by US EPA on October 31, 2011, and readopted in 2016, that covered certain pesticide use patterns in New Hampshire, including aquatic weed control. When engaged in operations covered under the PGP, the applicator and/or applicant may incur certain obligations such as the filing of a Notice of Intent (NOI), the production of a Pesticide Discharge Management Plan (PDMP), and certain recordkeeping and reporting requirements. Of note should be Section 7 of the PGP and the recordkeeping and reporting requirements found there within. It is the applicant's and applicator's responsibility to determine his or her obligations under the PGP, and to meet those obligations in compliance with said permit. A link to an EPA website regarding the NPDES is: <https://www.epa.gov/npdes>.*
12. Final determinations on where to collect samples shall be made by the Division on receipt of maps of pre-treatment surveys and actual treatment sites following which the Division shall communicate sampling location maps and sampling instructions to the applicator as soon as reasonably possible (see Conditions #2, 4, 5, and 7).

Conditions Related to Treatment with Procellacor EC

13. Once sampling sites have been finalized as per Condition #12, a minimum of two (2) post-treatment samples shall be collected from **each** designated sampling location.

Sampling shall be conducted as described below, the specifications of which are based on an assumed target *florpyrauxifen-benzyl* concentration resulting from the application rate of 2 PDU per acre-foot. If the rate is something other than this, the sample collection criteria shall be adjusted as per the label.

- a. The first sample(s) shall be collected on the **second (2nd)** and the second sample(s) shall be collected on the **fifth (5th)** days following the application;
 - b. Where treated water will be used only for **Residential and other Non-Agricultural Irrigation**, if the active ingredient concentration is two (2) parts per billion (ppb) or greater at any given site on the 5th day, additional sample(s) shall be collected from such site(s) at a 7-day interval until such time that the active ingredient concentration drops below 2 ppb;
 - c. Where treated water will be used for **Agricultural irrigation** (*as per communication with SePro*), if the active ingredient concentration is 1 part per billion (ppb) or greater at any given site on the 5th day, additional sample(s) shall be collected from such site(s) at a 7-day interval until such time that the active ingredient concentration drops below one (1) ppb;
 - d. All samples shall be collected from the **middle of the water column**;
 - e. Samples shall be analyzed for the active ingredient(s) of the pesticide(s) applied (in the case of *Procellacor*, *florpyrauxifen-benzyl*); and
 - f. *The sample collection date(s) may be adjusted up to two (2) days **earlier**, such as in order to avoid having to sample on weekends or holidays. The first set of samples shall be collected no later than two (2) days post-treatment.*
14. The water use restrictions following this treatment with *Procellacor EC* shall be as follows:*
- a. Treated water shall not be used as a source of **residential or other non-agricultural irrigation** water unless:
 - 1) Treated water has been verified by FastEST or other appropriate analytical techniques that the treated water contains less than two (2) ppb active ingredient; or,
 - 2) For treated areas that have the potential to dilute with untreated, a waiting period of seven (7) days from the time of treatment has elapsed (or as per Table 1 of the label, as applicable);
 - b. As per communications with SePro, treated water shall not be used for **agricultural irrigation**, to include greenhouses or nurseries, unless it has been

verified by FastEST or other appropriate analytical techniques that treated water contains less than one (1) ppb active ingredient;

- c. Swimming shall be restricted within two-hundred (200) feet of the treatment area and within the treatment area itself for a period of six (6) hours following completion of the pesticide application; and,
- d. The irrigation restrictions under (a) and (b) above shall be applicable to:
 - 1) All active intakes within two-hundred (200) feet of the treatment area (or as per the label); and,
 - 2) All water wells within fifty (50) feet of any shoreline that is within the distance specified from the treatment area under Condition (d)(1), above.

*Note turf may be irrigated immediately after treatment.

Conditions Related to Treatment with Red Eagle Flumioxazin 51% WDG-NonCrop

- 15. Once a sampling location has been determined as outlined in Condition #12, a minimum of two (2) post-treatment samples shall be collected from each designated sampling location. Sampling shall be conducted as described below, the specifications of which are based on an assumed target *flumioxazin* treated water concentration of 100-200 parts per billion (ppb). If the rate is something other than this, the sample collection criteria shall be adjusted as per the label.
 - a. The first sample shall be collected on the **second (2nd)** and a second shall be collected on the **fifth (5th)** days following the application;
 - b. Samples shall be collected from **within two (2) feet of the bottom**;
 - c. Samples shall be analyzed for the active ingredient(s) of the pesticide(s) applied (in the case of *Flumioxazin 51% WDG-NonCrop*, *flumioxazin*); and,
 - f. *The sample collection date(s) may be adjusted up to two (2) days, such as in order to avoid having to sample on weekends or holidays.*
- 16. The water use restrictions following treatment with *Flumioxazin 51% WDG-NonCrop* shall be as specified below. These restrictions are based on an application rate of two-hundred (200) ppb. Should the actual application rate be other than this, the irrigation restrictions shall be adjusted accordingly, as per the label.
 - a. Swimming shall be restricted within two-hundred (200) feet of the treatment area, and within the treatment area itself during the application and for a period of six (6) hours following completion of the pesticide application;

- b. Treated water shall not be used to irrigate turf and landscape ornamentals for a period of two (2) days post-treatment, or to irrigate ornamentals grown for production in greenhouse and/or nursery for a period of five (5) days post-treatment; and,
- c. The irrigation restrictions under (a) and (b) above shall be applicable to:
 - 1) All active intakes within two-hundred (200) feet of the treatment area;
 - 2) All water wells within fifty (50) feet of any shoreline that is within the distance specified from the treatment area under Condition c(1) above, as per Pes 603.03(d).

Conditions Applying to Either Pesticide

- 17. The pesticide notifications required under Pes 603.03(c)(1-4) shall;
 - a. Include all pertinent water use restrictions as specified under Condition #s 14 and 16, and shall be provided to all abutters within two-hundred (200) feet of the treatment area and to all persons within or downstream of the treatment who use the water for irrigation and who may be affected by this treatment, as per the label;
 - b. Include the following statement: Contact [insert contact person, company name, address and phone number, plus any appropriate website addresses*, where such information may be obtained] for information on the release dates of these restrictions; and
 - c. Be posted at the treatment area and at all points of accesses to this site.

*If this resource is employed, the website addresses should be included in any written or posted notices.

- 18. To ensure that notifications will be timed to reach persons who might be impacted by the application (i.e. will be present in the area within the restricted water-use period following the treatment), notification shall not be sent out until the treatment date(s) and final treatment areas are determined. Any such notification shall be made in accordance with the requirements of Pes 603.03(c), **and shall be made no sooner than one (1) month, and no later than fourteen (14) days prior to the proposed treatment date.**
- 19. In accordance with Pes 603.03(c)(24)(e), copies of the official laboratory reports of the surface water sample analyses shall be submitted to the Division within sixty (60) days of taking samples. **A second copy shall be submitted to Amy Smagula, DES Water Division – Amy.Smagula@des.nh.gov -within the same time frame.** These reports shall comply with Pes 603.03(c)(24)(f), and shall include the following:

- a. Copies of official laboratory reports showing analytical results, and all associated, pertinent documentation;
 - b. A map showing the *exact* location from where the samples were collected (with descriptive information such as distance from shore, location relative to prominent landmarks, docks, etc., as applicable);
 - c. A description of the sampling method;
 - d. An indication of the depth at which the samples were collected (either from the surface or distance off bottom, as applicable);
 - e. An indication of the exact time of day that the samples were taken;
 - f. **GPS coordinates showing the latitude and longitude of the sampling site(s);** and,
 - g. **An indication of the accuracy of the GPS coordinates.**
20. The applicant shall submit a written report to the Division, with copies to Amy Smagula, NH DES Water Division – Amy.Smagula@des.nh.gov, Carol Henderson, NH Fish and Game Department – Carol.Henderson@wildlife.nh.gov, and Amy Lamb, DPCR – Amy.Lamb@dncr.nh.gov - by November 1, 2021 in accordance with the provisions of Pes 603.03(c)(27)(a-h), and shall include, in addition to the information specified under (a-h) of that rule:
 - a. The number of acres treated under this permit;
 - b. A map showing the *actual* areas treated;
 - c. The quantity of each pesticide applied, expressed in pounds or gallons, as applicable;
 - d. **An indication of the depth of the treatment areas as measured at the time of treatment and an attestation that such measurement was made;**
 - e. The application rates in pounds per acre or acre-foot as applicable, and the resulting concentration of florpyrauxifen-benzyl and Flumioxazin in parts per billion;
 - f. A general assessment of the effectiveness of the treatment for milfoil and fanwort control; and
 - g. **An assessment of the impact of this treatment on non-target species in general, as well as on *American featherfoil* and *climbing hempweed* specifically;** and,
 - h. **If no treatment is made under this permit a report to that effect, stating the reason(s) that no treatment was made, shall be submitted to the Division.**
- * Note that all follow-up reports shall be more than a cursory, generalized assessment. Some degree of quantification shall be employed, where applicable and practical, and appropriately detailed descriptions of how target and non-target species were impacted shall be provided.
21. It is the applicator's responsibility to locate all public water supplies and associated protection areas in the vicinity of the treatment areas and to follow all setbacks and other restrictions established by the Administrative Rules of the Pesticide Control

- Board (Pes 100-1100) and this permit. Public wells and/or intakes will generally include all municipal water-supply systems or wells or intakes of public water works, and may also include water supplies to such facilities as day-care centers, certain apartments and condominiums, mobile home parks, golf courses, and schools. *The Division's resources identified portions of the proposed treatment area in Phillips Pond fall within the wellhead protection areas of various public water supply wells.* The applicant shall operate under Best Management Practices as outlined in the *Best Management Guidelines for Protection of Groundwater*, available from the Division of Pesticide Control, when handling pesticides under this permit, specifically while within wellhead protection areas. Updated and detailed information about public water supply locations and associated protection areas is available by registering on the internet at <http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx>.
22. The Division of Pesticide Control shall be notified in writing, forty-eight (48) hours in advance of the treatment as to the following:
 - a. The specific time and date of treatment and the location of the base of operations near treatment site;
 - b. That all requirements of the Special Permit and Rules relative to notification (Pes 603.03) have been met; and,
 - c. That copies of notices sent and published have been submitted to the Division.
 23. **Final approval of this application shall not be given until notification is received by the Division of Pesticide Control (603-271-3550) of compliance with above conditions and regulations under Pes 603.03 which are applicable for notifications and pre-treatment.**
 24. There shall be no interference with water supplies or fish and other aquatic life or the habitat on which they depend; water quality shall not be lowered below designated classification standards for surface waters defined by RSA 485-A:8 (2000).
 25. All waters treated with herbicides, algacides, and other pesticides will be closed to various uses in accordance with the labeling of the pesticide(s) used and in accordance with this Special Permit.
 26. All pesticides shall be applied strictly according to label recommendations and all label precautions shall be observed.
 27. In addition to the conditions of this Special Permit, applicant shall comply with all of the state regulations pertaining to pesticides, and with the Administrative Rules of the Pesticide Control Board.
 28. This Special Permit shall expire on September 30, 2021.

If you have any questions concerning this special permit, please feel free to contact Matthew Bosiak of this office at 603-271-3695, or by e-mail at matthew.w.bosiak@agr.nh.gov.

Sincerely yours,



David J. Rousseau
Director, Division of Pesticide Control

DR/mwb

Enc: NHB21-0684

cc: Paula Gulla – Town of Sandown
Amy Smagula – NHDES
Carol Henderson – NHF&G
Amy Lamb - DNCR
Pesticide Inspectors

CONFIDENTIAL – NH Dept. of Environmental Services review

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

To: Amy Smagula, NHDES
P.O. Box 95
29 Hazen Drive
Concord, NH 03302-0095

From: Amy Lamb, NH Natural Heritage Bureau

Date: 2/26/2021 (valid until 02/26/2022)

Re: Review by NH Natural Heritage Bureau

Permits: NHDA - Pesticide Permit

NHB ID: NHB21-0684 Town: Sandown
Description: 10d DASH with 8d in July and 2d in August.
cc: Kim Tuttle

Location: Phillips Pond
Herbicide treatment of 37ac for variable milfoil and fanwort.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments NHB: Please include American featherfoil and climbing hempvine in pre-treatment surveys (preferably conduct in June for the best chance of observing *Hottonia inflata*) and report any rare plant findings to NHB.
F&G: Contact Carol Henderson for a review.

Plant species	State ¹	Federal	Notes
American featherfoil (<i>Hottonia inflata</i>)*	E	--	Threats this species in are mainly herbicide.
climbing hempvine (<i>Mikania scandens</i>)*	E	--	Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.

Vertebrate species	State ¹	Federal	Notes
Blanding's Turtle (<i>Emydoidea blandingii</i>)	E	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (<i>Clemmys guttata</i>)	T	--	Contact the NH Fish & Game Dept (see below).

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NHF&G, (603) 271-6544.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-0684

