

APPROVAL

**Province of Nova Scotia
Environment Act, S.N.S. 1994-95, c.1 s.1**

APPROVAL HOLDER: DEPARTMENT OF FISHERIES AND AQUACULTURE

SITE PID: 35234889

APPROVAL NO: 2022-2956233-00

EXPIRY DATE: December 31, 2025

Pursuant to Part V of the Environment Act, S.N.S. 1994-95, c.1 s.1 as amended from time to time, approval is granted to the Approval Holder subject to the Terms and Conditions attached to and forming part of this Approval, for the following activity:

Pesticide - Application of Pesticide - Surface Watercourse



Administrator: Marc Theriault

Effective Date: August 26, 2022

The Minister's powers and responsibilities under the Act with respect to this Approval have been delegated to the Administrator named above. Therefore, any information or notifications required to be provided to the Minister under this Approval can be provided to the Administrator unless otherwise advised in writing.

TERMS AND CONDITIONS OF APPROVAL

Nova Scotia Department of Environment and Climate Change

Approval Holder: DEPARTMENT OF FISHERIES AND AQUACULTURE

Project: Dobsons Lake, Black Duck Run and stream to Panhandle Lake

Site:

PID	Civic #	Street Name	Street Type	Community	County
35234889					

Approval No: 2022-2956233-00

File No: 35200-30-ANT-2022-2956233

Grid Reference: Easting - 641250, Northing - 5022247

Reference Documents

- Application submitted April 19, 2022 and attachments.
- Supplemental information submitted on May 10th and 27th, and June 10th, 2022.
- Planning and Standard Operating Procedures for the Use of Rotenone in Fish Management: Rotenone SOP Manual, 2nd Edition (Finlayson, et al., 2018)
- Contingency Plan for Pesticide Spills

1. Definitions

- Act means Environment Act, 1994-95, c.1, s.1, and includes, unless the context otherwise requires, the regulations made pursuant to the Act, as amended from time to time.
- Department means the Nova Scotia Department of Environment and Climate Change, and the contact for the Department for this approval is:
Nova Scotia Department of Environment and Climate Change
Eastern Region, Antigonish Office
155 Main Street, Suite 205
Antigonish, Nova Scotia B2G 2B6

Phone: (902) 863-7389
Fax: (902) 863-7411
- Minister means the Minister of Environment and Climate Change and includes any person delegated the authority of the Minister.

- d. Site means a place where a designated activity and/or undertaking is occurring or may occur.
- e. Surface Watercourse means a watercourse as defined in the Environment Act, excluding groundwater.

2. Scope

- a. This Approval (the "Approval") relates to the Approval Holder(s) and their application and all documentation submitted to the Department prior to the issuance of this approval for the Application of Pesticide situated at or near Dobsons Lake, Black Duck Run and stream to Panhandle Lake.
- b. The Approval Holder(s) shall ensure the designated activity is carried out in accordance with this Approval and reference documents, including the application and supporting documentation.

3. General

- a. The Approval Holder(s) shall conduct the Designated Activity in accordance with the following provisions:
 - i. The Act, as amended from time to time;
 - ii. Any standard adopted by the Department, as amended from time to time, which includes but is not limited to the following:
 - Environmental Code of Practice for Pesticides;
 - NOXFISH® FISH TOXICANT II Label (#2107-3386) Pest Control Product Registration No. 33247;
 - Planning and Standard Operating Procedures for the Use of Rotenone in Fish Management— Rotenone SOP Manual, 2nd Edition. American Fisheries Society (by Finlayson et al., 2018);
 - Aquatic Invasive Species Regulations; SOR/2015-121 under the Federal FISHERIES ACT;
 - Safety Data Sheet for Rotenone (Product Code # 13995; CAS # 83-79-4); and
 - Safety Data Sheet for Noxfish Fish Toxicant II (PMRA No. 33247).
- b. Nothing in this Approval relieves the Approval Holder(s) of the responsibility for obtaining and paying for all licenses, permits, approvals or authorizations necessary for carrying out the work authorized to be performed by this Approval which may be required by municipal by-laws, provincial or federal legislation, or other organizations. The Minister does not warrant that such licenses, permits, approvals or other authorizations will be issued.
- c. If there is a discrepancy between the reference documents and the terms and conditions of this Approval, the terms and conditions of this Approval shall apply.

- d. Upon any changes to the Registry of Joint Stock Companies information, the Approval Holder(s) shall provide a copy to the Department within five business days.
- e. The Approval Holder(s) shall ensure that this Approval, or a copy, is present at the treatment site or loading/mixing site when the spray program is occurring and that personnel directly involved in the designated activity are made fully aware of the terms and conditions which pertain to this Approval.

4. Operation

- a. Equipment and supplies at mixing/loading sites shall be stored and maintained to prevent an adverse effect from a uncontrolled pesticide release.

5. Notification

- a. The Approval Holder(s) shall publish newspaper advertisements in a manner acceptable to the Department outlining the spray program at least 20 days before spraying commences. The Approval Holder(s) shall forward to the Department proof that the media notice has been published prior to program commencement.

6. Contingency Plan

- a. The Approval Holder(s) shall adhere to the contingency plan on file with the Department during an uncontrolled release or other emergency involving pesticides. A copy of the plan shall be at the treatment site or mixing/loading area at all times when the work is being undertaken.
- b. The Approval Holder(s) shall ensure that the Contingency Plan is reviewed and updated whenever equipment or products change. The Contingency Plan is to be dated to reflect the most recent update.
- c. The Approval Holder(s) shall prepare and submit a Contingency Plan for review and acceptance by the Department. The Contingency Plan shall include, but is not limited to, the following:
 - i. criteria levels at which mitigation actions for well interference will be triggered and
 - ii. a description of the relevant mitigation actions to be taken
- d. A copy of the Contingency Plan is to be maintained on Site at all times and is to be available for review immediately upon request by the Department.
- e. The Approval Holder(s) shall ensure that all employees are trained in accordance with the contingency plan and shall keep a record of training at the facility for a minimum period of five (5) years.
- f. A copy of the current contingency plan shall be sent to the local fire department.

- g. The Approval Holder(s) shall ensure that all necessary materials and equipment are available at all times to respond to emergencies in accordance with the Facility's Contingency Plan.

7. Site Specific

- a. Pesticide and Potassium Permanganate products shall be stored, mixed, applied, handled and disposed of in accordance with the product label and safety protocols provided in the Approval Holder(s) application package and supplemental information.
- b. Unlimited number of treatments (applications of pesticide) will not be permitted. Should more than one application/treatment be desired, engage the Department prior to any additional/subsequent treatments.
- c. The Approval Holder(s) shall ensure that all access points to all sites have posted signs deemed acceptable by the Department no less than 7 days prior to pesticide application. All signage is to remain posted until it is reasonable (analytically proven safe) to remove or September 1, 2023. All signs shall include at a minimum:
 - Include a space for colored fluorescent decals which shall be applied when the program commences;
 - Display the following wording "Do Not Consume, Use or Swim in the lake;
 - Pesticide trade name (active ingredient), PCP number, and Approval No.;
 - Emergency contact names, number(s) and associated DF&A website; and
 - Reason for the necessity of using this pesticide.
- d. No pesticide product will be applied beyond September 16th, 2022.
- e. Application of pesticide must be released at or below the surface, or if water too shallow the application must be less than 1.0 metre above surface to prevent aerial drift.

Monitoring

- f. The Approval Holder(s) will monitor and record lake temperature once daily for the entire program; daily temperatures collected 1 week before, throughout the application, and for at least four (4) weeks following. This information shall be included in a submission report to help understand degradation-influencing conditions.
- g. The Approval Holder(s) shall monitor weather forecasting, including the Canadian Hurricane Tracking (https://weather.gc.ca/hurricane/track_e.html) to determine the timing window for pesticide application based on the lack of precipitation:
 - Treatment must not proceed when precipitation (rain) events > 20mm per 48 hours or 50mm over a 14-day period are predicted.
 - No pesticide is to be applied when rain is predicted over next 14 days and lake

water level is in the “Caution” risk level outlined in the Approval Holder(s) cautionary approach to monitoring lakes level.

- h. The Approval Holder(s) shall analytically monitor lake water for rotenone to ensure concentrations do not exceed 0.2ppm during and after treatment. This concentration limit also applies to any additional treatments.
- i. In addition to placing live fish boxes (sentinel species) in locations outlined in the application, the Approval Holder(s) will monitor outflow water from Dobsons Lake and Black Duck Run to verify rotenone is not present (undetectable). In the event detectable concentrations of rotenone are discovered the Approval Holder(s) will:
 - Follow emergency and contingency plans as submitted to the Department.
 - Immediately report this incident to the Department.
- j. Several times per day following treatment, the Approval Holder(s) shall monitor for culled fish and other aquatic organic materials subjected to Noxfish Fish Toxicant II treatment in accordance with the plan submitted in the Approval application package.
 - If public concerns dictate, disposal of any culled fish or aquatic organisms will follow the contingency plan submitted to the Department.

Wetlands

- k. Post-treatment monitoring of the wetland surrounding Black Duck Run will follow the plans on file with the Department , and in addition shall include the following:
 - Visual assessment to record any adverse signs to the floral/faunal assemblages. Depending on timing of treatment, this visual inspection shall take place later in 2022 during late summer or Fall. This information shall be included in the Post-Treatment Summary Report. Notify the Department should this assessment not be possible in 2022 with reasons why and a future schedule.
 - A comprehensive assessment of the wetland surrounding Black Duck Run will be conducted 2-3 years following final treatment and compared to the pre-treatment assessment (by MEL, 2022). This assessment report shall be submitted to the Department before the end of 2025.
 - Surveys of the invertebrate community will be undertaken to monitor impacts as well as re-colonization success. The post-treatment survey will depend on the timing of the pesticide program, to be conducted during a favourable season to capture insect life-stages comparable to the pre-treatment survey. This assessment report shall be submitted to the Department before the end of 2025.

Reporting

- l. The Approval Holder(s) will submit a Post-Treatment Summary Report to the Department no later than January 31, 2023 to highlight activities and results

following completion of the pesticide treatment program. It is expected to include the following, but not limited to:

- temperature (water quality) data,
- analytical results of rotenone concentration at all sample stations,
- tasks completed, includes any monitoring conducted,
- fish enumeration (live versus dead fish counts, where possible),
- state of sentinel cage survivability over time,
- preliminary assessment of the success of the pesticide application, and
- any comments/complaints received from the public or Aboriginal groups.

All other Environmental Monitoring reports (such as Wetlands and Invertebrates) shall be submitted to the Department according to their deadlines.