

Application Type Renewal
Facility Type Pesticides
Permit Type Individual

**NPDES PERMIT FACT SHEET
PESTICIDES**

Application No. PA0275981
APS ID 936552
Authorization ID 1394568

Applicant and Facility Information

| | | | |
|---------------------------|--|------------------|---|
| Applicant Name | <u>Borough of Harveys Lake</u> | Facility Name | <u>Harveys Lake</u> |
| Applicant Address | <u>4875 Memorial Highway Suite 101</u> <u>Harveys Lake, PA 18618</u> | Facility Address | <u>2205 Lakeside Drive</u> <u>Harveys Lake, PA 18618</u> |
| Applicant Contact | <u>William Hilburt</u> | Facility Contact | <u>William Hilburt</u> |
| Applicant Phone | <u>(570) 639-2113</u> | Facility Phone | <u>(570) 639-2113</u> |
| Client ID | <u>324177</u> | Site ID | <u>816267</u> |
| SIC Code | <u>0782,9999</u> <u>Agriculture - Lawn and Garden Services,</u> <u>Public Admin. - Nonclassifiable</u> <u>Establishment</u> | Municipality | <u>Harveys Lake Borough</u> |
| SIC Description | | County | <u>Luzerne</u> |
| Date Application Received | <u>March 31, 2022</u> | WQM Required | <u>Yes</u> |
| Date Application Accepted | <u>March 31, 2022</u> | EPA Waived | <u>Yes</u> |
| Purpose of Application | <u>Renewal of permit for application of pesticide to remove aquatic plants.</u> | | |

Internal Review and Recommendations

The applicant is requesting a renewal of an NPDES permit for the discharge from the application of pesticides to Harveys Lake. The ~620-acre natural lake is located on Harveys Creek which is a high quality, cold water and migratory fish (HQ-CWF, MF) designated receiving water in state water plan basin 5-B (Toby - Wapwallopen Creeks). Per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than the designated use. The existing permit was issued in August 2017 (amended in 2019) and expired on August 31, 2022.

Information on the pesticide dosages, explanations, and justifications for using the chemicals as described in the permit application are provided below. The permittee shall follow the directions for use detailed in the product label sheets for each specific pesticide (see Part C.I.C.6.).

| Treatment Area | Name | Manufacturer (& EPA Reg. #) | Product Dose | Number of Treatments per Year | Target Organisms |
|------------------------|----------------|------------------------------|-----------------|-------------------------------|---------------------------------|
| 8.9 miles of shoreline | SonarOne | Sepro (67690-45) | 90 ppb | 3-4 | Hydrilla, Eurasian Watermilfoil |
| 1 acre | Aquaneat | Nufarm (228-365) | 0.75 gal/acre | 1 | Swamp Loosestrife, Water Lily |
| 5 acres | Copper Sulfate | Fabrica de Sulfato (73385-1) | 1.36 lb/acre-ft | 4 | Filamentous Algae |
| 3.75 acres | Clipper | Valent (59639-161) | 1.1 lb/acre-ft | 1 | Cabomba |

| Approve | Deny | Signatures | Date |
|---------|------|--|--------------------|
| X | | <i>Brian Burden</i> Brian Burden, E.I.T. / Project Manager | September 22, 2022 |
| X | | Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager | 10-14-22 |

Internal Review and Recommendations

SonarOne

Approximately 21 lbs/acre of SonarOne pesticide will be applied along 8.9 miles of shoreline of Harveys Lake over the course of four treatment events. Note that the SonarOne product contains 0.05 lbs of the active ingredient (fluridone) per pound of product. This majority of the pesticide application will take place in the first treatment event which will be followed by three additional events in which smaller quantities of the pesticide are applied to the water. The three additional treatment events will also involve sampling water using a FasTEST analysis, which measures the concentration of fluridone, the active ingredient in SonarOne. The targeted concentration of the pesticide is 2-4 ppb in the bottom waters of the lake and the dosage rate of product chosen appears to conform to the recommended rates in the product label submitted with the application. The surface area-based application concentration of 38.5 ppb was calculated after accounting for depth and dilution to reach the 2-4 ppb target concentration in the bottom waters. The maximum labeled concentration is 90 ppb, but the permittee won't be applying the chemical at any higher than 38.5 ppb.

Aquaneat

Swamp loosestrife and water lilies are to be treated in high use areas of the lake near the homeowners association. A maximum of 1 acre is treated on an annual basis. Treatment areas are around boat docks and boat access areas. Species not directly sprayed during the treatment are not impacted by the application.

Label rates for Aquaneat are 0.75% to 8% spray solution. The rate of 0.75 gallons per acre will be applied as a 0.75 % solution at the proper time of the year and under the proper conditions. The chemical will be applied to the foliage of the target plant and any of the chemical that contacts the water is quickly diluted to below concentrations that will harm vegetation.

Copper Sulfate

The decision to treat the filamentous algae and planktonic algae with copper sulfate is based on the success of management programs for similar water bodies. Copper sulfate was selected because it is effective at controlling target species and it does not have an impact on native species of pondweeds, water lily and water shield. A short contact time with target species is required and excess chemical is bound with soil particles. The rate of 1.36 lbs per acre-ft has been determined to be successful in lakes with similar water quality if applied at the proper time of the year and under the proper conditions. The application rate is the low end of the recommended treatment range.

Clipper

Cabomba is a species of vegetation that is found throughout the Marina Point Area of Harveys Lake which causes problems with swimming and boating and is only treated in those high use areas. Clipper was selected because it is effective at controlling Cabomba in other lakes and it does not have an impact on native species of desirable pondweeds, water lily and water shield outside of the treatment area. The lowest label subsurface rate for Clipper, 200 ppb (1.1 lb/acre-ft), was selected. This rate has been determined to be successful if applied at the proper time of the year and under the proper conditions. Clipper is a contact herbicide that will only control target species in the treatment area. It requires a short contact time with the target plants and rapidly biodegrades through microbial activity. It does not bind or leave a residue in the lake soil.

Anti-Degradation

The Antidegradation Analysis reviews non-discharge alternatives and Antidegradation Best Available Combination of Technologies (ABACT). The non-discharge alternatives listed are no action, biological control, drawdown, and mechanical harvesting. The Antidegradation Best Available Combination of Technologies (ABACT) describes the selection process and effectiveness of the dose rates. After review of the alternatives and the ABACT, it is determined that the application of the pesticides is preferable due to the reduced environmental impact and ability to control the targeted species without harming the native species. Based on the characteristics of the targeted invasive plant species and algae, the eradication will help to protect the designated recreational uses of the lake.

Internal Review and Recommendations

A February 11, 2022 PNDI search indicated that there may be potential impacts to threatened and endangered species and resources in the project area. PA DCNR determined that no impact was anticipated to the non-targeted submerged aquatic vegetation, including the endangered grassy pondweed (*Potamogeton gramineus*) and Vasey's pondweed (*Potamogeton vaseyi*). Pre- and post-treatment monitoring reports are to be submitted to PA DCNR.

There is a public water supply intake approximately 7.5 miles downstream of Harveys Lake on Harvey Creek for Pennsylvania American Water Company's Ceasetown WTP. There are no Chapter 93 standards for any of the compounds listed in the product labels for any proposed chemical.

A joint Chapter 91.38 permit application was received by DEP on April 1, 2022 and a revision was received on September 16, 2022. There are no open WPC NPDES violations for the client that would warrant withholding issuance of this permit.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.