pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF CLEAN WATER

Application Type	**Renewal**	Application No.	**PA0270831**
Facility Type	**Pesticides**	APS ID	**986657**
Permit Type	**Individual**	Authorization ID	**1475891**

NPDES PERMIT FACT SHEET PESTICIDES

Applicant and Facility Information

Applicant Name	**PA Game Commission**	Facility Name	**PA Game Commission Statewide Pesticides**
Applicant Address	2001 Elmerton Avenue	Facility Address	2001 Elmerton Avenue
	Harrisburg, PA 17110-9762		Harrisburg, PA 17110-9762
Applicant Contact	Curtis Noll	Facility Contact	Curtis Noll
Applicant Phone	(717) 787-4250	Facility Phone	(717) 787-4250
Client ID	65977	Site ID	834431
SIC Code	0782	Municipality	Statewide
SIC Description	Agriculture - Lawn And Garden Services	County	Statewide
Date Application Received	March 4, 2024	WQM Required	No
Date Application Accepted	March 7, 2024	EPA Waived	Yes

Purpose of Application: Renewal of an individual NPDES permit for the statewide application of pesticides.

Internal Review and Recommendations

The Pennsylvania Game Commission (PAGC) has applied for renewal of its Individual NPDES permit for the statewide application of pesticides. The PAGC uses herbicides for control of invasive species (Phragmites, Narrowleaf Cattail, Spadderdock, and Swamp Loosestrife) and native species (Broad-Leaved Water Milfoil) in seven (7) treatment areas on Pennsylvanian State Game Lands, as listed in the tables below. This permit renewal is proposing a total treatment area of 1,065 acres, with pesticides being applied both directly to surface waters and at the water's edge. The proposed treatment areas include receiving waters which are classified as either High-Quality Cold-Water Fishes (HQ-CWF), Cold Water Fishes (CWF) or Trout Stocking Fishery (TSF). The application also includes the required Pesticides Discharge Management Plan (PDMP). The draft permit includes permit conditions relevant to the Chapter 91.38 joint permit requirements for applications of pesticides directly to surface waters. There are no public water supplies located within 5 miles downstream of the treatment areas, as determined for each treatment area using DEP's eMapPA system.

The PAGC also uses pesticides to control spongy moth populations on state game lands, treating approximately 125,000 acres of forest canopy via aerial application. These application areas are typically approved annually as a separate approval request after treatment areas have been determined.

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*

Approve	Deny	Signatures	Date
X		*Zachary R Steckler* Zachary Steckler / Project Manager	July 2, 2024
X		***Sean M. Furjanic*** Sean M. Furjanic, PE / Environmental Program Manager	July 2, 2024

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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.

A query for open violations was performed in DEP's Water Management System (WMS) and returned one result for the Client ID number associated with this permit. The violation, dated 10/6/2022, relates to the failure to pay the annual fee associated with the Chapter 102 permit PAD410009 for the Plunkett's Creek Floodplain Restoration. This fee was paid in 2022, but the violation was never deleted. This has been corrected at this time.

The main purpose of PAGC's pesticide application program is the removal of Submerged Aquatic Vegetation (SAV) species, and other aquatic plant species. The removal of these species will clear surface waters to make them more accessible for both waterfowl and recreational purposes and will also allow the growth of species that are more beneficial to waterfowl and other aquatic life. PAGC is proposing to use the following application methods to apply pesticides both at the water's edge and directly to surface waters:

- Fixed wing – Aerial
- Rotary Wing (helicopter) – Aerial
- UAS (Drone) – Aerial
- Amphibious Marsh Vehicle – Manual
- Boat – Manual
- Backpack Sprayer – Manual

Proposed Treatment Areas, Waterbodies, and Pesticides

The tables and maps below list the pesticides, treatment areas, and affected waterbodies that are proposed in the permit application. The pesticide products and proposed applications have been reviewed by the Bureau of Clean Water, Water Quality Division, and were determined to typically not pose a threat to aquatic organisms when applied appropriately. The proposed pesticides and maximum allowable dosage rates are presented in Table 1 below. The proposed treatment areas are presented in Table 2 below.

Table 1 – Proposed Pesticides

Pesticide Name	Manufacturer Name	Approved for Aquatic?	EPA Reg. No.	Allowable application dosage			Target pest type
				Dose	Units	Treatments/ Year	
Aquaneat	Nufarm	Yes	228-365	3.0	quarts/ acre	1	Phragmites, narrowleaf cattail, spadderdock, swamp loosestrife
Polaris	Nufarm	Yes	228-534	2.0	quarts/ acre	1	Phragmites, narrowleaf cattail, spadderdock, swamp loosestrife
ProcellaCOR	SePRO Corporation	Yes	67690-80	8.0	PDU/ acre	1	Broadleaf Water Milfoil

Table 2 – Proposed Treatment Areas

Treatment Area No./Name	Surface Water Name	Application Area (acres)	Application Type	Use Pattern	Ch 93 Class	Pesticide Impairment
1 – SGL151	Jamison Run / Celery Swamp	23	Direct/Waters Edge	3	CWF	No
2 – SGL151	Jamison Run / Celery Swamp	24	Direct/Waters Edge	3	CWF	No
3 – SGL151	Jamison Run / Celery Swamp	67	Direct/Waters Edge	3	CWF	No
4 – SGL151	Jamison Run / Celery Swamp	2	Direct/Waters Edge	3	CWF	No
5 – SGL284	Hunters Run	34	Direct/Waters Edge	3	TSF	No
6 – SGL091	Duck Pond / Bear Creek	15	Direct/Waters Edge	3	HQ-CWF	No
7 – SGL180	Shohola Marsh / Creek	900	Direct/Waters Edge	3	HQ-CWF	No

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The permittee must submit a request for approval for any change in the pesticide use pattern for an authorized treatment area; a change in the pesticide (active ingredient) that will be used for a treatment area; or an increase in the total amount (dosage) of pesticide that will be used in a treatment area. The permittee shall submit requests at least 30 days in advance of anticipated changes. Part C of the issued NPDES Individual Pesticide permit clarifies requirements and reporting to DEP for these requests.

PNDI searches were performed for the proposed treatment areas, and responses from the review agencies are recorded in the table below. For most species, avoidance measures such as seasonal restrictions or hand application should be followed. Species of concern identified by agencies include: Eastern Massasauga rattlesnake, least bittern, common gallimule, American coot, and bald eagle. All product label precautions and best management practices must be followed.

Treatment Area	Agency Further Review Required	Agency Correspondence & Further Actions Needed
1	PAFBC	Restrict treatment to summer (June, July, August)
2	PAFBC	Restrict treatment to summer (June, July, August)
3	PAFBC	Restrict treatment to summer (June, July, August)
4	PAFBC	Restrict treatment to summer (June, July, August)
5	PAGC	Avoid applying during breeding season of April 15th – September 30th.
6	DCNR	No Impact anticipated, clean equipment thoroughly before transport to and from site to prevent transplanting invasive species.
7	DCNR, USFWS	DCNR – No Impact anticipated, clean equipment thoroughly before transport to and from site to prevent transplanting invasive species. USFWS – Evaluated Bald Eagle nest areas using the USFWS screening form and returned form to DEP. Applicators are to follow the avoidance measures listed on the screening form.

Anti-Degradation

Duck Pond and Shohola Marsh are classified as High Quality-Cold Water Fisheries (HQ-CWF). The required Antidegradation Module (3800-PM-BCW0025e) was submitted with the application.

- Public Health and Environmental Benefits

  Shohola Marsh Waterfowl Management Area is located on SGL180 in Pike County. PAGC has a commitment to improving this area due to its high value for both native waterfowl and as a fishing destination. The area is currently being degraded by broad-leaved milfoil, which comprises a large percentage of the SAV biomass in the lake. This presents problems both for migratory waterfowl and for fishing and boating recreation.

  Duck Pond is located on SGL091 in Luzerne County. PAGC has assessed that the pond and marsh are currently comprised of 100% broad-leaved milfoil, with no observed pondweed species or other beneficial waterfowl food SAV beds present. PAGC intends to clear the milfoil from the pond and marsh area to restore the pond as a beneficial water body for waterfowl.

  The Jamison Run and Hunters Run wetlands areas are targeted by the PAGC for wetlands enhancements as they are currently overrun with invasive species such as Swamp Loosestrife, Narrow Leaf Cattail, and Spatterdock. PAGC intends to use pesticides to reduce these populations back to beneficial levels so the wetlands can be restored for use as a nesting and migration habitat for waterfowl.

- Non-Discharge Alternatives

  The PAGC evaluated several alternatives to pesticide application for the Shohola Marsh WMA and Duck Pond. The PAGC owns an Aquatic Vegetation Cutter (AVC) for the mechanical removal of vegetation but has only had limited success using it on small areas or cutting channels. This is not feasible for treating the greater portion of the WMA due to the size of the treatment area and the possibility of further distributing seeds and plant matter. The PAGC has also evaluated controlling vegetation by hand pulling and managing water levels and plans to integrate these methods into a long-term plan after

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treating with pesticides. The PGC feels that taking no action is inconsistent with their mission and various management plans.

For the Jamison Run and Hunters Run treatment areas, the PAGC has explored using backpack sprayers, controlled burning, and using the AVC. They found that backpack sprayers were not effective except for use on small areas. Similarly, the AVC is only used on small areas or for cutting channels through vegetation. The PAGC does plan to further explore the use of controlled burning for these areas for future pest control.

- Antidegradation Best available Combination of Technologies (ABACT)

ProcellaCOR EC: This product is a selective herbicide that is designed to target specific species, including broad-leaved water milfoil. PAGC felt that ProcellaCOR provided for longer control with less application of active ingredient. Water levels will be managed during application to ensure effective treatment, and water samples will be taken to monitor levels of the active ingredient.

Aquaneat: This is a glyphosate-based product that is approved for aquatic uses and targets a broad spectrum of species through foliar application. This is ideal for the treatment area proposed because of the high volume of vegetation. The product also states that it has no residual effects.

Polaris: This product works in conjunction with Aquaneat to control phragmites and spadderdock in the treatment area. It is an imazapyr-based pesticide that is approved for aquatic use and is listed as having no residual effects. Both Polaris and Aquaneat will be applied via aerial spraying.