

Application Type Renewal
Facility Type Pesticides
Permit Type Individual

**NPDES PERMIT FACT SHEET
PESTICIDES**

Application No. PA0270741
APS ID 771391
Authorization ID 1386137

Applicant and Facility Information

Applicant Name	<u>PA DEP Vector Management</u>	Facility Name	<u>Statewide Vector Suppression Program</u>
Applicant Address	<u>PO Box 1467</u> <u>Harrisburg, PA 17105-1467</u>	Facility Address	<u>PO Box 1467</u> <u>Harrisburg, PA 17105-1467</u>
Applicant Contact	<u>Douglas Orr</u>	Facility Contact	<u>Douglas Orr</u>
Applicant Phone	<u>(717) 497-4606</u>	Facility Phone	<u>(717) 497-4606</u>
Client ID	<u>293072</u>	Site ID	<u>757875</u>
SIC Code	<u>7342</u>	Municipality	<u>Statewide</u>
SIC Description	<u>Services - Disinfecting And Pest Control Services</u>	County	<u>Statewide</u>
Date Application Received	<u>March 4, 2022</u>	WQM Required	<u>No</u>
Date Application Accepted	<u>March 18, 2022</u>	EPA Waived	<u>No</u>
Purpose of Application	<u>Renewal of Individual Pesticides NPDES permit for DEP's Vector Management Program</u>		

Internal Review and Recommendations

The Pennsylvania Department of Environmental Protection (DEP) has applied for a renewal of its Individual NPDES permit for the application of pesticides. DEP's Bureau of Laboratories oversees the Vector Management Program from the building at 2575 Interstate Drive Harrisburg, PA. This program applies pesticides for Black Fly (BF) and West Nile Virus (WNV) suppression/control throughout the Commonwealth. The Vector Management Program was last issued on August 23, 2017, and amended on January 27, 2020. The permit coverage will expire on August 31, 2022. The Vector Management Program applies pesticides statewide on an as-needed basis for mosquito/West Nile Virus control, and applies pesticides for black fly control to approximately 1,988 miles of waterways across Pennsylvania's Susquehanna, Allegheny, and Delaware River basins. With this permit renewal application, DEP is proposing to add 6 miles of treatment area to two creeks in the Delaware River Basin and 7 miles of treatment area to one creek in the Susquehanna River Basin.

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.

A query for any open violations was performed on WMS and returned no results for the Client ID number associated with this permit. Pesticide Discharge Management Plans (PDMPs), anti-degradation modules, and treatment area lists were submitted

Approve	Deny	Signatures	Date
X		Zachary R Steckler Zachary Steckler, E.I.T. / Project Manager	March 22, 2022
X		Maria L Schumack Maria L Schumack, P.E. / Environmental Engineer Manager	April 26, 2022

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separately for the BF and WNV programs. The permit also contains information relevant to the Chapter 91.38 joint permit requirements for applications of pesticides directly to surface waters.

Black Fly (BF) Suppression Program

The Commonwealth first began developing a BF Suppression Program in 1983 after increasing public complaints and health concerns. In 1985, Pennsylvania Legislators approved funding in the state budget to support a Black Fly Control Program in the Lower Susquehanna River basin in a cost sharing agreement with participating counties. The program now operates in 51 waterways across the state, in the Susquehanna, Allegheny, and Delaware River basins. The goal of the Black Fly Suppression Program is to reduce adult black fly populations to tolerable levels during the spring and summer recreational seasons. DEP biologists and student interns conduct black fly monitoring, laboratory identification of samples, data entry, treatment operations and management of aerial spray contracts. According to the Pesticides Discharge Management Plan (PDMP) submitted with the application, no pesticide application occurs without first conducting surveillance and sampling to confirm the presence of target species. There is no established minimum population threshold that must be met before pesticides are applied, and any presence of black fly larvae is treated as having the potential to cause medical, nuisance, and economic problems.

Pesticides are applied by helicopter using biological insecticide products containing *Bacillus thuringiensis israelensis* (Bti), a naturally occurring soil bacterium, to selectively target black fly larvae in the *Simulium jenningsi* species group. Bti is commonly used due to its low toxicity to non-target species. The application states that up to 12 treatments per treatment area per year may be applied, depending on the need. The pesticides may not be applied directly to finished drinking water reservoirs or drinking water receptacles, and may not be applied when weather conditions favor drift from treated areas.

West Nile Virus (WNV) Program

WNV first appeared in Pennsylvania in 2000. To combat the spread of WNV, which can be transmitted by mosquitoes, DEP's Vector Management Program has developed a state-wide surveillance network with the assistance of the Departments of Health and Agriculture to detect, track and control the virus. Activities include trapping mosquitoes, collecting dead birds, and monitoring horses, people and, in past years, sentinel chickens. PADEP and county mosquito control professionals use primarily biological insecticides to kill mosquito larvae. Adult mosquitoes are also targeted when needed using chemical pesticides. Like the BF program, no pesticide application occurs without first conducting surveillance and sampling to confirm the presence of target species. The program follows vectoring thresholds for the presence of various mosquito species and diseases. These thresholds are spelled out in the Commonwealth's WNV Plan and the PDMP, both included with this application.

The program uses helicopters to spray Bti for the destruction of mosquito larvae, and uses truck and backpack mounted Ultra-Low Volume (ULV) systems for the treatment of adult mosquitoes in areas with high numbers of mosquitoes capable of transmitting WNV and other diseases. No application occurs directly to surface waters as part of the WNV adult mosquito control program. Specific treatment locations are not pre-determined and will be identified by the WNV program based on annual in-season mosquito surveillance; therefore, the program is applying for NPDES permit coverage to apply pesticides as needed throughout the entire state.

Proposed Treatment Areas, Waterbodies, & Pesticides

The tables and map below list the pesticides, treatment areas, and waterbodies that will be used by the Vector Management Program under the BF Suppression Program and pesticides that will be used under the WNV program (treatment areas for WNV are determined annually based on mosquito surveillance). 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.

Table 1 – Pesticides proposed to be used for BF Suppression Program

Pesticide Name	Manufacturer Name	EPA Reg. No.	Allowable application dosage		Target pest type
			Dose	Units	
VectoBac 12AS	Valent BioSciences Corporation	73049-38	1.0	gallon/acre	Black Flies <i>S. jenningsi</i> group
VectoBac SC	Valent BioSciences Corporation	73049-506	1.0	gallon/acre	Black Flies <i>S. jenningsi</i> group

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Figure 1 – BF Program Participating Counties Map

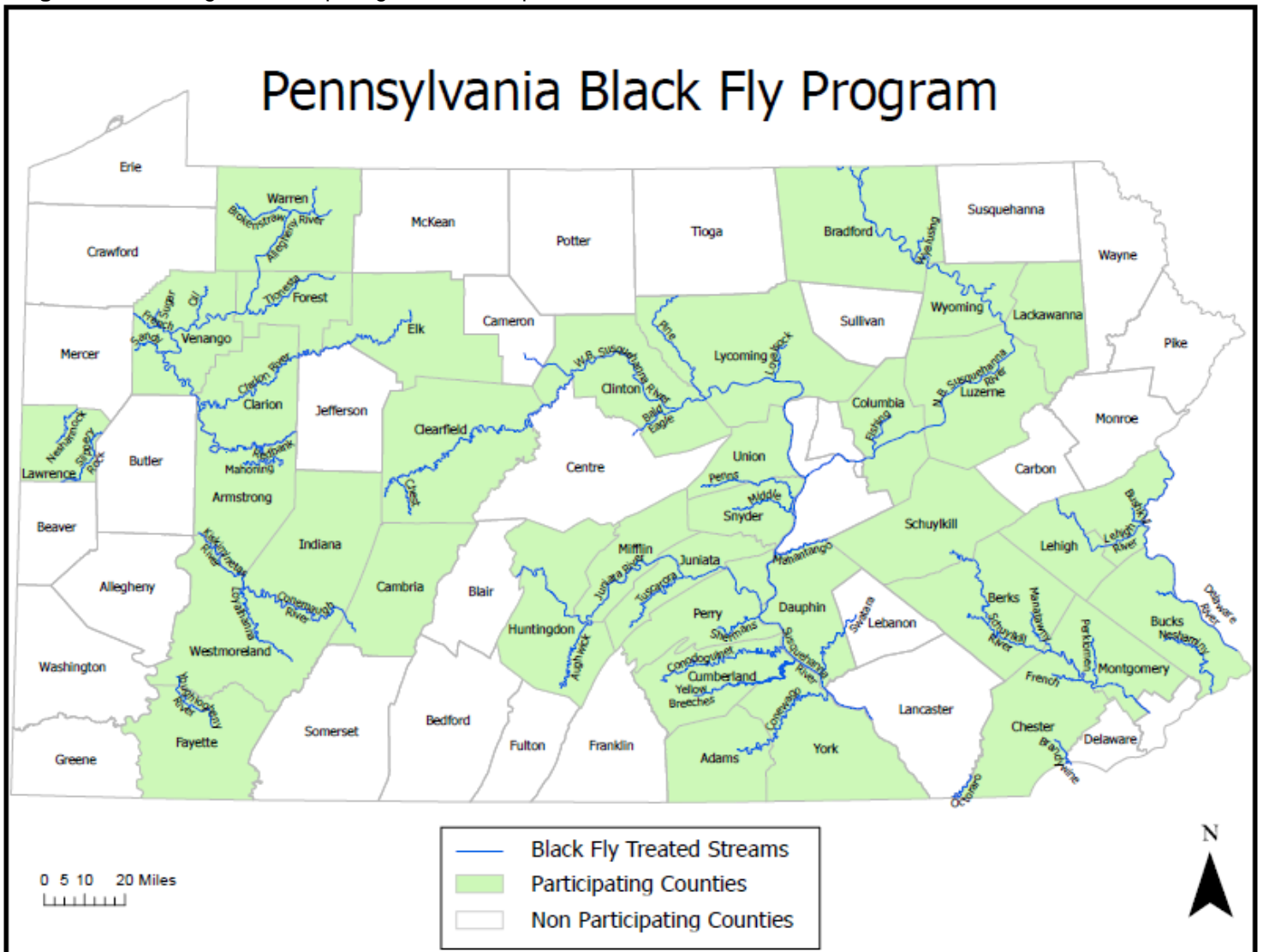


Table 2 – Proposed BF Treatment Areas

Treatment Area Table					
Treatment Area No.	Pesticide Use Pattern	Area or Length of Treatment	Treatment Frequency	Latitude – Treatment Area	Longitude – Treatment Area
1	1	72 miles	12/year	40.58407	-75.19349
2	1	36 miles	12/year	40.62192	-75.45786
3	1	8 miles	12/year	40.70186	-75.24973
4	1	33 miles	12/year	40.19837	-74.94037
5	1	8 miles	12/year	40.43665	-75.10039
6	1	98 miles	12/year	40.26801	-75.80916
7	1	7 miles	12/year	40.36749	-75.98784
8	1	11 miles	12/year	40.28362	-75.70657
9	1	12 miles	12/year	40.14097	-75.58514
10	1	14 miles	12/year	40.19933	-75.45008
11	1	8 miles	12/year	39.88228	-75.60552
12	1	5 miles	12/year	39.95010	-75.64636

Treatment Area Table - continued

Treatment Area No.	Pesticide Use Pattern	Area or Length of Treatment	Treatment Frequency	Latitude - Treatment Area	Longitude - Treatment Area
13	1	1	12/year	39.924846	-75.657312
14	1	167	12/year	41.162699	-75.594212
15	1	7	12/year	41.96334	-76.536126
16	1	9	12/year	41.695121	-76.229112
17	1	6	12/year	41.552541	-75.919186
18	1	17	12/year	41.048082	-76.42993
19	1	217	12/year	41.273959	-77.890338
20	1	13	12/year	40.817151	-78.689265
21	1	7	12/year	41.283357	-77.959951
22	1	16	12/year	41.103467	-77.500016
23	1	39	12/year	41.373119	-77.424683
24	1	12	12/year	41.306946	-76.916758
25	1	80	12/year	40.385191	-77.023725
26	1	37	12/year	40.864478	-77.014613
27	1	20	12/year	40.803004	-76.993176
28	1	14	12/year	40.642379	-76.809882
29	1	99	12/year	40.569428	-77.580466
30	1	27	12/year	40.294056	-77.887235
31	1	32	12/year	40.467405	-77.522514
32	1	17	12/year	40.355251	-77.125969
33	1	65	12/year	40.240701	-77.135231
34	1	44	12/year	40.146074	-77.023918
35	1	27	12/year	40.318065	-76.659248
36	1	55	12/year	40.013649	-76.926764
37	1	14	12/year	39.746032	-76.086157
38	1	125	12/year	41.44278	-79.637944
39	1	9	12/year	41.893288	-79.146049
40	1	22	12/year	41.818627	-79.412917
41	1	35	12/year	41.534334	-79.268857
42	1	14	12/year	41.511634	-79.680669
43	1	20	12/year	41.435337	-79.951112
44	1	8	12/year	41.456354	-79.891054
45	1	13	12/year	41.364413	-79.930884
46	1	102	12/year	41.324563	-79.190632
47	1	50	12/year	41.002882	-79.317016
48	1	22	12/year	40.932103	-79.347056
49	1	24	12/year	40.5565	-79.548314
50	1	51	12/year	40.416155	-79.207432
51	1	38	12/year	40.353323	-79.381972
52	1	4	12/year	40.286153	-78.921175
53	1	38	12/year	40.0844	-79.711296
54	1	32	12/year	41.024213	-80.163243
55	1	11	12/year	40.858895	-80.257274
56	1	16	12/year	41.065138	-80.309128

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Table 3 – Proposed BF Receiving Waters

Surface Water Table				
Treatment Area No.	Surface Water Name	Application Type	CH 93 Class	Pesticide Impairment
1	Delaware River - mainstem	Direct	WWF	No
Lehigh River Basin (Drainage List D)				
2	Lehigh River	Direct	TSF / WWF*	No
Delaware River (Drainage List C)				
3	Bushkill Creek	Direct	HQ-TSF	No
Delaware River (Drainage List E)				
4	Neshaminy Creek	Direct	TSF/WWF*	No
5	Tohicken Creek	Direct	CWF	No
Schuylkill River Basin (Drainage List F)				
6	Schuylkill River	Direct	CWF/WWF*	No
7	Tulpehoken Creek	Direct	WWF	No
8	Manatawny Creek	Direct	CWF	No
9	French Creek	Direct	EV / TSF*	No
10	Perkiomen Creek	Direct	WWF	No
Delaware River (Drainage List G)				
11	Brandywine Creek	Direct	WWF	No
12	East Branch Brandywine Creek	Direct	WWF	No
13	West Branch Brandywine Creek	Direct	WWF	No
Susquehanna River (Drainage List I)				
14	North Branch Susquehanna River	Direct	WWF	No
15	Chemung River	Direct	WWF	No
16	Wyalusing Creek	Direct	WWF	No
17	Tunkhannock Creek	Direct	TSF	No
Susquehanna River (Drainage List K)				
18	Fishing Creek	Direct	WWF	No
West Branch Susquehanna River (Drainage List L)				
19	West Branch Susquehanna River	Direct	WWF	No
20	Chest Creek	Direct	CWF	No
21	Sinnemahoning Creek	Direct	WWF	No
22	Bald Eagle Creek	Direct	WWF	No
23	Pine Creek	Direct	EV	No
24	Loyalsock Creek	Direct	EV	No
Susquehanna River (Drainage List M)				
25	Susquehanna River - mainstem	Direct	WWF	No
26	Penns Creek	Direct	HQ-WWF	No
27	Middle Creek	Direct	TSF	No
28	Mahantango Creek	Direct	WWF	No
Juniata River (Drainage List N)				
29	Juniata River	Direct	WWF	No
30	Aughwick Creek	Direct	TSF	No
31	Tuscarora Creek	Direct	CWF	No
Susquehanna River (Drainage List O)				
32	Shemans Creek	Direct	WWF	No
33	Conodoguinet Creek	Direct	WWF	No
34	Yellow Breeches Creek	Direct	HQ-CWF/CWF*	No
35	Swatara Creek	Direct	CWF /WWF*	No
36	Conewago Creek	Direct	TSF	No
37	Octaroro Creek	Direct	WWF	No

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Surface Water Table - continued				
Treatment Area No.	Surface Water Name	Application Type	CH 93 Class	Pesticide Impairment
38	Allegheny River mainstem	Direct	WWF	No
Allegheny River (Drainage List Q)				
39	Conewango Creek	Direct	WWF	No
40	Brokenstraw Creek	Direct	CWF	No
41	Tionesta Creek	Direct	CWF	No
42	Oil Creek	Direct	WWF	No
43	French Creek	Direct	WWF	No
44	Sugar Creek	Direct	CWF	No
45	Sandy Creek	Direct	WWF	No
Clarion River (Drainage List R)				
46	Clarion River	Direct	CWF/WWF*	No
Allegheny River (Drainage List S)				
47	Redbank Creek	Direct	TSF	No
48	Mahoning Creek	Direct	WWF	No
49	Kiskiminetas River	Direct	WWF	No
50	Conemaugh River	Direct	WWF	No
51	Loyalhanna Creek	Direct	CWF/TSF/WWF*	No
52	Stoneycreek River	Direct	WWF	No
Monongahela River (Drainage List V)				
53	Youghiogheny River	Direct	HQ-CWF/WWF*	No
Ohio River (Drainage List W)				
54	Slippery Rock Creek	Direct	CWF	No
55	Connoquenessing Creek	Direct	WWF	No
56	Neshannock Creek	Direct	TSF	No

* = change in Chapter 93 designation from upstream to downstream in treatment areas

Table 4 - Pesticides proposed to be used for WNV control program

Pesticide Name	Manufacturer Name	EPA Reg. No.	Allowable application dosage		Target pest type
			Dose	Units	
Agnique MMF G PAK 35	Cognis Corporation	53263-30	1	Pak/350 sq ft	Mosquito Larva & Pupae
Agnique MMF	Cognis Corporation	53263-30	21.5	lbs/acre	Mosquito Larva & Pupae
AQUABAC 200G	Becker Microbial Products, INC	62637-3	20.0	lbs/acre	Mosquito Larva
AQUABAC 400G	Becker Microbial Products, INC	62637-13	16.0	lbs/acre	Mosquito Larva
Aqua Zenivex E20	Central Garden & Pet Company	89495-81	0.18	lbs/acre/year	Mosquito Adult
Aqua Duet	Clarke Mosquito Control Products	1021-2562-8329	0.0036	lbs/acre	Mosquito Adult
AQUABAC xt	Becker Microbial Products	62637-1	1.0	pint/acre	Mosquito Larva
Biomist 1.5+7.5 ULV	Clarke Mosquito Control Products	8329-40	0.007	lbs of permethrin/acre	Mosquito Adult
Biomist 3+15 ULV	Clarke Mosquito Control Products	8329-33	0.005	lbs of permethrin/acre/year	Mosquito Adult
CoCo Bear	Clarke Mosquito Control Products	8329-93	0.1	10 oz/1000 sq ft	Mosquito Pupae
DeltaGuard	Bayer Environmental Science	432-1534	0.036	lbs of Deltamethrin/acre/year	Mosquito Adult

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Demand CS Insecticides	Syngenta Crop Protection, LLC	100-1066	0.03	lbs of active ingredient/1000 sq ft	Mosquito Adult
Dibrom Concentrate	AMVAC	5481-480	2.0	oz/acre/7 days	Mosquito Adult
Duet Dual-Action Adulticide	Clarke Mosquito Control Products	1021-1795-8329	0.0036	lbs sumithrin /acre/year	Mosquito Adult
Duplex G	Central Garden & Pet Company	89459-93	20.0	lbs/acre	Mosquito Larva
Flit 13.3 E.C.	Clarke Mosquito Control Products	4-350-8329	0.007	lbs of active ingredient/acre	Mosquito Adult
FourStar Briquets 150	B2E Microbial LLC	83362-2-89459	1.0	briquets per 100 sq ft	Mosquito Larva
FourStar Briquets 180	B2E Microbial LLC	83362-3	1.0	briquets per 100 sq ft	Mosquito Larva
FourStar BTI CRG	B2E Microbial LLC	85685-4	20.0	lbs/acre	Mosquito Larva
FourStar CRG	B2E Microbial LLC	85685-2	20.0	lbs/acre	Mosquito Larva
FourStar MBG	B2E Microbial LLC	85685-3	20.0	lbs/acre	Mosquito Larva
FourStar MBG WSP	B2E Microbial LLC	85685-3	1.0	Pouch per 100 sq ft	Mosquito Larva
FourStar SBG	B2E Microbial LLC	85658-1	20.0	lbs/acre	Mosquito Larva
FourStar Briquets 45	B2E Microbial LLC	85658-2-89459	1.0	briquets per 100 sq ft	Mosquito Larva
IN2MIX	In2Care BV	91720-1	1.0	Packet per trap every 4 weeks	Mosquito Larva
MAVRIK Perimeter	Wellmark International	2724-478	0.5	fl. Oz./5 gallons of water/1,000 ft ² surface area	Mosquito Adult
MetaLarv XRT	Valent BioSciences Corporation	73049-475	1.0	Pouch per 100 sq ft	Mosquito Larva
Mosquito Dunks	Summit Chemical Co	6218-47	1.0	Dunk/100 ft ² of standing water surface area	Mosquito Larva
Mosquito Larvicide GB1111	Clarke Mosquito Control Products	8329-72	0.5	gal/acre	Mosquito Pupae
Natular DT	Clarke Mosquito Control Products	8329-602	1.0	Tab/50 gal standing water	Mosquito Larva
Natular XRT	Clarke Mosquito Control Products	8329-84	1.0	Tablet/100 ft ² area/2 ft depth	Mosquito Larva
Natular Granule	Clarke Mosquito Control Products	8329-80	20.0	lbs/acre	Mosquito Larva
PermaSease 4-4	Precision Control Technology	86291-3-96263	0.007	lbs of active ingredient/acre	Mosquito Adult
PermaSease UC	Precision Control Technology	55883-459-86921	0.007	lbs of active ingredient/acre	Mosquito Adult
Permanone 10% EC	Bayer Environmental Science	432-1132	0.007	lbs of permethrin/acre	Mosquito Adult
Permanone 30-30	Bayer Environmental Science	432-1235	0.007	lbs of permethrin/acre	Mosquito Adult
Spheratax SPH	Advance Microbiologics LLC	84268-2	20.0	lbs / acre	Mosquito Larva
Spheratax WSP	Advance Microbiologics LLC	84268-2	1.0	Pouch/50 sq ft	Mosquito Larva
Suspend SC Insecticide	Bayer Environmental Science	432-763	1.5	fl. Oz. of 0.06% suspend SC/1,000 ft ²	Mosquito Adult

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Teknar G	Valent BioSciences Corporation	73049-403	20.0	lbs/acre	Mosquito Larva
VectoBac GS	Valent BioSciences Corporation	73049-10	20.0	lbs/acre	Mosquito Larva
VectoBac G	Valent BioSciences Corporation	73049-10	20.0	lbs/acre	Mosquito Larva
VectoBac WDG	Valent BioSciences Corporation	73049-56	7.0	oz/acre	Mosquito Larva
VectoLex FG	Valent BioSciences Corporation	73049-20	20.0	lbs/acre	Mosquito Larva
VectoLex WDG	Valent BioSciences Corporation	73049-57	1.5	lbs/acre	Mosquito Larva
VectoLex WSP	Valent BioSciences Corporation	73049-20	1.0	pouch/50 ft ² treatment area	Mosquito Larva
VectoMax FG	Valent BioSciences Corporation	73049-429	20.0	lbs/acre	Mosquito Larva
VectoMax FG WSP	Valent BioSciences Corporation	73049-429	1.0	pouch/50 ft ² treatment area	Mosquito Larva
Wisdom TC	AMVAC	5481-520	1.0	fl. oz./1,000 ft ²	Mosquito Adult
Zenivex E20	Wellmark International	2724-791	0.007	lbs active ingredients/acre	Mosquito Adult
Zenivex E4 RTU	Wellmark International	2724-807	0.007	lbs active ingredients/acre	Mosquito Adult
Altosid Liquid Larvicide Conc.	Wellmark International	2724-392	1.0	oz./acre active ingredient	Mosquito Larva
Altosid Pellets	Wellmark International	2724-448	10.0	lbs/acre	Mosquito Larva
Altosid SGB II	Wellmark International	75318-8-89459	20.0	lbs/acre	Mosquito Larva
Altosid Pellets WSP	Wellmark International	2724-448	1.0	pouch/135 ft ² treatment area	Mosquito Larva
Altosid XR Extended Residual Briquets	Wellmark International	2724-421	1.0*	briquet/100 ft ²	Mosquito Larva
Altosid XR-G	Wellmark International	2724-451	20.0	lbs/acre	Mosquito Larva

A PNDI search was performed for the proposed treatment area, and responses from the review agencies have been received. All agencies responded that no adverse impact was anticipated as a result of the project, though many state and federally listed species do occur within the application area. For most species, avoidance measures such as seasonal restriction or hand application should be followed. Project sites should be evaluated for impacts to Atlantic sturgeon, shortnose sturgeon, and bald eagle habitats, and refer to the National Marine Fisheries Service or National Bald Eagle Management Guidelines as needed. All product label precautions and best management practices should be followed, and it is recommended that additional focused PNDI searches be completed if pesticides are to be applied to wetland habitats or areas that are suspected to hold species of concern.

Anti-Degradation

A number of HQ/EV watersheds are included in the proposed treatment areas, and the Vector Management Program submitted an anti-degradation module in accordance with permit application requirements.

Public Health and Environmental Benefits: Both adult Black Flies and Mosquitos cause medical, nuisance, and economic problems through swarming and feeding on various hosts, including humans and livestock. Through biting hosts to feed on blood, both species can be vectors for many diseases to both humans and animals, including WNV, Eastern Equine encephalitis, Zika, and dog heartworm. Large populations can also cause nuisance and quality-of-life problems for outdoor recreation and populations living in close proximity to waterways.

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Non-Discharge Alternatives: The Vector Management program makes every effort to employ non-chemical alternatives through extensive surveying and the use of vector thresholds for mosquitos.

1. No Action – The program does not apply pest control chemicals or biological agents unless the presence of black flies or mosquitos has been identified. In some cases, it may also be determined that no action is needed due to the temporary nature of a breeding water body. No action may be necessary in areas of low resident populations and in times of the year when black flies and mosquitos are not active.
2. Prevention – Prevention is one of the best ways to eliminate mosquito breeding. This can be done by removing sources of shallow, stagnant water. Black fly prevention is more difficult, as they breed in moving water and benefit from the cleaning up of waterways and the removal of old impoundments.
3. Mechanical or Physical Source Reduction – Source reduction of mosquitos can be achieved by removing breeding habitats.
4. Cultural Methods – Public education is an important part of the WNV program to reduce mosquito breeding, especially in urban areas where many surfaces may be available to form stagnant water. Additional education is available from DEP on the use of personal repellants for black flies and mosquitos and treating bites to prevent infection.
5. Biological Control Agents – When other methods are not available, DEP applies Bti products to target black fly and mosquito larvae. Bti is considered non-toxic to nearly all non-target aquatic organisms.
6. Pesticides – DEP applies chemical pesticides when all other options have been exhausted to control mosquito larvae and adult populations. Adult mosquito control pesticides are never applied directly over surface water. A buffer is maintained from HQ and EV waters, and the program claims that maximum drift following ULV pesticides application to control adult mosquitoes is about 300 feet, meaning a low probability of discharge to surface water. Bti products are the only pesticides used for black fly control.

Antidegradation Best Available Combination of Technologies (ABACT): The Vector Management program follows extensive surveillance and sampling procedures and Integrated Pest Management (IPM) to ensure that minimal environmental impact is felt as a result of mosquito and black fly control. As stated above, Bti biological pesticides are utilized wherever possible, and adult mosquito control pesticides are not applied directly to surface waters.

All pesticides, use patterns, application rates, and treatment areas identified in this fact sheet will be approved for use once the final permit is issued. A change from the previous permit is that an application for permit amendment will no longer be required for changes to pesticides, application rates, or use patterns. Instead, the permittee must submit a request for approval to the Department at least 30 days in advance of 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; an increase in the total amount (dosage) of pesticide that will be used in a treatment area; or increases (in area or length) in the treatment area(s) or location(s) of the treatment area(s) or the addition of new treatment areas. A PNDI search must be completed for any new treatment areas, and a PNDI receipt, along with review agency responses, should accompany the request. In no case may application rates exceed the approved product label instructions.

According to the Fish and Boat Commission Code found in the Pennsylvania Consolidated Statutes, Title 30, Chapter 3, Subchapter B, Section 326, Limitation on Regulatory jurisdiction, "The commission shall have no regulatory jurisdiction over the program whereby the Department of Environmental Protection sprays *Bacillus thuringiensis israeliensis* (Bti) on Commonwealth waters for control of blackfly." Therefore, no Chapter 91.38 joint permit is required for Black Fly control activities conducted by the Vector Management Program.

The Department has made a tentative determination to issue the draft NPDES permit subject to the terms and conditions of the permit. The proposed permit contains conditions that require implementation of Pest Management Measures, Recordkeeping and Annual Reporting Requirements, Corrective Action Documentation and Reporting, and a Pesticides Discharge Management Plan.