



Burlington County Mosquito Control

Best Management Practices (BMPs) – 2014

Introduction

As the largest county in New Jersey, Burlington County has large areas that have potential to breed mosquitoes. These areas include, farm land, wetlands (fresh and salt water), home yards, storm water facilities, and sewer plants. These areas need to be addressed in unison to control mosquitoes and the viruses they can spread. One of the best ways to control a pest over a large area is by approaching the area as an area-wide integrated pest management (IPM). Area-wide IPM is defined as IPM applied against an entire pest population within a specific geographic area. This method requires coordination with all parties within that area for the entire breeding season.

There are some proven techniques to control mosquitoes:

1. Chemical control – Use of pesticides
2. Biological control – Use of other animals (fish, other insects, bacteria, etc.)
3. Environmental control – The reduction of breeding habitat
4. Cultural control – Education

By using all these techniques we can hope to reduce the risk of mosquito borne disease, as well as reduce the nuisance complaints.

BMPs

Every species of mosquito needs certain requirements for breeding. By addressing these requirements and eliminating factors we can reduce the breeding potential for that site.

Standing Water – ponds, puddles, stagnant pools, etc.

One of the most troublesome breeding habitats, by virtue of its widespread occurrence in Burlington County and by the mosquito species that breed in it, is the standing water habitat. The mosquitoes that breed in this environment can transmit disease as well as be a nuisance to the public.

BMPs

1. Drain the standing water
2. Reduce emergent vegetation along water edge. Excessive aquatic vegetation causes water stagnation contributing to mosquito reproduction.
3. Make water levels permanent to encourage natural predators (fish)
4. Treat with chemicals

Floodwater/Vernal Pools – Moist soil along streams and low laying areas

The mosquitoes that breed in floodwater lay their eggs in moist soil that then sit dormant until water covers them.

BMPs

1. Flood when air temperatures do not encourage mosquito development
2. Reduce emergent vegetation
3. Flood quickly at once to encourage a uniform hatching time, then treat once for control
4. Treat with chemicals

Urban/Suburban Sources – Pools, Containers, Bird Baths, Ponds, Etc.

This environment is similar to standing water but has a high percentage of man-made factors. These mosquito species comprise a high number of the public's complaints relating to nuisances. These are mosquitoes that breed in back yards and are persistent biters, even during the day. They are also of high concern due to their ability to transmit disease.

BMPs

1. Drain containers weekly
2. Eliminate containers (remove toys, drain pools, etc.)
3. Cover/move containers to avoid rain water
4. Eliminate source (leaky hose, lawn sprinkler, etc.)
5. Treat with chemicals

One of the best ways to control these habitats is through public education. Requires everyone in the community to work together to eliminate potential sources of breeding.

Agricultural – Farmland

This habitat consists of farm fields and their associated drainage systems. Breeding habitat can be created by unclean ditches, leaky irrigation systems, or improper grading.

BMPs

1. Prevent standing water by cleaning, grading, repairs, or irrigation management
2. Reduce emergent vegetation. Excessive aquatic vegetation causes water stagnation contributing to mosquito reproduction.
3. Treat with chemicals

Storm Water Systems – Detention/Retention Basins, Catch Basins, Roadside Ditches

With the National Pollution Discharge Elimination System (NPDES) permit requirements taking the spotlight in the storm water quality community, the fact that storm water facilities are often ideal mosquito breeding habitats and are in close proximity to urban and residential areas makes them a high priority.

BMPs

1. Reduce emergent vegetation on the surface and shoreline of basins and ditches
2. Ensure proper maintenance of basins and ditches (drain within 72 hours or constant water)
3. Repair inlets and storm water systems
4. Treat with chemicals

What pesticides are currently used by Burlington County Mosquito Control in 2014?

Pesticides Applied by Helicopter:

- [Abate 5BG](#) is used on standing water on large wooded areas as well as on the saltmarsh. This targets mosquito larva.

Pesticides Applied by Hand:

- [Altosid Pellets WSP](#) is used to treat standing water early in the season and some harder to reach areas during the season. This targets mosquito larva.
- [Altosid 30Day Briquettes](#) is used to treat storm drains and pools. This targets mosquito larva.
- [Four Star Briquettes 45 Day](#) is used to treat storm drains, pools, and woodland pools. This targets mosquito larva.
- [Summit Bti Briquettes](#) is used to treat swimming pools and other containers (bird baths, abandoned tanks, etc.) This targets mosquito larva.

Pesticides Applied by Spray Technique:

- [AquaBac 400G](#) is used to treat a large wooded/field/pasture (about 1-5 acres). This targets mosquito larva.
- [BVA 2](#) is used on any standing water, woodland pool, pools, ditches, etc. This treats for larva and pupa.
- [Vectolex CG](#) is used in woodland pools, fields, and pastures. This targets mosquito larva.
- [AquaBac XT](#) is used to treat roadside ditches as well as woodland pools. This targets mosquito larva.
- [Zenivex E4](#) is in the ULV Machine (Ultra-Low Volume) sprayed by pick-up truck. This is used to treat for adult mosquitos.