



MERCER COUNTY MOSQUITO CONTROL

300 Scotch Road, Building #1
West Trenton, New Jersey 08628
Telephone: (609) 530-7516
Fax: (609) 530-7529
<http://nj.gov/counties/mercerc/department/mcmc>



Aaron T. Watson
Director-DOT

BRIAN M. HUGHES
County Executive

Sigmund Zegarski
Chief-Division of Highways

Ary Farajollahi
Superintendent-Mosquito Control

From: Ary Farajollahi, MCMC
To: John Miller, Princeton Hydro
Re: Laura and Evelyn retention basin
Date: 25 September 2009

Dear Mr. Miller,

Our mission at Mercer County Mosquito Control is to provide environmentally sound, effective, and economic mosquito management for the county of Mercer. We conduct surveillance of mosquitoes to determine the threat of disease transmission and annoyance levels and then use integrated pest management techniques to keep mosquitoes below those levels. Once a mosquito habitat is brought to our attention, our inspectors include that site as part of a surveillance route to be periodically checked and treated as needed in the future. More information about our operations and the specific products used may be found here: <http://nj.gov/counties/mercerc/department/mcmc>

I have drafted a response to your inquiry regarding the retention basin situated in the corner of Laura Avenue and Evelyn Avenue in Hamilton Township (see attached figures). Although the neighborhood where this retention basin is located within is surrounded by wetlands and floodwater habitats that produce large broods of mosquitoes, this basin has unnecessarily provided additional habitat for larval production of mosquitoes. It has been our observation that drainage from this basin is poor and not within a timely fashion following a rain event. The subsequent standing water thus provides ample volume and time for the development of nuisance and public health mosquitoes. This retention basin was brought to our attention in early July of 2009, and we have continued to monitor and treat it on an as need basis since that date. This will be our responsibility until a sustainable long-term solution is achieved. Our specific activities at this site include the following:



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1. Basin was inspected by two of our personnel on 1 July 2009 and was found positive for larvae and pupae of mosquitoes. A larval sample was collected and later identified in the laboratory to include *Aedes vexans* (a nuisance floodwater mosquito which occurs in large broods) and *Culex restuans* (a potential enzootic vector of West Nile virus). The basin was treated with 60 ounces of Golden Bear® oil, a petroleum hydrocarbon which causes pupae and larvae of mosquitoes to suffocate in the aquatic habitat.
2. Basin was inspected by two personnel on 7 July 2009 post treatment to survey efficacy of pesticide used in the previous week. No larvae or pupae were detected during this inspection.
3. Basin was inspected by two personnel on 28 July 2009 and was found positive for mosquito pupae. A pupal sample was collected and allowed to emerge in the laboratory for adult identification as *Ae. vexans* once again. The basin was treated with 30 ounces of Golden Bear® oil and 8 Altosid® briquets, an insect growth regulator with a 30 day extended release capacity.
4. Basin was inspected on 5 August 2009 as part of a routine catch basin program by another inspector and was treated with 8 ounces of a Vectolex® formulation, a biorational larvicide target-specific to mosquitoes which contains a bacteria called *Bacillus sphaericus*.
5. Basin was inspected by two personnel on 26 August 2009 and was found positive for larvae and pupae. Larval samples were identified as *Ae. vexans* in the laboratory. Basin was treated with 30 ounces of Golden Bear® oil.
6. Basin was inspected by one personnel on 31 August 2009 stemming a Service Request by a resident in the area. Although no larvae or pupae were found in the basin, a large number of biting adults were detected in the area.



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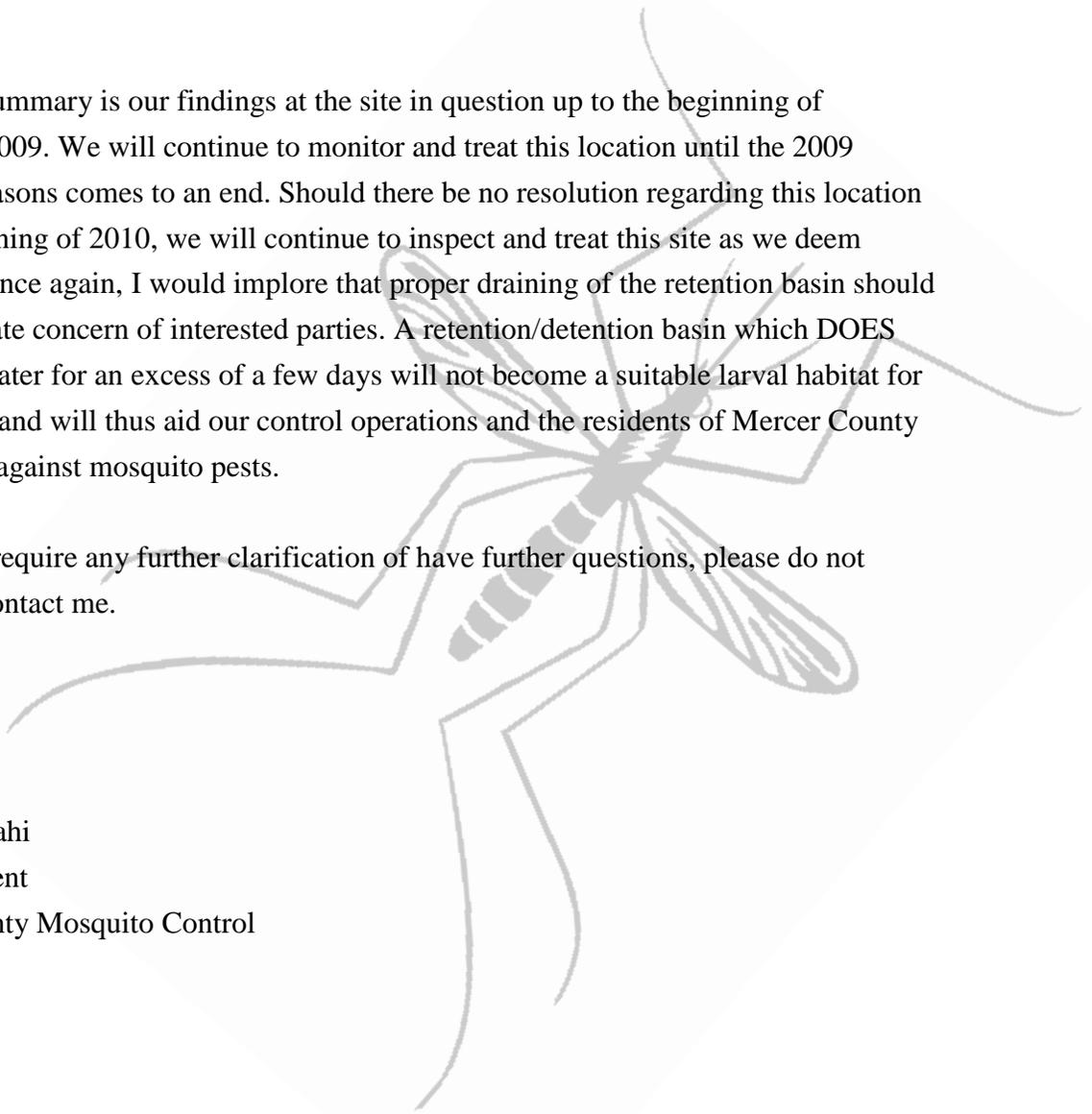
7. Basin was inspected by two personnel on 2 September 2009 and was found positive for both larvae and pupae. Samples collected were identified as *Ae. vexans* in the laboratory. Basin was treated with 64 ounces of Golden Bear® oil and 8 Altosid® briquets.

The above summary is our findings at the site in question up to the beginning of September 2009. We will continue to monitor and treat this location until the 2009 mosquito seasons comes to an end. Should there be no resolution regarding this location by the beginning of 2010, we will continue to inspect and treat this site as we deem necessary. Once again, I would implore that proper draining of the retention basin should be the ultimate concern of interested parties. A retention/detention basin which DOES NOT hold water for an excess of a few days will not become a suitable larval habitat for mosquitoes, and will thus aid our control operations and the residents of Mercer County in the battle against mosquito pests.

Should you require any further clarification or have further questions, please do not hesitate to contact me.

Sincerely,

Ary Farajollahi
Superintendent
Mercer County Mosquito Control





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