

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



Department of Agricultural Resources

State Reclamation and Mosquito Control Board

251 Causeway Street, Suite 500, Boston, MA 02114

617-626-1700 fax: 617-626-1850 www.mass.gov/agr



DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR
Secretary

GREGORY C. WATSON
Commissioner

MEMBERS

Lee Corte-Real, **Chairman**
Department of Agricultural
Resources (DAR)

Anne Carroll
Department of Conservation
And Recreation (DCR)

Gary Gonyea
Department of Environmental
Protection (DEP)

DATE: Thursday, July 19, 2012

TIME: 1:00 P.M. to 1:30 P.M.

LOCATION: MA Department of Agricultural Resources
251 Causeway Street, Suite 500, Small Conference Room
Boston, MA 02114

ADMINISTRATION

Mark S. Buffone
Executive Director

Alisha Bouchard
Project Administrator

Please call 617-626-1777 for more information

MOSQUITO CONTROL PROJECTS & DISTRICTS

Public Health Emergency Meeting Agenda

Berkshire County Mosquito
Control Project

A. **Start: Call to Order** by Chairman Corte-Real, and Attendance.

Bristol County Mosquito Control
Project

B. **Aerial Adulticide Spraying For EEEv**

Central Massachusetts
Mosquito Control Project

C. **Other Business: (If any)**

Cape Cod Mosquito
Control Project

D. **Adjournment:** The Board will officially adjourn the meeting.

East Middlesex Mosquito
Control Project

Norfolk County Mosquito
Control Project

Northeast Massachusetts
Mosquito & Wetland
Management District

Plymouth County Mosquito
Control Project

Suffolk County Mosquito Control
Project

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Berkshire County Mosquito
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Control Project

Central Massachusetts
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Cape Cod Mosquito
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East Middlesex Mosquito
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Norfolk County Mosquito
Control Project

Northeast Massachusetts
Mosquito & Wetland
Management District

Plymouth County Mosquito
Control Project

Suffolk County Mosquito
Control Project

Subject: Meeting Minutes

Date: Thursday, July 19, 2012

Place: MA Department of Agricultural Resources,
251 Causeway Street, Suite 500,
Boston, MA 02114

Present:

Board and Administration:

Lee Corte-Real, Department of Agricultural Resources, Chairman
Bruce Hansen, Department of Conservation and Recreation, Member
Steven McCurdy, Department of Environmental Protection, Designee for Gary
Gonyea Member
Mark Buffone, Executive Director
Alisha Bouchard, Projects Administrator

Mosquito Control Project Commissioners: None

Mosquito Control Project Directors/ Superintendents /Assistants:
None

Others:

Jessica Burgess, MDAR legal Counsel

A. Start: Call to Order by Chairman Corte-Real, and Attendance.

Chairman Lee Corte-Real called an emergency meeting to order at 1:05 PM and took attendance. Present were Steven McCurdy, designee for Gary Gonyea representing Commissioner Kenneth L. Kimmel of the Department of Environmental Protection, Bruce Hansen representing Commissioner Edward M. Lambert Jr. of the Department of Conservation and Recreation, and Chairman Lee Corte-Real recognized himself representing Commissioner Gregory C. Watson, of the Department of Agricultural Resources. The Chairman stated that the meeting had a quorum. Chairman Corte-Real proceeded to only order of business being the proposed Aerial Adulticide Spraying to suppress EEEV.

B. Aerial Mosquito Control Operation: The Board discussed and approved the aerial mosquito control operation to combat Eastern Equine Encephalitis virus (EEEV) risk in Southeastern Massachusetts. (Voting Required)

B.1: Background: Chairman Corte-Real stated that the purpose of this meeting is to go on record to support and approve the aerial mosquito control spray operation to combat Eastern Equine Encephalitis virus (EEEV), a serious, life-threatening disease of humans and animals. He asked the Executive Director, M. Buffone to provide a summary of the current situation.

M. Buffone read aloud to the Board the statement below from the Chairman of the Mosquito Advisory Group (MAG) Dr. Richard J. Pollack, Ph. D. The MAG is an independent 5 member group of experts who advise the Board as cited in the Board's Operational Plan

The MAG has carefully examined ecological and epidemiological data from the recent days and weeks and has considered this along with historical data pertinent to EEE risk and intervention options. MAG concludes that current data signify extraordinary risk of EEE transmission throughout large portions of southeastern MA. Furthermore, MAG has advised MDAR and MDPH to pursue aerial adulticide-based interventions as quickly as possible in the affected region. MAG concludes that the benefits to such an application will offer considerable benefit to residents without causing undue risk to people or the environment. Finally, MAG urges MDAR and MDPH to consider a follow-up application of adulticide within 3-4 days to further reduce risk.

M. Buffone explained to the Board that the reason for the advisement of a follow-up spray was to attempt to knock out the force of the EEEV transmission. He cited an analogous example of taking antibiotics; that the doctor usually recommends taking a full course of the antibiotic compared to a smaller dose that can make you feel better. However, the full course ultimately has a better chance of eliminating the malady or preventing it from coming back even stronger. Additionally, he mentioned these are standard CDC recommendations.

M. Buffone stated both he, MAG, and DPH have been monitoring closely the current situation. It was very early but because of the types of mosquitoes (mammal biting species) along with their abundance is causing this major concern. The hot weather and mild winter is driving this situation so early.

The Chairman noted torrential rains in this area and was concerned new emergence of mosquitoes in the same area.

M. Buffone continued by telling the Board there were 3 ways to determine efficacy and that the emergence of new mosquitoes remarked by the Chairman can impact the collections of mosquitoes before and after. M. Buffone outlined the 3 ways that efficacy is determined

The efficacy of an EEEV or WNV intervention can be measured in three ways.

1. One measure documents changes in the abundance of mosquitoes with traps placed prior to and after the intervention.
2. The second measure documents changes in the infection rate of the mosquito population.
3. The third measure documents changes in the age structure of the population (older mosquitoes are more likely to carry disease). Generally some combination of these methods should be used.

The Board has proposed, through its Executive Director a small study, where we have 3 independent scientist associated Tufts, one formally from Harvard and now with BU, and Bentley University who can perform age physiological dissections of the gut of mosquitoes to determine whether the mosquitoes are new or old. This information goes a long way in addition to reduction of abundance to determine the intervention is successful. He noted that if collection devices such as traps collect many mosquitoes, they could be new mosquitoes versus older mosquitoes which are more dangerous as they have had time to become infectious.

M. Buffone requested that the Board to formalize the age grading contract. The Board members felt the formalization can be part of the overall motion.

Bruce Hansen asked when the mosquitoes become infectious. M. Buffone explained that the birds have the virus circulating in their body. The mosquitoes pick up the virus after biting the bird(s). He stated that then there is an extrinsic incubation period (where the virus replicates, and eventually travels to the salivary glands). If an animal or human is bitten by the infectious mosquito, they are referred to as a dead-end host. M. Buffone remarked that the current scenario is extraordinary because there is adult mosquito's already infectious meaning that the EEEV was circulating in the environment for a few weeks already.

The Chairman asked about the possibility of virus still circulating in the environment in 3-4 weeks. M. Buffone stated the objective of the aerial mosquito control spray operation was to immediately reduce the risk of infection carried by mosquitoes to humans. He noted risk does not go to zero. If there are birds that continue to be viremic, there is a possibility that new mosquitoes or those that escaped treatment can become infectious even after the aerial intervention. M. Buffone said that this is why the Mosquito Advisory Group advised that a follow-up spray should be conducted 3-4 days later.

M. Buffone stated that these operations are challenging especially in terms of figuring out the area at risk and trap placements for efficacy. He strongly cautioned the Board that weather can be a limiting factor in these types of operations. He noted even though this is an emergency that there are myriad of factors to contend with such as operational logistics and meteorological variables.

M. Buffone stated he would be on-site to oversee the operation for the Board and MDAR and to make decisions with others on the team. The possibility of follow-up spraying was discussed and agreed that it would depend on further entomological and epidemiological data as generated by DPH and mosquito control project surveillance.

M. Buffone wanted to be sure that the Board was informed of the actual spray on times which occurs around dusk. For the record, he wanted to highlight that even at dusk it is not necessarily dark and that keeping the time period general, it allows for operational flexibility. He noted that the aircraft take off and ferry into position but are not spraying at that point.

M. Buffone remarked that he is working with the contractors to target areas where target species are in peak flight activity first to maximize control of mammal biters.

B.2: Questions and Discussions: Those present discussed the matter thoroughly. After all discussion, the Chairman entertained a motion to support and approved the aerial adulticide intervention.

B.3: Action Taken: Bruce Hanson, moved to adopt the following language cited below, discussed, and read aloud during the meeting by both the Executive Director and Chairman that the Board go on record as approving and supporting an aerial adulticide spraying in intervention to reduce mosquitoes currently infectious or infected with the Eastern Equine Encephalitis virus (EEEV) pursuant to the certification of the Commissioner of the Department of Public Health. The motion was seconded by Steven McCurdy and was voted unanimously 3-0.

Since both the entomological and epidemiological data confirms increasing infection of EEEV in mosquitoes in large areas of SE MA; and

Since the Commissioner of DPH Health certified that the application of pesticides by aerial spraying in areas known to harbor mosquitoes carrying the EEEV is necessary to protect the public over the areas of SE; and

Since other efforts such as intensified ground spraying efforts by the mosquito control programs regionally in the area of risk only encompass about 8% of the area; and

Since the Board's Mosquito Advisory Group (MAG), Chairman Dr. Richard Pollack has advised the Board that the continuing isolations as confirmed by the Department of Public Health of positive EEEV mosquitoes especially human biting species create a situation where waiting is no longer acceptable in order to reduce the risk of human transmission immediately and halt amplification to prevent the threat of human cases, aerial spraying is necessary.

The Board supports and:

Agrees that the certification of public health that application of pesticides by aerial spraying is necessary,

Approves the aerial adult mosquito control spraying to suppress the risk of EEEV to the public,

Approves continued intensified ground spraying effort in both Bristol and Plymouth County where isolation of virus occurs should concurrently be conducted with the aerial spraying intervention and thereafter, if additional positives are confirmed by DPH,

Emphasizes the need for the public to heed all DPH health alerts and take all precautions necessary to prevent mosquito from biting such as using repellants, appropriate clothing, and avoid those periods when mosquitoes are most active,

Authorizes the Chairman to take such actions, on behalf of the Board as deemed necessary, such as signing of contracts to address this fluid situation and any other related issues concerning the aerial spraying.

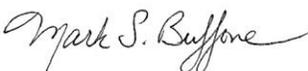
C. Adjournment: The Board will officially adjourn the meeting.

C.1: Background: Chairman Corte-Real entertained a motion to adjourn.

C.2: Questions and Discussions: None

C.3: Action Taken: B. Hanson moved to adjourn the meeting at 1:40 PM and seconded by S. McCurdy and unanimously voted 3-0.

Respectfully submitted,



Mark S. Buffone
Executive Director