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MASSACHUSETTS MOSQUITO CONTROL

ANNUAL OPERATIONS REPORT

Year Report Covers: 2024 Date of Report: 01/31/2025

Project/District Name: **Bristol County Mosquito Control Project**

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City/Town: Attleboro Zip: 02703

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Report prepared by: ***Priscilla Matton***

NPDES permit no. **MAG870009**

If you have a mission statement, please include it here: Bristol County Mosquito Control Project's Mission Statement

In conjunction with the belief that mosquito control is an important public health issue, the Bristol County Mosquito Control Project, under the guidance of the State Reclamation and Mosquito Control Board, strives to serve their membership communities by suppressing both nuisance and disease carrying mosquito populations.

Our goal is to bring mosquito populations to tolerable levels using a variety of scientifically effective methodologies consistent with applicable laws. Surveillance, water management, biological and chemical controls are performed in an environmentally sensitive manner to minimize potential effects on people, wildlife and the environment.

It is acknowledged that Commissioners live or work in the county and that all decisions be made in a fiscally responsible manner. The Project advocates public outreach and education through cooperative efforts with local officials, school departments and the news media.

ORGANIZATION SETUP:

Commissioner names:

Joseph Barile	Christine Fagan
Gregory Dorrance	Dr. Henry Vallaincourt
Joseph Carvalho	_____

Superintendent/Director name: Priscilla Matton
Superintendent/Director contact phone number: 508-823-5253 X3
Asst. Superintendent/Director name:

District/Project website: http://www.mass.gov/orgs/bristol-county-mosquito-control-project
Twitter handle: @BCMCPMosq
Facebook page: http://www.facebook.com/
Other social media accounts:

Staffing levels for the year of this report:
Full time: 11
Part time:
Seasonal: 2
Other: (please describe)

Of the above, how many are:
(Please check off all that apply, and list employee name(s) next to each category)

☒ Administrative Barbara Johnson, Priscilla Matton
☒ Biologist Todd Duval, Priscilla Matton
☒ Educator Priscilla Matton, Todd Duval
☒ Entomologist Todd Duval
☒ Facilities Priscilla Matton, John Moniz, Drew Bushee, John Pereira, Matthew Gavaza, Larry Goss, Anthony Souza, Joshua Nickerson, Aaron Toth, Todd Duval
☒ Information technology Priscilla Matton
☒ Laboratory Todd Duval
☒ Operations Priscilla Matton, John Moniz, Drew Bushee, John Pereira, Matthew Gavaza, Larry Goss, Anthony Souza, Joshua Nickerson, Aaron Toth, Todd Duval
☒ Public relations Priscilla Matton, Todd Duval
☒ Wetland scientist Joshua Nickerson
☒ Other (please describe) Seasonal Mosquito Surveillance Technician- Christopher Beale, Seasonal Office Assistant- Theresa Beale

For the year of this report, the following were maintained (enter number in the column to the left):

3 Modified wetland equipment (list type) Low- ground pressure excavators
2 Larval control equipment (list type) Backpack Sprayers
8 ULV sprayers (list type) 3 Cougars (GPS), 3 London Fog (GPS), 2 Guardian (GPS)
9 Vehicles
Other (please be specific): 1 Dump Truck & Flatbed Trailer, 1 Utility Truck, 2 Mower Attachments for Excavators

Comments: _____

How many cities and towns are in your service area?* 20
Alphabetical list:
Acushnet
Attleboro
Berkley
Dartmouth
Dighton
Easton
Fall River
Fairhaven
Freetown
Mansfield
New Bedford
North Attleborough
Norton
Raynham
Rehoboth

Seekonk
Somerset
Swansea
Taunton
Westport

Were there any changes to your service area this year? No
Cities/towns added:
Cities/towns removed:

***Please attach a map of your service area (or a website link to that map).**

INTEGRATED PEST MANAGEMENT (IPM):

Check off all services that your district/project currently provides to member cities and towns as part of an IPM program (details will be provided in the sections below):

☒ **Adult mosquito control**
☒ **Adult mosquito surveillance**
☒ **Ditch maintenance**
☒ **Education, Outreach & Public education**
☒ **Larval mosquito control**
☒ **Larval mosquito surveillance**
☐ **Open Marsh Water Management**
☒ **Research**
☒ **Source reduction (tire removals)**
☒ **Other (please list): Salt Marsh Runnels**

Comments: _____

LARVAL MOSQUITO CONTROL:

If you have a larval mosquito control program, please fill out the section below, else skip ahead to the next section.

Describe the purpose of this program: The larval suppression program is one of our most effective methods to reduce the number of biting mosquitoes by preventing mosquitoes from maturing into adults. We employ larvidicing techniques to current and historical mosquito breeding sites to protect human health and improve the quality of life of our residents.

What months is this program active? April- September

Describe the types of areas where you use this program: BCMCP targets the following areas: freshwater wetlands, saltmarshes, cedar and red maple swamps, catch basins, other permanent and temporary water bodies, and artifical containers that hold water for extended periods of time.

Do you use:
☒ **Ground application (hand, portable and/or backpack, etc.)**
☒ **Aerial applications**

☐ **Other (please list):**
Comments: _____

List all products that you use for larval mosquito control in the table below (leave blank if not applicable)**:**

Product Name	**EPA #**	**Application Rate(s)**	**Application Method**	**Targeted life stage**	**Habitat Type**	**Total finished product applied**
FourStar CRG	85685-2	7.5- 20 lbs per acre	Hand	Larvae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	4,561 lbs
VectoLex WSP	73049-20	1 per 50 sq. ft.	Hand	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	453 lbs
VectoBac 12AS	73049-38	1 pint per acre	Aerial	Larvae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	327 gallons
VectoLex FG	73049-20	14.8 lbs/acre	Aerial	Larvae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	400 lbs
VectoLex FG	73049-20	10 lbs/acre	Backpack	Larvae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	40 lbs
VectoMax WSP	73049-429	1 per 50 sq. ft.	Hand	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	32.6 lbs
FourStar BTI CRG	85685-4	10 lbs/acre	Hand	Larvae	☐ Catch basins ☐ Containers ☐ Wetland ☒ Other (please list): Tires	14 lbs

List all products that you use for larval mosquito control in the table below (leave blank if not applicable)**:**

Product Name	EPA #	Application Rate(s)	Application Method	Targeted life stage	Habitat Type	Total finished product applied
Altosid P35	89459-95	5 lbs/acre	Aerial	Larvae/pupae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	1730 lbs
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	

What is your trigger for larviciding operations? (check all that apply)
☒ Best professional judgment
☒ Historical records
☒ Larval dip counts – please list trigger for application: 1+ per 5 dips
☐ Other (please describe):
Comments: An aerial larvicide application was conducted over the Hockomock and Bolton Swamps in mid-April 2024. Approximately 2,616 acres were treated to control a variety of spring species and Cs. melanura, an important EEE vector. An application was made to Cq. perturbans specific habitat in mid-April covering 27 acres. An application to 297 acres was made in the Hockomock swamp for extended control of Cs. melanura. These maps are included in the end of the season report referenced in the adult mosquito surveillance section.

Please attach a map of your service area (or a website link to that map). Figure 2 and End of the Season report

ADULT MOSQUITO CONTROL:

If you have an adult mosquito control program, please fill out the section below, else skip ahead to the next section.

Describe the purpose of this program: When larviciding is not a viable option, targeted adulticiding applications are used. BCMCP's program is designed to decrease the number of vector and nuisance mosquitoes. There has been consistent detection of West Nile virus and/or Eastern Equine Encephalitis in our county.

What is the time frame for this program? June- mid- September

Describe the types of areas where you use this program: BCMCP accepts requests for adult mosquito control applications from residents, businesses, town officials and other organizations within our 20 towns. ULV applications normally take place in residential, recreational areas and in response to increased populations, WNV or EEE detections from mosquitoes or positive animal/human cases.

Do you use:
☐ **Aerial applications**
☐ **Portable applications**
☒ **Truck applications**
☐ **Other (please list):**
Comments: _____

For each product used, please list the name, EPA #, and application rate(s):

Product Name	**EPA #**	**Application Rate(s)**	**Application Method**	**Total finished product applied**
Duet	1021-1795-8329	0.62 oz/acres	Truck mounted ULV	538 gallons

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas
Frequency of applications are dependent upon vector control activities, physical characteristics of the area and/or environmental issues. Applications are made in accordance with label directions.

What is your trigger for adulticiding operations? (check all that apply)
☒ Arbovirus data
☒ Best professional judgment
☒ Complaint calls (Describe trigger for application: Upon resident's request and trap data)
☒ Landing rates (Describe trigger for application Ae. albopictus- 2 adults within 5 minutes)
☒ Light trap data (Describe trigger for application See the EIR)
Comments: _____

Please attach maps of your service areas (or a website link to that map). Figure 3

SOURCE REDUCTION (Tire Removals)

If you practice source reduction methods, such as tire removal, please fill out the section below, else skip ahead to the next section.

Please describe your program: 2019 brought the first dedicated tire removal program to BCMCP and continued into 2024. This program addresses source reduction via removal and disposal as BCMCP work crews find tires, containers and other articles that would serve as larval habitat. This tire program is limited to tires that BCMCP crews find in the course of their water management work and is not open to the public. We often inspect properties and offer advice to landowners and businesses on how to reduce and remove standing water or any other materials that would be conducive to mosquito habitat.

What time frame during the year is this method employed? Year round

Comments: 18 tires removed by BCMCP staff in 2024

WATER MANAGEMENT/DITCH MAINTENANCE

If you have a water management or ditch maintenance program, please fill out the section below, else skip ahead to the next section.

Please check all that apply:
☒ Inland/freshwater
☒ Saltmarsh
Please describe your program: Our goal is to remove debris, sediment and vegetation from drainage ditches throughout our service area to improve water flow, thus eliminating standing water conducive to larval development. We also maintain previously excavated ditches. This

includes both hand and mechanized work. We use erosion control materials and re-seed to stabilize soils disturbed by our operations. This is an important part of our IPM strategy and data and records are collected in accordance with the BMP.

For **inland/freshwater water management**, check off all that apply.

Maintenance Type	**Estimate of cumulative length of culverts, ditches, swales, etc. maintained (ft)**
☒ Culvert cleaning	
☒ Hand cleaning	90,504 ft
☒ Mechanized cleaning	8,325 ft
☒ Stream flow improvement	
☒ Other (please list): Reclaim	98,829 ft

Comments: Culvert cleaning and stream flow improvement cumulative length are included in mechanized and hand cleaning. Cumulative mechanized brush mowing 20.76 acres (22,737 linear feet).

For **saltmarsh ditch maintenance**, check off all that apply:

Maintenance Type	**Estimate of cumulative length of ditches maintained (ft)**
☒ Hand cleaning	5,360 ft
☒ Mechanized cleaning	4,140 ft
☒ Other (please list): Reclaim	9,500 ft

Comments: _____

What time frame during the year is this method employed? Year round

Comments: Completed 24 mechanized water management projects.

Please attach a map of ditch maintenance areas (or a website link to that map). Ditch maintenance occurred throughout our County in all 20 towns/cities. Individual maps of specific areas are available upon request but are too large to attach.

OPEN MARSH WATER MANAGEMENT

If you have an Open Marsh Water Management program, please fill out the section below, else skip ahead to the next section.

Describe the purpose of this program:

What months is this program active?

Please give an estimate of total square feet or acreage:

Comments: _____

Please attach a map of OMWM areas (or a website link to that map).

MONITORING (Measures of Efficacy)

Describe monitoring efforts for each of the following:

Aerial Larvicide – wetlands: Standard protocol is to take pre- and post- dip larval counts from predetermined locations within the treatment wetlands. Non-treated locations would be used to correct for normal variation in populations.

Ground ULV Adulticide: To monitor efficacy, species targeted mosquito traps are placed in a location where ground ULV applications will take place. Pre- and post- trapping is necessary as is comparing to a non-treatment site to determine normal fluctuations due to other factors such as temperature and wind speed.

Larvicide – catch basins: Random samples of water are taken from catch basins in each town to assess larval populations.

Larvicide-hand/small area BCMCP conducts pre- and post- application dipping at numerous locations throughout the treatment site using a standard 350ml dipper.

Open Marsh Water Management:

Source Reduction: We return to mechanized water management sites regularly to check for blockages or debris that may obstruct the flow of water and to meet any additional recommendations in the BMP. In areas where containers or tires were removed, some sites are re-checked during the season.

Other (please list): Pesticide efficacy testing was completed for common species using CDC bottle bioassay protocols in August 2024 by CDC's Center of Excellence. Due to the presence of the invasive mosquito Ae. albopictus in our county, an aggressive adult monitoring effort using multiple trap types has been implemented in the affected area. Ae. albopictus samples were sent to CDC's Center of Excellence for testing of resistance enzymes.

Provide or list standard steps, criterion, or protocols regarding the documentation of efficacy (pre and post data), and resistance testing (if any):
Pre and post collection of data is analyzed for all types of applications. More information is available in the EIR. Efficacy testing for ULV pesticides is performed using CDC Bottle Bioassay methods and results are reported internally and to CDC.

Check the boxes below, indicating if your program has performed any of the following:

Research Project	Details
Bottle assays	Bottle assays were conducted using CDC protocols.
Efficacy testing	BCMCP along with neighboring MCPs performed a large scale cage trial for insecticide resistance testing several mosquito species and several pesticide products. Insecticide resistance was not detected amongst wild-type mosquito species for any product tested.
Other: Ae. albopictus	Pre- and post treatment larval and adult surveillance

Other: Aerial larvicide	Pre- and post treatment larval surveillance

ADULT MOSQUITO SURVEILLANCE

If you have an adult mosquito surveillance program, please fill out the section below, else skip ahead to the next section.

Describe the purpose of this program: Surveillance is the cornerstone of IPM and an important part of the services we offer to member municipalities. The purpose of surveillance is to monitor for human health threats from mosquito-borne arboviruses, as well as to determine mosquito populations and diversity for appropriate control methods.

What months is this program active? April- early November

Check off all trap types used this past season by your program:

Trap Type	**Canopy?** (check box for yes)	**Number of traps** (leave blank if zero)
☐ ABC light trap	☐	
☐ ABC light trap w/CO_2	☐	
☒ CDC light trap	☐	variable
☒ CDC light trap w/CO_2	☐	14 per week
☒ Gravid trap		64 per week
☒ Landing rate test		Early season, as needed
☐ NJ light trap	☐	
☐ NJ light trap w/CO_2	☐	
☒ Ovitrap		48 per week
☒ Resting box		30 per week
☒ Other (please describe): BG Sentinel with BG lure		5 per week
☐ Other (please describe):		
☐ Other (please describe):		

Do you maintain long-term trap sites in any of your areas? Yes
If yes, how many:
The majority of our traps are set in each town weekly. Supplemental trapping is rare.

Please check off the species **of concern** in your service area:

- ☒ *Ae. albopictus*
- ☐ *Ae. cinereus*
- ☒ *Ae. vexans*
- ☐ *An. punctipennis*
- ☐ *An. quadrimaculatus*
- ☒ *Cq. perturbans*
- ☒ *Cx. pipiens*
- ☒ *Cx. restuans*
- ☒ *Cx. salinarius*
- ☒ *Cs. melanura*
- ☐ *Cs. morsitans*
- ☐ *Oc. abserratus*
- ☒ *Oc. canadensis*
- ☐ *Oc. cantator*
- ☒ *Oc. j. japonicus*
- ☐ *Oc. sollicitans*

☐ *Oc. taeniorhynchus*
☐ *Oc. triseriatus*
☐ *Oc. trivittatus*
☐ Others (please list):

☐ *Ps. ferox*
☐ *Ur. sapphirina*

Do you participate in the MDPH Arboviral Surveillance program? Yes
How many pools do you submit weekly on average? 27.9

Total number of adult mosquito pools submitted to DPH this past season: 447
Number of adult mosquito pools collected but not submitted to DPH ("Unsubmitted"): 1765

Total number of adult mosquitoes submitted to DPH this past season: 12,216
Number of adult mosquitoes collected this season but not submitted to DPH: 40,143

Number of ovitrap collections this season, if any: 122
Any other trap collections of note (please describe): Supplemental trapping for Plymouth aerial applications, August 2024

Number of traps in your service area **placed by MDPH**: 5
Were these long-term trap sites or supplemental trapping sites? long-term

Which arboviruses were found in your area during this past mosquito season? Enter the number of positive pools and/or cases below:

Arbovirus	**Positive Mosquito Pools**	**Equine Cases**	**Human Cases**
☒ Eastern Equine Encephalitis (EEE)	6	0	0
☒ West Nile Virus (WNV)	32	0	1
☐ Other (please list):			

Comments: _____

For each arbovirus listed below, please list the risk levels in your project area at both the start and end of the season (if more than one, please list all):

Arbovirus	**Start of Season**	**End of Season**
EEE	Low	9 towns at moderate risk
WNV	Low	3 towns at high risk, 17 at moderate

Comments: Moderate or High WNV levels in all Bristol towns at end of season. Additional details on mosquito surveillance and activities provided in the end of the season report attached.

EDUCATION, OUTREACH & PUBLIC RELATIONS

If you have an education/outreach program, please fill out the section below, else skip ahead to the next section.

Describe the purpose of this program: Education is an important component of the Project's objectives to reduce arbovirus risk in the County. Speaking with the public allows us the opportunity to address any questions and misunderstandings about the program and the pesticides we use. We educate our residents on ways they can protect themselves from mosquito bites and reduce their risk of illness. We also educate our residents on simple mosquito source reduction techniques for their own properties.

What time frame during the year is this method employed? Year round

Check off all education/outreach methods that were performed by your program this year:
☒ Development/distribution of brochures, handouts, etc.
☒ Door-to-door canvassing (door hangers, speaking to property owners, etc.)
☒ Facebook page, Twitter, or other social media
☐ Mailings (Describe target audience(s):)
☒ Media outreach (interviews for print or online media sources, press releases, etc.)
☒ Presentations at meetings
☒ School-based programs, science fairs, etc.
☒ Tabling at events (local events, annual meetings, etc.)
☒ Website
☒ Other (please describe): Radio interviews and filmed PSA for local communities on mosquito control and prevention. Met with new Board of Health agents in our County at our Project to explain our services.

Estimate the audience reached this year using the education/outreach methods above: 450+ in person, television audience unknown
Comments:

List your program's top 3 education/outreach activities for this past year:
1. New Bedford's Jim Marshall show
2. Buttonwood Zoo Party for the Planet
3. Taunton Board of Health

Were you involved in any collaborations with the following partners this year? Provide details below, including a list of technical reports, white/grey papers, journal publications, trade magazine articles, etc:
☒ Academia Priscilla is a member of the Bristol County Agricutural High School's Natural Resource Management Advisory Board. Participated in a mock job fair at Bristol County Agricutural High School about furture jobs available and qualifications. Ongoing projects with NEWVEC and NEVBD, the two CDC Centers of Excellence in our area. Priscilla presented at the Northeast Regional Center for Excellence in Vector Borne Diseases (NEVBD) Boot Camp on "Vector Control for Mosquitoes".
☒ Another mosquito control district/project Continuation of Cs. melanura surveillance and control in conjuction with Plymouth Co. MCP. Todd helped teach a mosquito ID workshop as part of the annual NMCA Mosquito Mayhem event in May.
☒ Another state agency (DCR, DPH, etc.) Steady cooperation with DPH and MDAR about seasonal activity. Coordination with MassDOT on water management projects which incorporate state road drainage ditches. Working with OVM on fleet management. Work with DCR on water management and pesticide applications.
☒ Environmental groups Joshua is a member of the Buzzards Bay Coalition (BBC) Restoration Advisory Committee. BCMCP continues to partner with BBC, Woodwell Climate Research Center, Save the Bay (STB), Buzzards Bay National Estuary Program (BBNEP), Dartmouth Natural Resources Trust (DNRT), the Town of Fairhaven, and the U.S. Geological Survey (USGS) during

the monitoring phase of the SNEP Watershed Grant Salt Marsh Resilience Project at Little Bay in Fairhaven and Oceanview Farm in Dartmouth. BCMCP partnered with Mass Audubon, Save the Bay, DNRT, and U.S. Fish and Wildlife Service (FWS) on a SNEP Watershed Grant Salt Marsh Resilience Project at Allen's Pond, implemented in 2022 and now in the montioring phase.

☒ Industry American Mosquito Control Association (AMCA) is dedicated to providing leadership, information and education leading to the enhancement of public health and quality of life through the suppression of mosquitoes and is the lead organization for mosquito control in the US. Priscilla continued as AMCA's North Atlantic regional director representing the 9 states in the region. Priscilla presented at the AMCA, New Jersey MCA, Pennsylvania Vector Control Association and Northeastern MCA conferences.

List any training/education your staff received this year: "Right to Know" and tick education was provided. Multiple state required training through MyPath/Mass Achieves and HR. Pesticide certification credits through the Northeastern Mosquito Control Association's annual scientific conference and Field Day. MDAR "Spotted Lantern Fly Training". Frontier Precision training for FieldSeeker larviciding and adulticiding modules. Clarke training on general mosquito biology and pesticide applications. Chainsaw training for field technicians. EPA's and NAISMA training on understaning Bulletin's Live! Two and ESA pilot program and mitigation.

Please list the certifications and degrees held by your staff:
Priscilla Matton: B.S. Zoology, M.S. Entomology, MA Pesticide Applicator Certification (47)
Drew Bushee: MA Pesticide Certification (47), CDL license, Hoisting license
John Moniz: Licensed MA Pesticide Applicator, CDL license, Hoisting license
Todd Duval: B.A. Aquatic Biology, M.A. Biology, MA Pesticide Applicator Certification (47), OSHA 10 hour certification, CDC/AMCA Certified Trainer for Integrated Mosquito Management
Joshua Nickerson: Licensed MA Pesticide Applicator, CDL license, Hoisting license
Matthew Gavaza: Licensed MA Pesticide Certification (47),
Anthony Souza: Licensed MA Pesticide Certification (47)
Larry Goss: Licensed MA Pesticide Certification (47)
John Pereira: Licensed MA Pesticide Applicator
Aaron Toth: Licensed MA Pesticide Certification (41)

Comments: _____

INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):
☒ Aerial Photography
☒ Databases
☐ Dataloggers (monitoring for temperature, etc.)
☒ GIS mapping (Describe: BCMCP maps water management projects, trap locations, larval and adulticide locations. ArcMap, ArcGIS Online, and QGIS have all been used for map creation and data sharing.)
☒ GPS equipment

☒ Smartphones
☒ Tablets/Toughbooks
☒ Other (please describe): Web-based service request system and automatic service request closing application from truck's GPS data.

Describe any changes/enhancements in IT from the previous year: Two new desktop computers. Larviciding module on Frontier Precision's FieldSeeker was used for recording pesticide applications and site visits.

Describe any difficulties your program had with IT software/equipment this year: Lack of in-house IT expertise

Comments: _____

REVENUES & EXPENDITURES

Please enter your approved budgets for the current, previous, and future fiscal years.

	Date of Fiscal Year	Approved Budget	Notes
Previous	FY 23	$1,680,932.00	level funded
Current	FY 24	$1,722,955.00	2.5 % increase
Future	FY 25	$1,766,030.00	2.5% increase

List each member municipality, along with the corresponding (cherry sheet) funding assessment dollar amount, for the current fiscal year (or provide a web link to this information):
Please see attached FY 25 Cherry Sheet Assessment

Comments: _____

SERVICE REQUESTS

How many service requests did you receive this season? 8,168
How many were for larviciding? 141
How many were for adulticiding? 8,027

Was this an increase or decrease over last season? Increase

Comments: In the past 5 years, Bristol has received 12,857 calls for service in 2020, 8,416 calls in 2021, 7,334 calls in 2022, and 5,841 in 2023. We have looked into weather patterns and mosquito abundance as drivers of fluctuating request numbers, but there does not seem to be any relationship. There does appear to be a realtionship between media coverage of EEE risk and call numbers.

EXCLUSIONS

How many exclusion requests did you receive this season? 163

Was this an increase or decrease over last season? Increase

Do you have large areas of pesticide exclusion, including priority habitat? No

SPECIAL PROJECTS

Did your program perform any of the following special projects? Check all that apply.

- ☒ Inspectional services (inspections at sewage treatment facilities, review of subdivision plans, etc.)

  Describe: BCMCP continued inspections and work on a source reduction plan with 2 separate tire facilities and an abandoned lot located in New Bedford where the invasive Ae. albopictus has been collected. The plan includes reducing the amount of time tires remain before being processed, cleaning up the work site and pesticide interventions. Worked in residential yards in response to request. This is a long term plan to reduce the spread and abundance of Ae. albopictus in the area. Also responded to unique detections as they occurred. As a member of the BBC Restoration Advisory Committee, Joshua provided review and comment on various proposed restoration projects.

- ☒ Work with DPW departments or other local or state officials to address stormwater systems, clogged culverts, or other areas identified as man-made mosquito problem areas

  Describe: Routinely work with and respond to requests from member Cities, Towns, and local government agencies such as; local DPWs, Health Boards, and Conservation Commissions. At the State level we have worked with and responded to requests from Mass DOT, DCR, and DER. Coordinate with these agencies to provide dump trucks to remove spoil and debris from work sites and clear culverts using specialized equipment. Some provide material in areas we are working in. Coordinated with the New Bedford and Mansfield Airport on water management projects.

- ☒ Work with groups as described above on long term solutions?

  Describe: Working with local airports on long term ditch maintenance and vegetation plans. Work with the City and the Fall River Industrial Park to address their extensive drainage ditch system. Work with partners and landowners (DNRT, FALPT, BBC, Save the Bay, Mass Audubon, etc.) to evaluate long-term solutions to salt marsh ditch maintenance in a rapidly changing ecosystem.

- ☒ Conduct or participate in any cooperative research or restoration projects?

  Describe: Worked alone and with partners (DNRT, FALPT, BBC, Save the Bay, Mass Audubon, and others) to plan and/or execute salt marsh restoration/ditch maintenance projects and salt marsh resilience research projects.

- ☒ Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?

  Describe: AMCA and NMCA annual meeting meetings. Cooperative research with MCPs, DPH, MDAR and NEVBD on solutions to control Cs. melanura and Cq. perturbans. Attended BBC Restoration Advisory Committee meetings. Attended project team meetings for the SNEP Salt Marsh Resilience Projects. Attended site meetings with MassDOT, member towns and cities, and salt marsh project partners. Partcipated in MA DPH's ongoing surveillance meetings. Worked with MA DER on restoration of retired cranberry bogs. Priscilla participated in a workshop with CDC regarding a possible accreditation program for local mosquito control programs.

- ☒ Work on any biological control projects, such as enhancement of habitat for native predators, release of predatory fish or invertebrates, etc.?

  Describe: Conducted water management activities, including the opening of beach crossings and the clearing of salt marsh ditches and runnels in many coastal towns to allow fish access.

CHILDREN AND FAMILIES PROTECTION ACT (CFPA)

Is your program impacted by the CFPA? Yes

If yes, please explain: Some local schools and day cares are out of compliance regarding our current mosquito control products, despite emails to administrators. The large number of schools and daycares create no spray zones that are marked on applicator's maps.

If you have data on compliance rates with the CFPA within your program area, please list here: MDAR's complaince rates for IPM development and submissions is approximately 98% and 94% for schools and daycares respectively. This compliance rate does not represent appropriate mosquito control products are listed.

Describe any difficulties you have had with the implementation of your program due to the CFPA, please elaborate here: When schools are not up to date on all the required information and notification policy, providing services to them in a timely manner, especially when virus is detected can be difficult and time consuming.

Comments:

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT PROGRAM

Did your program report any adverse incidents during this reporting period? No

If yes, please list any corrective actions here: _____

GENERAL COMMENTS

Please add any comments here for topics not covered elsewhere in this report: _____

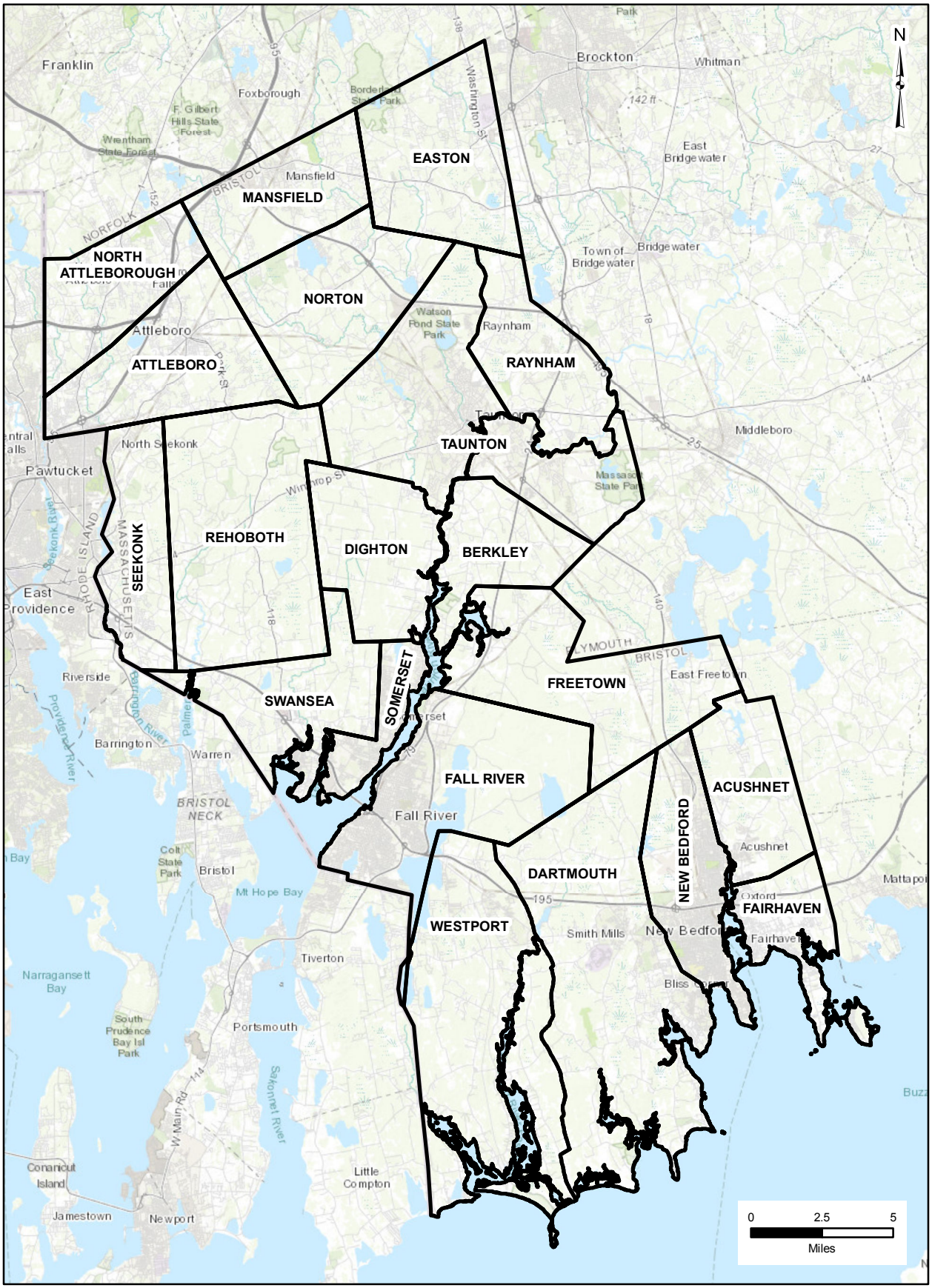
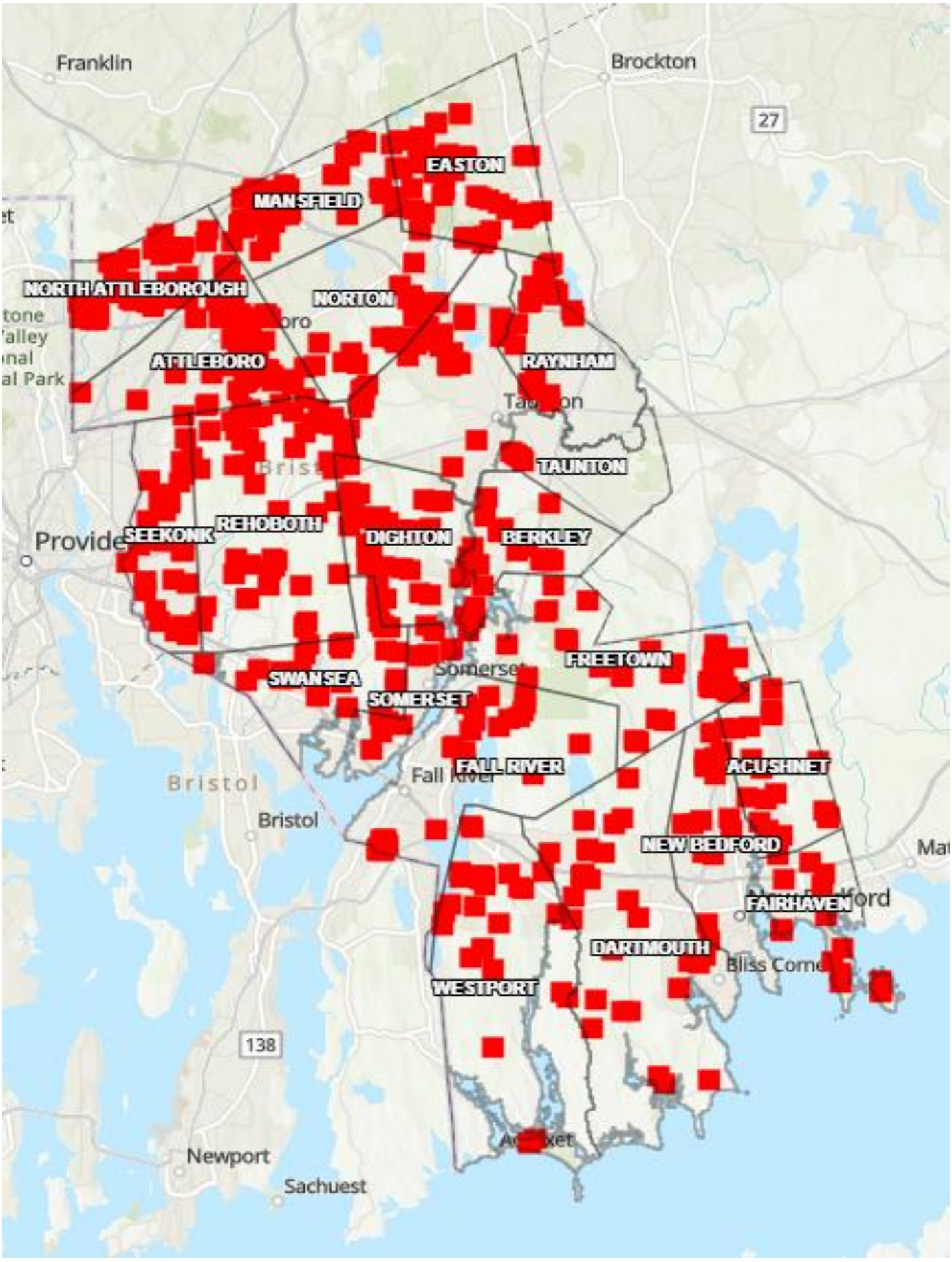
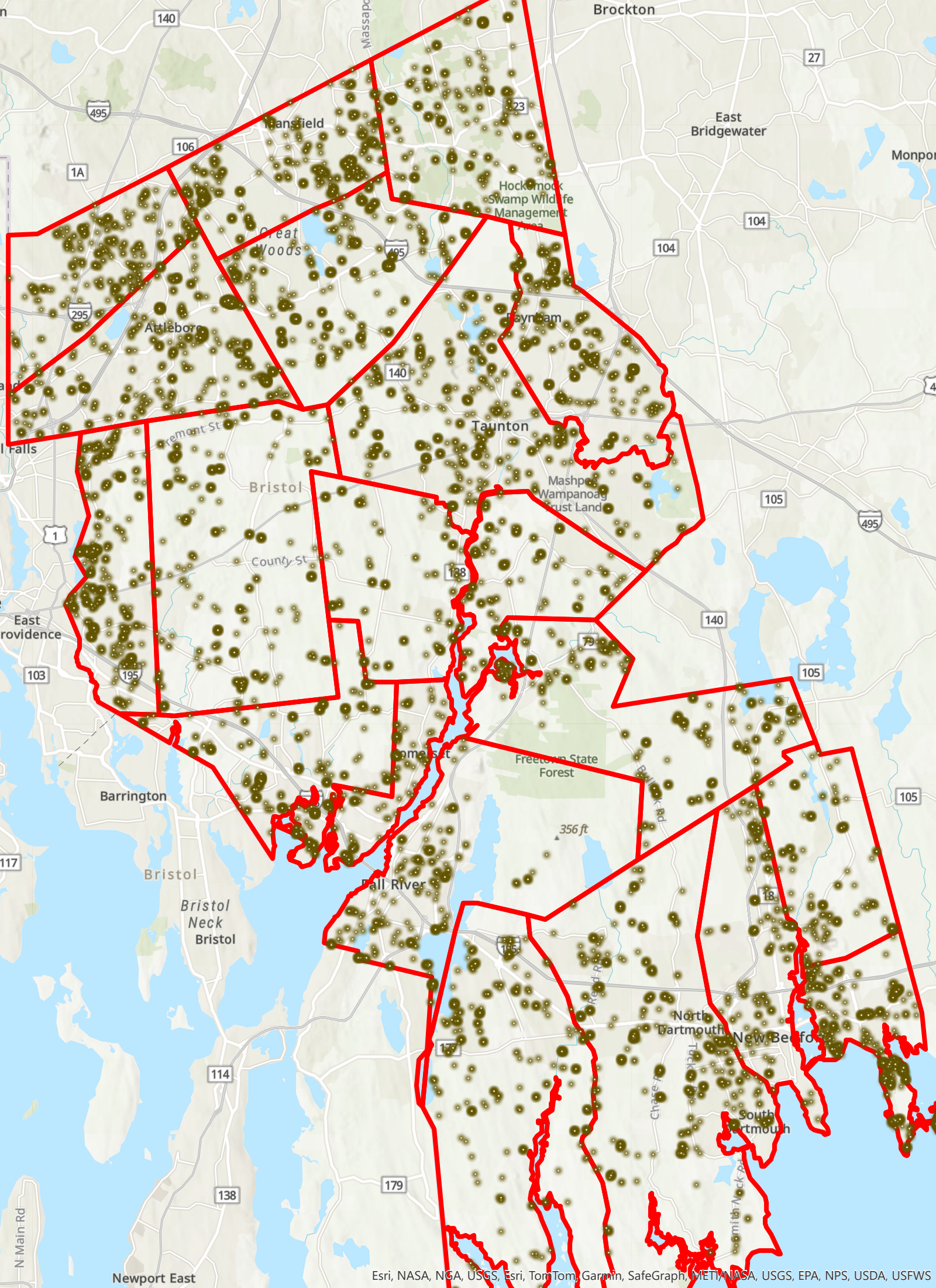


Figure 1. Bristol County



Larvicide sites- 2024


Brockton
Mansfield
East Bridgewater
Hockomock Swamp Wildlife Management Area
Great Woods
Attleboro
Taunton
Bristol
Mashpee Wampanoag Trust Land
Freetown State Forest
Barrington
Bristol
Fall River
Bristol Neck
North Dartmouth
New Bedford
South Dartmouth
Newport East
356 ft
Esri, NASA, NGA, USGS, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

THE COMMONWEALTH OF MASSACHUSETTS STATE
RECLAMATION AND MOSQUITO CONTROL BOARD

BRISTOL COUNTY MOSQUITO CONTROL PROJECT

38R FOREST STREET, ATTLEBORO, MA 02703 TEL: (508)823-5253 FAX: (508)828-1868

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Entomologist
Todd B Duval, MA

Thursday, January 02, 2025

Bristol County Mosquito Control Project (BCMCP)

2024 Entomology Season Report

Season Summary

The winter of 2023-2024 was an El Niño year in Bristol, with above average precipitation and above average temperature. Bristol saw above average precipitation through May and high numbers of larvae recorded. Fixed wing larvicide applications occurred in April in the Hockomock and Bolton Swamps and our fourth year of spring helicopter treatments in Easton went on as scheduled. Reductions in larval populations were recorded. The season started with above average mosquito activity and high populations of *Coquillettidia perturbans* and *Culiseta melanura* were observed. El Niño declined by July, and the cycle of high precipitation disappeared. This helped reduce the mosquito population by August and we finished the year about 9% lower than normal. There were 32 West Nile virus (WNv) and six Eastern equine encephalitis (EEEv) detections. There was one human case of WNv, however no human or animal EEEv illnesses were reported. First frost came three weeks earlier than usual, surveillance ended on October 12. Winter 2023-24 could be a return to La Niña conditions, which could prove to be cold and dry. Low precipitation in Fall 2024 suggests

that we may see less EEEv activity in 2025. This report is based on data collected from CO_2-baited CDC traps, resting boxes, gravid traps, ovitraps and BG Sentinel™ Traps. Weather data from NOAA.

Table 1. Summary of mosquito sampling, collections and positive arbovirus samples for 2024 season compared to 5-year average.

		2020	2021	2022	2023	2024	5-year average	5-year change	5-year trend
Samples Tested	Bristol MCP	461	499	337	497	447	448	-0.3%	
	MA DPH	188	270	115	410	338	264	27.9%	
	Total	649	769	452	907	785	712	10.2%	
Mosquitoes tested	Bristol MCP	13,884	15,865	8,560	14,763	12,216	13,058	-6.4%	
	MA DPH	6,297	9,474	3,636	16,401	12,030	9,568	25.7%	
	Total	20,181	25,339	12,196	31,164	24,246	22,625	7.2%	
Mosquitoes not tested	Bristol MCP	20,992	58,056	12,498	37,390	40,143	33,816	18.7%	
	MA DPH	11,205	23,640	6,335	14,477	11,319	13,395	-15.5%	
	Total	32,197	81,696	18,833	51,867	51,462	47,211	9.0%	
Total population	Bristol MCP	34,876	73,921	21,058	52,153	52,359	46,873	11.7%	
	MA DPH	17,502	33,114	9,971	30,878	23,349	22,963	1.7%	
	Total	52,378	#####	31,029	83,031	75,708	69,836	8.4%	
Positive samples	West Nile Virus	12	16	6	22	32	18	81.8%	
	Eastern Equine	0	0	0	6	6	2	150.0%	
Trap events	Bristol MCP	597	615	651	666	645	635	1.6%	
Service requests		12,857	8,416	7,334	5,841	8,027	8,495	-6%	

Mosquito activity/trends for the 2024 Season

Bristol had record precipitation in some areas right through July 2024, which drove an early increase in mosquito populations (Figure 1). Adding to high precipitation in Fall 2023, the conditions for a flourishing *Cs. melanura* and *Cq. perturbans* mosquito population were present. *Cs. melanura* appeared early and in abundance and remained above average throughout the season. 2024 beat the previous record (2019) for the EEEv vector species *Cs. melanura* with populations 1.7x higher than normal (Table 2, Figure 2). Drought in the fall of 2024 will likely mean a lower *Cs. melanura* population in the 2025 season due to low surface water and lack of breeding habitat.

Our primary WNv vector *Cx. pipiens/restuans* were just about 40% lower than average, which continues a trend of decreasing populations. This might indicate success in our catch basin larvicide program. Large mid-season hatches of *Cx. salinarius* were absent in 2024.

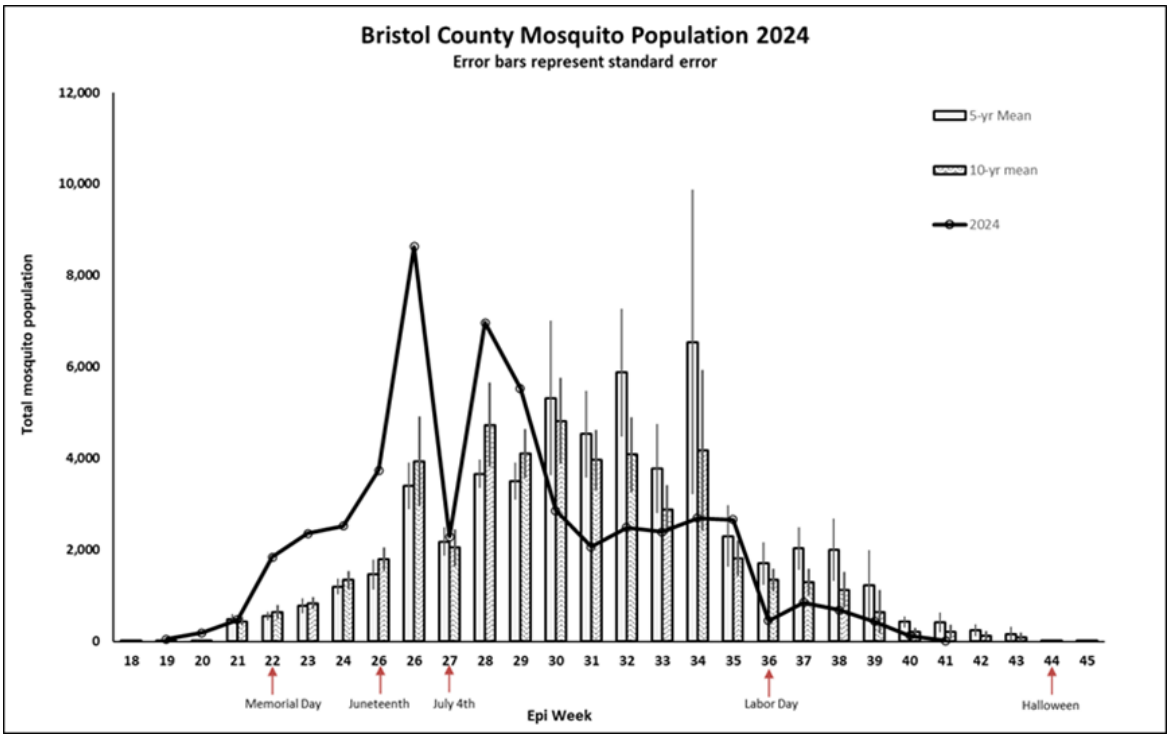

Figure 1. 2024 population totals by epi week compared to 5- and 10-year average. The population dip at week 27 is an artifact of reduced trapping due to the July 4th holiday week.

The cattail mosquito, *Cq. perturbans,* emerged in the highest numbers we've seen since 2013. They followed their typical pattern by appearing in large numbers around July 4th and dwindling for the rest of the year. We have been seeing better control of this species at our Foundry St site with spring aerial larvicide, but I think that this year's mild winter and warm early spring may have pushed larval development past the point of optimal control (Figure 12).

Spring *Aedes* spp. were again quiet this year, even considering the wet spring. *Oc. excrucians* were almost completely absent, which is unusual. The highest populations of *Aedes/Ochlerotatus* were *Oc. canadensis* and *Ae. vexans.* Good news for us, *Ae. albopictus* have been decreasing since 2021 (see **Asian tiger mosquito (ATM) surveillance and treatment** section).

Table 2. Total number of important vector mosquitoes captured by BCMCP in Bristol County, MA 2019 to 2024.

Species	Total population	Percent of total	Change from previous year	Change from 5 year average	Change from 10yr average
Total - all species	52539	~	0	0	up 12%
Culiseta melanura	14340	27%	+1.38	+2.48	+1.7
Culex pipiens/restuans	3937	7%	-0.4	-0.4	-0.6
Coquellettidia perturbans	20000	38%	+3.25	+1.6	+1.6
Culex salinarius	6374	12%	-0.4	-0.48	-0.2
Aedes albopictus	309	1%	-0.25	-0.58	-0.45
Aedes spp.	3883	7%	-0.54	-0.6	-0.6
All others	3696	7%	-0.14	+2.8	+2.1

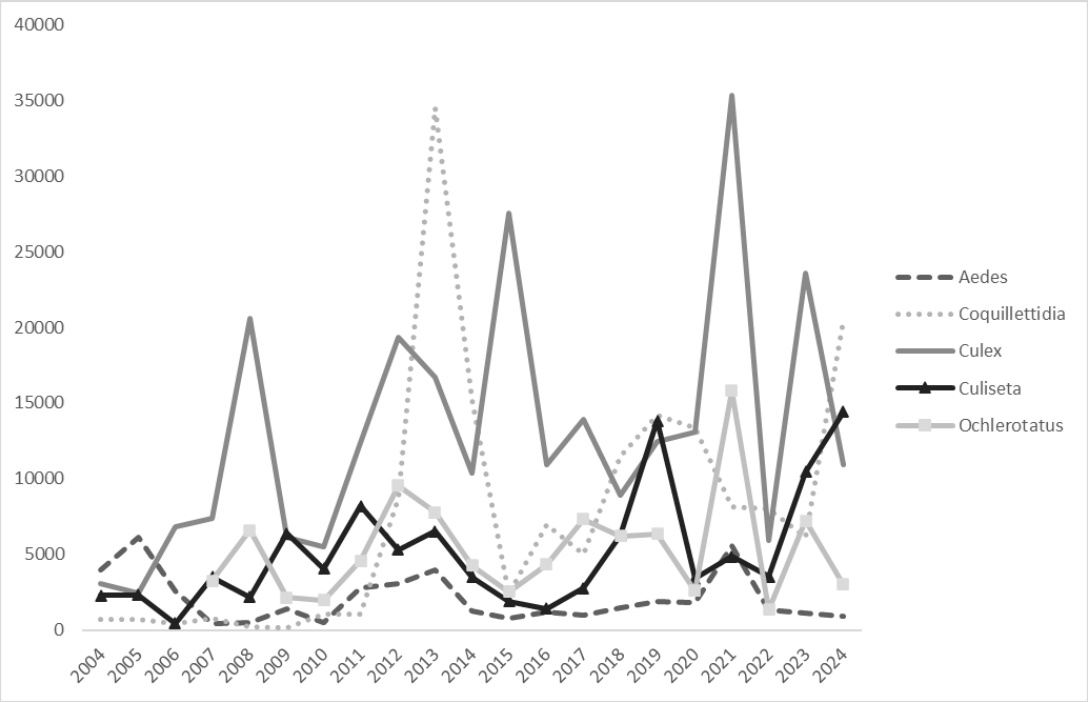

Figure 2. Twenty years of abundance by genus in Bristol County, 2004 to2024

Annual weather

Starting with another unusually mild winter with just above precipitation, spring came a little early and crews were able to start larviciding a week or so early. Although the spring season had unusually high precipitation, there were no weather impacts on our aerial applications. Bristol County finished the year with an average of 56.05 inches of precipitation, 8+ inches above the 10-year average (Table 3). Figure 3 shows the typical precipitation pattern for the county this year. Most of this year's rain came before August, then the county slipped into drought conditions that didn't resolve until December. Overall precipitation was ~3% higher than 2023.

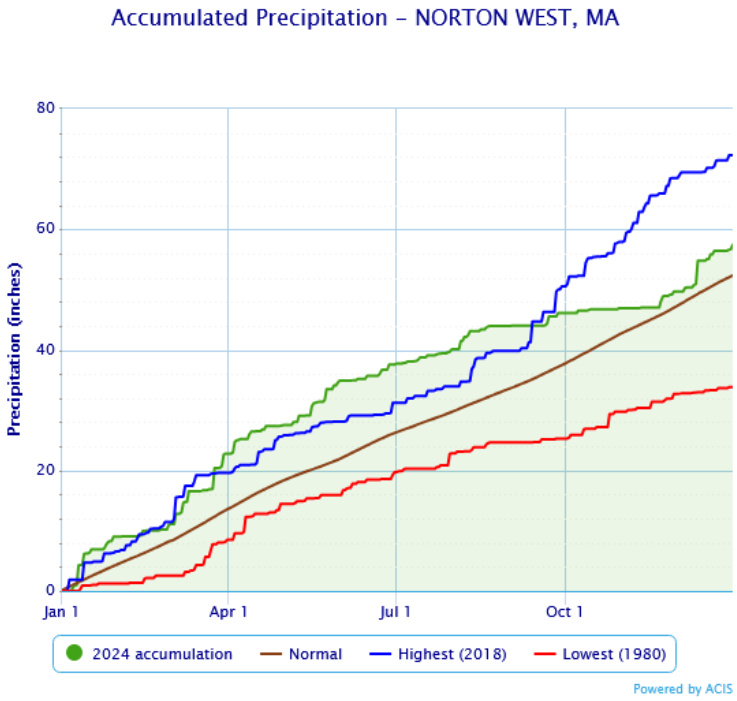

Figure 3. NOAA Annual Precipitation graph for Norton ASOS. Retrieved 1/2/25

Our average temperature was 1.7°F above the 10 -year norm, with most of the above average heat distributed throughout the year. First frost came a few weeks earlier and the surveillance season wrapped up by the second week of October. Last winter was the first year of an El Niño cycle, which was unusually persistent. This started to trend toward a weak La Niña system by June and we're still sort of in the middle. Some of the effects of La Niña phases in the Northeast are average temperatures and sporadically high precipitation. The drought in Fall 2024 was severe enough that I

would not expect 2025 to be a very active year for *Cs. melanura*, which should mean a lower risk of EEEv.

Table 3. Bristol County area average temperature, precipitation totals in inches and deviation from normal as of 1/2/2025 (NOAA 2025).

	New Bedford	*Providence*	*Taunton*	*Area average*
Precipitation total (in)	52.87	62.25	53.04	56.05
Deviation from normal	14.60%	25.80%	11.90%	17.43%
Change in inches	+6.72	+12.76	+5.66	+8.38
Change from previous year	13.30%	8.00%	-11.90%	3.13%
Temperature average (°F)	53.1	53.1	53.5	53.23
Deviation from normal	3.90%	1.30%	4.70%	3.30%
Change from previous year (°F)	+1.1	+0.2	+3.7	1.67

Arbovirus activity, summer 2024

Based on mosquito populations, virus presence and precipitation patterns in 2023, we went into 2024 prepared for an outbreak of EEEv. Fortunately, the mid-summer drought drastically reduced the risk of transmission by the typical vector species. We had six detections of EEEv in Bristol County this year, all in *Cs. melanura.* No human or animal cases were reported. At the end of the season, 9 cities or towns in Bristol County were reported by MA DPH to be at Moderate risk for EEEv (Figure 4).

Overall, the WNV detected in Bristol County was about 81% higher than the 5-year average (Table 1), with one human case reported in the county. WNV activity occurred throughout Bristol County (Table 3). All WNv infected mosquitoes were *Cx. pipiens/restuans*, *Cq. perturbans* or *Cs. melanura*. At the end of the 2024 surveillance season, three cities were at High risk for WNv and the rest of the county was at Moderate risk (Figure 5).

Table 4. Towns and number of West Nile virus (WNV) and Eastern equine encephalitis (EEE) positive samples in 2024.

Town	*WNV positives*	*EEE positives*
Attleboro	**2**	

Dartmouth	**2**	
Dighton	**1**	
Easton	**2**	
Fairhaven	**2**	
Freetown	**2**	**1**
New Bedford	**5**	**1**
North Attleborough	**2**	
Norton	**4**	
Raynham	**1**	**1**
Seekonk	**4**	
Swansea	**1**	
Taunton	**1**	**1**
Westport	**3**	**2**
Total	***32***	***6***

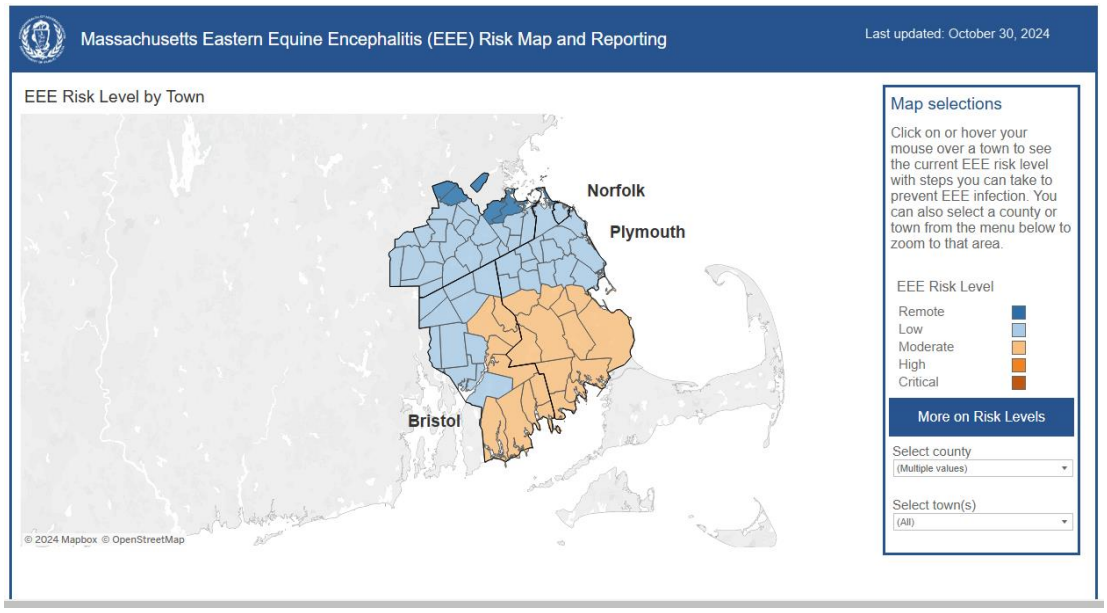

Figure 4. Massachusetts Dept. of Public Health Eastern Equine Encephalitis virus risk map for the end of the 2024 season. https://www.mass.gov/info-details/massachusetts-arbovirus-update. Retrieved 12/17/2024.

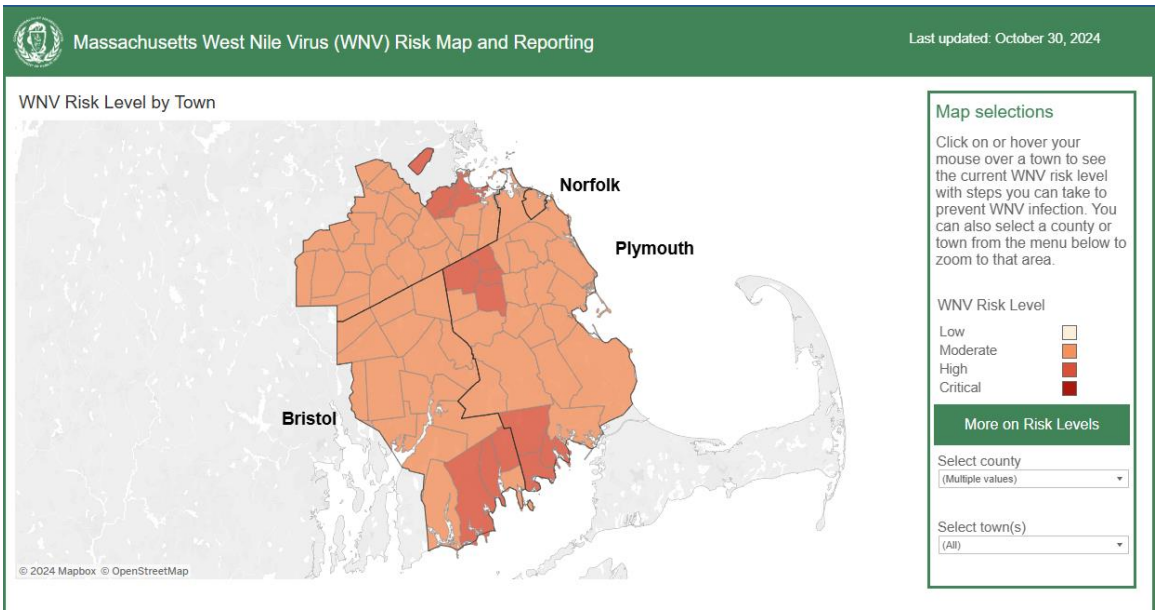

Figure 5. Massachusetts Dept. of Public Health West Nile virus risk map for the end of the 2024 season. https://www.mass.gov/info-details/massachusetts-arbovirus-update . Retrieved 12/17/2024

Aerial larvicides, spring 2024

Similar to previous years, we conducted four aerial larvicide events in spring 2024. The first two were liquid Bti applications over large areas of mixed coniferous and hardwood swamps, the third was a small-scale pelletized *Bacillus sphaericus* (Bs) application over a small cattail swamp to control *Coquillettidia perturbans*, an important vector in Eastern Equine Encephalitis virus (EEEV) outbreaks. The 4th and final spring aerial application was a small-scale methoprene application to 297 acres of white-cedar habitats in the Hockomock to control *Cs. melanura.*

The 2024 aerial Bti larvicide event in the Hockomock area (Figure 7) was completed on 4/24/24. Plymouth County MCP aircraft deposited 228.25 gallons of VectoBac 12AS liquid larvicide, applied at a rate of 1.00 pint per acre over 2306 acres. In the Bolton Swamp (Figure 9), the larvicide

took place also on 4/24/24, covered 310 acres at 1.00 pint per acre using 38.75 gallons of VectoBac 12AS. Total amount of VectoBac 12AS deposited in Bristol was 327 gallons over 2616 acres.

Table 5- Results of aerial larvicide at three areas in Bristol, April 2024.

Swamp complex	*Season*	*Location*	*Abbot's*	*Henderson-Tilton*	*t-Test (P<0.05)*
Hockomock	***Spring***	Dead West 1- Control	26.67%	-1204.13%	0.20
		Dead West 2- Control			0.45
		Hockomock 1			0.11
		Hockomock 2			0.05
		Hockomock 3			0.02
		Hockomock 4			0.04
Bolton	***Spring***	Control- Bolton 1	-247.37%	-373.10%	0.12
		Control- Bolton 2			0.17
		Bolton 3			0.03
		Bolton 4			0.04
		Bolton 5			0.13
		Bolton 6			0.06
Foundry Street/Hockomock	***Spring***	Maple- Control	-25.00%	-100.00%	0.32
		Foundry- Treatment			0.20
		Foundry- Treatment			0.35
		Foundry- Treatment			0.36

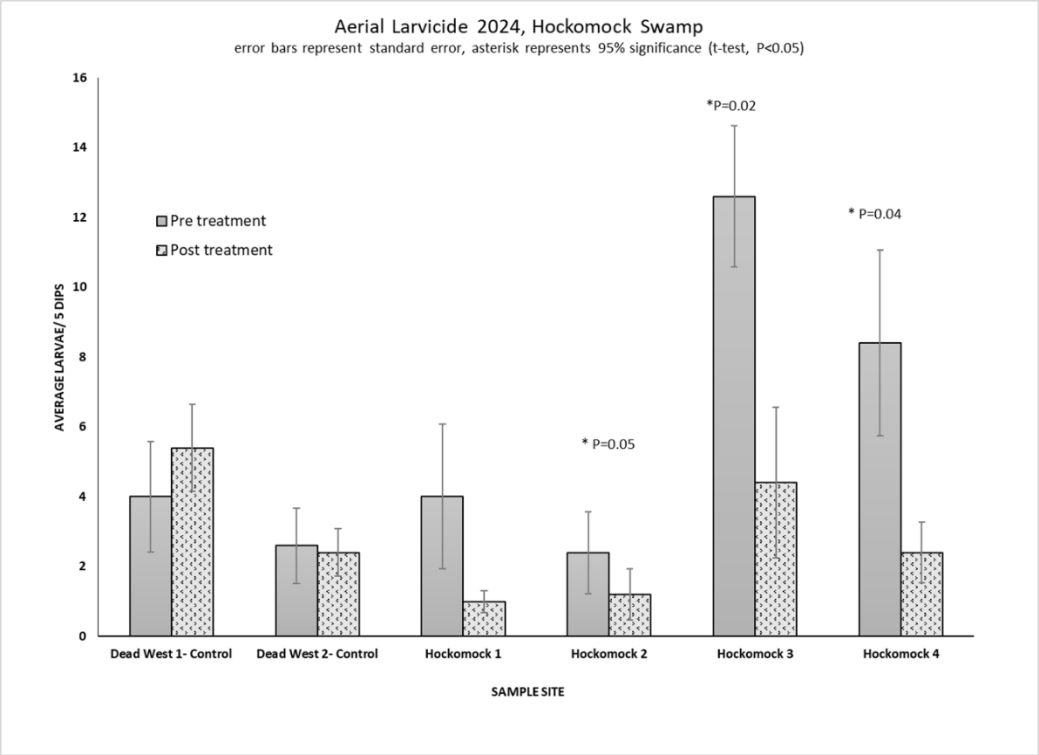

Figure 6. Pre- and post-treatment larval populations in the Hockomock and Dead Swamps April 2024. Error bars represent standard error.

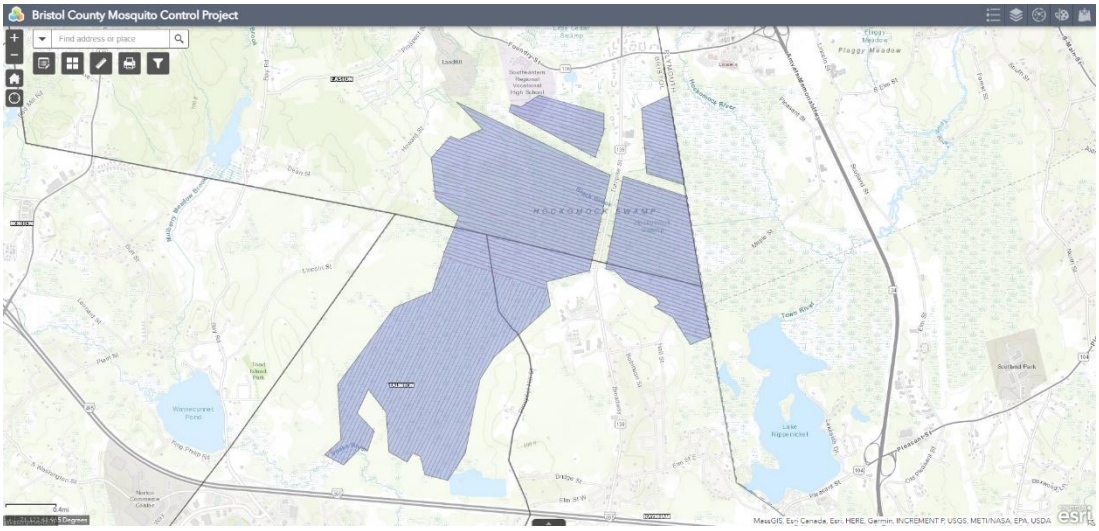

Figure 7. ArcGIS map of aerial Bti treated areas in Hockomock Swamp, April 2024.

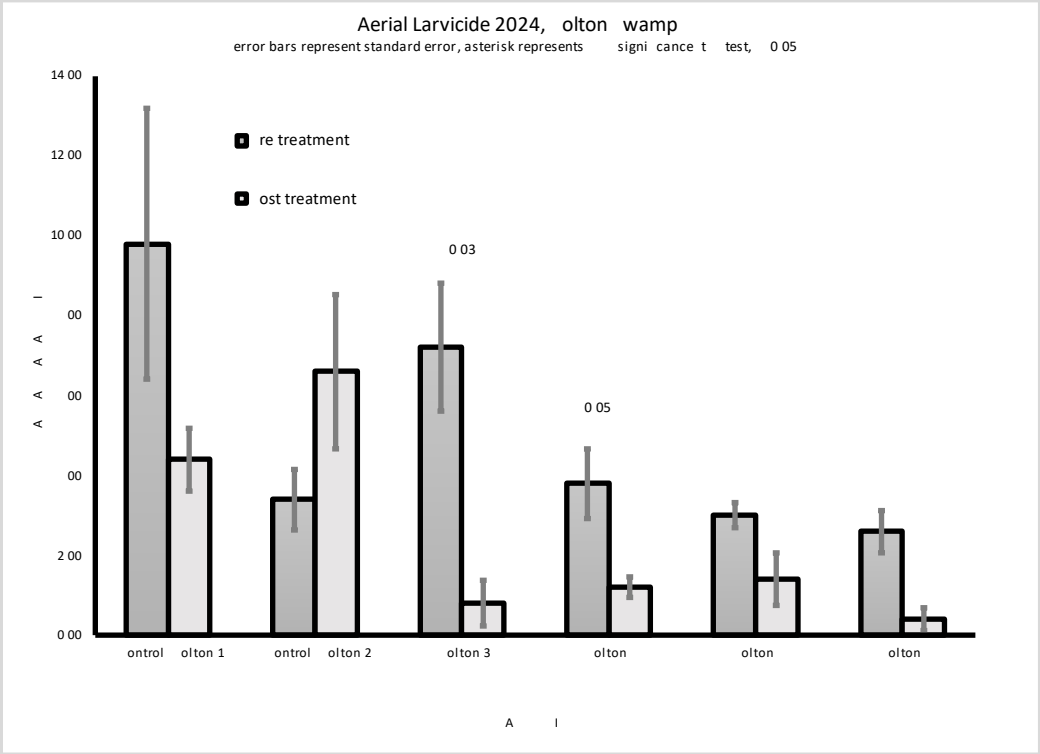

Figure 8. Pre- and post-treatment larval populations in the Bolton Swamp, April 2024. Error bars represent standard error, asterisks denote statistical significance (t-test, P<0.05).

Coquillettidia perturbans are commonly found to be a bridge vector of EEEv in Southeastern MA and are a source of concern for public health. Typically, *Cq. perturbans* emerge in large numbers around the first of July, a perfect time to contribute to the spread of EEEv. Because *Cq. perturbans* has a larval stage that attach to the roots of emergent aquatic vegetation such as cattails, they are difficult to control with larvicide. Additionally, the dependence on emergent vegetation limits the habitat of larval *Cq. perturbans* to known areas with an abundance of the right habitat. Roughly 48% of all *Cq. perturbans* caught in Bristol County each year come from a single cattail marsh of about 29.5 acres.

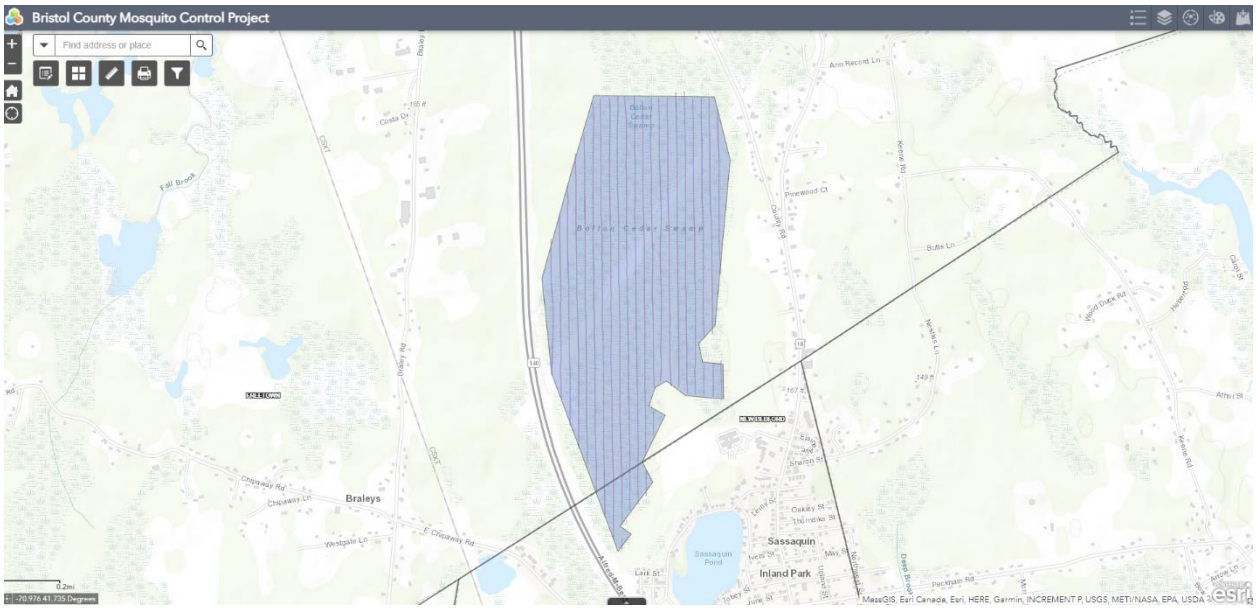

Figure 9. ArcGIS map of aerial Bti treated areas in Bolton Swamp, April 2024.

Past work in Minnesota and Norfolk County, MA suggests that an application of a larvicide with a biorational *Bacillus sphaericus* (Bs) active ingredient is capable of penetrating wetland soil and controlling *Cq. perturbans* larvae. These studies led us to use a granular formulation of Bs (VectoLex FG) to our problem cattail marsh in Easton since 2021. The resulting decrease in *Cq. perturbans* population we have seen in subsequent seasons has led us to duplicate this effort in 2024. BCMCP hired North Fork Aviation's helicopter to deposit VectoLex FG over 27 acres at a rate of 15 lbs. per acre on 4/18/24 (Figure 10).

Pre- and post-treatment sampling of each area showed decreases in larval abundance at most sites according to Abbott's and Henderson-Tilton tests. Statistically significant ($P<0.10$) population reduction was found in most treatment areas. Data from all pre- and post-larval dipping can be found in Table 5 and Figures 6, 8, 11 and 12.

Figure 10. ArcGIS map of aerial *Bacillus sphaericus* (BS) treated areas in Foundry Street Swamp, April 2024.

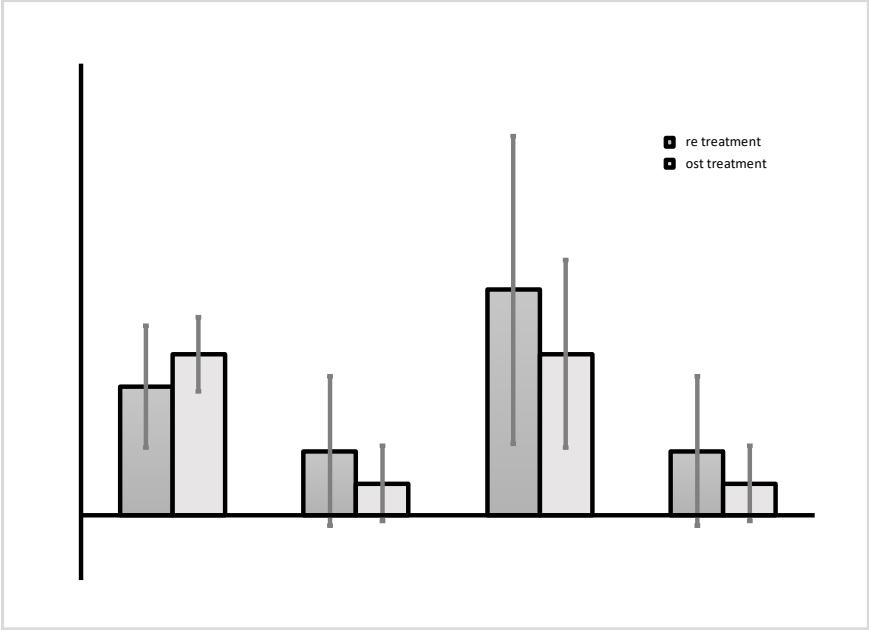

Figure 11. Pre- and post-treatment larval populations in the Foundry Street Swamp, April 2024. Error bars represent standard error.

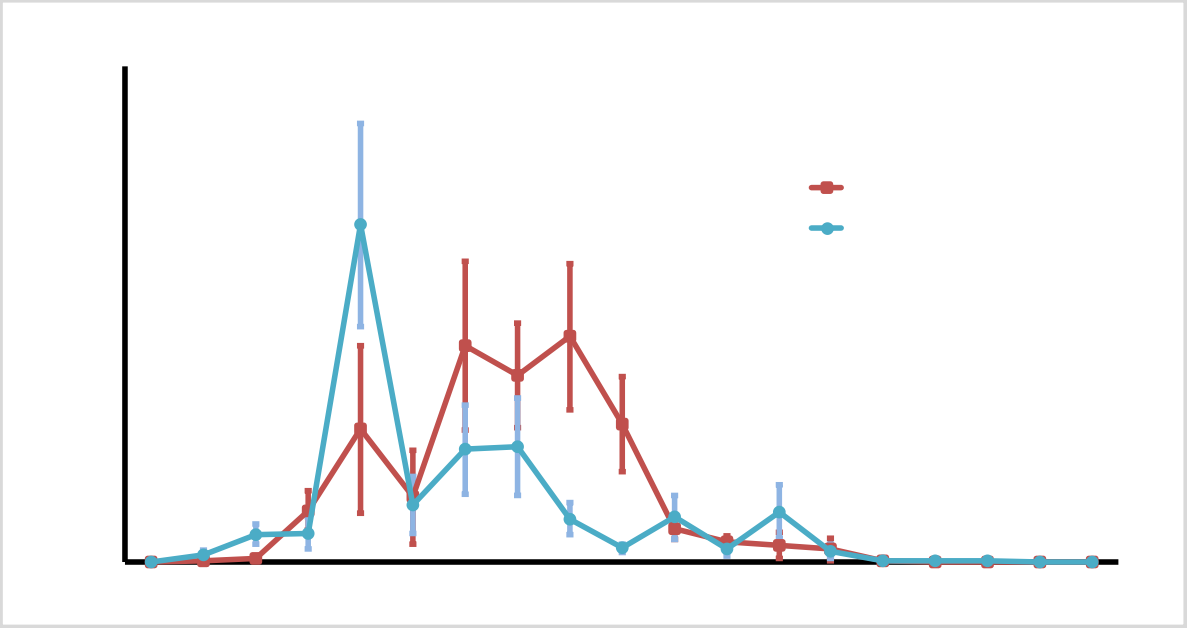

Figure 12. Difference in adult *Cq. perturbans* population at Foundry St., Easton. Historical data vs. post treatment data.

Asian tiger mosquito (ATM) surveillance and treatment

Bristol County MCP continued monitoring the most southern and western towns in our region for the invasive Asian tiger mosquito, *Ae. albopictus*. This effort was expanded in 2016 through a combined effort between BCMCP and the MA Department of Public Health. The surveillance plan contained three parts: ovitrap cups placed throughout the region to determine presence/absence, BG Sentinel™ traps used as a follow-up where presence of eggs were detected, and routine monitoring of areas with historical population data. Larvicide treatments were conducted on a 3-week schedule at the two major infestations, the tire facilities along the waterfront as well as larvicidal treatments in other areas as detections warranted.

This year marks the third consecutive year of declines, most of which can be accounted for by a major clean-up by the owner of a business in New Bedford.

BCMCP set 122 ovitraps over the 20-week season across the South Coast in potential *Ae. albopictus* habitat. 13 ovitrap papers from BCMCP were collected and sent to MA DPH's Hinton State Lab and 48 kept in house for raising under temperature-controlled conditions. Ovitrap papers are

attractive egg deposition sites not only for *Ae. albopictus,* but *Ae. japonicus* and *Ae. triseriatus* as well.

Of 101 papers found with presence of mosquito eggs, 29 had viable *Ae. albopictus* eggs. These traps included repeat detections in Attleboro, Dartmouth, Fairhaven, Fall River North Attleborough, New Bedford, Somerset and Seekonk. In most cases, detections of viable eggs from ovitraps are followed up with BG Sentinel™ trap efforts. Adults were found in New Bedford, Fairhaven, and Dartmouth as expected and new detections were found in Attleboro, Fall River, North Attleboro, Seekonk and Somerset on the Rhode Island state line. We will continue to monitor all of these sites in 2025.

Routine BG trap surveillance in New Bedford continues to point to an established population along the waterfront area and around Acushnet Avenue as well as low-level occurrences in nearby areas. The data shown in Figure 13 has been averaged by trap-night to correct for the increased trapping effort that BCMCP has undertaken.

In 2023, the USDA determined that most of Bristol County has moved up one zone on their Plant Hardiness scale (Figure 14). This is the result of continued climate change and reflects the length of the growing season. This map shows the degree to which the range of *Ae. albopictus* overlaps with the change from Zone 6B to Zone 7A in southern and western Bristol.

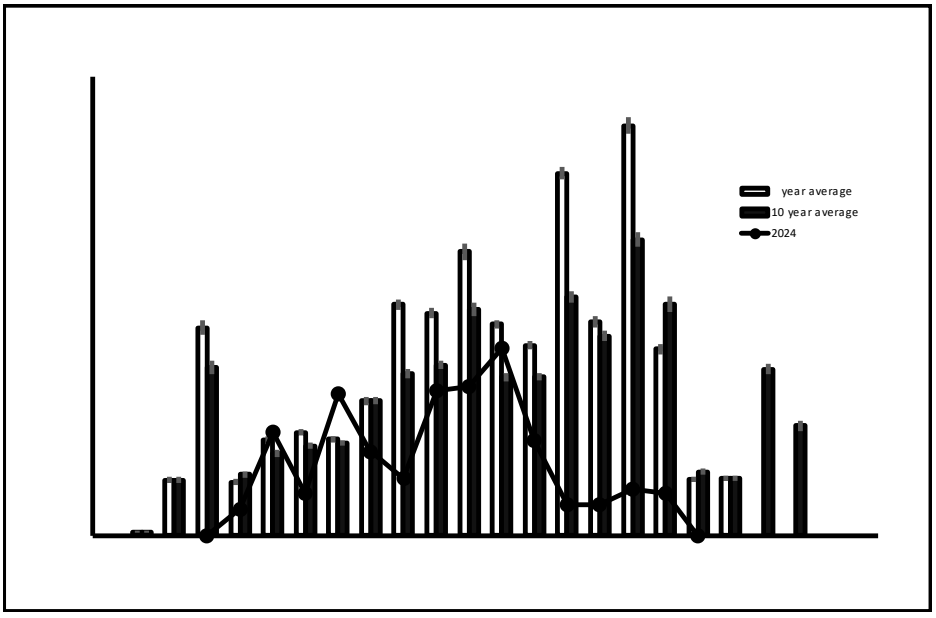

Figure 13. Historical population for Asian tiger mosquitoes in BG Sentinel traps in Bristol County, 2014-2024.

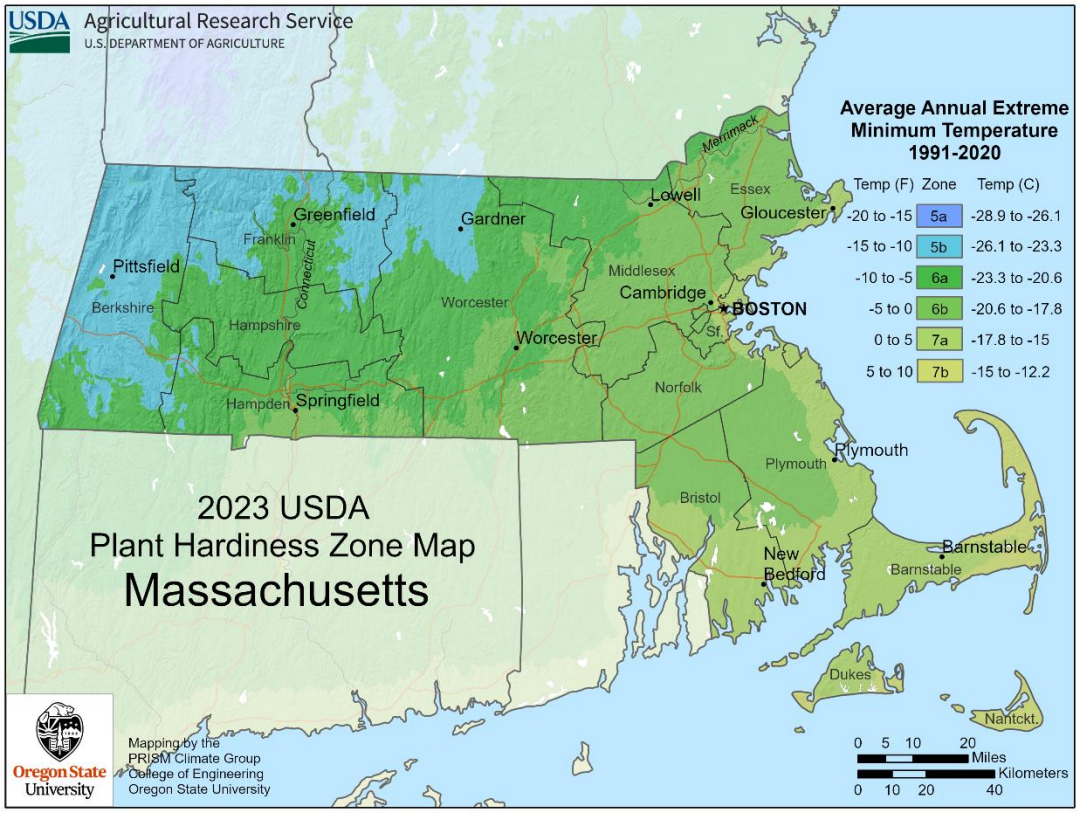

Figure 14. 2023 update to the USDA Plant Hardiness zone map (https://prism.oregonstate.edu/ accessed 11/16/23).

Tire Removal Program

Bristol MCP larvicide crews removed 18 stray and abandoned tires from Bristol County wetlands in 2024. All tires were disposed of properly.

Requests for service

Bristol County MCP received 8027 calls for service in 2024. Call numbers were 37% higher than the previous year but still 5% lower than the 5-year average (Table 1). 97% of all requests were completed, the uncompleted requests were either too close to pesticide exclusion areas or halted due to low overnight temperatures. BCMCP stopped taking residential requests as of 9/6/24, ULV spray and catch basin activities ended as of 9/13/24, larviciding of *Ae. albopictus* hot spots ended 9/24/24.

Project's Out h Prog

Date	Town	Activity	Staff	Affiliates	Number of attendees
4/27/24	New Bedford	Table	Todd	Buttonwood Zoo	200+
7/17/24	Acushnet	Table	Todd	Acushnet Library	150+
10/1/24	Taunton	Table	Todd	Taunton Health Dept	100+
3/13/24	Dighton	Table	Priscilla	Bristol Aggie HS	120
6/22/24	Swansea	Table	Priscilla	Swansea BOH	50
4/30/24	Taunton	Table	Priscilla	Taunton COA	45
7/14/24	Fairhaven	Table	Priscilla	Farmer's market	40
5/17/24	Cape Cod	Presentation	Todd	NMCA	25
5/13/24	Easton	Presentation	Todd	Easton BOH	10
6/10/24	Taunton	Presentation	Priscilla	Taunton Health Dept	4

Table 6. Outreach events in Bristol County, 2024

Public outreach is an important part of our program. Educating people on how they can protect themselves and reduce mosquito breeding on their property is an effective step to combat virus transmission.

We were able to do ten in-person presentations and information tables, with an estimated reach of over 700 people (Table 6). Priscilla was again interviewed for television and radio; we do not know the exact number of viewers.

Coordination between BCMCP and the local Boards of Health was ongoing relative to control/surveillance options in the vicinity of arbovirus positive mosquito samples and high mosquito collections. Even though Labor Day is the unofficial end of summer, BCMCP continued to alert the public that the seasonality of mosquito borne disease continues until the first frost in fall. Educational materials have been provided to public and private entities as well as local Boards of Health. X (formerly Twitter) was used extensively to make the public aware of upcoming activities, mosquito news and public health notices, you can find us at @BCMCPMOSQ.

Sample Form SRB-1

Project Name: Bristol County Mosquito Control Project
FY2025 Proposed Cherry Sheet Assessments Estimates
Based on the preliminary proposed Project budget
(2025 Equalized Valuations)

Name of Municipality	% of Total Budget	Project Share Amount*	State Reclamation Mosquito Control Board Share Amount*	Total Assessment Estimate*
ACUSHNET	2.68%	$47,310	$1,907	$49,217.00
ATTLEBORO	6.19%	$109,395	$4,409	$113,804.00
BERKLEY	2.17%	$38,283	$1,543	$39,826.00
DARTMOUTH	9.79%	$172,872	$6,967	$179,839.00
DIGHTON	2.83%	$50,065	$2,018	$52,083.00
EASTON	5.32%	$93,901	$3,785	$97,686.00
FAIRHAVEN	2.92%	$51,523	$2,077	$53,600.00
FALL RIVER	7.69%	$135,894	$5,477	$141,371.00
FREETOWN	4.43%	$78,166	$3,150	$81,316.00
MANSFIELD	4.83%	$85,241	$3,436	$88,677.00
NEW BEDFORD	6.86%	$121,134	$4,882	$126,016.00
NORTH ATTLEBORO	4.67%	$82,446	$3,323	$85,769.00
NORTON	4.56%	$80,548	$3,246	$83,794.00
RAYNHAM	3.55%	$62,767	$2,530	$65,297.00
REHOBOTH	5.68%	$100,245	$4,040	$104,285.00
SEEKONK	3.50%	$61,782	$2,490	$64,272.00
SOMERSET	2.51%	$44,310	$1,786	$46,096.00
SWANSEA	3.79%	$67,014	$2,701	$69,715.00
TAUNTON	8.83%	$155,870	$6,282	$162,152.00
WESTPORT	7.21%	$127,264	$5,129	$132,393.00
		$1,766,030	$71,178	$1,837,208.00

*Assessment estimates are preliminary and will only be finalized after the State Reclamation & Mosquito Control Board budget certification meeting held annually in May/June.

(2024 Equalized Valuations)

(*Updated: 3/10/22)*