

## EEE Estimated Risk Assessment & Response Matrix

Risk Category	Definition of risk category	Recommended response	State Response	Local Response
<b>Baseline/ No mosquito surveillance</b>	Prior 2 years: No human or veterinary cases reported.  Current year: No mosquito surveillance available in this region  - AND -  No human or veterinary cases reported	1) General precautions to prevent mosquito bites: a) Use mosquito repellents. b) Wear long sleeves and long pants. c) Repair screens. d) Remove standing water.  2) State agencies/town officials: a) Distribute information about personal protection and source reduction. b) Conduct routine human and veterinary surveillance. c) These activities should occur statewide.	State creates prevention messages for distribution to the public statewide: <ul style="list-style-type: none"> <li>• AGRICULTURE will create animal health messages.</li> <li>• HEALTH will create human health messages.</li> </ul> State (AGRICULTURE and HEALTH) will distribute public health messages in various ways, including emails to town officials, emails to Health Dept. District offices as part of annual summer camp package, emails to other state agencies (e.g., Forests, Parks & Recreation, Fish & Wildlife)  State (AGRICULTURE and HEALTH) will create press release with prevention messages.	Town officials help distribute the messages.  Distribution efforts may include posting flyers in public places, posting information on the town website, posting information on public forum websites, such as Front Porch Forum.

HEALTH = Vermont Department of Health  
 AGRICULTURE = Vermont Agency of Agriculture, Food & Markets

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<b>Low Risk</b>	<p>Prior 2 years: EEE virus detected in mosquitoes</p> <p>- OR -</p> <p>Current year: EEE virus detected in mosquitoes at a single trapping site</p> <p>AND No human or veterinary cases</p>	<p>1) State agencies/town officials:</p> <p>a) Target public education efforts about risk potential, personal protection and source reduction to the at-risk communities.*</p> <p>b) If indicated by entomological data, use larvicides to target vector species. If appropriate, consider source reduction techniques.</p> <p>c) If current year activity includes EEE virus isolates, may consider adulticiding<sup>†</sup> based on current regional epidemiology and surveillance efforts.</p> <p>d) Supplemental trapping and testing mosquitoes near the positive findings may be considered.</p>	<p>Incorporates Baseline response</p> <p>- AND -</p> <p>State creates prevention messages for distribution to the public in the at-risk community:</p> <ul style="list-style-type: none"> <li>• AGRICULTURE will create animal health messages.</li> <li>• HEALTH will create human health messages.</li> </ul> <p>State (AGRICULTURE) continues adult mosquito surveillance; considers whether expansion of mosquito surveillance is needed.</p>	<p>Incorporates Baseline response</p> <p>- AND -</p> <p>Town officials in targeted communities distribute educational messages.</p> <p>Town/local mosquito control district continues larval surveillance and control, increase source reduction if needed, continue existing adulticiding program, consider applying adulticide around area of positive trap site if location is close to population center.</p>
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\* For the purposes of this risk assessment, at-risk communities will include the area within 5 miles of a wetland where EEE virus was found in mosquitoes. In addition, because the risk may not be limited to a 5 mile radius, an additional zone of caution will be designated which includes the area between 5 and 10 miles from the wetland. Areas designated to be at-risk or of caution may be modified if geography would likely mitigate the risk. For example, the risk would not reasonably be expected to extend over the Green Mountains to the communities on the other side.

<sup>†</sup> The decision to initiate adult mosquito control will depend in part on the time of year, the mosquito population abundance, and the proximity of virus activity to at-risk populations. The ability to respond by ground spraying instead of aerial spraying depends upon the availability of a close network of roads. In many communities in Vermont, the density of roads may be insufficient for ground-based application of adulticide to be effective at reducing human risk for illness. To maximize effectiveness, adulticide treatment should consist of two applications within 7 days of each other.

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<b>Moderate Risk</b>	<p>Prior 2 years: Confirmation of human and/or veterinary case</p> <p>- OR - Sustained viral activity in mosquitoes</p> <p>- OR - Current year: No animal or human cases in current year</p> <p>- AND -</p> <p>Sustained EEE virus isolations from mosquitoes at one location - <i>or</i> - multiple locations within a community - <i>or</i> - EEE virus isolated from bridge vectors</p> <p><b>Definition –</b></p> <p><b>Sustained:</b> when mosquito activity is detected for 2 or more weeks within one focal area</p>	<p>Incorporates previous category response - AND -</p> <p>1) State agencies/town officials:</p> <p>a) If indicated by entomological data, increase larval control, source reduction and public education emphasizing personal protection measures.</p> <p>b) Consider targeted larviciding and, if current year activity, consider adulticiding targeted at likely vector species.</p> <p>c) Consider reaching out to high-risk populations (LTCF, schools, camps) and educating them on personal protection measures.</p>	<p>Incorporates previous category response - AND -</p> <p>State (HEALTH) creates prevention messages for high-risk populations and distributes the information via Health Dept. district Offices to institutions in the target area that serve at-risk populations.</p> <p>If current year activity is detected, State (HEALTH and AGRICULTURE) and town officials should discuss whether application of adulticide is necessary to protect public health, and determine the extent and best method of treatment.</p> <p>If application of adulticide is deemed necessary, the State (AGRICULTURE) will make the determination of which pesticide to use and hire the contractor who will apply the adulticide.</p> <p>If application of adulticide is deemed necessary, the State (HEALTH and AGRICULTURE) will alert the public about dates and times of application and any recommended precautions that should be taken.</p> <p>State (HEALTH) considers declaration of a public health risk.</p>	<p>Incorporates previous category response - AND -</p> <p>Town/Local mosquito control district considers intensifying larviciding for secondary vector species if appropriate, and considers intensifying ground application of adulticide.</p> <p>Town officials continue to distribute educational messages in targeted communities.</p> <p>Town officials should confer with State on necessity of applying adulticide.</p> <p>If application of adulticide is deemed necessary, town officials should work with the State to alert their residents about dates and times of application.</p>
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<b>High Risk</b>	<p>Current year:</p> <p>A single confirmed human or veterinary case</p> <p>- OR -</p> <p>Sustained or increasing viral activity in mosquitoes in the community</p>	<p>Incorporates previous category response - AND -</p> <p>1) General public:</p> <p style="padding-left: 20px;">a) Avoid areas where mosquitoes are very active.</p> <p style="padding-left: 20px;">b) Adjust outdoor activity to avoid peak mosquito hours (from dusk until dawn).</p> <p>2) State agencies/town officials:</p> <p style="padding-left: 20px;">a) Intensify public education about personal protection.</p> <p style="padding-left: 20px;">b) Actively seek out high-risk populations (LTCF, schools) and educate about personal protection.</p> <p style="padding-left: 20px;">c) Initiate trapping and testing of vector species, if not already being done, in the likely exposure area of any human or veterinary case.</p> <p style="padding-left: 20px;">d) Consider intensifying larviciding and/or adulticiding control measures as indicated by surveillance.</p> <p style="padding-left: 20px;">e) HEALTH confers with AGRICULTURE entomologists to determine if risk of disease transmission threatens to cause human cases. If risk appears to be ongoing or increasing, intensified ground-based or targeted aerial adulticiding may be recommended.</p>	<p>Incorporates previous category response – AND -</p> <p>State (HEALTH) creates and distributes prevention messages, including the recommendation to curtail outdoor activities from dusk to dawn.</p> <p>State (AGRICULTURE) considers adding mosquito traps around positive indicators if traps are not already present.</p> <p>State (HEALTH and AGRICULTURE) will determine if aerial spraying is warranted to protect public health, and the extent of aerial spraying that is needed.</p> <p>If application of adulticide is deemed necessary, the State (AGRICULTURE) will make the determination of which pesticide to use and hire the contractor to apply the adulticide.</p> <p>State (HEALTH) considers declaration of a public health risk, if not already declared.</p>	<p>Incorporates previous category response – AND -</p> <p>Town officials should work with institutions in community to decide whether evening activities should be curtailed.</p> <p>Town officials continue to distribute educational messages in targeted communities.</p> <p>Town/Local mosquito control district should consider intensifying ground-based adulticide application around positive indicators and nearby population centers.</p> <p>If application of adulticide is deemed necessary, town officials will work with the State to alert their residents about dates and times of application.</p>
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