



# Town of Kensington

## Arboviral Illness

### Surveillance, Prevention and Response Plan

2009 Season

7/6/09

## **I. PROGRAM GOALS**

Timely and accurate information may offer an early warning of increased risk of WNV and EEE virus infection of humans and non-human mammals. Based on surveillance information, plans and actions to reduce risk can be developed and implemented when needed.

### Specific Program Priorities

1. Provide expertise in proactively minimizing the risk to Kensington citizens and visitors of being exposed to and infected with mosquito-borne diseases.
2. Providing assistance to contracted mosquito- control company in identifying potential breeding sites for mosquitoes.
3. Document calls from the public regarding dead birds.
4. Submit birds and mosquitoes for testing to identify EEE virus and WNV.
5. Recommending measures to reduce disease transmission.
6. Providing information to the public on mosquito-borne diseases and disease risk, and how to take precautions to reduce the risk of infection.

## **II. PREVENTION AND CONTROL**

Ultimately, the key to reducing or eliminating the incidence of arboviral disease is education and outreach to the public regarding the need for prevention and explaining how they can protect themselves from diseases such as EEE and WNV. Like much of the work in public health, it is difficult to quantify exactly how effective these prevention efforts are or will be. For example, with a rare and cyclical disease such as EEE, it would be impossible to identify the number of cases that were avoided in the 2005 season as result of an aggressive and sustained public education campaign by DHHS and its state, local, and community partners.

The emergent public health threat posed by arbovirus illness requires a vigilant outreach effort. As the local public health entity, the Kensington Board of Health/Board of Selectmen will continue to take a lead role in providing public education efforts to promote prevention, working with our partners to maximize the opportunity to make our citizens aware of the dangers posed by mosquito-borne illness. This will include working with the media, businesses and special populations, such as schools, the homeless and others who spend considerable amounts of time outside, like hunters and fishers.

### **A. Prevention Through Knowledge**

The goal of mosquito-borne virus public information activities is to provide helpful, accurate and specific advice and information to the citizens of Kensington so they can approach this problem with the appropriate level of caution. Information on the following topics has been distributed in print, through various websites and through local media and town activities:

- Preventing mosquito breeding opportunities
- Proper handling of dead birds
- Personal protective measures
- Health risks to humans and domestic animals from arboviral illnesses
- Special Information for schools, camps and daycare facilities
- How to minimize mosquito breeding opportunities around the home and businesses
- Outdoor activities during mosquito season
- Testing results from the State of NH
- Public Health Advisories

**1. Printed Materials:** Fact sheets and information on the above topics are available at the Town Hall and on the town website at [www.town.Kensington.nh.us](http://www.town.Kensington.nh.us)

**2. WNV & EEE Website:** The Town of Kensington's website, [www.town.Kensington.nh.us](http://www.town.Kensington.nh.us) serves as a central source for up-to-date, accurate, WNV and EEE information. Information on the site includes general background information, updated testing information, public notices, public health advisories, and local mosquito control activities and findings. Links to other informational websites and state and federal agency sites are included.

**3. Community Outreach:** Prior to and during the surveillance season, the Kensington Board of Health/Board of Selectmen distributes educational materials throughout the community. This includes the following:

- Laminated Prevention Guidelines for WNV and EEE and Public Health Advisories posted at school fields, recreation fields, Town Park, Public Library, and childcare establishments. Additionally, various town businesses have posted the guidelines.
- Courtesy notices are sent to all businesses dealing with vehicles reminding them that due to the nature of their business there is the potential for increased areas of standing water that could be breeding grounds for mosquitoes. They are notified that they need to adequately maintain their premises free of standing water and that some of their properties may be larval survey sites. Fact sheets on WNV and EEE are included in the notices.

## **B. Prevention Action Steps**

**1. Preventing Mosquito Breeding Opportunities:** By reducing their exposure to mosquitoes around their homes and by eliminating mosquito breeding grounds, NH citizens can greatly reduce their risk of mosquito-borne virus exposure. Many species of mosquitoes lay their eggs in standing water. Weeds, tall grass, and bushes all provide an outdoor home for the common house mosquitoes that are most often associated with WNV. Fresh water swamps and coastal areas

provide breeding habitat for the mosquito species commonly associated with EEE.

The Kensington Board of Health/Board of Selectmen and NH DHHS recommends citizens take the following steps to reduce opportunities for mosquito breeding:

- ✓ Eliminate standing water around residential and commercial areas and other mosquito breeding locations.
- ✓ Remove all discarded tires from your property. The used tire is the most common site for mosquito breeding in the United States.
- ✓ Dispose of or drill holes in the bottom of recycling containers left outdoors. These items include tin cans, plastic containers, ceramic pots, or similar water-holding containers. Drainage holes in the sides of containers will still allow enough water for mosquitoes to breed. Do not overlook containers that have become overgrown by aquatic vegetation.
- ✓ Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall and as often as necessary to eliminate standing water.
- ✓ Clean and chlorinate swimming pools, outdoor saunas and hot tubs. If not in use, keep empty and covered. Do not allow these covers to collect standing water.
- ✓ Aerate ornamental pools or stock them with fish. Water gardens become major mosquito producers if they are allowed to stagnate.
- ✓ Turn over wheelbarrows and change water in birdbaths at least twice weekly. Both provide breeding habitat for domestic mosquitoes.
- ✓ Turn over plastic wading pools when not in use.
- ✓ Eliminate any standing water that collects on your property. Mosquitoes can develop in puddles that last more than 4 days.
- ✓ Remind or help neighbors to eliminate breeding sites on their properties.

**2. Personal Protective Measures:** Citizens can take common-sense steps to protect themselves from mosquito bites. Such steps are critical in reducing the risk of WNV and EEE infections. The Kensington Board of Health/Board of Selectmen and NH DHHS under guidance from the Arboviral Illness Task Force recommends that citizens take the following steps to protect themselves, particularly from June to October, when mosquitoes are most active:

- ✓ If outside during evening, nighttime and dawn hours, or at any time mosquitoes are actively biting, children and adults should wear protective clothing such as long pants, long-sleeved shirts, and socks.
- ✓ If outside during evening, nighttime and dawn hours, or at any time mosquitoes are actively biting, consider the use of an effective insect repellent.
- ✓ Repellents containing DEET (N, N-diethyl-methyl-meta-toluamide) have been proven effective. No more than 30% DEET should be used on adults or children.
- ✓ The American Academy of Pediatrics (AAP) Committee on Environmental Health has updated their recommendation for use of DEET products on

children, citing: “Insect repellents containing DEET with a concentration of 10% appear to be as safe as products with a concentration of 30% when used according to the directions on the product labels.” AAP recommends that repellents with DEET should not be used on infants less than 2 months old.

- ✓ Repellents containing Picaridin (KBR3023) or oil of lemon eucalyptus (a plant based repellent) provide protection similar to repellents with low concentrations of DEET. Oil of lemon eucalyptus should not be used on children under the age of three years.
- ✓ Always use repellents according to manufacturer’s directions.
- ✓ Do not allow young children to apply repellent themselves.
- ✓ Do not apply repellent directly to children. Apply to your own hands and then put it on the child’s skin.
- ✓ The length of time a repellent is effective varies with ingredient and concentration. Avoid prolonged or excessive use of repellents. Use sparingly to cover exposed skin and clothing.
- ✓ Wash all treated skin and clothing after returning indoors.
- ✓ Store repellent out of reach of children.
- ✓ Vitamin B, ultrasonic devices, incense and bug zappers have not been shown to be effective in preventing mosquito bites.
- ✓ Make sure that doors and windows have tight-fitting screens. Repair or replace all screens in your home that have tears or holes.

**3. Mosquito Control Activities:** The objective of public health mosquito control is to prevent transmission of mosquito-borne disease to humans. Reduction of nuisance mosquito species may be an added benefit. It is important to emphasize that local communities make the final decisions regarding mosquito control activities in New Hampshire. Communities are responsible for developing, maintaining, and financing mosquito control programs. Kensington has financed a mosquito monitoring/surveillance program since 2006. State legislation has been passed to allow a community to apply for financial assistance in the mitigation of public health threats of mosquito-borne diseases (WNV and EEE) provided the community has already developed a detailed prevention strategy.

All discussion regarding pesticide applications made under this plan will be in accordance with the principles of Integrated Pest Management. Integrated Pest Management (IPM) is a sustainable approach to managing mosquitoes by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health and environmental risks. IPM involves preventive control and suppressive control, including:

- ✓ Source reduction (remove, cover, drain, fill) of larval habitats that are not environmentally sensitive or protected
- ✓ Biological control (the use of natural enemies such as mosquito fish, etc.)
- ✓ Mechanical control (the use of barriers such as screens to prevent the movement of mosquitoes)

- ✓ Chemical control (the use of manufactured chemical products (pesticides) that act against mosquitoes)

Pesticides may pose their own risk to the health of humans and animals, plants and the environment. Thus pesticides are only one component of a coordinated effort to control mosquitoes. Both non-chemical and chemical treatments may be appropriate in certain situations, while either alone may not be adequate. Integrated pest management dictates that control efforts should be tied to thresholds. This means simply that a certain defined risk needs to exist before particular control methods are recommended. Different responses may be made as different risks are identified. These risks are discussed under the Phased Response section of this plan. In an ideal IPM program, non-chemical methods should be employed to keep pest levels below the risk level that might trigger a pesticide response, meaning that pesticides are a last, rather than first response to a WNV or EEE problem.

### **III. SURVEILLANCE**

#### **A. Mosquito Surveillance for West Nile Virus and Eastern Equine Encephalitis**

Mosquitoes are the best indicator of human risk for arboviral disease. The objective of mosquito surveillance is to determine the presence of arboviruses, including WNV and EEE, in mosquito species common to our area and to measure the relative abundance of critical mosquito species. Monitoring mosquito abundance and reduction is accomplished through various surveillance methods including but not limited to larval dip counts and the use of light/CO<sub>2</sub> baited traps and gravid traps. Surveillance activities in Kensington began in early August and end in October. Activities for mosquito surveillance for the 2007 season will consist of routine and rapid response surveillance.

- 1. Routine Mosquito Surveillance:** The Mosquito Control Company contracted by the Town of Kensington and NH DHHS are the lead agencies responsible for mosquito surveillance activities. Activities include:
  - ✓ Coordinating efforts for appropriate placement of traps, collection, packaging and transport of mosquito specimens. (Mosquito Control Company)
  - ✓ Providing laboratory services for communities that submit mosquitoes for testing and informing municipalities of the results of those tests. (NH DHHS)
  - ✓ Notifying municipal and other agency representatives within 24 hours of receiving results of positive virus isolation or a confirmed case of mosquito-borne diseases. (NH DHHS)

Mosquitoes must be collected, frozen, sorted, packed in dry ice and sent to the NH DHHS Public Health Laboratories on a weekly basis. Mosquitoes must be grouped by species, site and week of collection into a group, or “pool” of 1-25 individual mosquitoes of the

same species. These activities are conducted by the Mosquito Control Company contracted by the Town of Kensington. In order to ensure testing results are accurate, only mosquitoes trapped in a method approved by NH DHHS will be tested (e.g., light/CO<sub>2</sub>, gravid traps). Mosquitoes trapped using other methods such as Mosquito Magnets are not acceptable for testing.

Routine, long-term mosquito surveillance provides the best baseline information for detecting trends in mosquito abundance, virus prevalence and estimating the risk of human infection from WNV and EEE.

**2. Rapid Response Mosquito Surveillance:** In the case of a positive isolation of an arbovirus in non-human mammals, mosquitoes, humans, or if clustering of dead birds warrant, State sponsored activities may include:

- ✓ Placing mosquito traps within a two-mile area surrounding the positive identification point. Criteria for selection of trap locations will include areas such as mosquito breeding locations, standing water, swamps and sewage plants.
- ✓ Reviewing and determining the need for expanding trapping to new areas.
- ✓ Notifying city and town municipal officials within 24 hours of receiving results of positive virus isolation or a confirmed case of a mosquito-borne disease.

## **B. Avian Surveillance for West Nile Virus and Eastern Equine Encephalitis**

**1. Dead Bird Reports:** Crows and Blue Jays (corvids) often die following infection with WNV. Corvids, as well as passerines (i.e. perching birds or “songbirds”), are also susceptible to infection with EEE. Following changes in bird mortality can help identify areas of increased viral activity.

The town plan calls for timely reporting of all dead birds, and the submission of selected dead birds for WNV and EEE testing. The objective is to enhance surveillance for animal arboviral infection and disease. The starting date for bird surveillance activities will begin on June 1 and will end October 31. Reports of dead birds are taken via a phone call to the **Kensington Dispatch at 772-4716 or 772-5423 x5**. The report is then forwarded to the Animal Control Officer (ACO) for bird pick-up and to the Health Officer for recording the report, notifying DHHS, and arranging for transportation of the dead bird to the Public Health Laboratory. The Kensington Board of Health/Board of Selectmen and NH DHHS will record and analyze dead bird reports, which will be used to identify areas for intensified surveillance of virus activity including bird testing, mosquito trapping and active disease surveillance.

**2. Laboratory Testing of Dead Wild Birds for WNV and EEE:** For the 2007 season, laboratory testing of dead birds will occur in communities which are able to collect and transport the specimen to the Public Health Laboratory in Concord. It is the

responsibility of the Town of Kensington to arrange for the transportation of dead birds to the Public Health Laboratory. Birds must be approved for testing prior to delivery by calling the WNV & EEE information line.

The NH DHHS Public Health Laboratories will test dead birds, primarily crows and blue jays, for WNV and EEE. Ongoing evaluation of reports of dead birds may indicate the need for increased testing of birds and/or mosquitoes to better assess virus transmission among the bird and mosquito populations at particular times throughout the season.

All bird deaths should be reported to Kensington Dispatch. Kensington Dispatch will notify the ACO and Health Officer of the date and time of the call, the location of the bird, and any other pertinent information. The ACO will make the determination at time of pick-up if the bird will or will not be suitable for documenting and possible testing. Some reasons a dead bird may not be documented may include a bird that; was killed by an animal, hit a window or structure, run over by a vehicle, or in an extreme state of decomposition. If the bird is suitable for testing, the ACO will bag and label it appropriately and store in the freezer at the Town Kennel. The Health Officer will record the information, and report it to NH DHHS WNV/EEE Program Coordinator for approval for testing. The Health Officer will make appropriate arrangements for transportation. If the bird is not suitable for testing, the ACO will use proper disposal procedures for the dead bird.

There are no indicators developed that show severity of local infection or higher risk for humans with an increased number of positive birds. Therefore, the NH DHHS has determined that wild bird testing may be discontinued in a community, after a positive finding in the surrounding area, based on a specific area's demographics. In areas where there has been documented activity in a previous year, one positive bird will be adequate to document that an endemic situation has continued. Areas without previously documented activity will be assessed individually.

**3. Laboratory Testing of Owned Birds for WNV and EEE:** Testing and surveillance of owned birds (e.g., emus) will follow the procedures listed below for mammal (non-human) surveillance.

### **C. Mammal (Non-human) Surveillance for West Nile Virus and Eastern Equine Encephalitis (EEE)**

- ✓ Under the auspices of the State Veterinarian, NH Department of Agriculture, Markets & Food, the NH Public Health Laboratory or the NH Veterinary Diagnostic Laboratory may conduct testing of horses and other domestic animals (e.g., llamas, alpacas) that have severe neurological disease suspected of being caused by EEE virus or WNV infection. On an annual basis, a letter from the

State Veterinarian, co-signed by State Public Health Veterinarian (NH DHHS), describing the case definition, clinical signs of disease, and reporting process will be sent to all licensed veterinarians in the state of New Hampshire. This will serve as a reminder to investigate and report neurological illness in non-human mammals. Parameters for the evaluation and testing of ill mammals will include the following:

- ✓ Owned animals with neurologic signs will initially be referred to private veterinarians for evaluation
- ✓ Veterinarians wishing clinical consultation for encephalitis should contact the State Veterinarian at the NH Department of Agriculture, Markets and Foods (271-2404), NH Veterinary Diagnostic Laboratory (862-2726), or State Public Health Veterinarian (271-4496)
- ✓ Necropsy specimens, such as animal heads, must be sent to the NH Veterinary Diagnostic Laboratory for processing, after which they will be sent to the Public Health Laboratory for further testing.
- ✓ The State Veterinarian and NH Veterinary Diagnostic Laboratory will assure appropriate collection of specimens for diagnostic testing.
- ✓ Appropriate submission forms must accompany specimens.

### **Mammals Submitted for Rabies Testing**

Unlike an arbovirus, rabies can be transmitted to humans through the bite of an infected animal. It is important that all mammals with neurological symptoms that have had contact with humans, pets, or domestic animals, and that meet guidelines for rabies testing, be submitted for testing in accordance with the NH Public Health Laboratories guidelines. Animals testing positive for rabies will not be tested for WNV and EEE virus.

### **D. Communication of Surveillance Information**

**1. Routine Information:** Arboviral laboratory test results are compiled on a daily basis and information summarized in tabular and map formats to identify areas of virus activity. Results of birds submitted for testing are posted as they become available on the NH DHHS website accessible to the public and media. A link to NH DHHS for the current test results is available at [www.town.Kensington.nh.us](http://www.town.Kensington.nh.us). Testing time varies with test method, specimen, and concentration of virus present; therefore, new test results may not be available every day.

**2. Positive EEE Virus & WNV Findings:** The NH DHHS ensures the rapid and accurate dissemination of positive test results. Following an EEE or WNV positive mosquito pool, bird, non-human mammal, or human, all pertinent parties both internal and external to DHHS are notified. Both external and internal parties are notified concurrently. Following a positive result, the Director of the Division of Public Health Services (DPHS) immediately notifies the Commissioner of DHHS. A member of the

Communicable Disease Section notifies the DHHS Health Officer Liaison. The DHHS Public Information Officer, at the direction of the Commissioner, works with DPHS to issue an appropriate press release. Prior to sending out the press release, DPHS ensures all pertinent parties external to DHHS (see below) have been notified. In addition to press releases, the media and public will be informed of positive results through the DHHS website. The notification of parties external to DHHS varies with the surveillance component that is positive.

- a. **Positive EEE Virus & WNV Wild Birds and Mosquitoes:** A member of the Communicable Disease Control Section provides positive laboratory test results or other priority reports for wild birds and mosquitoes directly to the submitter and the designated Kensington Official. This information is provided by the most efficient means, usually a telephone call or fax within 24 hours of confirmation. Assistance will be requested from the Health Officer Liaison if staff is unable to make contact with the Health Officer. It is the duty of the Kensington Health Officer to notify all pertinent local officials. Other agencies that are involved in surveillance and intervention activities are also provided results by the most efficient means, as determined by the recipient agency.
- b. **Positive EEE Virus & WNV Non-human Mammals and Owned Birds:** A member of the Communicable Disease Control Section provides positive laboratory results for non-human mammals and owned birds directly to the State Veterinarian, followed by the submitting veterinarian who will, in turn, notify the animal owner. After the submitting veterinarian is notified, the Kensington Health Officer will be informed of the positive result. Assistance will be requested from the Health Officer Liaison if staff is unable to make contact with the Health Officer. It is the duty of the Kensington Health Officer to notify all pertinent local officials. The public will be informed, but only after the State Veterinarian, submitting veterinarian, animal owner and Kensington Health Officer are notified. The Centers for Disease Control and Prevention (CDC) receives weekly summaries of all samples tested and timely reports of significant positive test results.
- c. **Positive EEE Virus & WNV Human Cases:** Laboratory confirmation of a human case of WNV or EEE is reported by a member of the Communicable Disease Control Section to the health care provider of the patient and to the Kensington Health Officer of the patient's residence. Assistance will be requested from the Health Officer Liaison if staff is unable to make contact with the Health Officer. It is the duty of the Kensington Health Officer to notify all pertinent local officials. Other state and federal agencies are notified as soon as possible. The public will be informed, but only after the medical provider and Kensington Health Officer are notified.

**3. DHHS Website and Kensington Website:** The NH DHHS and Town of Kensington informs the media and public of positive test results and other important up-to-date information through its website (<http://www.dhhs.nh.gov>) (<http://www.town.Kensington.nh.us>). Information regarding personal protection

measures, general background information, and regular updates on surveillance and laboratory analysis is available at both sites. Surveillance information is updated as it becomes available. Maps presenting the geographical distribution of EEE virus and WNV activity are available at DHHS site and updated weekly as new activity occurs. Links to other mosquito-borne virus informational websites, including community health departments, and state and federal agency sites are included.

**4. Informational Phone Line:** During the surveillance season, a toll-free DHHS WNV & EEE informational phone line, 1-866-273-NILE (6453), provides information to callers on a variety of WNV and EEE topics including general background information, personal protection measures, and dead bird testing submission requirements. A staff member is dedicated to this line and is available to assist callers during business hours. Messages may be left after hours and are returned the next business day.

**5. Public Health Alerts:** The NH DHHS issues media advisories to alert the public of conditions that may warrant extra precautions to reduce the risk of disease. These alerts are drafted in consultation with local health agents to coordinate local prevention activities. The Health Alert Network (HAN) will be utilized by the NH DHHS to disseminate information to health care providers in the State.

#### IV. RECOMMENDATIONS FOR A PHASED RESPONSE TO EEE VIRUS AND WNV SURVEILLANCE DATA

**1. Phased Response:** General guidelines are provided for an array of situations that are noted in the Surveillance and Response Plan Tables that follow. Specific situations must be evaluated and options discussed before final decisions on specific actions are made. The assessment of risk from mosquito-borne disease is complex and many factors modify specific risk factors. The Town of Kensington works with NH DHHS, community and school administrators and mosquito control contractors to develop the most appropriate prevention activities to reduce the risk of human disease. There is no single indicator that can provide a precise measure of risk, and no single action that can assure prevention of infection. Historical local surveillance data is critical in making informed decisions regarding risk and appropriate actions.

##### Phased Response for WNV

Risk Category	Probability of human outbreak	Definition	Recommended Response
1	Remote	No prior year virus activity detected in Kensington or adjacent community	<ol style="list-style-type: none"> <li>1. Dead bird reporting and recorded information via DHHS WNV info-line.</li> <li>2. Seasonal collection and testing of birds for WNV.</li> <li>3. Mosquitoes collected and tested.</li> <li>4. Assess local conditions for mosquito species of major public health significance.</li> </ol>

			5. Emphasis on mosquito breeding site source reduction.
2	Low	<p>Areas anticipating WNV epizootic based on WNV activity in the prior year in Kensington or adjacent community.</p> <p>Current year surveillance of:</p> <p>One or more positive birds; or</p> <p>Mosquitoes collected at a single mosquito trap location that have tested positive.</p>	<p>Incorporates previous category response, plus:</p> <ol style="list-style-type: none"> <li>1. Assess mosquito populations, monitor larval and adult mosquito density.</li> <li>2. Evaluate the need and feasibility of increased mosquito trapping in the area of the virus isolation.</li> <li>3. Initiate source reduction.</li> <li>4. Expand community outreach and public education programs focused on risk potential and personal protection, emphasizing source reduction.</li> </ol>
3	Moderate	<p>Areas with limited or sporadic WNV epizootic activity in birds and/or mosquitoes which may include:</p> <p>A positive horse or other domestic animal; or</p> <p>Mosquitoes collected at more than one trap location in town; or</p> <p>Multiple mosquito species collected at any trap location; or</p> <p>A single infected person, without positive birds or mosquitoes discovered locally, if it is found the person was infected in New Hampshire.</p>	<p>Incorporates previous category response, plus:</p> <ol style="list-style-type: none"> <li>1. Evaluate the need and feasibility of increased mosquito trapping beyond town lines.</li> <li>2. Increase larval control, source reduction, and public education emphasizing personal protection measures, particularly among the elderly.</li> <li>3. Enhance human surveillance and activities to further quantify epizootic activity (e.g., mosquito trapping and testing).</li> <li>4. Consider targeted adult mosquito reduction activities, including ground-based pesticide application.</li> </ol>

4	Moderate/High	<p>Areas with current year confirmation of epizootic WNV in birds.</p> <p>A single horse or human case; and</p> <p>Confirmation of WNV in multiple mosquito species, including bridge vector species, and at multiple mosquito trap locations or in multiple cases involving birds or other mammals.</p>	<p>Incorporates previous category response, plus:</p> <ol style="list-style-type: none"> <li>1. Increase source reduction and larvicide efforts.</li> <li>2. Consider increased mosquito collections &amp; testing, particularly of human-biting mosquitoes.</li> <li>3. The decision to use ground-based adult mosquito control will depend on critical modifying variables including the time of year, mosquito abundance and proximity of virus activity to at-risk populations.</li> <li>4. Intensify public education on personal protection measures: Multimedia messages Special messages for areas with vulnerable populations Increased advisory information provided on pesticides</li> </ol>
5	High	<p>More than 1 confirmed human case associated in time and place</p> <p>In the event of Risk Category 5, a Public Health Emergency may be declared pursuant to RSA 107 C:5.</p>	<p>Incorporates previous category response, plus:</p> <ol style="list-style-type: none"> <li>1. Consider broader geographic adult mosquito reduction activities, across town lines, including ground-based pesticide application.</li> <li>2. Enhance risk communication about adult mosquito control.</li> <li>3. Emphasize urgency of personal protection through</li> </ol>

			community leaders and media, and emphasize the use of repellent at visible public events.  4. DHHS will confer with local officials to discuss the use of intensive mosquito control methods.
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### PHASED RESPONSE FOR EEE

Risk Category	Probability of human outbreak	Definition	Recommended Response
1	Remote	All of the following conditions must be met:  1. No prior year virus activity detected in Kensington or adjacent community.  2. No horse (non-human mammal) or human cases in current year.  3. Limited or sporadic current year EEE virus activity in birds.	1. Surveillance activities are routine.  2. Assess local ecology for mosquito abundance.  3. Routine collection and testing of mosquitoes.  4. Emphasis on reducing mosquito breeding.
2	Low	Areas anticipating EEE virus epizootic activity based on EEE virus activity in the prior year in Kensington or adjacent community.  A risk category 2 condition exists if any of the following conditions are met:  1. Prior year virus activity: EEE virus mosquito isolates; 1 EEE horse (non-human mammal) case; no human cases, Or  2. Current year virus activity: EEE virus mosquito isolate identified in an enzootic mosquito species (e.g., <i>Culiseta melanura</i> ); no horse (non-human mammal) or human EEE cases.	Incorporates previous category response, plus:  1. Assess mosquito populations, monitor larval and adult mosquito density.  2. Initiate source reduction; use larvicides at specific sources identified by entomologic survey and targeted at bridge vector species. May consider spot adulticiding in previously identified high-risk areas.  3. Expand community outreach and public education programs focused on risk potential and personal protection, emphasizing source reduction.
3	Moderate	A risk category 3 condition exists if any of the following surveillance indices are met in Kensington or adjacent community:  1. Prior year virus activity: confirmation of a human EEE case; or multiple horse (non-human mammal) cases, Or  2. Current year virus activity: multiple EEE virus mosquito isolates; or EEE virus isolated in mosquitoes most likely to bite humans; or EEE non-human mammal case, no human cases.	Incorporates previous category response, plus:  1. Increase larval control, source reduction, and public education emphasizing personal protection measures.  2. Actions to prevent disease may include targeted larviciding and possibly ground adulticiding targeted at likely bridge vector species.
4	High	A risk category 4 condition exists if any of the following indices are met in the current year in Kensington or adjacent community:  1. Confirmation of an EEE human case; or  2. Multiple EEE non-human mammal	Incorporates previous category response, plus:  1. These indices may trigger larviciding and/or adulticiding control measures.  2. Kensington Health Officer will confer with DHHS to determine if the risk of disease transmission threatens to cause multiple human cases. If surveillance indicates a continuing risk of human disease and potential for an

		<p>cases; or</p> <p>3. EEE virus mosquito isolation rates in an enzootic mosquito species (i.e. <i>Culiseta melanura</i>) are rising and the area of EEE virus activity is spreading.</p>	<p>outbreak, intensified ground-based adult mosquito control may be recommended.</p> <p>3. Intensify public education on personal protection measures:  Multimedia press release  Special messages for areas with vulnerable populations  Advisory information provided on spraying.</p>
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5	Critical	<p>Risk category 5 condition exists if any of the following indices are met in the current year:</p> <p>1. More than 1 confirmed EEE human case associated in time and space, or surveillance data indicating that multiple human cases of EEE are likely, Or</p> <p>2. Multiple isolations of EEE virus from bridge vectors associated in time and space.</p>	<p>Incorporates previous category response, plus:</p> <p>1. If risk of outbreak is widespread and covers multiple jurisdictions, DHHS will confer with local health officials and Arboviral Task Force members to discuss the use of intensive mosquito control methods. A Public Health Emergency may be declared pursuant to RSA 107 C:5.</p> <p>Factors to be considered in making this decision include the cyclical, seasonal and biological conditions needed to present a continuing high risk of EEE human disease.</p> <p>The declaration of an emergency may trigger application of mosquito adulticide. DHHS will define targeted treatment areas for vector control following the declaration of an emergency.</p> <p>2. Ground based ULV applications may be repeated as necessary to achieve adequate control.</p> <p>3. Emphasize urgency of personal protection through community leaders and media, and emphasize use of repellent.</p>
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