

**POLK COUNTY
BOARD OF COUNTY COMMISSIONERS**

**MOSQUITO CONTROL POLICY
Board Adopted August 5, 2009**

GENERAL

Polk County Mosquito Control is responsible for designing and implementing programs to reduce vector (disease carrying) and nuisance mosquito populations throughout the County. The fundamental goal of the program is to keep mosquito populations below levels that are intolerable or increase risk of disease transmission, such as West Nile Virus, St. Louis Encephalitis and Eastern Equine Encephalitis in humans and domestic animals.

All mosquito control activities will be performed to ensure the protection of the public, environment, and ecological diversity of the County, and in accordance with the laws and regulations of the State of Florida and Polk County.

SCOPE

Mosquito Control operations will be conducted throughout Polk County, including municipalities.

SURVEILLANCE

Prior to the implementation of mosquito control measures, the County will document mosquito sources and populations through methods established by the industry as standard or approved methods. These methods include, but are not limited to:

Larval (immature) Stage Mosquito Surveillance: The monitoring of the larval stages of the mosquito life cycle, which require aquatic habitats. These habitats include aquatic plants, artificial or man-made containers, phosphate pits and natural breeding sites. Mosquito production sites are identified through inspections and treated as soon as possible.

Adult Mosquito Surveillance: Involves techniques used to “demonstrate a potential for a mosquito-borne disease outbreak or numbers of disease vector mosquitoes sufficient for disease transmission or defined levels of, or a quantifiable increase in numbers of nuisance mosquitoes” justifying the use of pesticides.¹ (Rule 5E-13.036 Florida Administrative Code) Standard surveillance methods include, but are not limited to: mosquito traps, landing rate counts, sweep nets, citizen service requests (verifiable by a second standard method).

¹ Justification will be documented as required by Rule 5E-13 of the Florida Administrative Code.

Mosquito-borne Disease Surveillance: Standard methods used include, but are not limited to: monitoring surveillance and mosquito-borne disease testing (sent to and conducted by the Florida State Health Department), in house mosquito-borne virus testing and monitoring of vector mosquito population levels in conjunction with virus behavior.

CONTROL METHODS

The County will use a scientifically sound, integrated control program utilizing all methods available for the control of mosquitoes, including but not limited to, biological, chemical, educational, and mechanical. The most cost effective, environmentally sound method will be used.²

All treatment decisions will be based on public health risk, mosquito populations, and level of mosquito-human interaction, mosquito biology and physiology, and/or availability of funds.

Source Reduction is the elimination of mosquito production sites through habitat alteration, surface water management projects, aquatic vegetation control, introduction of predatory biological control agents, proper maintenance of man-made water management facilities and/or treatment sites, and sanitation through elimination of containers. Aquatic plant control applications may be conducted when a licensed applicator has made visual confirmation of the presence of immature and/or adult mosquitoes. Applications may be made by boat or ground-based equipment. Applications may be made on private property when the impacts of nuisance and/or vector mosquitoes are significant in order to protect the health wellbeing of citizens on adjacent properties. Efforts will be undertaken to encourage the private property owners to properly manage man made aquatic systems to reduce mosquito breeding sites.

Larviciding is the application of pesticides for the control of larval mosquitoes. Only materials approved for this type of application by the U.S. Environmental Protection Agency (USEPA) and the State of Florida will be used. Larviciding applications will be made when a licensed applicator has made visual confirmation of mosquito larvae.

Application of these materials may be made from ground, boat or aerial equipment.

Frequency of application is dictated by the mosquito specie(s) present. Sites located in close proximity to a densely populated area represent a significant health risk and will receive priority treatment(s).

Adulticiding is the application of pesticides for the control of adult mosquitoes. Justification using mosquito surveillance is required prior to pesticide application. Priority for treatment is given to the treatment area with the highest level of mosquito-human interaction with disease vectors. Pesticide applications consist of a wide-area dispersal of pesticides. Only pesticides approved by the U.S. Environmental Protection Agency and State of Florida will be used. All pesticide application is subject to label restrictions and prevailing weather conditions. Application is achieved by:

- Truck-mounted dispersal equipment in residential areas

² Pesticide applications will be performed in accordance with the rules and licensure requirements of the State of Florida and Public Law.

- Aerial equipment in areas with limited road networks or when large areas need to be treated rapidly
- Other application methods may be employed as dictated by specific situations

Public Education is the best way to combat container breeding mosquitoes and help ensure that residents take precautions against mosquito borne illness. Mosquito Control will provide information and literature about mosquito biology, mosquito-transmitted diseases, and the control of mosquitoes through speaking engagements, cooperative school programs, government television, and other public activities for the purposes of public education.

ELIGIBLE TREATMENTS

All publicly accessible areas of the County, both incorporated and unincorporated, are eligible for treatment. Unimproved roads, or roads in disrepair that may damage equipment, will not be sprayed using truck mounted equipment. Efforts will be made, when possible, to provide treatment for such areas with alternate equipment. Truck mounted adulticide equipment will not treat private drives, beyond 'no trespassing' signs or gates, or other private areas. Areas where County personnel or equipment have been threatened or assaulted may be eliminated from the treatment areas.

Adulticide treatments are scheduled when trap collections exceed historical background mosquito populations. Background levels are based on historic mosquito collections, habitat type, human population within the area, and mosquito species.

- Mosquito populations are determined using background or baseline trap levels. The County generally uses a modified CDC (Centers for Disease Control) trap baited with carbon dioxide. Background levels were established using historical trap and customer service data. Levels of human annoyance are determined using service requests. Adult mosquito surveillance techniques compare trap results against a background level for the trap used to sample the mosquito population, the survey site and the type of mosquito sampled.
- Some mosquito species, at low levels, typically do not generate service requests, but can transmit diseases. During periods of increased viral activity, treatment activities will be modified to account for this situation. This modification reflects the fact that disease transmission risk exists at a lower population level than that which represents a pest problem.
- While control activities will take into account requests by the citizens, in general, treatments will not be scheduled when current mosquito surveillance levels do not exceed background levels and there is no significant threat of mosquito-borne disease transmission.

Special Functions Treatments of outdoor *public* events, when mosquito population numbers warrant and funding is sufficient, will be scheduled on the day prior to the function. Such gatherings include, but are not limited to, school activities, community functions, sporting events, carnivals, and craft shows.

No Spray/Notification Requests, where citizens do not wish their property to be sprayed, the area will be excluded from treatment zones (spray will be turned off while passing the property and adjacent property). Requests of citizens for notification prior to treatments will be attempted. In cases where active disease transmission is in the area of a no spray request, reasonable efforts will be made to coordinate applications, such that we do not jeopardize the individual or the public's health. Unless otherwise prohibited, treatments will be made in the best interests of Public Health.

SPECIAL ASSISTANCE

Upon request by municipality, county, special taxing district or state agency, assistance may be provided on a cooperative basis to public areas or public lands not deemed eligible according to the above criteria. The municipality, county, special taxing district or state agency must submit a written request for service to the County. The County will prepare a cost estimate and schedule date of work. The cost will include personnel cost (which may include overtime pay), equipment and material cost. This requested work will be implemented so as to not interfere with County priorities and workload, specifically, so that scheduled mosquito control activities as part of the annual work plan are not adversely impacted.

Reasonable requests to assist other County programs will be granted and services provided at the Program Manager's discretion so as not to interfere with existing priorities and workload.

MOSQUITO SPECIES TO BE CONTROLLED

The County's Mosquito Control operations are directed at all species of pestiferous mosquitoes, especially those of public health importance. Priority of operations will be based on mosquitoes of public health importance and the potential for disease transmission.

INSECTS NOT CONTROLLED

Several insects may create a nuisance in areas of Polk County, but are not part of the control program. These include, but are not limited to black flies, blind mosquitoes or midges, deer flies, fleas, love bugs, no-see-ums, yellow jackets, and yellow flies.