



Tarrant County Public Health

Guidelines for Phased Response to Mosquito Surveillance

The following recommendations are intended to guide mosquito control programs and may include other applicable community procedures. All actions are subject to change without notice due to organizational priorities, weather, or other unforeseen circumstances.

Risk category	Probability of human outbreak	Public Health Threshold	Recommended response
0	None	No evidence of mosquito or viral activity	<p>Surveillance</p> <ul style="list-style-type: none"> Develop response plan <p>Information/Education</p> <ul style="list-style-type: none"> Initiate community outreach and public education programs Conduct audience research to develop/target education & community involvement <p>Control Measures</p> <ul style="list-style-type: none"> Contact community partners Secure necessary control resources to enable emergency response
1	Low	Normal mosquito activity with little or no evidence of viral activity	<p>Surveillance</p> <ul style="list-style-type: none"> Routine monitoring of public health threats by TCPH Epidemiology Division Monitor larval and adult mosquito bionomics (trap surveillance) Identify mosquito samples and laboratory testing for disease <p>Information/Education</p> <ul style="list-style-type: none"> Public education and community outreach programs focused on risk potential, personal protection and residential source reduction <p>Control Measures</p> <ul style="list-style-type: none"> Source reduction through physical and environmental measures Biological – mosquito fish Larvicides (surface oils, biological bacterial products and insect growth regulators)
2	Moderate	Virus detected in mosquito samples	<p>Surveillance</p> <ul style="list-style-type: none"> Increase mosquito surveillance in areas of positive traps <p>Information/Education</p> <ul style="list-style-type: none"> Public health advisory released Advise the public and emphasize source reduction, personal protection, and disease symptoms <p>Control Measures</p> <ul style="list-style-type: none"> Larvicide breeding sites around infected trap sites Consider ground-based ULV adulticide application around positive trap location, with continued mosquito surveillance
3	High	Virus detected in multiple mosquito samples from different times and locations and confirmed human cases	<p>Surveillance</p> <ul style="list-style-type: none"> Increase surveillance activities in adjacent areas where spread of virus is likely <p>Information/Education</p> <ul style="list-style-type: none"> Public health warning released Publicize vector control measures within the target communities Warn the public of the probability of disease and provide guidance <p>Control Measures</p> <ul style="list-style-type: none"> Ground-based ULV adulticide application of area around confirmed human case(s) after mosquito trapping confirms the presence of disease Ground-based ULV adulticide application of positive mosquito sites and expanded areas around sites Consider aerial treatment(s)

4	Outbreak in progress	Multiple human cases confirmed and detection of increased or continued viral mosquito activity	<p>Surveillance</p> <ul style="list-style-type: none"> • Continue mosquito surveillance in areas of confirmed human cases <p>Information/Education</p> <ul style="list-style-type: none"> • Public health emergency considered • Declaration of public health emergency/distribution of emergency alerts <p>Control Measures</p> <ul style="list-style-type: none"> • Ground-based ULV adulticide application in areas of clustered human cases • Recommend aerial adulticide applications in targeted zones
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Tarrant County mosquito response guidelines were adapted from the Center for Disease Control report "Epidemic/Epizootic West Nile Virus in the United States: Guideline for Surveillance, Prevention and Control, 2003"