

## Reduction Vector Borne Risk Matrix

Risk category	Probability of human outbreak	Definition	Activities and responses
0	None	<ul style="list-style-type: none"> <li>No adult mosquito biting activity (vector species).</li> <li>No avian mortality noted.</li> <li>No suspected human cases documented.</li> </ul>	<ul style="list-style-type: none"> <li>Monitor and maintain nuisance mosquito populations.</li> <li>Maintain surveillance activities for both nuisance and known vector species.</li> <li>Monitor national and regional arbovirus case documentation</li> <li>Organize disease surveillance live trapping when climatic conditions warrant (High temps &gt;70 degrees – Low temps &gt; 55)</li> <li>Treat known vector breeding sites with residual materials</li> </ul>
1	Low	<ul style="list-style-type: none"> <li>Biting adult mosquitoes active (vector species).</li> <li>-or-</li> <li>Epizootic activity expected based on onset of transmission in prior years.</li> <li>-or-</li> <li>Limited or sporadic epizootic activity in birds or mosquitoes.</li> </ul>	<ul style="list-style-type: none"> <li>Response as in category 0, plus:</li> <li>Activate systemic program to monitor and reduce vector mosquito abundance.</li> <li>Conduct weekly RAMP test pools to monitor virus activity (mosquitoes and avian hosts) (July- Aug)</li> <li>Initiate community outreach focused on personal protection and residential source reduction.</li> <li>Monitor climatic conditions to evaluate future risk profile.</li> </ul>
2	High	<ul style="list-style-type: none"> <li>Sustained transmission activity in mosquitoes or birds.</li> <li>-or-</li> <li>Veterinary cases reported.</li> <li>-or-</li> <li>Human case or viremic blood donor reported.</li> </ul>	<ul style="list-style-type: none"> <li>Response as in category 1 plus:</li> <li>Intensify and expand adult mosquito control in areas using ground and/or aerial applications where surveillance indicates human risk.</li> <li>Consider 14-21 day ULV intervals</li> <li>Intensify visible activities in community to increase attention to WNV transmission risk and personal protection measures.</li> <li>Work to address high risk populations.</li> <li>Intensify and expand surveillance for human cases.</li> </ul>
3	Outbreak in progress	<ul style="list-style-type: none"> <li>Conditions favor continued transmission to humans (i.e., persistent high infection rate in mosquitoes, continued avian mortality, seasonal mosquito population decreases not anticipated for weeks)</li> <li>-or-</li> <li>Multiple confirmed human cases or viremic blood donors.</li> </ul>	<ul style="list-style-type: none"> <li>Response as in category 2 plus:</li> <li>Intensify emergency adult mosquito control program repeating applications as necessary to achieve adequate control.</li> <li>Monitor effectiveness of vector control efforts</li> <li>Emphasize urgency of personal protection, including use of repellents, through community leaders and media.</li> <li>Engage in 14-21 day interval region wide adult mosquito treatment regimen</li> </ul>