

Response matrix to possible VHS associated mortality in Green Bay muskellunge

Time/Event	Surveillance and Response	Management Action	Public Relations
Before Ice Out	None	Prepare plan	Informal education –convey we normally find some dead fish after ice out and that VHS may be a greater factor once fish begin to spawn.
Ice Out	Monitoring of historical beach walks to collect and estimate number of dead fish relative to past years. Collect all muskies (record length/weight/sex take cleithrum/tags) and field examination of other species by regional staff. If fish (>10 individuals) have color in gills and exhibit VHS symptoms contact Fish Health.	None	Possible coordination with volunteers for beach walks and surveillance.
A few dead fish	Respond to reports of dead fish. Prioritize normal workload first. Continue to collect all muskies (other species if # > 10). If individuals are in small geographic area and fresh, collect and contact Fish Health for VHS test and necropsy even if no external symptoms are evident. Fill out 3600-152 for all fish submitted for necropsy (one form per site, can include multiple species on the form). Fill out Form 3600-529 Fish Kill Data Sheet if >10 individuals.	If finding numbers of dead muskies in our own fyke nets discontinue sampling, to prevent additional mortality.	Contact with reporting individuals. Contact with additional resource users who are likely to encounter dead/sick fish and encourage vigilance and reporting.
Threshold	If greater than 20 dead/dying muskellunge (excluding the time immediately post ice-out) are found/reported within a time period of a week this will be considered the threshold for enacting muskellunge management alternatives.		
Many Dead Fish	Continue to respond to reports of dead/sick fish. If reports are of large numbers of fish may take priority over normal work. Field examination by regional staff, involve Fish Health when appropriate. Fill out form 3600-152 for all fish submitted for necropsy. Fill out Form 3600-529 Fish Kill Data Sheet if >10 individuals. VHS tests results take up to 28 days.	<p>Alternatives</p> <ol style="list-style-type: none"> <li>1) Ask for voluntary no muskellunge fishing until water &gt;70°F.</li> <li>2) Emergency closure of season until water &gt;70°F</li> <li>3) Emergency closure of musky fishing indefinite</li> </ol> <p>Combination of 1 and 2 preferred (until NR Board is able to enact emergency closure).</p>	Press release explaining the numbers of dead and sick fish, communicate management actions to public. Reinforce VHS rules and importance of not moving fish.
Many Dead Fish and +VHS test	Continue to collect dead muskies and >10 individuals of other spp., with clinical symptoms, not yet positively identified as VHS infected in Wisconsin waters.	<p>Long term options</p> <ol style="list-style-type: none"> <li>1) Change season opening date to July 1</li> <li>2) Close Season</li> <li>3) Catch and Release</li> </ol> <p>Alternative one is preferred</p>	Press release confirming VHSv in muskellunge population.

If muskie are freshly dead (color in gills) and are to be taken to Fish Health do not remove cleithrum or perform any invasive procedures, this may impair Sue’s diagnostic abilities. Fish Health will remove cleithrum, sex and check for hooks or other internal trauma.