

Zebra Mussel Protocol

Zebra mussels and invasive algae have infested several bodies of water in the United States and can be transported by vessels (barges, boats, tugs, tankers, etc.) and equipment that is used in invasive species areas. If equipment is not properly inspected and treated to prevent the spread of invasive species, these species can be introduced into areas not currently known to harbor a population. To assist in the prevention of introduction and spread of this aquatic nuisance species through MoDOT contracts in Missouri streams and lakes, the following precautions shall be followed.

The Contractor shall not acquire water for bridge deck flushing from waters of the State, unless they have implemented appropriate methods to prevent the possible spread of invasive aquatic species. Water sources from municipal water treatment plants or wells may be used without following these measures, provided the water hauling equipment has not previously contained waters from streams or lakes, or has been certified by the Contractor as cleaned by one of the following measures, prior to use on this contract.

Prior to transporting temporary barges, tugs, boats, or other equipment used for work in MO streams or lakes, or re-using water hauling equipment following any use with water from Missouri streams or lakes, the contractor shall wash and rinse all equipment thoroughly with hard spray (power wash) or HOT (104 degrees Fahrenheit) water, e.g. at a truck wash facility.

When possible, the contractor shall dry equipment thoroughly, 5-7 days, in the hot sun before using in or transporting between MO streams and lakes.

If complete drying is not possible, the contractor shall utilize one of the following treatment methods:

Treat all interior and exterior surfaces with 140 degree F water for a minimum of 10 seconds contact on all surfaces.

Submerge all surfaces in 100% vinegar for 20 minutes.

Submerge in a solution of 200 ppm chlorine for 10 minutes.

Treat all bilge water, and reservoirs holding water with a 10% bleach solution to kill any aquatic nuisance species.

All vinegar and chlorine runoff shall be contained and disposed of properly.

To avoid spreading invasive algae, check all gear and remove any visible algae. Do not dispose of algae into bodies of water. Clean all gear and equipment with a solution of 2% bleach, 5% saltwater, or dish detergent. Allow all equipment to stay in contact with the solution for at least one minute. Soak all soft items for at least 20 minutes. Dry all gear in the sun for at least 48 hours.

Prior to use of the aforementioned types of vessels, the contractor shall provide the MoDOT inspector written documentation of its geographic origin (including the water body it was last used in), as well as defining the specified treatment method used to adequately ensure protection against invasive species.

Vessels and equipment shall be inspected upon removal from any body of water, cleaning hulls, anchors, moorings, trailers, etc. of all mud, vegetation, and any noticeable attached zebra mussels. This practice will assist in preventing the spread of invasive aquatic species between bodies of water. If zebra mussels are found upon inspection, immediate notification must be made to the MoDOT inspector and the Missouri Department of Conservation Invasive Species Coordinator (573-522-4115).