STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

RICK SNYDER
GOVERNOR

KEITH CREAGH
DIRECTOR

SUBMITTED: November 12, 2013
RESUBMITTED: December 16, 2013

MEMORANDUM TO THE NATURAL RESOURCES COMMISSION

Subject: Fisheries Order 245.14
Fish Disease Control

Authority:

The Natural Resources and Environmental Protection Act, 1994 PA 451, authorizes the Director and the Commission to issue orders to regulate the taking of fish in the waters of this state.

Discussion and Background:

Fisheries Order 245 establishes regulations for the protection of aquatic resources of the State while minimizing the spread of pathogens such as Viral Hemorrhagic Septicemia (VHS) to uninfected waters. Special regulations listed in this Order place restrictions on the minnow trade and anglers and where baitfish and roe (fish eggs) can be used. We propose one change to the Order which will result in simplification of the regulations and reduce a hardship currently placed on businesses associated with the minnow trade.

When this Order was originally developed, it contained several provisions dealing with sales receipts for transactions which included sale or purchase of susceptible fish species (and their associated roe). Receipts were used for educational and enforcement purposes to direct where anglers must use their purchased bait. Bait harvested and collected in different VHS Management Areas are not all treated the same and requires anglers to use their bait in the appropriate location in order to reduce the risks associated with spreading fish pathogens. Provisions in the Order also provide a process for bait dealers to certify that their bait is VHS free. All commercial bait dealers have been required by law to provide each customer with a receipt that stated on the receipt the following: the species of fish, number of fish, whether or not it was certified disease free, the certification number (if certified), the date, the place of purchase, and which VHS Management Area the bait could be used.

Receipts concerning certified and uncertified bait and frozen and unfrozen bait had different expirations based upon the type of bait involved. Personally harvested bait does not require a receipt because no sale or transaction was conducted. The current regulations have been in effect for several years and the Department believes that the retail receipt provision can now be removed because anglers are more knowledgeable about the risks associated with bait use. Therefore, the Department proposes to remove this requirement from the Order. Additionally, the Department has established a workgroup to review this order in its entirety in 2014.

This change will help improve clarity for anglers, law enforcement personnel, and remove a time consuming step in the retail transaction. The proposed modification to this Order is supported by the bait industry, the Office of Licensing and Regulatory Affairs, and law enforcement personnel. We are recommending that this Order take immediate effect upon signing to align with the new 2014 licensing year for our commercial minnow harvesters and dealers. Unfortunately, the current printed Fishing Guide

will not have the correct information. However, we will post an update to the online version of the Fishing Guide and will develop a press release for distribution to inform our anglers once the Order has been signed. The result of the new regulation is liberalization to fishing regulations and it makes sense for all involved to make the change immediately.

Recommendation:

This Order was submitted for information and consideration at the December 2013 Natural Resources Commission Meeting. This item appeared on the Department's December 2013 calendar and is eligible for approval on January 9, 2014. We recommend it be acted upon at this time.

James Dexter, Chief
Fisheries Division

Gary Hagler, Chief
Law Enforcement Division

Russ Mason, Ph.D., Chief
Wildlife Division

Bill O'Neill, Chief
Forest Resources Division

Ronald A. Olson, Chief
Parks and Recreation Division

William E. Moritz, Ph.D.
Natural Resources Deputy

I have analyzed and discussed these recommendations with staff and concur as to matters over which the Director has authority.

Keith Creagh, Director

Date

FISHERIES ORDER

FISH DISEASE CONTROL
Order 245.14

By authority conferred on the Natural Resources Commission and the Department of Natural Resources by Part 487 of 1994 PA 451, MCL 324.48701 to 324.48740, it is ordered that effective January 9, 2014, the following section(s) of the Fisheries Order shall read as follows:

The goals of the Department's actions under this Fish Disease Control Order are to protect the aquatic resources of the State, minimize the spread of Pathogens of concern to uninfected waters, and protect the Department's fish hatchery system. The Department will address the control of diseases of fish through the development of regulations for specific Management Areas that are designed to contain or slow the spread of Pathogens of concern.

DEFINITIONS

As used in this Fish Disease Control Order, specific terms are defined as follows:

Baitfish –live or dead species of fish, or parts of fish excluding Roe, that are used by anglers to catch fish.

Baitfish and Roe Exclusion Zone- waters designated as critical to hatchery operations where possession and use of baitfish and Roe as defined is prohibited.

Certification Process – a process used by the Department to grant or deny applications from individuals who want to conduct certain activities that are regulated by this Fish Disease Control Order.

Inland Waters – all public waters of the State except for the Great Lakes and their connecting waters.

Pathogen – viruses, bacteria, fungi, and parasites that cause disease in living organisms.

Roe – eggs of fish.

Susceptible Fish Species – Baitfish and other species of fish identified by the Department as infected with one or more Pathogens of concern.

BAITFISH AND ROE EXCLUSION ZONES

The Department has identified locations vital to the protection of hatchery operations in an effort to control or contain pathogen movement and reduce disease risks to these facilities. In these critical areas restrictions on the possession and subsequent use of baitfish and Roe must be implemented. Therefore, baitfish and roe shall not be possessed on the following waters of the State:

Benzie County

Brundage Creek and tributaries Kinney Creek and Stanley Creek, from its confluence with the Platte River (T26N, R13W, S7), to their headwaters, including Brundage Spring Pond.

Chippewa County

Pendills Lake (T47N, R4W, S25, 26) including tributary Pendills Creek downstream to its confluence with Lake Superior (T47N, R4W, S28).

Sullivan Creek from its headwaters (T46N, R4W, S32) downstream to its confluence with the North Branch of the Pine River (T45N, R4W, S23).

Viddian Creek from its headwaters (T47N, R4W, S32) downstream to its confluence with Pendills Creek (T47N, R4W, S28).

Marquette County
Cherry Creek from the location of the Cherry Creek Road (T47N, R24W, S18) to the headwaters at County Road 480 (T47N, R25W, S22).

REGULATION BY MANAGEMENT AREA

The Department uses a classification system to categorize waters based on their disease status. Specific Management Areas identified by the Department under this system include: 1) Named Pathogen Positive Management Area, where the presence of a named Pathogen has been confirmed; 2) Named Pathogen Surveillance Management Area, where a named Pathogen is likely to be found in the near future; and 3) Named Pathogen Free Management Area, where a named Pathogen has not been confirmed to date. Regulatory actions are designed for each Management Area to reduce the risk of spreading a Pathogen from, and in some cases containing a Pathogen within, a Named Pathogen Positive Management Area. Unique regulatory actions will be developed for each new Pathogen that is discovered, and such actions will take into account the likely dispersal routes for a Pathogen.

GENERAL STATEWIDE PROVISIONS

[In this Order, the terms State-licensed baitfish retail and State-licensed baitfish wholesale operations are those that are required to be licensed by the state of Michigan for these activities]

The official list of Susceptible Fish Species for each Pathogen of concern as identified by the Department will be available from the Department and will be posted on Fisheries Division's web site (http://www.michigan.gov/dnrfishing). The list of Susceptible Fish Species for each Pathogen of concern as of January 9, 2014, is attached to this Fish Disease Control Order for reference only (Appendix A). Updates to the list of Susceptible Fish Species will be made as necessary and posted on Fisheries Division's website.

1. The official list of waters classified by Named Pathogen Management Area for each Pathogen of concern as identified by the Department shall be posted on Fisheries Division's web site (http://www.michigan.gov/dnrfishing). The list of waters classified by Named Pathogen Management Area for each Pathogen of concern as of December 12, 2013, is attached to this Fish Disease Control Order for reference only (Appendix B). Updates to the list of list of waters classified by Named Pathogen Management Area will be made as necessary and posted on Fisheries Division's web site.

2. It shall be unlawful to import into this state any uncertified baitfish species found on the list of Susceptible Fish Species (Appendix A).

3. The Certification Process for state licensed baitfish wholesalers and retailers includes two Parts: Part A) Status of a Facility and, Part B) Status of Fish Health. The *Guide for Certification of Status of a Facility and Status of Fish Health* will identify the specific steps to be completed for each Pathogen of concern as identified by the Department, as well as when a Certification for Status of a Facility that has been granted, or a Certification for Status of Fish Health that has been granted, shall expire. The *Guide for Certification of Status of a Facility and Status of Fish Health* will be available from the Department and will be posted on Fisheries Division's web site (http://www.michigan.gov/dnrfishing).

   Part A) Status of a Facility – Applicants of the Certification Process who wish to keep Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, in a facility shall have that facility reviewed by the Department to ensure that there is minimal risk to public waters of the State and that appropriate biological

security measures are effective for the facility. The Department will review the results for each application under Part A) and respond with a letter of Certification for Status of a Facility that either grants or denies the application and includes the Department's rationale for the decision, as well as the actions necessary for achieving certification. This Part A) does not apply to 1) an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture and Rural Development; 2) an owner of a State-licensed Baitfish retail operation; or 3) an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Susceptible Fish Species.

Part B) Status of Fish Health – Applicants who wish to offer for sale or sell Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, shall have those Baitfish or that Roe tested for each Pathogen of concern by a certified laboratory that has been approved by the State of Michigan. Applicants shall submit the results of all tests to the Department. The Department will review the results for each application under Part B) and respond with a letter of Certification for Status of Fish Health that contains a transaction number, and that either grants or denies the application and includes the Department's rationale for the decision. This Part B) does not apply to an owner of a State-licensed Baitfish retail operation or an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Susceptible Fish Species.

4. A person shall not stock Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, into holding facilities, ponds, or other waters that discharge into public waters of the State prior to completing Part A) of the Certification Process and receiving a letter of Certification for Status of a Facility from the Department permitting such activity. This Provision 4 does not apply to 1) an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture; 2) an owner of a State-licensed Baitfish retail operation; or 3) an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Susceptible Fish Species.

5. If an approved Certification for Status of a Facility is issued by the Department under Part A) of the Certification Process, an applicant shall carry a copy of that letter of Certification for Status of a Facility with them when transporting and stocking Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, into holding facilities, ponds, or other waters that discharge into public waters of the State. This Provision 5 does not apply to 1) an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture; 2) an owner of a State-licensed Baitfish retail operation; or 3) an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Susceptible Fish Species.

6. A person shall not stock Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, in public waters of the State prior to receiving a Fish Stocking Permit from the Department permitting such activity. To obtain a fish stocking permit the following conditions must be met: 1) all salmonids shall be tested for and certified free of VHSv, IHNv, IPNv and whirling disease; 2) all centrarchids shall be tested for and certified free of VHSv, and largemouth bass virus; 3) all percids should be tested for and certified free of VHSv and *Heterosporis sp.*; 4) all ictalurids shall be tested for and certified free of VHSv and channel catfish virus; 5) all esocids shall be tested for and certified free of VHSv; 6) all sturgeon shall be tested and certified free of white sturgeon virus; 7) all cyprinids shall be tested for and certified free of VHSv

and *Heterosporis sp.*; and 8) all other Susceptible Fish Species shall be tested for and certified free of VHSv. All pathogen sample collection and testing shall be done in consultation with Fisheries Division and shall use standard testing protocols for each pathogen.

7. If an approved Fish Stocking Permit is issued by the Department, an applicant shall carry a copy of that Fish Stocking Permit with them when transporting and stocking Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, in public waters of the State.

8. Except as otherwise provided for in this Fish Disease Control Order, a person shall not offer for sale or sell any Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, prior to completing Part B) of the Certification Process and receiving a letter of Certification for Status of Fish Health from the Department permitting such activity. This Provision 8 does not apply to an owner of a State-licensed Baitfish retail operation or an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Susceptible Fish Species.

9. If an approved Certification for Status of Fish Health is issued by the Department under Part B) of the Certification Process, an applicant shall carry a copy of that letter of Certification for Status of Fish Health with them when transporting, offering for sale, or selling Baitfish or live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species. That letter of Certification for Status of Fish Health shall be shown upon request. This Provision 9 does not apply to an owner of a State-licensed Baitfish retail operation or an owner of a State-licensed commercial fishing operation specifically for that part of the operation related to the sale for human consumption of Roe taken from fish that are listed as Susceptible Fish Species.

10. An owner of a State-licensed Baitfish wholesale operation shall provide to each wholesale purchaser at the point of sale a copy of the Certification For Status of Fish Health that applies to the fish being sold.

11. A wholesale purchaser shall retain copies of receipts for purchases from a State-licensed Baitfish wholesale operation for at least one year after the date of sale.

12. All species of live fish and Roe maintained at a location by an owner of a State-licensed commercial fishing operation, an owner of a State-licensed Baitfish wholesale operation, or an owner of a State-licensed Baitfish retail operation shall be considered uncertified if live fish that are listed as Susceptible Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species, are also maintained at that location and those live fish or that Roe have not been approved as required under Part B) of the Certification Process.

13. A person, who catches fish in a lake or a Great Lake, shall not release those fish alive in any public waters of the State if those fish are listed as Susceptible Fish Species, except that those fish may be released alive in that lake, or that Great Lake, or in a connecting body of water to that lake, or that Great Lake, so long as those fish can freely move between the original location of capture and the location of release. This Provision 13 does not apply to Baitfish.

14. A person who catches fish in a stream shall not release those fish alive in any public waters of the State if those fish are listed as Susceptible Fish Species, except that those fish may be released alive in any part of that stream, or in a connecting body of water to that stream, so long as those fish can

freely move between the original location of capture and the location of release. This Provision 14 does not apply to Baitfish.

15. Except as further restricted in this Fish Disease Control Order, a person shall not use or otherwise release Baitfish that are listed as Susceptible Fish Species, in any public waters of the State, unless that person is fishing and those Baitfish are attached to a hook. Use of Roe is restricted per the specific regulations outlined in the *Management Area Regulations for Viral Hemorrhagic Septicemia virus (VHSv).*

16. A person who trailers a boat over land shall drain all water from the live well(s) and the bilge of their boat upon leaving any body of water.

SECTION I – Viral Hemorrhagic Septicemia Virus (VHSv)

Viral hemorrhagic septicemia virus (VHSv) is a disease of fish that has caused large-scale mortalities of fish in aquaculture operations in Europe, in certain populations of wild fish along the Pacific Coast of North America, and now in various populations of wild fish in several areas of the Great Lakes Basin. There are four known genetic types of the virus, three in Europe where VHSv originated and one in North America. The genetic type found in the Great Lakes Basin (VHSv IVb) is most similar to the strain of VHSv previously isolated from the Atlantic Coast of Eastern North America. VHSv types I, II, and III have caused significant mortalities, particularly in rainbow trout in European aquaculture facilities, and type IVa has caused large mortalities in Pacific herring in the Puget Sound area. In the Great Lakes Basin, VHSv IVb has caused mortalities in several species of wild fish inhabiting Lake Huron, the St. Clair River, Lake St. Clair, the Detroit River, Lake Erie, the Niagara River, Lake Ontario, and the St. Lawrence River, along with a few inland waters in the basin.

On November 10, 2008, a Federal Interim Rule was issued by the Animal and Plant Health Inspection Service of the United States Department of Agriculture in an effort to prevent the spread of VHSv between States and between the U.S. and Canada, thus hopefully protecting economically important sport fisheries and aquaculture operations. This Fish Disease Control Order is consistent with the Federal Interim Rule, and it provides for additional protections to slow the spread of VHSv throughout the Great Lakes and Inland Waters under the jurisdiction of Michigan that are not covered by the federal Emergency Order (as amended).

VHSv may continue spreading in fish throughout the Great Lakes Basin via the natural movements of infected fish. The virus could be moved by ships that discharge untreated ballast water, the stocking of infected fish, or the unintended movement of water by boaters and anglers that contains either the virus itself or live fish that are infected with the virus. While containment and eradication of VHSv are likely not possible, the regulations specified in this Fish Disease Control Order continue to be deemed necessary to slow the spread of VHSv. The restrictions detailed below will help the Department to: 1) protect populations of wild fish in inland waters and in several areas of the Great Lakes, that are not yet infected with the virus; 2) protect wild populations of fish used as broodstock for fisheries management; and 3) prevent the infection of fish being reared in State-owned fish hatcheries.

Management Area Regulations for Viral Hemorrhagic Septicemia virus (VHSv)

VHSv Positive Management Area

On all waters designated within the VHSv Positive Management Area, the following regulations further restrict the transportation, sale, use, and release of Baitfish and fish that are listed as Susceptible Fish

Species and Roe taken from fish that are listed as Susceptible Fish Species, that **have not** been approved as required under Part B) of the Certification Process.

Recreational anglers

1. A person who catches Baitfish that are listed as Susceptible Fish Species, or harvests Roe from fish that are listed as Susceptible Fish Species, in a body of water that is located in the VHSv Positive Management Area shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters that are located in the VHSv Positive Management Area subject to Provision 15 under the General Statewide Provisions.
2. A person who purchases uncertified Baitfish that are listed as Susceptible Fish Species, or purchases uncertified Roe from fish that are listed as Susceptible Fish Species, shall not use or otherwise release those uncertified Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters that are located in the VHSv Positive Management Area subject to Provision 15 under the General Statewide Provisions.

State-licensed Baitfish wholesale operations; State-licensed Baitfish retail operations

1. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not transport Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Positive Management Area, unless that owner has documentation demonstrating proof that those Baitfish or that Roe have been harvested from a body of water that is included in the VHSv Positive Management Area.
2. Written documentation demonstrating proof (water body, county, and date) that each species of Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, has been harvested from a body of water that is included in the VHSv Positive Management Area shall accompany all shipments of those Baitfish or that Roe, and that documentation shall be shown upon request.
3. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not offer for sale or sell Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Positive Management Area, unless that owner has clearly identified at the point of sale that those Baitfish or that Roe may only be used in a body of water that is included in the VHSv Positive Management Area.

VHSv Surveillance Management Area

On all waters designated within the VHSv Surveillance Management Area, the following regulations further restrict the transportation, sale, use, and release of Baitfish and fish that are listed as Susceptible Fish Species and Roe taken from fish that are listed as Susceptible Fish Species, that **have not** been approved as required under Part B) of the Certification Process.

Recreational anglers

1. A person who catches Baitfish that are listed as Susceptible Fish Species, or harvests Roe from fish that are listed as Susceptible Fish Species in a body of water that is located in the VHSv Surveillance Management Area shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters located in either the VHSv Positive Management Area or the VHSv Surveillance Management Area subject to Provision 15 under the General Statewide Provisions.
2. A person who purchases Baitfish that are listed as Susceptible Fish Species, or purchases Roe from fish that are listed as Susceptible Fish Species, shall not use or otherwise release those Baitfish or that Roe in any public waters of the State, except that those Baitfish or that Roe may be used in any waters that are located in either the VHSv Positive Management Area or the VHSv Surveillance Management Area subject to Provision 15 under the General Statewide Provisions.

State-licensed Baitfish wholesale operations; State-licensed Baitfish retail operations

1. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not transport Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is located in the VHSv Surveillance Management Area, unless that owner has documentation demonstrating proof that those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Surveillance Management Area.
2. Written documentation demonstrating proof (water body, county, and date) that each species of Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, has been harvested from a body of water that is included in the VHSv Surveillance Management Area shall accompany all shipments of those Baitfish or that Roe, and that documentation shall be shown upon request.
3. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation shall not offer for sale or sell Baitfish that are listed as Susceptible Fish Species, or Roe from fish listed as Susceptible Fish Species, if those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Surveillance Management Area, unless that owner has clearly identified at the point of sale that those Baitfish or that Roe may only be used in a body of water that is included in either the VHSv Positive Management Area or the VHSv Surveillance Management Area.

VHSv Free Management Area

On all waters designated within the VHSv Free Management Area, the following regulations apply to the transportation, sale, use, and release of Baitfish and fish that are listed as Susceptible Fish Species and Roe taken from fish that are listed as Susceptible Fish Species, that **have not** been approved as required under Part B) of the Certification Process.

Recreational anglers

1. A person who catches Baitfish that are listed as Susceptible Fish Species, or harvests Roe from fish that are listed as Susceptible Fish Species in a body of water that is located in the VHSv Free Management Area may use those Baitfish or that Roe in any public waters of the State, subject to Provision 15 under the General Statewide Provisions.
2. A person who purchases Baitfish that are listed as Susceptible Fish Species, or purchases Roe from fish that are listed as Susceptible Fish Species, that has been harvested from a body of water included in the VHSv Free Management Area may use those Baitfish or that Roe in any public waters of the State, subject to Provision 15 under the General Statewide Provisions.

State-licensed Baitfish wholesale operations; State-licensed Baitfish retail operations

1. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation may transport Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, so long as those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Free Management Area and that owner has documentation demonstrating proof that those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Free Management Area.
2. Documentation demonstrating proof that each species of Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, has been harvested from a body of water that is included in the VHSv Free Management Area shall accompany all shipments of those Baitfish or that Roe, and that documentation shall be shown upon request.
3. An owner of a State-licensed Baitfish wholesale operation or a State-licensed Baitfish retail operation may offer for sale or sell Baitfish that are listed as Susceptible Fish Species, or Roe from fish that are listed as Susceptible Fish Species, so long as those Baitfish or that Roe has been harvested from a body of water that is included in the VHSv Free Management Area and that owner has clearly identified at the point of sale that those Baitfish or that Roe may be used in any waters of the State.

SECTION II – Koi Herpes Virus (KHV)

Koi herpes virus (KHV) is a contagious viral disease that has potential to cause significant mortality in common carp (*Cyprinus carpio*) populations. This disease was first identified in 1997 and 1998 in Europe. Since that time, the disease has been found in nearly every country that either cultures or sells Koi carp with the first detection in the U.S. in 1999. The disease is known to only occur in freshwater and the infection is transmitted horizontally from other infected fish. Carp mortalities can approach 100%. All ages are susceptible to the disease and the disease is believed to be specific only to common carp, Koi and goldfish. There is no known treatment for the disease.

Due to the recent emergence of KHV in the wild in Michigan, the harvest of minnows for personal use by anglers and by state-licensed commercial minnow catchers is prohibited from the following waters:

1. Kent Lake, Livingston and Oakland Counties, all tributaries flowing into Kent Lake, and the Huron River from Kent Lake upstream to the Hubbell Millpond dam in Milford.
2. Silver Lake, Oceana County, and all tributaries flowing into Silver Lake.

This Order shall be assigned number FO-245.14, and is entitled "Fish Disease Control." If a discrepancy occurs between this Fish Disease Control Order, FO-245.14, and other orders and laws currently in existence, the more restrictive regulation shall take precedence.

This Order supersedes the Order entitled "Fish Disease Control," which became effective April 1, 2012, and is assigned number FO-245.12.

This Order shall take immediate effect on January 9, 2014, and shall remain in effect until amended/rescinded.

Issued on this 9th day of January 2014.

Approved as to matters over which the Commission has authority.

J.R. Richardson, Chairman
Natural Resources Commission

Approved as to matters over which the Director has authority.

Keith Creagh
Director

FISH DISEASE CONTROL ORDER, FO-245

Appendix A

The official list of Susceptible Fish Species for each Pathogen of concern as identified by the Department shall be posted on Fisheries Division's web site (http://www.michigan.gov/dnrfishing). This Appendix A, which contains the list of Susceptible Fish Species for each Pathogen of concern as identified by the Department of Natural Resources as of January 9, 2014, is incorporated by reference into this Fish Disease Control Order, FO-245.

Susceptible Fish Species [1]		Pathogen of concern	
Common name	Scientific name	Section I VHSv	Section II KHV
Black crappie	*Pomoxis nigromaculatus*	X	
Bluegill	*Lepomis macrochirus*	X	
Bluntnose minnow	*Pimephales notatus*	X	
Brown bullhead	*Ictalurus nebulosus*	X	
Brown trout	*Salmo trutta*	X	
Burbot	*Lota lota*	X	
Channel catfish	*Ictalurus punctatus*	X	
Chinook salmon	*Oncorhynchus tshawytscha*	X	
Coho salmon	*Oncorhynchus kisutch*	X	
Common Carp	*Cyprinus carpio*		X
Emerald shiner	*Notropis atherinoides*	X	
Freshwater drum	*Aplodinotus grunniens*	X	
Gizzard shad	*Dorosoma cepedianum*	X	
Lake Herring	*Coregonus artedi*	X	
Lake whitefish	*Coregonus clupeaformis*	X	
Largemouth bass	*Micropterus salmoides*	X	
Muskellunge	*Esox masquinongy*	X	
Northern pike	*Esox lucius*	X	
Pacific herring	*Clupea pallasi*	X	
Pink salmon	*Onchorhynchus gorbuscha*	X	
Pumpkinseed	*Lepomis gibbosus*	X	
Rainbow trout	*Oncorhynchus mykiss*	X	
Rock bass	*Ambloplites rupestris*	X	
Round goby	*Neogobius melanostomus*	X	
Shorthead redhorse	*Moxostoma macrolepidotum*	X	
Silver redhorse	*Moxostoma anisurum*	X	
Smallmouth bass	*Micropterus dolomieu*	X	
Spottail shiner	*Notropis hudsonius*	X	
Trout perch	*Percopsis omiscomaycus*	X	
Walleye	*Sander vitreus*	X	
White bass	*Morone chrysops*	X	
White perch	*Morone Americana*	X	
White sucker	*Catostomus commersonii*	X	
Yellow perch	*Perca flavescens*	X	

[1] An "X" for a species of fish under each Section/named Pathogen signifies that the species has been identified by the Department as infected with that Pathogen of concern. Such species of fish are therefore subject to the restrictions imposed by this Fish Disease Control Order, FO-245.

FISH DISEASE CONTROL ORDER, FO-245

Appendix B

The official list of waters classified by Named Pathogen Management Area for each Pathogen of concern as identified by the Department shall be posted on Fisheries Division's web site (http://www.michigan.gov/dnrfishing). This Appendix B, which contains the list of waters classified by Named Pathogen Management Area for each Pathogen of concern as identified by the Department of Natural Resources as of January 9, 2014, is incorporated by reference into this Fish Disease Control Order, FO-245.

SECTION I – Viral Hemorrhagic Septicemia Virus (VHSv)

VHSv Positive Management Area

Lake Huron including Saginaw Bay, the St. Clair River, Lake St. Clair, the Detroit River, and Lake Erie are classified as a VHSv Positive Management Area. All tributaries to Lake Huron including Saginaw Bay, to the St. Clair River, to Lake St. Clair, to the Detroit River, and to Lake Erie are classified as a VHSv Positive Management Area in their entirety or from their confluence upstream to the first barrier that prevents the upstream passage of fish if such a barrier exists. VHSv has been documented in Budd Lake (Clare County) and Base Line Lake (Livingston and Washtenaw Counties) resulting in their addition to the VHSv Positive Management Area.

VHSv Surveillance Management Area

Lake Michigan including Grand Traverse bays and bays de Noc, and the St. Marys River are classified as a VHSv Surveillance Management Area. All tributaries to Lake Michigan including Grand Traverse bays and bays de Noc, and to the St. Marys River are classified as a VHSv Surveillance Management Area in their entirety or from their confluence upstream to the first barrier that prevents the upstream passage of fish if such a barrier exists. All Inland Waters in the watersheds of Lake Huron including Saginaw Bay, of the St. Clair River, of Lake St. Clair, of the Detroit River, and of Lake Erie are classified as a VHSv Surveillance Management Area, except for those tributaries to Lake Huron including Saginaw Bay, to the St. Clair River, to Lake St. Clair, to the Detroit River, and to Lake Erie that are classified as a VHSv Positive Management Area.

VHSv Free Management Area

Lake Superior and all Inland Waters in the watersheds of Lake Superior are classified as a VHSv Free Management Area. All Inland Waters in the watersheds of Lake Michigan including Grand Traverse bays and bays de Noc, and of the St. Marys River are classified as a VHSv Free Management Area, except for those tributaries to Lake Michigan including Grand Traverse bays and bays de Noc, and to the St. Marys River that are classified as a VHSv Surveillance Management Area.

SECTION II – Koi Herpesvirus (KHV)

KHV Positive Management Area

Kent Lake, Livingston and Oakland Counties, all tributaries flowing into Kent Lake, and the Huron River from Kent Lake upstream to the Hubbell Millpond dam in Milford. Silver Lake, Oceana County, and all tributaries flowing into Silver Lake.