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GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING



DR. WILLIAM E. MORITZ
DIRECTOR

SUBMITTED:

February 16, 2016

MEMORANDUM TO THE NATURAL RESOURCES COMMISSION

Subject: Fisheries Order 245.16
Fish Disease Control
FOR INFORMATION ONLY

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 to protect the 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) may be used.

In response to the discovery of VHS in Michigan waters of the Great Lakes, the Department implemented a comprehensive set of regulations on June 28, 2007. These regulations, aimed at curtailing the spread of VHS into disease free waters, impacted recreational anglers, wholesale fish dealers, state licensed commercial fishermen, private aquaculturists, and retail bait outlets. Overall, these groups and the public at large have been accepting of the new regulations and understand the importance of protecting our fisheries. Largely, these regulations have been effective and we have seen only a single positive detection of VHS from a lot of shiners and two positive detections on inland waters Budd Lake county and Base Line Lake county since its inception.

In 2012, the Office of Regulatory Reinvention (ORR) recommended several changes to Michigan's natural resources regulations originating from the Natural Resources Advisory Rules Committee. Fisheries Order 245 was reviewed and several changes were recommended:

Recommendation #14

Subject: Bait Fish

Recommendation: Amend Fisheries Order 245 to relieve the angler of the obligation to keep a receipt when purchasing certified baitfish and require all baitfish producers selling in Michigan to produce, sell, and distribute only certified baitfish and roe to their customers (retail operators).

Following this recommendation, the Department proposed to remove the receipt requirement for baitfish purchases which was authorized by the NRC in 2014. This change removed a burden on the retailers and the public. Additionally, a workgroup was established in 2014 by the Fisheries Division Chief to review Fisheries Order 245 in its entirety with these goals: 1) Simplify the regulatory framework, 2) reduce importation of baitfish into Michigan, 3) require all importations into Michigan to be certified disease free, 4) simplify testing requirements in Michigan while keeping disease risk minimized and 5) improve messaging for Michigan produced baitfish. Members of the Workgroup included representative from Fisheries and Law Enforcement Divisions as well as the Department of Agriculture and Rural Development.

The Workgroup began meeting in early 2015 to review and discuss the various aspects of the Order with the understanding that the ORR provided a recommendation to certify all bait disease free. The workgroup quickly realized that the baitfish industry should be engaged because requiring all baitfish to be certified would likely cripple the industry due to the fish holding requirements related to disease testing. Three workshops were conducted with the industry (June 18, 2015, September 22, 2015, and February 2, 2016) to foster discussion between the Department and individuals representing wholesale, catcher, and retail components of the baitfish industry. These workshops were extremely productive and helped build relationships while fostering a better understanding of the industry.

Important outcomes from the three workshops included:

- The baitfish industry was negatively impacted after VHS regulations were established in 2007.
- Importation of minnows has increased since 2007.
- Current testing requirements are prohibitive to harvest outside of November therefore, 80% of Michigan's harvest occurs during the month of November.
- The baitfish industry feels alienated due to strict requirements and negative press.
- Michigan Sea Grant is working with the industry to minimize risks associated with invasive species.
- Department efforts to engage the industry was appreciated.

The proposed changes to this Order meet three out of our original five goals. These regulations proposed are simpler, will reduce importation of minnows into Michigan (thus reducing the movement of Aquatic Invasive Species into Michigan) and reduce testing requirements while keeping Michigan's resources protected. However, it was clear that requiring all bait to be certified was not a requirement worth pursuing given our improved knowledge of potential effects of VHS so the Department does not recommend implementing the ORR recommendation to certify all bait disease free. Our fifth goal to improve messaging, while not addressed by these regulations, has begun by the Department and the industry. A website highlighting the baitfish industry (similar to the Department's current commercial fishing webpage) is under construction and should be available online this March. Further, a Departmental showcasing story was written after staff visited a baitfish catcher during a harvesting trip. This effort has been greatly appreciated by the industry and illustrates a positive collaborative effort.

Fisheries Order 245 was established in response to VHS detections in wild fish. The regulations were needed to not only protect the environment, but to also educate our anglers on how disease may spread. Eleven years later, VHS has been removed as a federally reportable disease and there have not been any catastrophic fish kills as originally feared by the Department. Furthermore, the bait industry has accommodated the Department's regulatory framework originally set in place to help reduce the likelihood of further disease movement. The Department now has a much broader understanding about VHS and how the bait industry operates throughout Michigan. As a result, the Department is recommending several changes to the Order.

Major changes proposed:

- Removal of the VHS positive, surveillance, and free management zones: these zones are not accurate nor are necessary at this time.
- Update the list of susceptible fish species: combine aquaculture species with baitfish species to simplify testing requirements.
- Removal of the restriction on use of roe (fish eggs) in the exclusion zones: roe has not been determined to transmit VHS or the risk is very small.
- Require all bait harvested in November and December to be certified disease free: this time period represents 80% of the total annual minnow harvest.
- Require a spring disease test in 5 zones of the Huron- Erie Corridor: this spring test will be used to continue to monitor VHS presence.
- Require all personally collected bait be used in the same water it was collected: this will also help with limiting movement of invasive species.

The proposed regulation changes have been very well received by the baitfish industry. However, even though we haven't detected VHS within bait in the past six years it could still manifest as a problem. If VHS or another harmful disease is detected the Department would implement an emergency Order to mitigate spread and harm. The emergency response from a positive disease detection would be determined on a case-by-case basis in consultation with the Department of Agriculture and Rural Development and the industry.

Issue Pros and Cons

The proposed changes will allow for over 80 percent of the baitfish harvested annually in Michigan waters to be tested in Michigan. The changes will also allow for more sale of spring collected baitfish as zone sampling will now be incorporated into the disease testing protocol. Therefore, the need for bait dealers to bring in minnows from other states will be greatly reduced. This will result in less chances of aquatic invasive species being brought into Michigan along with minnow shipments.

Neighboring States

After the federal order regarding VHS was rescinded several years ago many states followed suit by reducing their VHS testing requirements. However, Michigan has the most to lose by not being proactive in protecting our important water resources from VHS and other disease transmission. Therefore, Michigan should maintain its vigilance on reducing the risks of potential disease outbreaks by maintaining a level of disease testing as proposed.

Biological

Disease outbreaks can have a devastating effect on our important natural resources. Therefore, it makes sense to remain vigilant in our efforts to test for diseases to reduce the risks of allowing the spread of diseases.

Social

People are very supportive of efforts to protect Michigan's natural resources. The baitfish industry is also supportive of these efforts to maintain a continuing supply of disease free bait for our anglers.

Economic

The Department does not anticipate any economic losses or gains with the changes as proposed. The baitfish industry may benefit economically from these proposed changes.

Recommendation:

This Order is being submitted for information and consideration. This item appears on the Department's March 2016 calendar and may be eligible for approval on April 14, 2016.



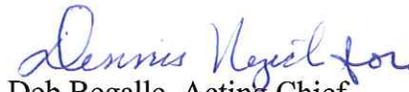
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FISHERIES ORDER

Fish Disease Control ~~FISH DISEASE CONTROL~~

Order 245.1416

By authority conferred on the Natural Resources Commission and the Department of Natural Resources by Part 411 1994 PA 451, MCL 324.41101 to 324.41105 and Part 487 of 1994 PA 451, MCL 324.48701 to 324.48740, it is ordered that effective ~~January 9, 2014,~~ **April 14, 2016**, 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

1) Definitions

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

- a) **Aquatic vegetation:** a plant or algae species that grows in water whether rooted in the mud or floating without anchorage.
- b) **Baitfish—:** live or dead species of **any** fish, or parts of fish excluding ~~Roe~~, ~~that are fish eggs~~, used by anglers to ~~catch~~ **harvest or attract** 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.~~

- c) **Bilge:** the part of the underwater body of a vessel between the flat of the bottom and the vertical topsides or the lowest point of a vessel's inner hull.
- d) **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~~ **order**.

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

- e) **Fish:** includes live and dead fish of any species or parts other than baitfish and fish eggs as defined by this order.
- f) **Fish eggs:** eggs of a fish, also known as roe.
- g) **Fish Stocking Permit:** an official document issued by the Department giving an individual authorization to conduct fish stocking activities.
- h) **Live well:** a well for keeping fish alive in a vessel by allowing water to circulate through it.
- i) **List of Fish Species:** those fish species approved for stocking, importation, or use as baitfish in Michigan Public Waters.
- j) **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~~

- k) **Purchase:** to acquire for a consideration.
- l) **Michigan Public Waters:** waters within the jurisdiction of the state having public access or private waters that connect to public waters.
- m) **Sale or sell:** an exchange or attempt or offer to exchange money, barter, or anything of value.
- n) **State-licensed baitfish retail, State-licensed baitfish wholesale operations, and State-licensed catchers:** those that are required to be licensed by the state of Michigan for these activities.
- o) **Vessel:** every description of watercraft used or capable of being used as a means of transportation on water.

2) **Bait Fish 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 **or used** on the following waters of the State:

a) **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.

b) **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).

c) **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).

3) **General statewide provisions:**

- a) **It shall be unlawful to place any live fish, live baitfish, or fish eggs into Michigan Public Waters without first obtaining a Fish Stocking Permit from the Department except for fish reared within a facility registered under the Aquaculture Development Act (Public Act 199 of 1996) or otherwise allowed under this Order. Fish transported for stocking outside a facility registered under the Aquaculture Development Act require a Fish Stocking Permit from the Department. If an approved Fish Stocking Permit is issued by the Department, an applicant shall carry a copy of that Fish Stocking Permit when transporting or stocking**

those fish or eggs. This section does not include the practice of chumming with fish eggs by an angler in the act of recreational fishing.

- b) A person, who catches fish in a lake, stream, Great Lake, or connecting waterway shall only release those fish in the lake, stream, or Great Lake where the fish were caught, or in a connecting waterway of the lake, stream, or Great Lake where the fish were caught so long as those fish can freely move between the original location of capture and the location of release.
 - c) Baitfish shall only be used on a hook and may not be disposed of or otherwise released into Michigan Public Waters.
 - d) It shall be unlawful to import into this state for use as baitfish any uncertified fish species that are on the List of Fish Species in Table 1. This includes live, dead, preserved, and cut baitfish.
 - e) It shall be unlawful to transport any vessel over land without first draining all water from the live well(s) and bilge upon leaving any body of water. The vessel, trailer or any conveyance used to transport the vessel or trailer must be free of aquatic vegetation.
 - f) Personal collection of baitfish: All baitfish or fish collected for personal use as bait or cut bait shall only be used for fishing purposes in the original waters of collection.
 - g) All species of live fish maintained at a location by an owner of a State-licensed commercial fishing operation shall be considered uncertified if live fish that are listed on the List of Fish Species in Table 1 are on site and have not received a clear Status of Fish Health Certification.
- 4) Commercial Bait
- a) Importation from out of state
 - i) Status of Fish Health - All persons importing baitfish that are on the List of Fish Species in Table 1 shall have those baitfish tested for each Pathogen of concern by a certified laboratory approved by the State of Michigan and shall submit the results of all tests to the Department. The Department will review the results for each application and respond with a letter of Certification that contains a transaction number and either grants or denies the application and includes the Department's rationale for the decision.
 - b) Harvest of baitfish from Michigan waters:
 - i) Status of Fish Health - From November 1 – December 31 of each year, all persons holding a minnow catcher's license, including an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture and Rural Development, who harvest and wish to offer for sale or sell baitfish that are on the List of Fish Species in Table 1 shall have those baitfish tested for each Pathogen of concern by a certified laboratory approved by the State of Michigan and shall submit the results of all tests to the Department. The Department will review the results for each application and respond with a letter of Certification that contains a transaction number and either grants or denies the application and includes the Department's rationale for the decision.

State-licensed baitfish catchers shall coordinate and collect a single 150 fish sample during April or May from each of the 5 testing zones in Lake Huron and Lake Erie, including the connecting waters of the St. Clair River, Lake St. ~~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>).~~

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 Clair, and Detroit River (Figure 1). Samples from each of the 5 testing zones shall be tested for each Pathogen of concern by a certified laboratory approved by the State of Michigan. Sampling plans for each respective zone shall be communicated to Department before samples are collected.

If all baitfish harvested in the state test negative for each Pathogen of concern during the November 1 – December 31 testing period and from the 5 spring testing zones, then all baitfish on the list of Fish Species in Table 1 may be harvested from Michigan waters and sold without further testing or certification from January 1 – October 31 of the

following year. For fish to be legally sold in November and December without Status of Fish Health certification, they must have been harvested prior to November 1.

If any baitfish test positive for any Pathogen of concern during either the November - December testing period or from the 5 spring testing zones, then the Department shall take immediate emergency action to temporarily amend this Order and require additional testing certification of baitfish harvested January 1 – October 31. The Department will notify all licensed bait harvesters of the fall testing results and any subsequent emergency regulatory actions. If emergency action is taken, additional testing requirements shall take immediate effect and shall remain in place until the Department determines that the Pathogen threat has sufficiently diminished to lift the emergency order and reinstate the seasonal testing requirement outlined in this Order.

c) **General Regulations for Commercial Bait**

- i) **All Michigan baitfish wholesalers are required to be licensed by the state of Michigan and must complete the following Certification Process for their facility or business:**

~~Part A) **Status of a Facility** - If keeping and holding baitfish at a facility for prolonged distribution and sale, baitfish wholesalers shall have that facility reviewed by the Department to ensure that there is minimal risk to public waters of the State Michigan Public Waters 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 Status 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.~~

- (1) 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) Certification. Once certified and licensed, facility operators who wish to continue being licensed must inform the Department in writing by September 30th each year whether changes were made to the facility during the current license year. If the facility is unchanged, a new certification will be issued with the new license year. If changes were made to the facility, a new Certification Process must be initiated at that time. This part does not apply to an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture; 2) and Rural Development or 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. 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, HHNv, 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.

6. 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.

7. 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.

- (2) **Statement of Direct Sale** – If a wholesaler ships baitfish directly from the point of harvest or immediately after purchase from another licensed wholesale to licensed bait retailers in Michigan, that wholesaler shall notify the Department at the time of license application of their intent to direct sale only. The Department will respond with a letter of authorization for direct wholesale shipments to licensed retailers.

- ii) **The steps for *Certification of Status of a Facility, Statement of Direct Sale, and Status of Fish Health* must be completed on a form as directed by the Department and as outlined in the Guide for Certification of Status of a Facility, Statement of Direct Sale, and Status of Fish Health. The guide is available online at www.michigan.gov/vhs.**
 - iii) **A person shall not offer for sale or sell any baitfish that are on the List of Fish Species in Table 1 that were imported from out of state or were harvested in Michigan between October 1 – December 31 without receiving a letter of Certification for Fish Health Status and Status of a Facility or Statement of Direct Sale from the Department permitting such activity.**
 - iv) **If an approved Certification for Status of Fish Health Status 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 shall be carried by the baitfish wholesaler or retailer when transporting, offering for sale, or selling Baitfish or live fish baitfish that are listed as Susceptible on the List of Fish Species, or Roe taken from fish that are listed as Susceptible Fish Species in Table 1 and harvested in Michigan October 1- December 31. 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 to any law enforcement officer or Fisheries Division representative.**
 - v) **An owner of a State-licensed Baitfish baitfish wholesale operation shall provide to each state licensed baitfish wholesale or retail purchaser at the point of sale a copy of the Certification For Status of for Fish Health Status that applies to the fish being sold.**
 - vi) **A wholesale purchaserAn owner of a State-licensed baitfish wholesale operation shall provide to each wholesale and retail purchaser at the point of sale a copy of a receipt for their purchase that will include the date of purchase, the common name of the species sold (as listed in Table 1), and the quantity of each species sold.**
 - vii) **A State-licensed baitfish wholesaler and retailer must have a copy of the Certification for Fish Health Status letter at their facility as well as a receipt of purchase to accompany any baitfish they possess that was either imported into Michigan or harvested in Michigan November 1 – December 31. The letter and receipt shall be made available upon request of any law enforcement officer or a Fisheries Division representative.**
 - viii) **A wholesale baitfish dealer shall retain copies of receipts for purchases from a State-licensed Baitfish wholesale operation and all accompanying testing paperwork for at least one year after the date of salepurchase.**
8. ~~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.~~

9. ~~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.~~
10. ~~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.~~
11. ~~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)*.~~
12. ~~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.

- 5) - 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:

- a-a) 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.
- b-b) Silver Lake, Oceana County, and all tributaries flowing into Silver Lake.

Table 1. List of Fish Species for Importation, Stocking, or for Baitfish in Public Waters in Michigan and Required Pathogen Testing

Species	Scientific Name	Species Code	Importation	Baitfish	Stocking	Pathogen Testing Required				
						VHSv	IHNv, IPNV, and Mc	HSP	LMBv	CCV
Atlantic Salmon	<i>Salmo salar</i>	ATS	X		X	X	X			
Black Bullhead	<i>Ameiurus melas</i>	BLB	X		X	X				X
Black Crappie	<i>Pomoxis nigromaculatus</i>	BCR	X		X	X			X	
Bluegill	<i>Lepomis macrochirus</i>	BLG	X		X	X			X	
Brook Trout	<i>Salvelinus fontinalis</i>	BKT	X		X	X	X			
Brown Bullhead	<i>Ameiurus nebulosus</i>	BRB	X		X	X				X
Brown Trout	<i>Salmo trutta</i>	BNT	X		X	X	X			
Channel Catfish	<i>Ictalurus punctatus</i>	CCF	X		X	X				X
Flathead Catfish	<i>Pylodictis olivaris</i>	FCF	X		X	X				X
Green Sunfish	<i>Lepomis cyanellus</i>	GSF	X		X	X			X	
Hybrid Sunfish	<i>Lepomis spp.</i>	HSF	X		X	X			X	
Lake Herring	<i>Coregonus artedii</i>	LHR	X		X	X	X	X		
Lake Trout	<i>Salvelinus namaycush</i>	LKT	X		X	X	X			
Lake Whitefish	<i>Coregonus clupeaformis</i>	LWF	X		X	X	X			
Largemouth Bass	<i>Micropterus salmoides</i>	LMB	X		X	X			X	
Muskellunge	<i>Esox masquinongy</i>	MUS	X		X	X	X	X		
Northern Pike	<i>Esox lucius</i>	NOP	X		X	X	X	X		
Pacific Herring	<i>Clupea pallasii</i>	PHR	X	X		X				
Pumpkinseed	<i>Lepomis gibbosus</i>	PSF	X		X	X		X	X	
Rainbow Smelt	<i>Osmerus mordax</i>	SMT	X	X		X				
Rainbow Trout (Steelhead)	<i>Oncorhynchus mykiss</i>	RBT	X		X	X	X			
Redear Sunfish	<i>Lepomis microlophus</i>	RSF	X		X	X			X	
Rock Bass	<i>Ambloplites rupestris</i>	RKB	X		X	X		X	X	
Smallmouth Bass	<i>Micropterus dolomieu</i>	SMB	X		X	X			X	
Walleye	<i>Sander vitreus</i>	WA E	X		X	X		X		
Warmouth	<i>Lepomis gulosus</i>	WA R	X		X	X				
White Bass	<i>Morone chrysops</i>	WH B	X		X	X			X	
White Crappie	<i>Pomoxis annularis</i>	WC R	X		X	X			X	
Yellow Bullhead	<i>Ameiurus natalis</i>	YLB	X		X	X				X
Yellow Perch	<i>Perca flavescens</i>	YEP	X		X	X		X		
Michigan's Common Baitfish Species										
Bluntnose Minnow	<i>Pimephales notatus</i>	BNM	X	X	X	X				
Common Shiner	<i>Luxilus cornutus</i>	CSH	X	X	X	X				
Common White Sucker	<i>Catostomus commersonii</i>	CWS	X	X		X		X		
Creek Chub	<i>Semotilus atromaculatus</i>	CRC	X	X		X				

Emerald Shiner	<i>Notropis atherinoides</i>	EMS	X	X	X	X			
Fathead Minnow	<i>Pimephales promelas</i>	FHM	X	X	X	X		X	
Golden Shiner	<i>Notemigonus crysoleucas</i>	GOS	X	X	X	X			
Northern Redbelly Dace	<i>Phoxinus eos</i>	NRD	X	X	X	X			
Sand Shiner	<i>Notropis stramineus</i>	SAS	X	X		X			
Spotfin Shiner	<i>Cyprinella spiloptera</i>	SFS	X	X		X			
Spottail Shiner	<i>Notropis hudsonius</i>	STS	X	X		X			

(VHSV – Viral Hemorrhagic Septicemia, IHNV – Infectious Hematopoietic Necrosis, IPHV – Infectious Pancreatic Necrosis, Mc – Whirling Disease, HSP – Heterosporis sp, LMBV – Largemouth Bass Virus, CCV – Channel Catfish Virus)

This Order shall be assigned number FO-245.1416, and is entitled “Fish Disease Control.” If a discrepancy occurs between this Fish Disease Control Order, FO-245.1416, 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 January 9, 2014, and is assigned number FO-245.1214.

This Order shall take immediate effect on January 9, 2014, and April 14, 2016. This Order shall remain in effect until March 31, 2021, or until this Order is amended/ or rescinded, whichever comes first. Although this Order may be reviewed and amended on an annual basis, a review of this Order shall occur no later than August 1, 2020.

Issued on this ~~9th~~14th day of ~~January 2014~~April 2016.

Approved as to matters over which the **Natural Resources** Commission has authority.

J.R. Richardson

John Matonich, Chairman
Natural Resources Commission

Approved as to matters over which the Director has authority.

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

[†]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.

Figure 1: Michigan's Spring Baitfish Testing Zones

