

**CASCADE CHARTER TOWNSHIP**  
**THORNAPPLE RIVER SAD AD-HOC COMMITTEE MEETING**  
December 5, 2022 at 5:30pm  
Cascade Township Hall  
5920 Tahoe Dr. SE  
Grand Rapids, MI 49546

- ARTICLE 1.** Call the Meeting to Order
- ARTICLE 2.** Approval of the Agenda
- ARTICLE 3.** Acknowledge Visitors & Public Comment
- ARTICLE 4.** Approval of the Minutes of the 07.25.22 & 10.3.22 Meeting
- ARTICLE 5.** 2023 Thornapple River SAD Budget
- ARTICLE 6.** State Uniform Waterway Marking System
- ARTICLE 7.** 2023 Meeting Schedule
- ARTICLE 8.** Roundtable Q&A
- ARTICLE 9.** Public Comment
- ARTICLE 10.** Adjournment

**MINUTES**  
Cascade Charter Township  
THORNAPPLE RIVER SAD AD-HOC COMMITTEE MEETING  
October 3, 2022 at 5:30pm  
Cascade Charter Township Hall  
5920 Tahoe Dr. SE  
Grand Rapids, MI 49546

- ARTICLE 1.** The meeting was called to order at 5:34pm.
- Members Present: Members John Shipley, Leann Rowland, Scott Rissi, Thomas Keith, Chuck Whitley, and Jeff Carpenter (via Zoom)
- Members Absent: Michael Wiegand
- Others Present: Township Manager (TM) Ben Swayze, Engineer Aric Thorne, and Jamie Desjardins of PLM (via Zoom)
- ARTICLE 2. Approve the current Agenda**
- Motion was made by Member Rissi to approve the agenda as written. Supported by Member Whitley. Motion carried.**
- ARTICLE 3. Acknowledge Visitors & Public Comment**
- There were not any visitors who wished to comment at this time.
- ARTICLE 4. Approve the Minutes of the July 25, 2022 Meeting**
- Motion was made by Member Rissi to table approval of the minutes until the next meeting so various errors could be corrected. Supported by Member Rowland. Motion carried.**
- ARTICLE 5. Update on 2022 Thornapple River Weed Management Plan - PLM**
- Jamie Desjardins of PLM shared that they were able to harvest the river once this year because a resident allowed access to the river via their property. There were many floaters and, if residents wanted them removed, they would have to collect them individually on the day after the harvest.
- They treated a small, five-acre, section of Milfoil and completed a vegetation survey. This tracked all of the types of vegetation found in the water and showed that there were only individual milfoil plants remaining, not any beds or lots.
- Member Rissi asked if harvesting upstream vs downstream would cause more floaters. Desjardins said that cutting downstream would cause less floaters but would take much more time, leading it to be more expensive.
- Accessing the site was a challenge due to a hill leading to the water, but the same point could work for access again next year. The plants were deposited behind Fire Station 2.

Member Rowland asked what the final cost for this year would be and Desjardins said it would be around \$43,290, which was within the price range the committee had budgeted for.

Member Whitley asked why the results from the May water tests weren't included in the packet and Desjardins apologized for her mistake in not providing them.

#### **ARTICLE 6. 2023 Thornapple River Weed Management Program**

Member Rowland asked what the price would look like next year and was told it should be around the same amount or less. Desjardins also noted that Ada hasn't seen as much milfoil in the river since Cascade started treatments.

Member Carpenter asked what the process would be in relation to permits and environmental regulatory procedures for 2023. Desjardins explained that the permit they have is a multi-year permit that lasts until 2025 and wouldn't change going forward.

TM Swayze asked when PLM would be able to harvest the weeds next year and Desjardins said it would be no earlier than 45 days after the first treatment which will likely be around March or April, depending on the rate of weed growth.

Member Carpenter asked if it would be possible to harvest earlier and was told yes and that it could even be done twice. Member Rissi suggested waiting until the water level is low and the current is slower to harvest. Member Rowland asked when the second harvest would take place and Desjardins said a harvest generally lasts about six weeks.

Commented [JS1]: Harvest or chemically treat?

Member Whitley shared that the standard lake/river permit allows treatment of nuisance plants on up to 100 ft of water frontage per property. The reason this doesn't apply to Cascade's portion of the Thornapple River is due to the endangered species of fish that reside there. This only applies to native nuisance plants and this year the plants that were treated were not native plants.

#### **ARTICLE 7. State Uniform Waterway Marking System**

TM Swayze spoke with managers in the surrounding area about their waterway marking system and most of them were unaware of restrictions related to the marking. Many said that the system was in place before they started working there or that it was a resident driven initiative.

Member Rissi said that he thought it was important to implement a system like this for public safety. TM Swayze suggested they speak with the new township engineer and see if he has any previous knowledge on waterway marking.

Member Carpenter urged the committee to make marking the waterway a priority this year because it was in the SAD's language of origin. He said that the best time to have the engineer look at this is during the dam drawdown because they would be able to see the underwater stumps and anything else below the normal water level. They could then compare it when the water is up; the next opportunity for this would be during the spring drawdown.

Member Carpenter suggested King, a company he saw advertised, and knew that they work on Holland Waterways and Coast Guard contracts. Member Rissi took King for a tour of the river when they had been looking at dredging the bayou. TM Swayze and Engineer Thorne will contact King and look into their previous work.

**ARTICLE 8. Next Meeting?**

The next meeting will take place November 7, 2022.

**ARTICLE 9. Roundtable Q & A**

The committee currently has two less members than the bylaws call for. Member Rissi sent Supervisor Lesperance the names of a few people he thought would make beneficial members. The committee hasn't had any problems reaching quorum so TM Swayze will pass this information along to Supervisor Lesperance.

Member Carpenter asked if they would be creating an end of year report, as he had heard other residents wondering the results of this year's treatments. He also suggested including the water quality results from the river survey with a comparison of before and after the treatments.

**ARTICLE 10. Public Comment (Incorrectly listed as ARTICLE 11 on the agenda.)**

There were not any visitors who wished to comment at this time.

**ARTICLE 11. Adjournment (Incorrectly listed as ARTICLE 12 on the agenda.)**

Motion was made by Member Rissi to adjourn. Supported by Member Rowland.  
Motion carried. The meeting was adjourned at 6:13 p.m.

Approved by the Thornapple River SAD Ad-Hoc Committee - TBD

**MINUTES**  
Cascade Charter Township  
THORNAPPLE RIVER SAD AD-HOC COMMITTEE MEETING  
July 25, 2022 at 5:30pm  
Cascade Charter Township Hall  
5920 Tahoe Dr. SE  
Grand Rapids, MI 49546

**ARTICLE 1.** The meeting was called to order at 5:33pm.

Members Present: Members Leann Rowland, Scott Rissi, Chuck Whitley, Trustee Shipley, Michael Wiegand, Mike and Lori Gottlieb (via Zoom)

Members Absent: Thomas Keith, Jeff Carpenter, Paul Strauss

Others Present: Township Manager (TM) Ben Swayze and Jamie Desjardins (PLM Lake and Land Management)

**ARTICLE 2. Approve the current Agenda**

**Motion was made by Member Rissi to approve the agenda as written. Supported by Member Wiegand. Motion carried.**

**ARTICLE 3. Acknowledge Visitors & Public Comment**

There were not any visitors who wished to comment at this time.

**ARTICLE 4. Approve the Minutes of the June 6, 2022 Meeting**

**Motion was made by Trustee Shipley to approve the June 6, 2022 meeting minutes as written. Supported by Member Rowland. Motion carried.**

**ARTICLE 5. Update on 2022 Thornapple River Weed Management Program - PLM**

Jamie from PLM shared that there was a slow start to the Thornapple River treatment as they did not receive approval for their permit from EGLE until the end of June but they were able to successfully treat all the milfoil and curly leaf. In the untreated section (Kilmer to the South and upstream), where there were not any invasive species at the original time of survey, native plants have become much denser. The untreated areas have shallow sections, making it difficult for boats to navigate, and there is considerable flow in the area, pushing away treatment solutions. EGLE also restricted treatment to a 50x20ft area of frontage, per residence, where that area must be in front of the corresponding property.

One way to treat the dense native plants would be to try using anti-drift products but that still may not be effective. Another would be to mechanically harvest the plants but the areas of the river in question would be difficult to navigate with a harvester.

Member Rissi took the Harvest Manager for PLM out on the river to evaluate the river for successes and areas they could get access to the river for future treatment. They cannot use Member Rissi's ramp for access because it is on the wrong side of the

railroad bridge; that leaves access via other resident's properties. Member Rissi has been contacting residents in the area, one of which he is hoping to dump the harvested weeds in their bayou, but has not had success. There is access along Peacock Pt and Member Rissi doesn't have a contact with anyone there. There is one person who is willing to grant access but they are requesting compensation; this is a problem because it says in the township ordinance that no one can pay for ramp use for commercial profit. Member Rissi suggested \$100/year may be a price a resident could pay for this use but the neighbor thought \$400 may be a starting point.

Member Gottlieb said that, if the residents on Kilmer do not want to provide ramp access to treat the native nuisance plants, they do not have to be treated this year as they are not an invasive species.

The Oakmont Landing is hilly and the harvester could damage pontoons due to the narrowness of the channel with boats along both sides. There were thick enough weeds when they tried to go out in the row boat that they could not move through them. There are not any county or state-owned launches in the area.

Desjardins of PLM stated that the sections initially treated may not need any more treatment as they cleared up so well. PLM will be out the second week in August to resurvey and treat the week of August 27<sup>th</sup>. They will also survey and perform water quality testing at this time. Once the testing is complete, PLM will provide a packet of the results and data to the township. The first invoice for the treatment will be around \$32,500 and the second invoice will be around another \$10,000-\$12,000. Harvesting of the weeds, neither via harvester or herbicide, will harm the endangered fish in the river. The treatment of the native weeds with chemicals would cost \$1,500 while using a harvester would be closer to \$2,500 if the weeds were able to offload them nearby.

The committee decided to hold off on treating the nuisance plants for the 2022 year but would continue looking into ways to access the river for future years.

#### **ARTICLE 6. State Uniform Waterway Marking System**

TM Swayze asked if the committee was still interested in creating a marking system for the waterway. Most of the committee wanted to look into it more which would require hiring a consultant. They would only look at between the expressway and the railroad bridge. It is not likely that the installation would be difficult or expensive and would increase navigability with little cost for maintenance.

Lori disagreed on using SAD money for marking the waterway as she thought the township should pay for it. TM Swayze encouraged the board to advocate for their interests and write a letter or resolution to the Township Board. The committee also talked about partnering with the Township Board on different types of projects as they are more likely to fund a partnership rather than the committee solely asking for funds. TM Swayze will hire a consultant to look into what would be required to mark the waterway.

#### **ARTICLE 7. 2022 Thornapple River SAD Budget**

TM Swayze did not have new information to provide for a budget update as the budget has not gone to the Township Board yet. This will be discussed again at the next meeting.

**ARTICLE 9. Next Meeting?**

The next meeting will not take place on 7/1 and will be scheduled after there is more information from PLM.

**ARTICLE 8. Roundtable Q & A**

TM Swayze said he would find out what is going on with the river and why its water level is so low. Member Rissi asked why there are screw jacks that appeared on the last flood gate at the end of last season and TM Swayze agreed to look into that.

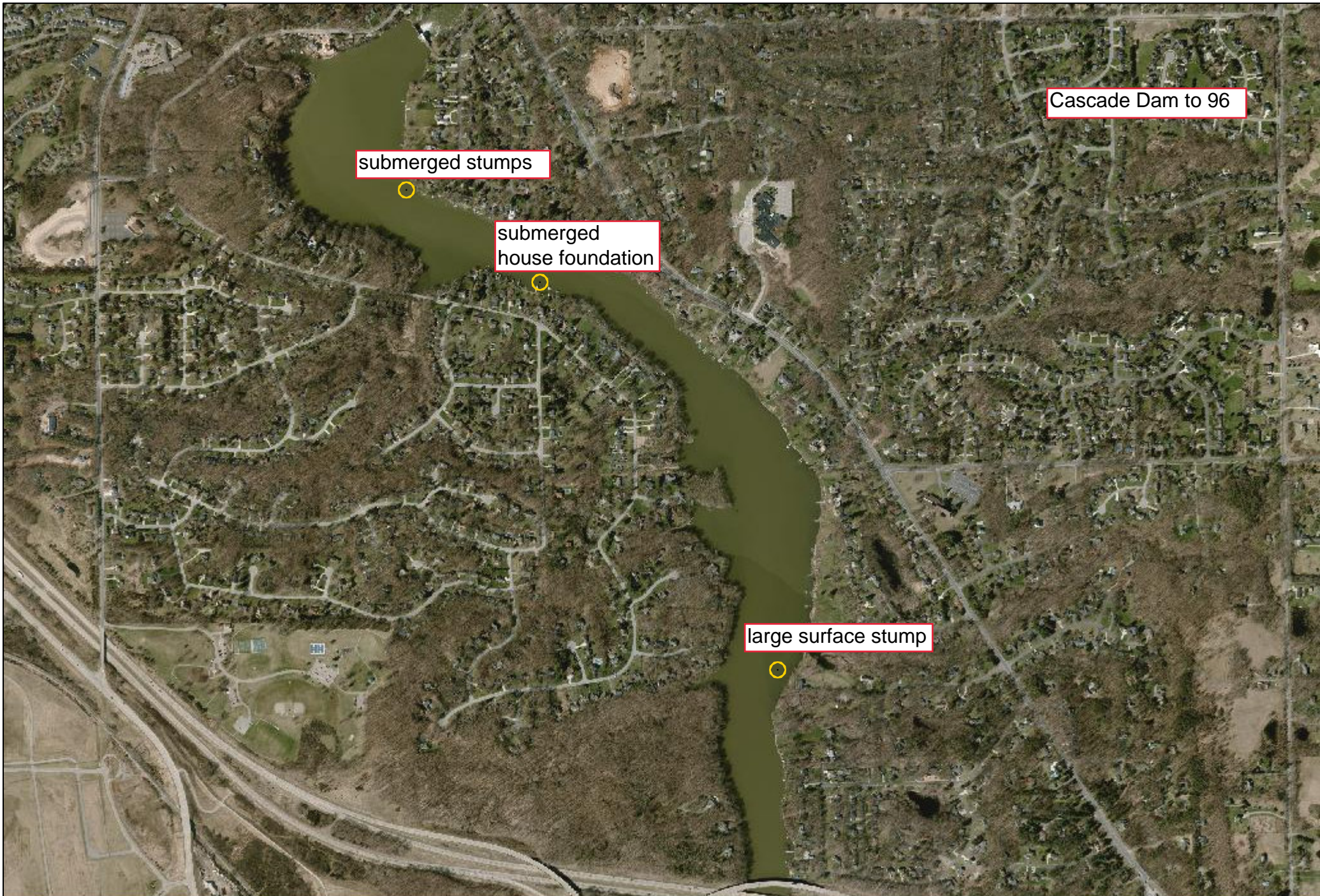
**ARTICLE 9. Public Comment**

There were not any visitors who wished to comment at this time.

**ARTICLE 10. Adjournment**

**Motion was made by Member Rissi to adjourn. Supported by Member Wiegand. Motion carried. The meeting was adjourned at 6:43 p.m.**

**Approved by the Thornapple River SAD Ad-Hoc Committee - TBD**

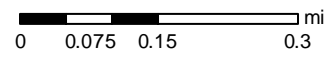


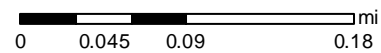
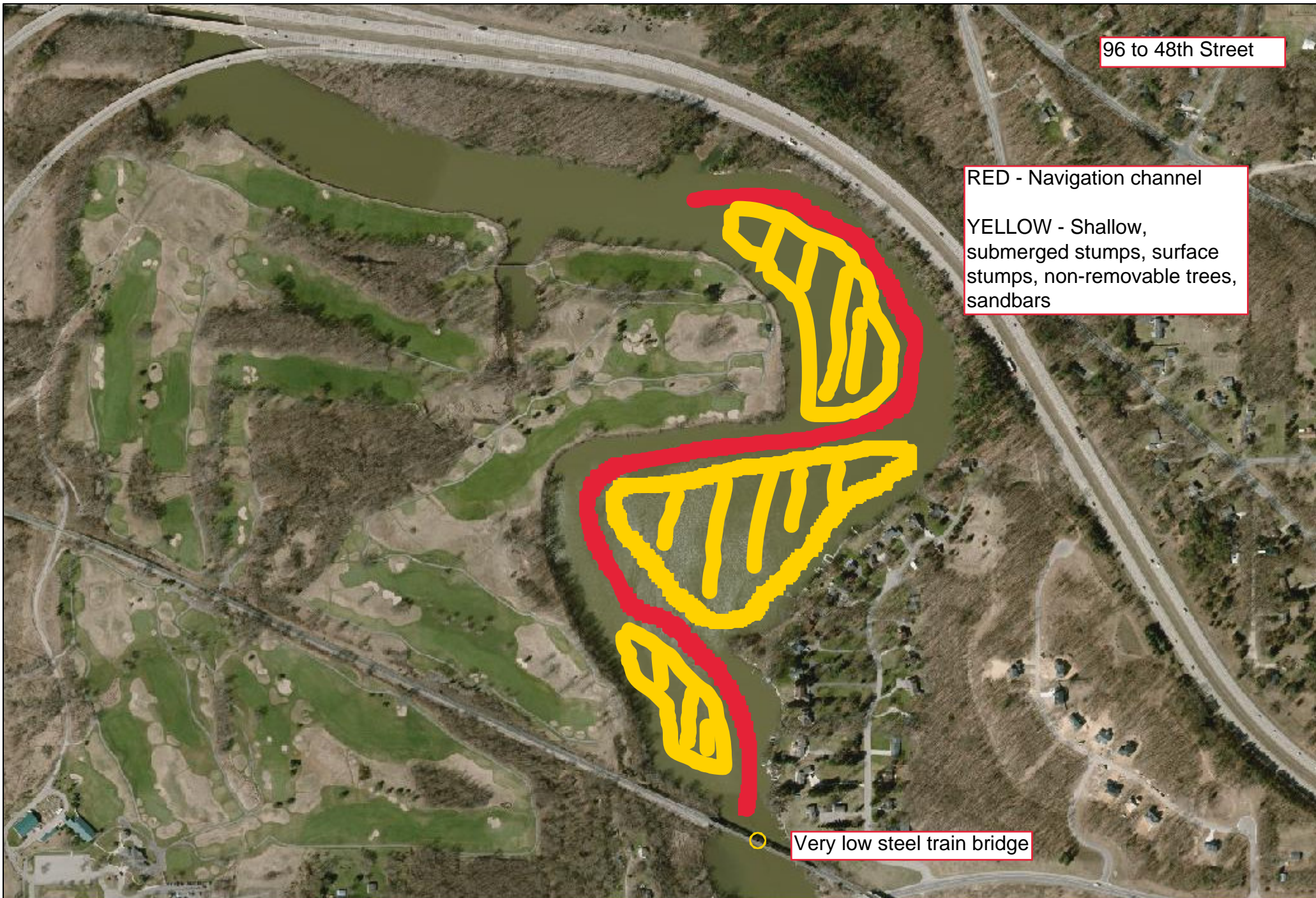
submerged stumps

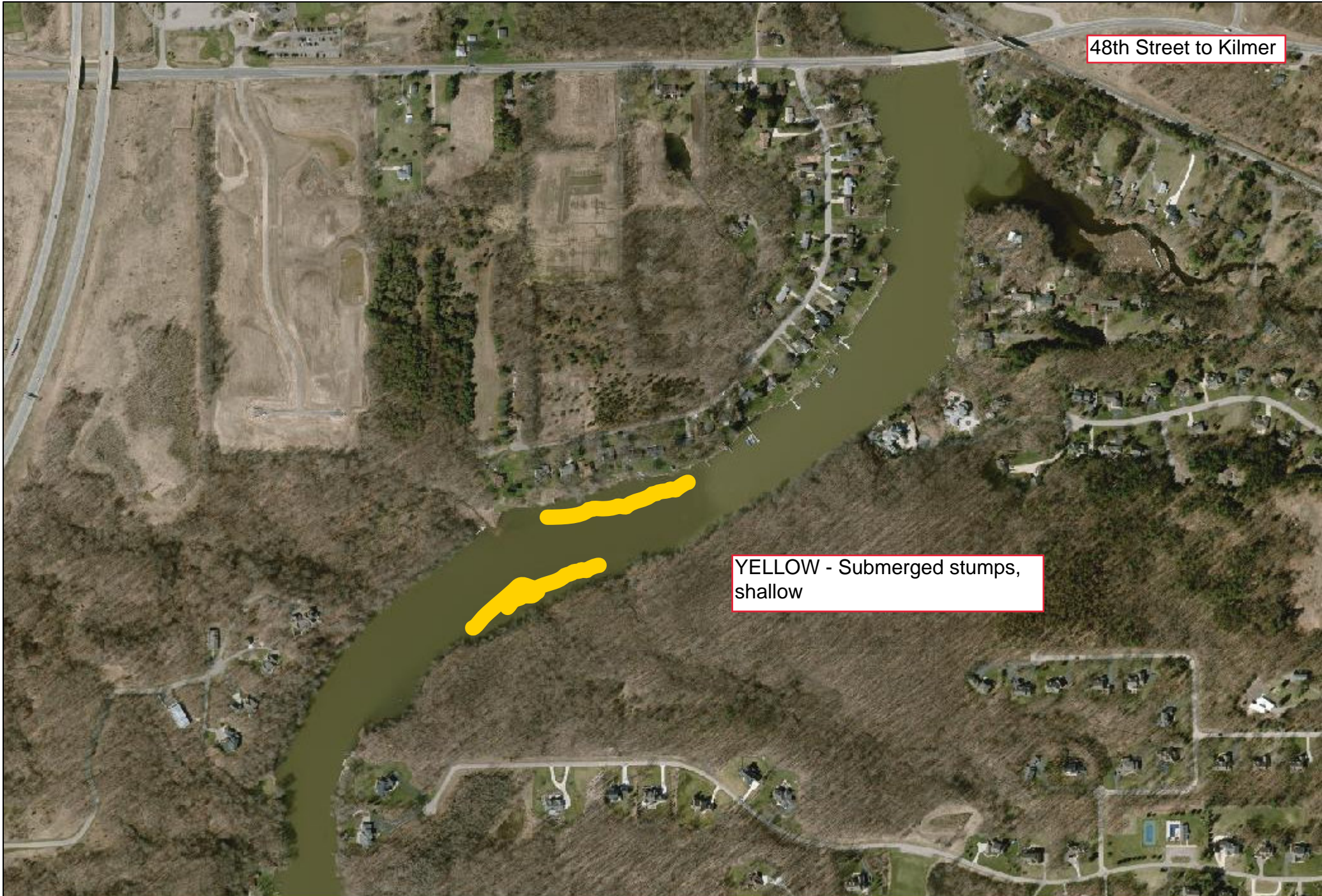
submerged house foundation

large surface stump

Cascade Dam to 96

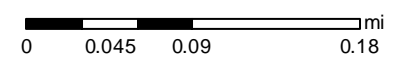






48th Street to Kilmer

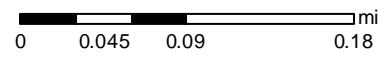
YELLOW - Submerged stumps,  
shallow





Kilmer

large submerged rock, end of safe deep water navigation, very shallow and rocky to the south



**DEPARTMENT OF NATURAL RESOURCES**

**LAW ENFORCEMENT DIVISION**

**STATE UNIFORM WATERWAY MARKING SYSTEM**

(By authority conferred on the department of natural resources by section 80121 of 1994 PA 451, MCL 324.80121)

**R 281.1101 Definitions.**

Rule 1. (1) "Act" means 1994 PA 451, MCL 324.80101 to MCL 324.80199. Terms defined in the act have the same meanings when used in these rules.

(2) "Buoy" means a floating device, including, but not limited to, can, nun, mooring and spar, which by means of certain specifications shall be used to warn vessel operators of natural or artificial obstructions or hazards; to indicate safe channels and to furnish information and control vessel operation.

(3) "Cardinal system" means an aid to navigation based on the cardinal points of the compass, north, east, south, and west.

(4) "Lateral system" means aids to navigation based on the use of red and black solid colored buoys.

(5) "Occulting" means a light totally eclipsed at regular intervals, the duration of light always greater than the duration of darkness.

(6) "Quick flashing" means a light flashing not less than 60 flashes per minute.

(7) "Regulatory marker" means a buoy or daymark that indicates to a vessel operator the existence of dangerous areas, restricted or controlled areas and provides information and directions; regulatory marker does not include buoys used to mark fish nets and devices.

(8) "Slow flashing" means a light flashing not more than 30 flashes per minute.

(9) "Uniform waterway marker system" means the system of private aids to navigation, including regulatory markers, which may be placed in the waters of the state.

History: 1979 AC; 2014 AACCS.

**R 281.1102 Applicability.**

Rule 2. These rules apply to any person placing regulatory markers or other aids to navigation on any waters within the territorial limits of this state including those waters of the Great Lakes which are under the jurisdiction of this state.

History: 1979 AC.

**R 281.1103 Revocable marker permits.**

Rule 3. (1) A person shall not place buoys, markers or aids to navigation, except mooring buoys and buoys for marking fish nets or fishing devices, in any waters of

the state unless a permit granting authority to do so has been issued by the department or the United States coast guard.

(2) A person desiring to place buoys, markers or aids to navigation, except mooring buoys and buoys for marking fish nets or fishing devices, in any waters of the state shall comply with the following:

(a) File an application for a revocable marker permit with the department on forms furnished by the department.

(b) Place the buoys, markers or aids to navigation in accordance with the location, specifications, terms and conditions specified in the permit.

(c) Maintain the buoys, markers or aids to navigation in a good, serviceable and legible condition.

History: 1979 AC.

#### **R 281.1104 General.**

Rule 4. (1) The state uniform waterway marking system has been developed to provide means to convey to the small vessel operator, in particular, adequate guidance to indicate safe boating channels by indicating the presence of either natural or artificial obstructions or hazards, marking restricted or controlled areas, and providing directions. The uniform waterway marking system is suited for use in all water areas and designed to satisfy the needs of all types of small vessels. It supplements and is generally compatible with the United States coast guard lateral system aids to navigation.

(2) The uniform waterway marking system consists of 2 categories of aids to navigation which are:

(a) A system of regulatory markers to indicate to a vessel operator the existence of dangerous areas as well as those which are restricted or controlled, such as speed zones and areas dedicated to a particular use, or to provide general information and directions.

(b) A system of aids to navigation to supplement the federal lateral system of buoyage.

History: 1979 AC.

#### **R 281.1105 Markers; size, shape, material, and construction.**

Rule 5. (1) The size, shape, material, and construction of all markers, both fixed and floating, shall be such as to be observable under normal conditions of visibility at a distance whereby the significance of the marker or aid will be recognizable before the observer proceeds into danger.

(2) All buoys, except mooring buoys and fish net or other fishing device buoys, shall be not less than 6 inches in diameter and shall have an exposure of not less than 36 inches extending above the water line of the buoy.

(3) Mooring buoys shall be not less than 12 inches in diameter and shall have an exposure of not less than 18 inches extending above the water line of the buoy.

(4) Buoys of dimensions other than specified by these rules may be authorized by the director or his authorized representative to meet unusual conditions.

(5) All buoys shall be ballasted so that they will float upright without assistance from the anchor or anchor line.

History: 1979 AC.

**R 281.1106 Numbers, letters, or words on markers.**

Rule 6. (1) Numbers, letters or words on an aid to navigation or regulatory marker shall be placed in a manner as to be clearly visible to an approaching or passing vessel. They shall be block style, well-proportioned and as large as the available space permits. Numbers and letters on red or black backgrounds shall be white; numbers and letters on white backgrounds shall be black.

(2) Odd numbers shall be used to identify solid colored black buoys or black topped buoys; even numbers shall be used to identify solid colored red buoys or red topped buoys. All numbers shall increase in an upstream direction or toward the head of navigation. The use of numbers to identify buoys is discretionary unless required as specified in the permit.

(3) Letters only may be used to identify regulatory and red vertically striped obstruction markers. When used, the letters shall follow alphabetical sequence in an upstream direction or toward the head of navigation. The letters I and O shall be omitted to preclude confusion with numbers. The use of letters to identify regulatory and obstruction markers is discretionary unless required as specified in the permit.

History: 1979 AC.

**R 281.1107 Reflectors or retroreflective materials.**

Rule 7. (1) The use of reflectors or retroreflective materials is discretionary unless required as specified in the permit.

(2) When used on buoys having lateral significance, red reflectors or retroreflective materials shall be used on solid colored red buoys; green reflectors or retroreflective materials shall be used on solid colored black buoys; white reflectors or retroreflective materials only shall be used for all other buoys including regulatory markers, except that orange reflectors or retroreflective materials may be used on the orange portions of regulatory markers.

History: 1979 AC.

**R 281.1108 Navigation lights; types; colors.**

Rule 8. (1) The use of navigational lights is discretionary unless required as specified in the permit.

(2) When used, lights on solid colored buoys shall be regularly flashing, regularly occulting or equal interval lights. For ordinary purposes, the frequency of flashes may be not more than 30 flashes per minute. When it is desired that lights

have a distinct cautionary significance, as at sharp turns or sudden constrictions in the channel or to mark wrecks or other artificial or natural obstructions, the frequency of flashes may be not less than 60 flashes per minute.

(3) When a light is used on a cardinal system buoy or a vertically striped white and red buoy, it shall always be quick flashing.

(4) The colors of the lights shall be the same as for reflectors; a red light only on a solid colored red buoy; a green light only on solid colored black buoy; a white light only for all other buoys including regulatory markers.

History: 1979 AC.

### **R 281.1109 Ownership identification.**

Rule 9. The use and placement of ownership identification is discretionary if ownership identification is worded and placed in a manner which avoids detracting from the meaning intended to be conveyed by a navigational aid or regulatory marker.

History: 1979 AC.

### **R 281.1110 Regulatory markers.**

Rule 10. (1) Each regulatory marker shall be colored white with international orange geometric shapes.

(2) When a buoy is used as a regulatory marker, it shall be white with horizontal bands of international orange completely around the buoy circumference. One band shall be at the top of the buoy body, with a second band placed just above the water line of the buoy so that both international orange bands are clearly visible to approaching vessels. The area of buoy body visible between the 2 bands shall be white.

(3) Geometric shapes shall be placed on the white portion of the buoy body and shall be colored international orange. The authorized geometric shapes and meanings associated with them are as follows:

(a) A vertical open faced diamond shape to mean danger.

(b) A vertical open faced diamond shape having a cross centered in the diamond to mean that a vessel is excluded from the marked area.

(c) A circular shape to mean that a vessel operated in the marked area is subject to certain operating restrictions.

(d) A square or rectangular shape with directions or information lettered on the inside.

(4) Where a regulatory marker consists of a square or rectangular shaped sign displayed from the shore or a structure, the sign shall be white, with an international orange border. When a diamond or circular geometric shape associated with meaning of the marker is included, it shall be centered on the signboard.

History: 1979 AC.

### **R 281.1111 Aids to navigation.**

Rule 11. (1) On a well defined channel including a river or other relatively narrow natural or improved waterway, an aid to navigation shall be a solid colored buoy. A buoy which marks the left side of the channel looking upstream or toward the head of navigation shall be colored all black. A buoy which marks the right side of the channel looking upstream or toward the head of navigation shall be colored all red. On a well defined channel, solid colored buoys shall be established in pairs, 1 on each side of the navigable channel which they mark, and opposite each other to inform the user that the channel lies between the buoys and that he should pass between the buoys.

(2) On an irregularly defined channel, solid colored buoys may be used singly in staggered fashion on alternate sides of the channel if they are spaced at sufficiently close intervals to inform the user that the channel lies between the buoys and that he should pass between the buoys.

(3) Where there is no well defined channel or when a body of water is obstructed by objects whose nature or location is such that the obstruction can be approached by a vessel from more than 1 direction, supplemental aids to navigation having cardinal meaning (i.e., pertaining to the cardinal points of the compass, north, east, south, and west) shall be used. The use of aids to navigation having cardinal meaning is limited to those waters of the state which are not navigable waters of the United States.

(4) Aids to navigation conforming to the cardinal system shall consist of 3 distinctly colored buoys.

(a) A white buoy with a red top shall be used to indicate to a vessel operator that he must pass to the south or west of the buoy.

(b) A white buoy with a black top shall be used to indicate to a vessel operator that he must pass to the north or east of the buoy.

(c) A buoy showing alternate red and white stripes shall be used to indicate to a vessel operator that an obstruction to navigation extends from the nearest shore to the buoy and that he must not pass between the buoy and shore. The number of white and red stripes is discretionary, if the white stripes are twice the width of the red stripes.

History: 1979 AC.

### **R 281.1112 Mooring buoys.**

Rule 12. Mooring buoys may be placed in waters of the state without a permit having been issued by the department; however, they shall:

(a) Be colored white and shall have a horizontal blue band around the circumference of the buoy centered midway between the top of the buoy and the water line.

(b) If required to be lighted, display a slow flashing white light. When its location in a waterway is such that it constitutes an obstruction to a vessel operated during hours of darkness, it shall display a quick flashing white light.

(c) Bear ownership identification if desired and if the manner and placement of the identification does not detract from the meaning intended to be conveyed by the color scheme or identification letter when assigned.

History: 1979 AC.

**R 281.1113 Buoys marking fish nets or other fishing devices.**

Rule 13. (1) Buoys marking fish nets or other fishing devices may be placed in waters of the state without a permit.

(2) Buoys marking state licensed commercial fishing nets, hook lines, or any other continuous fishing devices shall meet all of the following requirements:

(a) Be a spar buoy with a staff not less than 1 inch in diameter.

(b) Have an exposure of not less than 5 1/2 feet above the water surface. However, in waters less than 6 feet deep, exposure above the water surface shall be 3 to 5 1/2 feet.

(c) Display 1 or more flags that meet both of the following requirements:

(i) Each flag shall be orange in color, not less than 12 inches by 12 inches and shall be securely affixed to the buoy.

(ii) The uppermost flag shall be attached to the top of the spar and any required additional flag shall be attached immediately below the uppermost flag.

(d) As required by subrules (6) and (8) of this rule, have affixed a license number or other identification required by section 47322 of 1994 PA 451, MCL 324.47322. The license number shall be displayed in plain, legible letters or numbers, or both, that are at least 3 inches in height and that are of a color that contrasts to the bowl to which they are affixed.

(e) Be maintained in good and serviceable condition.

(f) Float in an upright position.

(g) When required by subrules (4) and (5) of this rule, be constructed of metal or be fitted with a metal radar reflector consisting of metallic plates or cylinders not less than 6 inches in height and capable of radar detection from any direction.

(3) Floats marking state licensed commercial fishing nets, hook lines, or any other continuous fishing devices shall meet all of the following requirements:

(a) Be orange in color and float on the surface.

(b) Except as otherwise specified in subrules (4) and (6), a float shall be at least 6 inches in diameter and 14 inches in length. As an alternative, a gang or group of smaller floats bound together and having a combined median longitudinal cross-section surface area equal to or greater than a 6 inch by 14 inch float may be used.

(c) Be maintained in good and serviceable condition.

(4) Impoundment nets, other than pound nets, shall be marked with the following combination of spar buoys and floats:

(a) A float shall be attached to the king anchor.

(b) A spar buoy displaying 2 orange flags and having a metal radar reflector affixed to the top of the staff shall be attached to the lifting buoy.

(c) A spar buoy displaying an orange flag shall be attached to the lead anchor, however, reverse trap nets sharing a common lead do not require a spar buoy on the common lead.

(d) A float shall be attached to each wing anchor.

(e) Any portion of an impoundment net, including wings or lead, set in such a manner that there is 15 feet of water or less above the top of the net, wing, or lead shall display at least 1 of the following:

(i) A float spaced not more than every 300 feet along the entire length of the net, wing, or lead.

(ii) A float that is at least 1 ½ inches in diameter and 4 inches in length spaced every 12 feet along the corkline of the net, wing, or lead.

(5) A pound net shall be marked with a spar buoy that is attached to the lifting buoy. The spar buoy shall display 2 orange flags, and be constructed of metal or be fitted with a metal radar reflector affixed to the top of the staff and consisting of metallic plates or cylinders not less than 6 inches in height and capable of radar detection from any direction.

(6) Gill nets shall be marked with the following combination of spar buoys and floats:

(a) A spar buoy shall be attached to each end of the gill net or to each end of a gang of gill nets and shall display an orange flag. It shall be constructed of metal or be fitted with a metal radar reflector affixed to the top of the staff and consisting of metallic plates or cylinders not less than 6 inches in height and capable of radar detection from any direction.

(b) In addition to the requirements in subdivision (a) of this subrule, any portion of a gill net set in water 15 feet deep or less shall have at least 1 of the following:

(i) A float spaced not more than every 300 feet along the entire length of the net.

(ii) A float that is at least 1 ½ inches in diameter and 4 inches in length spaced every 12 feet along the corkline.

(7) Hook lines shall be marked by a spar buoy displaying an orange flag attached to each end of the hook line or each end of a gang of hook lines.

(8) A fisher setting or using nets, hook lines, or other continuous fishing devices shall display their license number upon the buoy bowls as follows:

(a) On all gill net spar buoy bowls.

(b) On all hook line spar buoy bowls.

(c) On trap nets and other impoundment fishing devices, excluding pound nets, on the bowl of the lifting buoy.

(d) On pound nets, on the middle stake of the non-lead side of the pound net.

(9) When any net, hook line, or other continuous fishing device is set under the ice, its location shall be marked by a stake extending not less than 4 feet above the surface of the ice at each end of the net, hook line, or continuous fishing device. The license number of the fisher setting or using the net, hook line, or other continuous fishing device shall be displayed on each stake in plain, legible figures at least 3 inches in height.

(10) Floats and buoys required by this rule shall be attached with the minimum amount of line necessary to allow the float or buoy to remain visible on the water's surface. Any extra line, including lines from buoys or other equipment necessary for the operation of the fishing device, shall be weighted in a manner that causes the extra line to be submerged vertically below any buoy, float, or other equipment.

History: 2004 AACCS.

## **R 281.1114 Nonconforming markers.**

Rule 14. Markers or buoys established in waters of the state in accordance with terms of a permit issued by the department prior to the effective date of these rules may be continued in use as long as they are in good, serviceable and legible condition. At such time as the markers or buoys are no longer in good, serviceable and legible condition or are replaced for other reasons, they shall be replaced with buoys conforming to these rules.

History: 1979 AC.