Fish Habitat Structures Exemption Requirements

A fish habitat structure does not need a waterway permit if the project meets all of the requirements below. Many of these requirements follow best management practices to protect water quality. Statute and code references for this activity are ch. 30.12, Wis. Stats., and ch. NR 320.04(6), Wis. Adm. Code. Fish habitat structures often include but are not limited to fish cribs, spawning reefs, wing deflectors, tree drops, half-log structures, fish sticks, root wads, and boulder placement.

If your project meets all the requirements below, you do not need to contact DNR and you may proceed with your project in accordance with all other necessary federal, state, and local permits or approvals.

1. Exemption requirements for all fish habitat structures:

☐ The structure may not be located in an area of special natural resource interest (ASNRI) as defined in s. 30.01(1am), Wis. Stats., or a public rights feature (PRF) described under ch. NR 1.06, Wis. Adm. Code.

☐ The structure is placed and maintained only by a riparian (or their authorized agent) and the structure shall be placed entirely within the riparian's zone of interest as determined by one of the methods outlined in ch. NR 320.09, Wis. Adm. Code.

☐ A one-time deposit of sand, gravel, or stone under s. 30.12(1g)(a), Wis. Stats., may be associated with the placement of the structure provided the deposit is limited to the area immediately underneath or adjacent to the structure and is less than 2 cubic yards.

☐ Dredging, grading, excavation, land disturbance, and vegetation removal shall be confined to the minimum area necessary for construction. Such disturbance may also be subject to local shoreland zoning regulations or s. 30.19, Wis. Stats.

☐ Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters and wetlands. All erosion control measures shall meet or exceed technical standards under subch. III of ch. NR 151, Wis. Adm. Code. Any area where topsoil is exposed during the project shall be immediately seeded and mulched to

and prevent erosion into the waterway.

☐ To minimize adverse impacts on fish movement, fish spawning, and egg incubation periods, in-water work may not occur during any of the following time periods unless timing restrictions have been waived by the department:

a. September 15 through May 15 for all trout streams identified on DNR published maps. **Note:** To determine if a waterway is a trout stream, you may use the department trout stream maps at https://dnr.wisconsin.gov, keyword "trout stream maps."
b. September 15 through June 15 on all Great Lakes tributaries upstream to the first dam or barrier.
c. November 1 through June 15 for Lake Michigan waters surrounding Door County, including Green Bay and all harbors and bays.
d. September 15 through July 1 for Lake Superior waters surrounding Douglas County, including St. Louis River and all harbors and bays.
e. March 1 through June 15 for all other waters.

Note: To request a waiver for some or all of the fish timing restrictions, submit the information listed below in a voluntary exemption review request to the DNR Waterways General Question inbox. The DNR will make a determination within 15 days.

- A statement that describes the proposed activity.
- The site location.
- The construction timing and methods that will be used.
- The project scope and design.
- A demonstration that the proposed activity will not cause a material injury to the riparian rights of any riparian owners.

☐ All project equipment shall be decontaminated for removal of invasive species prior to and after each use on the project site by following the most recent department approved washing and disinfection protocols to comply with ch. NR 40, Wis. Adm. Code. Note: Current protocols can be found on the department website at https://dnr.wisconsin.gov, keyword "invasives disinfection."

☐ *Purpose.* The structure shall be placed for the purpose of improving fish habitat.

☐ *Conservation practice standard.* Except as otherwise provided in the fish habitat structure specific standards in the sections below, the fish habitat structure shall meet the appropriate Natural Resources Conservation Service (NRCS) conservation practice standard 395 Stream Habitat Improvement and Management.

☐ *Reporting.* The riparian shall report the placement of the structure to the local department fisheries biologist within 30 days after placement. The report shall contain a description of the project and its purpose, the name of the waterway, and a map showing where the structure was placed. **Note:** A list of the local department fisheries biologists is available at department service centers and on the department's website at https://dnr.wisconsin.gov/, keyword "Fisheries Management and Habitat Protection."

2. **Additional exemption requirements for all fish cribs:**

☐ The fish crib **does not** have to meet the riparian zone standard above in Section 1. If a fish crib is placed beyond the line of navigation, the riparian must receive permission from a neighboring riparian to place the structure.

☐ The fish crib shall have a minimum of 5 feet of water over the top of the structure. The depth of water over the fish cribs shall be based on the normal lowest water level condition during a calendar year.

☐ Except for fastening and anchoring devices, the fish crib shall be constructed of biological materials.

☐ The dimensions of the fish crib shall be no larger than 8 feet tall by 8 feet long by 8 feet wide.

☐ The fish crib may not be placed within 100 feet of swimming beaches or swim rafts.

☐ The fish crib may not be located in soft sediment or muck that is greater than 12 inches in depth.

☐ The fish crib may not be placed where the bottom contour of the waterway exceeds a slope of 4−foot horizontal to one−foot vertical (4H:1V).

☐ The fish crib shall be adequately anchored to prevent movement.

3. **Additional exemption requirements for all spawning reef:**

☐ The waterbody into which a spawning reef is placed has a history of naturally reproducing walleye or sauger. Walleye Waters and history of natural reproduction can be identified on the department's Surface Water Data Viewer at https://dnrmaps.wi.gov/H5/?viewer=SWDV.

☐ The spawning reef shall be constructed of an aggregate of clean, uncrushed gravel and rock from 2 to 8 inches in diameter, in a ratio of approximately 30 percent of the gravel or rock ranging from 2 to 4 inches in diameter and approximately 70 percent ranging from 4.1 to 8 inches in diameter.

☐ The spawning reef shall be placed in a linear form parallel to the shore.

☐ The spawning reef shall be no longer than 100 feet along the shoreline and no wider than 30 feet perpendicular to shore and may not be placed beyond 100 feet from shore.

☐ The spawning reef shall be placed where water depths range from 0 to 5 feet.

☐ The spawning reef may not be placed where the bottom contour of the waterway exceeds a slope of 4−foot horizontal to one−foot vertical (4H:1V).

☐ The spawning reef may not be placed where the bottom substrate composition consists of less than 90 percent clean sand. **Note:** A natural walleye spawning reef generally consists of substrates 2 to 8 inches in diameter with rounded edges. A natural walleye spawning reef is located adjacent to gently sloping shorelines in shallow water and requires a moderate amount of wave action to keep the substrate clean of algae and provide adequate water circulation for incubating eggs. The requirement of 90 percent clean sand indicates a lack of spawning habitat, the appropriate wave action, and substrate capable of supporting the reef. If the water depth remains less than 5 feet and the bottom contour remains less than 10H:1V, a maximum location of 100 feet from shore is required to reduce navigation concerns.

☐ Any person placing a spawning reef shall, within 30 days after placement, provide written notice to the president or chair of any lake association, property owners

association, or lake district for the affected lake. The notice shall include a description of the spawning reef and include a lake map identifying the exact location of the reef. The person is also responsible for posting a laminated copy of the same map, within 30 days after placement, at all public boat landings on the waterbody where the reef is located for a period of not less than one year.

4. **Additional exemption requirements for all wing deflectors:**

☐ Design and placement of a wing deflector should follow NRCS technical guidelines or the recommendations in Guidelines for Management of Trout Stream Habitat in Wisconsin by Ray J. White and Oscar M. Brynildson, Wisconsin Department of Natural Resources. See http://dnr.wisonsin.gov, keyword “ponds and fish habitat structures permitting” for links to these guidelines.

☐ The wing deflector may not extend more than 25 percent across the stream width.

5. **Additional exemption requirements for all tree drops:**

☐ The tree drop shall consist of live or recently live trees harvested within a year of placement and having a basal diameter of at least 8 inches.

☐ The tree drop shall be securely anchored to the shore at intervals no less than 50 feet apart.

6. **Additional exemption requirements for all half-log structures:**

☐ The half−log shall be constructed from live or recently live trees harvested within a year, with a minimum diameter of 10 inches with spacers no taller than 12 inches.

☐ The half−log shall be placed where the bottom substrate composition consists of sand or gravel, or both.

☐ The half−log may not be placed in water deeper than 5 feet.

☐ The half−log, if placed in a lake or flowage, may not be located more than 100 feet from shore or within 100 feet of a swimming raft.

7. Additional exemption requirements for all fish stick structures:

☐ The fish stick does not have to meet the riparian zone standard in Section 1 above. If a fish crib is placed beyond the line of navigation, the riparian shall receive permission from a neighboring riparian to place the structure.

☐ The fish stick shall be placed to allow for at least 150 feet of open water navigation from the end of the fish stick structure to the line of navigation associated with the opposing shoreline.

☐ The fish stick shall be placed at least 100 feet away from all of the following:

a. A bridge or dam.
b. A municipal or commercial marina.
c. A designated swimming area that is open to the public that is marked by buoys, ropes, or postings along the shore, including a publicly accessible swimming area on private land.
d. A publicly accessible boat ramp and any pier associated with the boat ramp that is solely for the purpose of loading and unloading watercraft.
e. A designated carry-in only watercraft access point.

☐ A portion of the fish stick structure must be placed and anchored within 20 feet from the bank toe or in water depths less than or equal to 3 feet based on normal summertime lows.

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☐ There are no restrictions on the placement distance landward of the bank toe.

☐ Installation of a fish stick must use live or recently live trees harvested within a year of placement.

☐ If whole trees are grouped, attached, or anchored together, the resulting structure must include a minimum of 1 tree with a basal diameter of at least 8 inches. If a single tree is used, its basal diameter must be at least 8 inches.

8. **Additional exemption requirements for all root wads:**

☐ The root wad may only be placed on a stream reach with a gradient slope of 5 percent or less.

☐ The root wad shall not extend past 25 percent of the stream width.

☐ The root wad shall be placed with the root wad fan on a 45 to 60 degree angle relative to the current pointing upstream to prevent excessive erosion.

☐ The root wad shall be anchored in an appropriate manner to keep from floating downstream. **Note:** Duckbill anchoring and ground anchoring are the most common methods of anchoring. Please see NRCS National Engineering Handbook, Part 654 Stream Restoration Design, Technical Supplement 14E, Use and Design of Soil Anchors for reference.

☐ The root wad shall be placed 100 feet or greater from all the following:

f. A municipal or commercial marina.
g. A designated swimming area that is open to the public that is marked by buoys, ropes, or postings along the shore, including a publicly accessible swimming area on private land.
h. A publicly accessible boat ramp and any pier associated with the boat ramp that is solely for the purpose of loading and unloading watercraft.
i. A designated carry-in only watercraft access point.

9. **Additional exemption requirements for all boulder placement:**

☐ The boulder placement may only be installed in wadable streams at least 10 feet in width as measured at bankfull width. **Note:** Wadable streams are streams, creeks, and small rivers that are shallow enough to be sampled using methods that involve wading into the water. They typically include waters classified as 1st through 4th order, and sometimes 5th order, in the Strahler Stream Order classification system (based on the number of tributaries upstream).

☐ Three to seven boulders may be included in a boulder cluster and shall consist of natural rock of similar size. **Note:** A spacing distance of 6 inches to 3 feet between each boulder is recommended.

☐ Each boulder cluster shall be spaced 12 to 15 feet apart.

☐ The boulder placement shall be isolated in the stream cross section and profile to prevent a backwater effect that could alter the bankfull discharge elevation or create upstream sedimentation of aquatic habitat.

☐ The boulder placement shall not take up more than 30 percent of stream width, as measured at bankfull width, and may not cause a material obstruction to navigation.

☐ The boulder placement shall not be placed at the head of a riffle and shall be placed to avoid additional flow into unstable bank areas that may result in increased bank erosion. **Note:** Habitat performance may differ over time due to finer particle substrates with boulders getting covered.