

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING, RENUMBERING AND AMENDING, AMENDING, REPEALING AND RECREATING,
AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to repeal NR 320.04(4) and (5), to renumber and amend NR 320.06(2)(g); to amend ch. NR 320.06 (2)(b) and (c); to repeal and recreate NR 320.06 (2)(d) and (e); and to create NR 320.03(17) and 320.06(2)(g); relating to the regulation of bridges and culverts in or over navigable waterways.

WT-21-06

Summary Prepared by the Department of Natural Resources

Statutory Authority: ss. 30.12, 30.123, and 227.11(2), Stats.

Statutes interpreted: ss. 30.12, 30.123 and 30.206, Stats.

Explanation of Agency Authority:

The Department has authority under ss. 30.123 and 30.206, Stats., to promulgate rules to establish general permits.

Related statute or rule:

These rules relate directly to regulation of activities in navigable waters under ch. 30, Stats., waters designations in ch. NR 1, and the NR 300 series of rules.

Plain Language Analysis:

This rule revision establishes construction, design, placement and location standards for projects to be eligible for a new general permit for temporary in-stream crossings, as provided by statute.

Key standards for a general permit for a temporary in-stream crossing include:

- Crossing for temporary access for forest management activities
- Stream width is less than 10 feet, ordinary high water mark to ordinary high water mark
- Poles, small logs or pipes used for crossing (parallel to stream flow)
- For trout streams, a culvert shall be used to maintain fish passage
- Maximum 160 day limit on placement of structure

This order also consolidates standards applicable to all general permits in ch. NR 320, Wis. Admin. Code, under "General Standards" rather than repeating language for each separate general permit.

Federal Regulatory Analysis

Any activity that results in a discharge (including deposits and structures) into "waters of the United States" is regulated by the U.S. Army Corps of Engineers (Corps) under section 404 of the Clean Water Act. An Individual Permit from the Corps is required, unless Wisconsin regulates the project in its entirety under chapter 30, Stats., in which case the project is authorized by the Corps under general permits GP-01-WI or GP-LOP-WI. Dredging or discharge into waters declared navigable under Section 10, Rivers and Harbors Act, 1899 is also regulated, and requires an Individual Permit from the Corps

Comparison with Adjacent States:

The construction, replacement and maintenance of temporary stream crossings are regulated to varying degrees among the adjacent states of Minnesota, Iowa, Illinois and Michigan.

Minnesota. The Minnesota Department of Natural Resources authorizes the construction and replacement of bridges and culverts through the administration of the Public Waters Work Permit program. Permits are granted only when less detrimental alternatives are unavailable or unreasonable and where such facilities adequately protect public health, safety, and welfare. Bridge or culvert

construction or replacement is prohibited when the project 1) will obstruct navigation or create a water safety hazard, 2) will cause or contribute to significant increases in flood elevations and flood damages either upstream or downstream, 3) involves extensive channelization above and beyond minor stream channel realignments, 4) will be detrimental to water quality or significant fish and wildlife habitat, 5) will take threatened or endangered species, or 6) will provide private access to an island .

A permit is not required to construct or reconstruct a bridge or culvert on a public waterway with a total drainage area, at its mouth, of five square miles or less (This exemption is not allowed on trout streams). Permits are required for other water bodies, along with the general criteria of 1) the project must not exceed more than a minimum encroachment, change, or damage to the environment, particularly the ecology of the waters, 2) adverse effects on the physical or biological character of the waters are subject to feasible and practical measures to mitigate the effects. Specific permit conditions include 1) the hydraulic capacity of the structure is established by a competent technical study, 2) the department has performed a hydraulic study base upon available information and reasonable assumptions, and 3) the project will not cause flood-related damages or problems for upstream or downstream interests.

Minnesota offers general permits for bridge and culvert projects on a statewide and/or county level. An individual permit is required if the proposed work does not meet the requirements of a specific general permit.

Iowa. The Iowa Department of Natural Resources, in cooperation with the Iowa Environmental Protection Agency and the Army Corps of Engineers, authorizes the construction and replacement of bridges and culverts through administration of the Sovereign Lands Construction Permit program. Permits are required in some cases so the wise use and the protection and maintenance of the existing state's water resources can be ensured.

Illinois. The Illinois Department of Natural Resources, in cooperation with the Army Corps of Engineers authorizes the construction and replacement of bridges and culverts through the administration of the Water Resource Management Permit. Permits are distributed to prevent 1) obstruction to, or interference with, the navigability of any public body of water, 2) encroachment on any public body of water, and 3) impairment of the rights, interests, or uses of the public in any public body of water. Activities will not be permitted if the action will result in an obstruction to, or interference with the navigability of any public body of water or the activity would result in bank and shoreline instability on other properties.

Illinois offers statewide, regional and general permits only after notice and opportunity for public review and comment.

Michigan. The Michigan Department of Environmental Quality authorizes the installation of a new or replacement bridge or culvert through the administration of the Geologic and Land Management Permit program. All permit applications are reviewed to ensure the project will not adversely affect the public trust or riparian rights and to ensure it does not structurally interfere with the natural flow of the stream. Permits are not granted if the project unlawfully impairs or destroys any of the waters or other natural resources of the state.

Summary: The permitting process is traditionally administered by one regulatory agency, usually the Department of Natural Resources. Although, in some cases, (i.e., IA and IL) joint applications are filed with cooperators. Generally, Individual permits are granted, but Minnesota and Illinois also authorize culvert construction and replacement by general or statewide/regional permits. General permits from Minnesota and Illinois are not awarded without some kind of public review or comment.

When compared to Wisconsin, all states advocate comparable protection goals (e.g., permits are granted to: prevent significant adverse impacts to the public rights and interests, prevent material injury to the riparian rights or any riparian owner, prevent detrimental impacts to water quality or significant fish and wildlife habitat). The regulated activities are roughly similar among all states with Iowa and Michigan slightly less protective. However, all states are much more subjective than Wisconsin in Administrative Code language.

Summary of Factual Data and Analytical Methodologies:

Standard hydrologic and hydraulic methods for analyzing stream flows, combined with findings from the substantial scientific literature on fish response to water flow and quality conditions are the basis for the standards for placement of temporary in-stream crossings.

Analysis and Documents supporting determination of Small Business Effect: Any person placing a structure or making similar physical modifications to public navigable waters either qualifies for an exemption or must obtain a general or individual permit under state statute. To comply, small businesses follow the same requirements as other waterfront property owners: (1) make a self-determination of exemption using web-based tools provided by the department or describe their activity on an exemption determination request form; (2) complete a general permit application; or (3) complete an individual permit application. Schedules, application steps and compliance/reporting requirements are very basic for all applicants, and most projects can be planned and conducted by individuals with no specific professional background.

Anticipated Private Sector Costs: No significant fiscal effect on the private sector is anticipated.

Effect on Small Business: Forest landowners, land managers, and loggers will be affected by the rule revisions. Specific standards will provide clarity and consistency in the permitting process.

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SECTION 1. NR 320.03 (17) is created to read:

NR 320.03 (17) "Temporary in-stream crossing" means any private or public structure placed within the channel of a navigable stream for 160 days or less to provide a walkway or roadway for pedestrians, animals or vehicles.

SECTION 2. NR 320.04 (4) and (5) are repealed.

SECTION 3. NR 320.06 (2)(b) and (c) are amended to read:

NR 320.06(2)(b) *Applicable activities.* A clear span bridge that meets all the standards in s. NR 320.04 and pars. (c) and (d) shall be eligible for a general permit under ss. 30.123 (7) (a) 1. and (b) and 30.206, Stats. A culvert placement that meets all the standards in par. (c) and either (e) or (f) shall be eligible for a general permit under ss. 30.123 (7) (a) 1. and (b) and 30.206, Stats. A temporary in-stream crossing that meets all the standards in pars. (c) and (g) shall be eligible for a general permit under ss. 30.123 (7) (a) 1. and (b) and 30.206, Stats.

(c) *General standards.* 1. Erosion control measures shall meet or exceed the technical standards for erosion control approved by the department under subch. V of ch. NR 151. Any area where topsoil is exposed during construction placement, repair or removal of a structure shall be immediately seeded and mulched ~~or riprapped~~ to stabilize disturbed areas and prevent soils from being eroded and washed into the waterway.

Note: These standards can be found at the following website:
<http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm>

2. Unless part of a permanent stormwater management system, all temporary erosion and sediment control practices shall be removed upon final site stabilization. Areas disturbed during removal of temporary erosion and sediment control practices shall be restored.

3. To minimize adverse impacts on fish movement, fish spawning, egg incubation periods and high stream flows, placement, repair and removal of a structure may not occur during the following time periods:

a. For trout streams identified under s. NR 1.02(7) and navigable tributaries to those trout streams, September 15 through May 15.

b. For all waters not identified in this subd. 3.a. and located south of state highway 29, March 15 through May 15.

c. For all waters not identified in this subd. 3.a. and located north of state highway 29, April 1 through June 1.

d. The applicant may request that the requirement in this subd. 3.a., b. or c. be waived by the department on a case-by-case basis, by submitting a written statement signed by the local department fisheries biologist, documenting consultation about the proposed project, and that the local department fisheries biologist has determined that the requirements of this paragraph are not necessary to protect fish spawning for the proposed project.

4. Any grading, excavation and land disturbance shall be confined to the minimum area necessary for the placement, repair and removal of the structure and may not exceed 10,000 square feet.

5. All equipment used for the project shall be designed and properly sized to minimize the amount of sediment that can escape into the water.

6. Placement, repair and removal of the structure shall minimize the removal of trees, shrubs and other shoreline vegetation above the ordinary high water mark.

Note: Local zoning ordinances may place restrictions on activities located in mapped floodplains or in shoreland zones. The riparian is responsible for ensuring that their project is in compliance with any local zoning requirements as well as the provisions of this chapter.

7. Approach fill shall be a maximum of one foot deep at the bank and 0 feet at 15 feet landward of the bank. If depth of greater than one foot of approach fill is required or the approach must be located in a wetland, it shall be of an open ramp style that does not impede flow. Geotextile fabric shall be placed under approach fill to facilitate removal and reduce soil compaction.

8. Accumulated brush, debris and other obstructions that are trapped in or underneath the structure shall be regularly removed to prevent upstream flooding and maintain structural integrity.

9. The permittee shall submit a series of photographs to the department within one week of placing the structure on this site and within one week of stabilizing disturbed areas on the site after the removal of the structure. The photographs shall be taken from different vantage points and depict all work authorized by the permit.

SECTION 4. NR 320.06 (2)(d) and (e) are repealed and recreated to read:

NR 320.06(2)(d) *Standards for placement of clear span bridges over navigable streams.* 1. The clear span bridge may only span a navigable stream that is less than 35 feet wide, measured from ordinary high water mark to ordinary high water mark.

2. The clear span bridge may not be located on a wild river designated under ch. NR 302, or where similar federal, state or local regulations prohibit the construction.

3. At least one end of the bridge structure shall be firmly anchored in a manner that the bridge will not be transported downstream during flood conditions.

4. The bridge shall completely span the navigable stream from top of channel to top of channel with no support pilings in the stream.

(e) *Standards for culvert placement on navigable streams without a professionally engineered culvert design.* 1. Culvert placement may not occur in a public rights feature as described in s. NR 1.06.

2. The required culvert area may not exceed 20 square feet as calculated in s. NR 320.07 (1).

3. Culvert placement and installation shall mimic the natural streambed and gradient above and below the culvert channel. Perched culverts are not in compliance with this condition.

4. If flow conditions require the use of a multiple culvert arrangement, culverts shall be placed at varying elevations, one in the bed and the other at 4" to 8" higher, to facilitate base and low flows as well as larger rain or snowmelt events.

5. Both ends of the culvert shall be installed so a minimum of 4" and a maximum of 8" for a round culvert and 6" for a pipe arch culvert lies below the bed of the waterway.

6. Culvert inlets may not be capped with screens, bars or any other means, with the exception of beaver control procedures, which prevent movement of fish or wildlife or collect debris.

7. Culverts shall be designed to prevent washout. Culverts shall be long enough so road fill does not extend beyond the ends of the culvert. The culvert shall extend at least one foot beyond the fill. The channel shall be protected with variable-sized riprap extending horizontally at least 2 times the culvert diameter or height of arch culvert from the end of the culvert. Riprap placement shall include an adequate filter layer or filter fabric as illustrated in sub. (1)(c) 9.

8. Clean fill material shall be firmly compacted around the culvert as illustrated in sub. (1)(c) 10. Multiple culvert crossings shall have a minimum of 2 feet clearance between adjacent culverts to allow adequate compaction of fill material. The culvert shall be designed or protected to prevent crushing.

9. Dredging and deposition of sand, gravel or stone on the streambed may be associated with the placement of a culvert provided that the dredging is limited to the volume necessary to bury the culvert as required in this section and the deposit is limited to the area immediately underneath or within 2 feet of the culvert.

10. Issuance of a general permit under this paragraph constitutes a waiver of the vertical clearance standards under s. NR 320.04.

11. The activity is not located in a lake system.

SECTION 5. NR 320.06 (2)(g) is renumbered NR 320.06 (2)(h) and (2)(h)1., as renumbered, is amended to read:

NR 320.06(2)(h) *Individual permit required.* 1. Activities that do not meet the standards in par. (c) and either par. (d), (e), ~~or (f)~~, or (g), or a general permit issued by the department shall require an individual permit.

SECTION 6. NR 320.06 (2)(g) is created to read:

(g) *Standards for placement of temporary in-stream crossings on navigable streams.* 1. The temporary in-stream crossing shall be used to provide temporary access to an area for forest management activities that are taken on forest land to establish, maintain or enhance a forest including planting trees, thinning and trimming trees, and harvesting timber and other forest products.

2. The temporary in-stream crossing may only span a navigable stream that is less than 10 feet wide, measured from ordinary high water mark to ordinary high water mark.

3. The temporary in-stream crossing may not be located on a wild river designated under ch. NR 302, or where similar federal, state or local regulations prohibit the construction.

4. The temporary in-stream crossing shall consist of poles, small logs, or pipes placed side by side in the stream channel parallel to the stream flow. Geotextile fabric shall be placed under the poles, small logs, or pipes and under any associated approach fill.

5. For trout streams identified under s. NR 1.02(7) and navigable tributaries to those trout streams, the temporary in-stream crossing shall include a culvert with a minimum diameter of 12 inches. The culvert shall be placed on the streambed and may not obstruct fish passage. Poles, small logs, or pipes may be placed side by side parallel to stream flow over the culvert. Geotextile fabric shall be placed under the culvert, poles, small logs, or pipes and under any associated approach fill.

6. The temporary in-stream crossing shall be placed and removed during frozen or low flow conditions.

Note: Frozen conditions would exist when the stream is covered with ice thick enough to support vehicles and low flow conditions would exist when there is little or no water in the streambed.

7. The poles, small logs, or pipes shall be cabled, chained or banded together prior to installation to facilitate removal.

8. The temporary in-stream crossing shall be removed after the project requiring temporary access is completed or 160 days after installation, whichever occurs first.

Note: Removal of a temporary in-stream crossing must comply with the time periods specified in par. (b) 3.

9. The temporary in-stream crossing shall be installed and removed a single time, except for maintenance of the structure as authorized in par. (c) 8.

10. Issuance of a general permit under this paragraph constitutes a waiver of the vertical clearance standards under s. NR 320.04.

SECTION 7. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

SECTION 8. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Scott Hassett, Secretary

(SEAL)