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(FORM UPDATED: 08/11/2010)

**WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS**

2005-06

(session year)

Senate

(Assembly, Senate or Joint)

**Committee on ... Natural Resources and
Transportation (SC-NRT)**

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... bills and resolutions (w/Record of Comm. Proceedings)
 - (**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
 - (**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

* Contents organized for archiving by: Mike Barman (LRB) (July/2012)

- Karen Etter Hale, Madison — WI Audobon Council and Madison Audobon Society
- Derek Scheer, Madison — Clean Wisconsin

Registrations Against

- Sandra Verhulst, Arbor Vitae — self

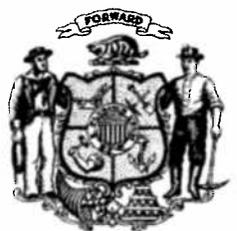
March 11, 2005

NO ACTION TAKEN

Dan Johnson
Committee Clerk



WISCONSIN STATE LEGISLATURE



Clearinghouse Rule 04-084

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

The Wisconsin Natural Resources Board proposes an order to renumber NR 320.03(1), (3), (5), (6) and (8); to renumber and amend NR 320.03(2), (4) and (7); to amend ch. NR 320(title), 320.04(title), 320.05(title), 320.06(title), (1)(b)2. and (2)(b) and 320.07(title); to repeal and recreate NR 320.01 and 320.02(1); and to create NR 320.03(1), (7), (11), (13) and (14), 320.08 and 320.09 relating to the regulation of bridges and culverts in or over navigable waterways.

FH-39-04

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 s. 30.123, Stats., to promulgate rules that establish installation practices, construction and design requirements and limitations on the location of culverts placed under statutory exemptions. 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:

The purpose of this rule revision is to modify the existing rule to reflect the exemption, general permit and individual permit options provided by statute. This rule revision establishes construction, design, placement and location standards for projects to be eligible for statutory exemptions, establishes a general permit for clear span bridges, and establish standards for projects that may be authorized under an individual permit.

Replacement or maintenance of an existing culvert that is 24" or less in diameter is exempt except in ASNRIs or public rights features where a general or individual permit is required.

Key standards for exempt culvert replacements include:

- One culvert per stream crossing
- Type and length of culvert remains the same
- Stream base flow no more than 4 cfs (capacity of 24 in culvert)
- Must be installed so that 25% is below bed (allows fish and wildlife passage)
- Maximum 3% gradient (to avoid ponding, perching or plunge pools)
- Adequate fill material on top of culvert (avoid crushing that would block passage)
- No construction during fish spawning periods, March 15-Jun 1.
- Erosion control BMPs used during construction.

This order also creates a general permit for clear span bridges over navigable waterways.

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 bridges and culverts is 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 numerical standards for culvert placement. Published documents establishing science-based designs for wing deflectors are used as the standards for wing deflectors.

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: Building and road contractors, developers of waterfront property and their technical consultants, and other waterfront businesses will be affected by the rule revisions. Specific standards will provide clarity and consistency in the permitting process.

Agency Contact Person: Karl Scheidegger, Karl.Scheidegger@dnr.state.wi.us, (608) 267-9426

Place where comments are to be submitted and deadline for submission: The proposed rules may be reviewed and comments electronically submitted at the following Internet site: <http://adminrules.wisconsin.gov>. Written comments on the proposed rule may be submitted via U.S. Mail to Ms. Roberta Lund, Bureau of Fisheries Management and Habitat Protection, P.O. Box 7921, Madison, WI 53707. Comments may be submitted until September 17, 2004.

SECTION 1. Chapter NR 320 (title) is amended to read:

BRIDGES AND CULVERTS IN OR OVER NAVIGABLE WATERWAYS

SECTION 2. NR 320.01 is repealed and recreated to read:

NR 320.01 Purpose. The purpose of this chapter is to establish reasonable procedures and limitations for exempt activities, general permits and individual permits for placement of bridges and

culverts in or over navigable waterways as regulated under s. 30.123, Stats., in order to protect the public rights and interest in the navigable, public waters of the state as defined in s. 30.10, Stats.

SECTION 3. NR 320.02(1) is repealed and recreated to read:

NR 320.02 (1) BRIDGES AND CULVERTS PLACEMENT. This chapter applies to construction, placement and maintenance of bridges and culverts in or over navigable waterways as regulated under s. 30.123, Stats. Any person that intends to construct, place or maintain a bridge or culvert in or over any navigable waterway shall comply with all applicable provisions of this chapter and any permit issued under this chapter.

SECTION 4. NR 320.03 (1) to (8) are renumbered NR 320.03 (6), (9), (5), (10), (3), (8), (12) and (2), respectively, and NR 320.03 (9), (10) and (12), as renumbered, are amended to read:

NR 320.03(9) "~~Waterway~~ Navigable waterway" means any body of water ~~declared navigable pursuant to s. 30.10, Stats. with a defined bed and bank, which is navigable under the laws of the state. In Wisconsin, a navigable body of water is capable of floating the lightest boat or skiff used for recreation or any other purpose on a regularly recurring basis.~~

(10) "Ordinary high water mark" means the point on the banks or shore up to which the presence and action of water is so continuous as to ~~have leave~~ a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognizable characteristics.

(12) "Regional flood" means a flood ~~determined by the department to be~~ representative of large floods known to have generally occurred in Wisconsin ~~and which may be expected to occur on a particular stream because of like physical requirements. The regional flood generally has an average frequency of the 100 year recurrence interval flood or which may be expected to occur on a particular lake, river or stream once in every 100 years.~~

SECTION 5. NR 320.03 (1), (4), (7), (11), (13) and (14) are created to read:

NR 320.03 (1) "Area of special natural resource interest" has the meaning in s. 30.01(1am), Stats., and as identified by the department in s. NR 1.05.

Note: "Area of special natural resource interest" means any of the following:

- (a) A state natural area designated or dedicated under ss. 23.27 to 23.29.
- (b) A surface water identified as a trout stream by the department under NR 1.02(7).
- (bm) A surface water identified as an outstanding or exceptional resource water under s. 281.15.
- (c) An area that possesses significant scientific value, as identified by the department in NR 1.05.

Information and lists can be obtained by contacting the department, or found on the department's website at www.dnr.wi.gov, under the topic "Waterway and Wetland Permits".

(4) "Channel" means a natural or artificial water course with defined bed and banks to confine and conduct the normal flow of water.

(7) "Highway" or "public highway" has the meaning in s. 340.01(22), Stats.

(11) "Perched culvert" means a culvert where the bottom outlet elevation is greater than the water level elevation, thereby effectively eliminating fish migration and fish passage.

(13) "Replacement" means a degree of structural changes to a bridge or culvert by which some or all of the bridge or culvert is being removed or recreated.

(14) "Riprap" means a layer or layers of rock, including filter material, placed on the bed and bank of a navigable waterway to prevent erosion, scour or sloughing of the existing bank.

SECTION 6. NR 320.04 (title) is amended to read:

NR 320.04 ~~Required~~ Bridge clearance over navigable waterway.

SECTION 7. NR 320.05 (title) is amended to read:

NR 320.05 ~~Flood~~ Bridge flood flow requirements.

SECTION 8. NR 320.06(title), (1)(b)2. and (2)(b) are amended to read:

NR 320.06 ~~Plan~~ Bridge plan and information requirements.

(1)(b)2. Cross-sectional profiles of the flood plain, as necessary, ~~for the department~~ to determine the natural regional flood elevation. The cross-sectional profiles shall indicate existing natural ground elevations and water surface elevations.

(2)(b) The bridge will completely span the stream from ~~bank to bank~~ top of channel to top of channel;

SECTION 9. NR 320.07(title) is amended to read:

NR 320.07 ~~Enforcement~~ Bridge enforcement.

SECTION 10. NR 320.08 is created to read:

NR 320.08 Bridges and culverts. (1) EXEMPTIONS. (a) *Procedures.* Exemptions shall be processed according to the procedures in ch. NR 310.

(b) *Applicable activities.* A replacement of a culvert that meets all the standards in par. (c) shall be exempt under s. 30.123(6)(e), Stats. A replacement of a previously permitted culvert that meets all the standards in par. (d) shall be exempt under s. 30.12(6)(d), Stats.

(c) *Standards to replace a culvert that does not exceed 24-inches in diameter.* 1. The culvert may not be located in an area of special natural resource interest as defined in s. 30.01(1am), Stats., and identified by the department in s. NR 1.05, or where there are public rights features as defined in s. NR 1.06.

2. The replacement culvert shall be an in-kind replacement of a single culvert of the same type, of equal or smaller diameter, and of equal or shorter length of culvert that is being replaced.

3. The stream may not have a base flow of more than 4 cubic feet per second to ensure that a 24-inch culvert adequately passes stream flow and is not likely to create a ponded condition upstream.

Note: If the culvert or roadway is being replaced because it has washed out, overtopped or has been eroded around, then a 24 inch culvert is likely inadequate unless the damage occurred during a regional flood.

4. Culvert placement and installation shall mimic the natural stream and gradient above and below the culvert channel, not to exceed a 3% slope. Ponding upstream or perching or plunge pool conditions downstream indicate that a culvert is not in compliance with this condition.

Note: A culvert which is part of a structure that functions as a dam requires an approval or permit under ch. 31, Stats.

5. Both ends of the culvert shall be installed so 25% of the diameter of a round culvert or 25% of the height of a box 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, that prevents movement of fish or wildlife or collects debris. Culvert openings shall be inspected at least once a year for debris and any obstructions shall be removed.

7. 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. Culvert ends shall be protected with 3- to 12-inch diameter riprap extending horizontally 18 inches from the end of the culvert.

8. Fill material shall be firmly compacted around the culvert. To prevent crushing, the top of the culvert shall be covered with fill to a depth of at least 12 inches. Fill material used shall be free of fines, sediment, soil, pollutants, contaminants and other waste materials.

9. Dredging under 30.20 (1g)(b)1., Stats., and deposition of sand, gravel or stone on the stream bed under s. 30.12(1g)(a), Stats., may be associated with the replacement of a culvert provided dredging is limited to the volume necessary to bury the culvert as required in subd. 5 and the deposit is limited to the area immediately underneath or within 2 feet of the culvert.

10. Culvert replacement is prohibited from March 15 to June 1 annually to minimize adverse impacts on fish movement, fish spawning, egg incubation periods and high stream flows.

11. Erosion control measures shall meet or exceed the standards in the most current version of the Wisconsin Construction Site Best Management Practices Handbook.

Note: Information on how to obtain this publication can be found by contacting the department or found on the department's website at www.dnr.wi.gov, under the "Runoff Management" program.

Note: The replacement culvert may not impair drainage or cause backwater on the property of an upstream property owner without written consent or appropriate legal arrangements.

Note: Equipment shall be operated from the streambank only (see s. 30.29, Wis. Stats).

Note: A permit is required under s. 30.19, Wis. Stats. and NR341 if land disturbance or excavation exceeds 10,000 square feet on the bank of the navigable waterway.

(d) *Standards to replace a previously permitted culvert.* 1. A culvert that is authorized by a permit issued under s. 30.12 or 30.123, Stats., may be replaced provided the construction, placement and maintenance will comply with the same conditions of the original permit.

2. Both ends of the culvert shall be installed so 25% of the diameter of a round culvert or 25% of the height of a box culvert lies below the bed of the waterway.

3. Erosion control measures shall meet or exceed the standards in the most current version of the Wisconsin Construction Site Best Management Practices Handbook.

Note: Information on how to obtain this publication can be found by contacting the department or found on the department's website at www.dnr.wi.gov, under the "Runoff Management" program.

4. A deposit of sand, gravel or stone under s. 30.12(1g)(a), Stats., may be associated with the replacement of a culvert provided the deposit is limited to the area immediately underneath or within 2 feet of the culvert, and is less than 2 cubic yards.

5. Dredging under s. 30.20(1g)(b)1., Stats., is allowed for the replacement of a culvert provided it is limited to the volume necessary to bury the culvert as required in subd. 2.

6. Culvert replacement under this paragraph may not occur more than once every 5 years.

(e) Activities that do not meet the standards in par. (c) or (d) or are determined ineligible for an exemption by the department require a general permit or individual permit.

(2) GENERAL PERMITS. (a) *Procedures.* General permits shall be processed according to the procedures in ch. NR 310.

(b) *Applicable activities.* A clear span bridge that meets all the standards in s. NR 320.04 and par. (c) shall be eligible for a general permit under ss. 30.123(7)(a)1. and (b) and 30.206, Stats.

(c) *Clear span bridge standards.* 1. On trout streams, construction or placement is prohibited between September 15 and May 1 of any calendar year.

2. On all waterways that are not trout streams, construction or placement is prohibited between March 15 and June 1 annually.

3. The bridge may only span a portion of a navigable waterway that is less than 35 feet wide, measured from ordinary high water mark to ordinary high water mark.

4. The 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.

5. Any grading, excavation and land disturbance shall be confined to the minimum area necessary for the construction and may not exceed 10,000 square feet.

6. Erosion control measures shall meet or exceed the standards in the most current version of the Wisconsin Construction Site Best Management Practices Handbook.

Note: Information on how to obtain this publication can be found by contacting the department or found on the department's website at www.dnr.wi.gov, under the "Runoff Management" program.

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

8. Any area where topsoil is exposed during construction shall be immediately seeded and mulched or rippapped to stabilize disturbed areas and prevent soil from being eroded and washed into the waterway.

9. When the project is completed and the disturbed areas are adequately stabilized, the silt fencing or similar erosion control measures shall be removed so that the erosion control measures are not a barrier to the movement of wildlife.

10. Construction or placement of the clear span bridge 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 cutting trees in the shoreland zone. The riparian is responsible for ensuring that their project is in compliance with any local zoning requirements.

11. No approach fill shall be placed in any wetland, floodway or below the ordinary high water mark of any navigable waterway. If an approach must be located in a wetland or floodway, it shall be open ramp style construction only.

12. The permittee shall assume all responsibility and liability for any direct or indirect damage caused or resulting from the presence of the bridge and hold the state of Wisconsin, or its employees, harmless.

13. Accumulated brush or debris shall be regularly removed from the bridge.

14. 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.

15. The bridge shall completely span the waterway from top of channel to top of channel with no support pilings in the waterway.

16. The bridge shall be of a natural earth tone color so that it minimizes the impact on natural scenic beauty.

17. The permittee shall submit a photograph of the completed project to the department within 10 days of project completion.

(d) Activities that do not meet the standards in par. (c) or a general permit issued by the department shall require an individual permit.

(3) INDIVIDUAL PERMITS. (a) *Procedures.* Individual permits shall be processed according to the procedures in ch. NR 310.

(b) *Applicable activities.* Any bridge or culvert which is not exempt under s. NR 320.08(1), is not authorized by a general permit under s. NR 320.08(2), or is located in an area of special natural resource interest requires authorization by an individual permit under s. 30.123 (8), Stats.

(c) *Standards.* Construction, placement or maintenance of a bridge or culvert which meets the standards in s. 30.123(2), Stats., may be authorized under an individual permit.

SECTION 11. NR 320.09 is created to read:

NR 320.09 (1) Noncompliance with the provisions of ss. 30.12, 30.123, 30.20 and 30.206, Stats., this chapter, or any conditions of an exemption, general permit or individual permit issued by the department, constitutes a violation and may result in a forfeiture. If the activity is a general permit under s. 30.206, Stats., the failure to follow procedural requirements may not, by itself, result in abatement of the activity. Unless there is good cause shown, the department shall seek abatement of any activity in violation of ss. 30.12, 30.123, 30.20 and 30.206, Stats.

(2) General permits may not be issued for after-the-fact permit applications. When an after-the-fact permit application has been filed with the department, the department shall follow the procedures in ch. NR 301 for violations.

(3) Any reference in ss. 30.15, 30.292, 30.294 and 30.298, Stats., to any provision of ch. 30, Stats., shall include any rules promulgated under that provision.

(4) No person may place a bridge or culvert in or over a navigable waterway if the activity is not eligible for an exemption, authorized by a general permit or individual permit issued under this chapter, or otherwise authorized under this chapter.

SECTION 12. 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 13. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin _____.

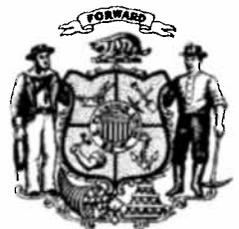
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Scott Hassett, Secretary

(SEAL)



WISCONSIN STATE LEGISLATURE



Streamlining the Permit Process while Protecting Public Waters

Proposed Rule on Bridges and Culverts – NR 320

Summary of Rule Proposal

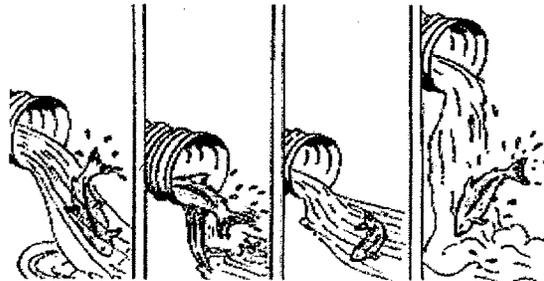
This rule modifies an existing rule to reflect the exemption, general permit and individual permit options provided by statute. This rule revision establishes construction, design, placement and location standards for projects to be eligible for statutory exemptions, establishes a general permit for clear span bridges, and establish standards for projects that may be authorized under an individual permit.

Replacement or maintenance of an existing culvert that is 24" or less in diameter or a previously permitted culvert is exempt except in areas of special natural resource interest or public rights features where a general or individual permit is required.

Why is this an issue for public waters?

Construction of waterway crossings can have both direct and indirect impacts on fisheries. Direct impacts include modification/destruction of habitat due to filling, channel changes and dredging. Indirect impacts result from vegetation removal, grading, and land clearing that results in erosion and sedimentation in the waterway. Potential environmental effects caused by improper culvert placement include:

- Degrading of a streambed and associated habitat – If a culvert or a pond caused by an undersized culvert replaces a section of the stream, the streambed and its associated aquatic and riparian habitats will be lost.
- Erosion of channel – If a culvert is installed too high so the downstream end lies above the streambed (perched culvert), a waterfall will result. This can lead to bed scouring, bank erosion, and undercutting and structural damage of the culvert. If the culvert slope is too great, the increased water velocity can cause erosion downstream.
- Restriction of fish movement – Fish have always had to overcome natural barriers, such as waterfalls and log jams when migrating. However, the expansion of forestry and urbanization has greatly increased the number of barriers they face. Improper installation of culverts can restrict fish passage in a variety of ways:
 - culvert inlets constrict stream flow, which increases the flow velocity at the inlet. The increased velocity makes it difficult for fish to swim upstream out of the culvert
 - culverts may be too small or too long for fish to swim through.
 - fish cannot swim long distances without resting. A lack of pools and rest areas immediately upstream and downstream of the culvert may make the culvert impassable if the distance they have to swim without resting is too far.



Previous Regulation

Past regulations allowed the DNR to control the degree of obstruction to navigation, to minimize the obstruction to flood flows, to minimize erosion, sedimentation and washout potential, and to protect the public interest (i.e., must consider natural scenic beauty and potential for blockage of fish migration) Individual permits were required for all culvert construction, maintenance, and replacement activities. All applications were public noticed and evaluated for design and installation considerations.

What's Being Proposed?

Exemptions on all 24" culverts and replacement of previously-permitted culverts as long as they are not in areas of special natural resource interest or public rights features. Under the revised emergency rule proposal, culverts are not exempt in perennial tributaries to trout streams. Key standards for exempt 24" culvert replacements include:

- One culvert per stream crossing
- Type and length of culvert remains the same
- Stream base flow of no more than 4 cfs (capacity of a 24" culvert)
- Must be installed so that 25% is below the streambed (allows fish and wildlife passage)
- Maximum 3% gradient (to avoid ponding and perching)
- Adequate fill material on top of culvert (avoid crushing that would block passage)
- No construction during fish spawning periods, March 15-June 1 unless given a waiver by local fisheries biologist
- Erosion control Best Management Practices used during construction

A general permit is also made available for all other previously-permitted culverts as long as the original permit conditions are followed.

What do YOU think?

DNR seeks your input on the proposed rules. You can participate in one of several ways:

- Fill out a questionnaire at a public hearing **open house**
- Send comments over the **internet** at <http://adminrules.wisconsin.gov>
- **Testify** at a public hearing. See locations, dates and times by going to DNR's website dnr.wi.gov, clicking on "Permits & Licenses", then "Waterway & Wetlands"
- **Mail** written comments to Ms. Roberta Lund, DNR-FH/3, P.O. Box 7921, Madison, WI, 53707-7921

Comments accepted through September 7, 2004