

## Chapter NR 320

REGULATION OF BRIDGES IN OR OVER  
NAVIGABLE WATERWAYS

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**NR 320.01 Purpose.** The purpose of this chapter is to provide uniform clearance and flood flow standards for the department's review and approval of bridges over and in the navigable waterways of this state. Clearance and flood flow requirements are necessary to prevent obstruction to navigation and to protect human life and health and to minimize property damages and other economic losses.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.03 Applicability.** (1) **PRIVATE BRIDGES AND MUNICIPAL NONHIGHWAY BRIDGES.** All private bridges and municipal nonhighway bridges which are intended to cross navigable waterways must first be approved by the department pursuant to sections 30.10 or 31.23, Wis. Stats. In addition, any portion of such a bridge placed on the bed of a navigable waterway or any temporary or permanent modification of a waterway, not otherwise exempted by statute, requires a permit or approval to be issued by the department. Any culvert or series of culverts or any other appurtenance used for such a bridge placed on the bed of navigable waterways must be approved in accordance with section 30.12, Wis. Stats.

(2) **MUNICIPAL HIGHWAY BRIDGES.** (a) Municipalities are not required to obtain a permit or approval pursuant to sections 30.10, 30.12 or 31.23, Wis. Stats., prior to constructing a municipal highway bridge. However, municipal highway bridges cannot obstruct navigation and must meet local flood plain zoning requirements.

(b) Municipalities may submit highway bridge plans and pertinent flood plain survey data to the department to determine if the project will conform to clearance and flood plain requirements.

(3) **STATE HIGHWAY BRIDGES.** State highway bridges are not subject to the permit requirements under section 30.12, Wis. Stats. However, such bridges cannot obstruct navigation. Also intrastate and interstate bridges constructed pursuant to sections 84.11 and 84.12, Wis. Stats., are subject to the control and supervision over the navigable waters of the state conferred by law upon the department. State highway bridges constructed pursuant to sections 84.11 and 84.12, Wis. Stats., will be reviewed and approved by the department pursuant to an appropriate interagency agreement entered into by the department of transportation and the department of natural resources.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.03 Definitions.** (1) "Department" means the department of natural resources.

(2) "Waterway" means any body of water declared navigable pursuant to section 30.10, Wis. Stats.

(3) "Clearance" means the distance between the inside top of a culvert or the bottom of the lowest member of the bridge span and the elevation of the ordinary high watermark of the waterway.

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

(5) "Bridge" means any private or public structure except municipal highway bridges constructed in or over a navigable waterway to provide a walkway or roadway for pedestrians, animals or vehicles.

(6) "Municipal highway bridge" means any city, town, village or county owned structure built in or over a navigable waterway for public highway purposes.

(7) "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 characteristics. The regional flood generally has an average frequency of the 100 year recurrence interval flood.

(8) "Backwater" means the increase in the natural flood elevation which results from a bridge and any associated road fills.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.04 Required clearance.** (1) New bridges or replacements of existing bridges spanning navigable waterways, shall, except as set forth herein, maintain a clearance of not less than 5 feet.

(2) The department may require clearance of more than 5 feet when the waterway has been or is likely to be navigated when it is above its ordinary high watermark elevation or when it is used by watercraft or snowmobiles requiring greater clearance.

(3) The department may allow less than 5 feet of clearance for permanent bridges when:

(a) The waterway is known to have little or no navigation or snowmobile use; and

(b) The waterway is not anticipated to have navigational use by other than lightweight craft; and

(c) The owner provides a portage over or around the bridge; and

(d) The reduced clearance would not be detrimental to the public interest.

(4) The department may allow less than 5 feet of clearance for temporary bridges not meeting the criteria set forth in NR 320.04 (3) (a) through (d) if:

(a) The owner of the bridge has entered into a written agreement with the department requiring installation and removal of the bridge; and

(b) The stream is not appreciably used by snowmobiles during the period of time when the bridge will be in place.

(5) The conditions in the above-stated agreement shall be based on the navigational history and use of the stream. The department may modify the dates in the agreement or require removal if changed navigational uses so warrant. Repeated failure of the owner to comply with the installation dates shall render the bridge approval void.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.05 Flood flow requirements.** (1) New bridges or replacements of existing bridges shall conform with the flood flow requirements of Wis. Adm. Code chapter NR 116. Notwithstanding any other provision of this section to the contrary, any bridge crossing a waterway shall comply with any applicable local flood plain zoning ordinance.

(2) Those bridges meeting the criteria set forth in NR 320.06 (2) (a) through (d) are deemed to be in conformance with Wis. Adm. Code chapter NR 116, without the need for the submission of detailed profiles, cross-sections and hydraulic calculations.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.06 Plan and information requirements.** (1) Plans and specifications for the following classes of new or replacement bridges shall contain the following information:

(a) Bridges estimated to cost in excess of \$10,000 exclusive of design costs:

1. A location map for the proposed bridge; and
2. Construction plans indicating the materials to be used; and
3. The maximum anticipated loading that the bridge will be subject to; and
4. Proposed clearance for the bridge; and
5. Elevations and dimensions of any approach fill; and
6. Calculation of the regional or 100 year flood magnitude (cubic feet per second) in accordance with department approved methods; and
7. Calculation of the regional flood elevation which would be attained under natural conditions uninfluenced by any existing bridge and road fill; and
8. Calculation of the backwater or increase in regional flood elevation which would be caused by the bridge and any associated road fill.

(b) Bridges estimated to cost \$10,000 or less exclusive of design costs:

1. NR 320.06 (1) (a) 1. through 5.; and

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) In lieu of section NR 320.06 (1) (a) or (b), the plans for any new or replacement bridge spanning a navigable stream that will only affect rural areas need only contain information required in NR 320.06 (1) (a) 1. through 4. if the plans also show conformance with the following criteria:

(a) All approaches for the bridge will be constructed so there will be no increase in elevation above existing natural ground elevation (if approach ramps are required at the bridge they shall not exceed one foot in elevation to meet the bridge deck, nor be more than 15 feet in length);

(b) The bridge will completely span the stream from bank to bank;

(c) At least one end of the bridge structure will be firmly anchored in such a manner that the bridge will not be transported downstream during flood conditions; and

(d) The owner will submit a notarized statement assuming all responsibility and liability for any direct or indirect damages which may result from a bridge approved under this section.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.07 Enforcement.** (1) **EXISTING PRIVATE BRIDGES AND MUNICIPAL NONHIGHWAY BRIDGES.** An enforcement investigation shall be commenced by the department, upon receipt of a written complaint, for any private bridge or municipal nonhighway bridge in existence on January 1, 1977 which has not received a necessary permit or approval from the department. After such investigation the department shall commence an enforcement action if it determines that environmental damage has resulted from the construction or maintenance of the bridge or if the owner of the bridge fails, after written request, to bring the bridge into compliance with the standards set forth in this chapter.

(2) **MUNICIPAL HIGHWAY BRIDGES.** Upon receipt of written complaint the department shall investigate the construction or maintenance of any municipal highway bridge. In evaluating such complaints the department will apply the principles set forth in *Capt. Soma Boat Line, Inc. v. City of Wisconsin Dells* (56 Wis. 2d 838 (1973)) to determine what course of action it will follow in the case. The department shall apply the clearance standards set forth in this chapter in determining whether a municipal highway bridge constitutes an obstruction to navigation.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.

**NR 320.08 Severability.** Should any section, paragraph, phrase, sentence, clause or word of this chapter be declared invalid or

unconstitutional for any reason, the validity of the remainder of the chapter shall not be affected thereby.

**History:** Cr. Register, December, 1976, No. 252, eff. 1-1-77.