

Chapter NR 116

WISCONSIN'S FLOOD PLAIN
MANAGEMENT PROGRAM

NR 116.01	Purpose	NR 116.12	Amendments of official floodway lines
NR 116.02	Applicability	NR 116.13	Uses in floodway areas
NR 116.03	Definitions	NR 116.14	Uses in flood fringe areas (outside of the floodway)
NR 116.04	Severability	NR 116.15	Nonconforming uses
NR 116.05	Adoption and upgrading of flood plain zoning ordinances	NR 116.16	Flood proofing
NR 116.06	Areas to be regulated	NR 116.17	Flood control works
NR 116.07	Regional flood flow determination	NR 116.18	Procedures for changing flood plain and floodway limits
NR 116.08	Water surface profile of the regional flood	NR 116.19	Appointment and duties of zoning administrator, zoning agency and board of adjustment/appeals
NR 116.09	Data required to be shown on flood plain zoning maps	NR 116.20	County, city and village responsibilities
NR 116.10	Conflicts between water surface profile and flood plain zoning maps	NR 116.21	Permits, special exceptions (conditional uses), variances, appeals and amendments
NR 116.11	Initial delineation of floodway lines	NR 116.22	Department duties

Note: Chapter NR 116 as it existed on July 31, 1977, was repealed and a new chapter NR 116 was created effective August 1, 1977.

NR 116.01 Purpose. (1) The Wisconsin legislature in enacting chapter 614, laws of 1965, recognized that flood plain zoning is a necessary tool to protect human life, health and to minimize property damages and economic losses. Counties, cities and villages are required by section 87.30, Wis. Stats., to adopt reasonable and effective flood plain zoning ordinances within their respective jurisdictions to regulate all flood plains where serious flood damage may occur.

(2) The purpose of these rules is to provide a uniform basis for the preparation and implementation of sound flood plain regulations for all Wisconsin flood plains to:

- (a) Protect life, health and property;
- (b) Minimize expenditures of public monies for costly flood control projects;
- (c) Minimize rescue and relief efforts, generally undertaken at the expense of the general public;
- (d) Minimize business interruptions;
- (e) Minimize damage to public facilities on the flood plains such as water mains, sewer lines, streets and bridges;
- (f) Minimize the occurrence of future flood blight areas on flood plains; and
- (g) Discourage the victimization of unwary land and home buyers.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

Register, July, 1977, No. 269
Environmental Protection

NR 116.02 Applicability. The provisions of this chapter are applicable to flood plain management by counties, cities and villages. Unless otherwise specifically exempted by law, section 13.48 (13), Wis. Stats., requires that all state agencies obtain all necessary permits required by local zoning ordinances.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.03 Definitions. (1) **ACCESSORY USE.** An accessory use is any facility, structure, building or use which is accessory or incidental to the principal use of a property, structure or building.

(2) **CERTIFICATE OF COMPLIANCE.** A certificate of compliance is issued to a property owner by a county, city or village and certifies that the use of land or a building in the flood plain area is in conformance with the provisions of the flood plain zoning ordinance.

(3) **CHANNEL.** A channel is a natural or artificial watercourse with definite bed and banks to confine and conduct the normal flow of water.

(4) **DEPARTMENT.** Department refers to the state of Wisconsin department of natural resources.

(5) **ENCROACHMENT.** An encroachment is any fill, structure, building, use, accessory use or development in the floodway.

(6) **ENCROACHMENT/FLOODWAY LINES.** Encroachment/floodway lines are limits of obstruction to flood flows. These lines are on both sides of and generally parallel to the river or stream. The lines are established by assuming that the area landward (outside) of the encroachment/floodway lines will be ultimately developed in such a way that it will not be available to convey flood flows.

(7) **EQUAL DEGREE OF HYDRAULIC ENCROACHMENT.** The effect of any encroachment into the floodway must be computed by assuming an equal degree of hydraulic encroachment on the other side of a river or stream for a hydraulic reach. This computation assures that property owners up, down or across the river or stream will have the same rights of hydraulic encroachment. Encroachments are analyzed on the basis of the effect upon hydraulic conveyance, not upon the distance the encroachment extends into the floodway. Also see: Hydraulic Reach.

(8) **FLOOD.** A general and temporary condition of partial or complete inundation of normally dry land areas caused by the overflow or rise of rivers, streams or lakes.

(9) **FLOOD FREQUENCY.** The term flood frequency is a means of expressing the probability of flood occurrences and is generally determined from statistical analyses. The frequency of a particular flood flow is usually expressed as occurring, on the average, once in a specified number of years. Any particular flood flow could, however, occur more frequently than once in any given year.

(10) **FLOOD FRINGE.** The flood fringe is that portion of the flood plain outside of the floodway, which is covered by flood waters during the regional flood; it is generally associated with standing water rather than rapidly flowing water.

Register, July, 1977, No. 259
Environmental Protection

(11) **FLOOD PLAIN.** The flood plain is the land which has been or may be hereafter covered by flood water during the regional flood. The flood plain includes the floodway and the flood fringe.

(12) **FLOOD PLAIN MANAGEMENT.** Flood plain management involves the full range of public policy and action for insuring wise use of flood plains. It includes everything from the collection and dissemination of flood control information to actual acquisition of flood plain lands; and the enactment and administration of codes, ordinances, and statutes for land use in the flood plain.

(13) **FLOOD PROOFING.** Flood proofing involves any combination of structural provisions, changes, or adjustments to properties and structures subject to flooding, primarily for the purpose of reducing or eliminating flood damage to properties, water and sanitary facilities, structures and contents of buildings in flood hazard areas.

(14) **FLOOD PROTECTION ELEVATION.** The flood protection elevation shall correspond to a point 2 feet of freeboard above the water surface profile associated with the regional flood and the official floodway lines. Also see: Freeboard.

(15) **FLOODWAY.** The floodway is the channel of a river or stream and those portions of the flood plain adjoining the channel required to carry and discharge the flood water or flood flows associated with the regional flood.

(16) **FREEBOARD.** Freeboard is a factor of safety usually expressed in terms of a certain amount of feet above a calculated flood level. Freeboard compensates for the many unknown factors that contribute to flood heights greater than the height calculated. These unknown factors include, but are not limited to, ice jams, debris accumulation, wave action, obstruction of bridge openings and floodways, the effects of urbanization on the hydrology of the watershed, loss of flood storage areas due to development and aggradation of the river or stream bed.

(17) **HIGH FLOOD DAMAGE POTENTIAL.** High flood damage potential is associated with any danger to life or health and any significant economic loss to a structure or building or its contents.

(18) **HYDRAULIC FLOODWAY LINES.** Hydraulic floodway lines shall delineate the channel of the river or stream and those portions of the adjoining flood plains which are reasonably required to carry and discharge the regional flood flow without any measurable increase in flood heights.

(19) **HYDRAULIC REACH.** A hydraulic reach along a river or stream is that portion of the river or stream extending from one significant change in the hydraulic character of the river or stream to the next significant change. These changes are usually associated with breaks in the slope of the water surface profile, and may be caused by bridges, dams, expansion and contraction of the water flow, and changes in stream bed slope or vegetation.

(20) **LEVEE.** A levee is a continuous dike or embankment of earth constructed parallel to a river or stream to prevent flooding of certain areas of land.

(21) **NONCONFORMING USE.** A nonconforming use is an existing lawful use of a structure, building or accessory use which is not in conformity with the provisions of the flood plain zoning ordinance for the area of the flood plain which it occupies.

(22) **OFFICIAL FLOODWAY LINES.** Official floodway lines are those lines which have been adopted by the county, city or village, approved by the department, and which are shown on the official flood plain zoning maps and used for regulatory purposes.

(23) **OPEN SPACE USE.** Open space uses are those uses having a relatively low flood damage potential, such as those uses associated with agriculture, recreation, parking, storage yards, or certain sand and gravel operations.

(24) **REGIONAL FLOOD.** The regional flood is a flood determined 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 is based upon a statistical analysis of streamflow records available for the watershed and/or an analysis of rainfall and runoff characteristics in the general watershed region. The flood frequency of the regional flood is once in every 100 years; this means that in any given year there is a 1% chance that the regional flood may occur. During a typical 30-year mortgage period, the regional flood has a 26% chance of occurring.

(25) **SPECIAL EXCEPTION (CONDITIONAL USES).** A special exception (also called a conditional use) is a use which is permitted by the flood plain zoning ordinance provided certain conditions specified in the ordinance are met and a permit is granted by the board of adjustment/appeals or, where appropriate, the zoning committee.

(26) **STANDARD PROJECT FLOOD.** The standard project flood is a hypothetical flood, estimated by the corps of engineers, representing the flood runoff volume and peak discharge that may be expected from the most severe combination of meteorological and hydrologic conditions that are considered reasonably characteristic of the geographical region involved, excluding extremely rare combinations.

(27) **STRUCTURE.** A structure is any man-made object with form, shape and utility, either permanently or temporarily attached to or placed upon the ground, river bed, stream bed or lakebed.

(28) **UNNECESSARY HARDSHIP.** Unnecessary hardship is any unique and extreme inability to conform to the provisions of a flood plain zoning ordinance due to physical factors which are not solely related to economic gain or loss. Unnecessary hardship is present only where, in the absence of a variance, no feasible use can be made of the property.

(29) **VARIANCE.** A variance authorizes the construction or maintenance of a building or structure in a manner which is inconsistent with dimensional standards contained in the flood plain zoning ordinance. A variance can only be granted by the board of adjustment/appeals. A variance shall not permit a use of property otherwise prohibited by the flood plain zoning ordinance; it may permit deviations from dimensional standards.

(30) **WATERSHED.** A watershed is a region or area contributing ultimately to the water supply of a particular watercourse or body of water.

(31) **WATER SURFACE PROFILE.** The water surface profile is a graphical representation of the height of the water surface throughout a county, city or village based upon a certain flow passing through the river or stream. A water surface profile based upon flows occurring during a regional flood is used in regulating the flood plain areas.

(32) **WELL.** A well is an excavation or opening in the ground made by digging, boring, drilling, driving or other methods, for the purpose of obtaining ground water.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

NR 116.04 Severability. Should any section, paragraph, phrase, sentence or clause of this chapter be declared invalid or unconstitutional for any reason, the remainder of this chapter shall not be affected thereby.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

NR 116.05 Adoption and upgrading of flood plain zoning ordinances. (1) **ADOPTION.** Counties, cities and villages shall adopt, and continue to administer and enforce, reasonable flood plain zoning ordinances for all streams and flood plains within their respective jurisdictions. These ordinances shall meet or exceed the standards in this chapter.

(2) **INCLUSION IN LOCAL REGULATIONS, CODES AND PROGRAMS.** Where necessary to insure the effectiveness of flood plain zoning ordinances, the standards in this chapter shall be included in subdivision regulations, building and sanitary codes, flood insurance regulations, and other related programs.

(3) **SUBSTITUTION.** Where the department finds that one or more of the following regulations, codes or programs will accomplish the purpose of section NR 116.01, these regulations, codes or programs may be substituted in lieu of all or portions of flood plain zoning ordinances:

(a) Acquisition of flooding easements to insure open space uses in flood plain areas.

(b) Flood warning systems.

(c) Building codes.

(d) Subdivision regulations.

(e) Sanitary codes.

(f) Zoning or purchase of the entire flood plain to permit only open space uses.

(4) **UPGRADING ORDINANCES.** Within 6 months from the time any of the information listed below is available, local units of government shall upgrade flood plain zoning ordinances, using the amendment procedure in section NR 116.21, to reflect current information such as the following:

(a) Flood data.

- (b) Flood plain management statutes.
- (c) Flood plain management rules.
- (d) Flood plain management case law.
- (e) Hydrologic data.
- (f) Improved technical information and methods.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.06 Areas to be regulated. Counties, cities and villages shall develop flood plain zoning maps, reflecting the best available data, which show the areas to be regulated. They shall also develop flood plain zoning ordinances to define proper uses in those regulated areas. These flood plain maps and zoning ordinances shall regulate all flood plains, and the minimum limits for regulatory purposes shall be all those areas covered by waters during the regional flood.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.07 Regional flood flow determination. The method of determining the discharge for the regional flood shall be based upon the guidelines contained herein.

(1) **COMPREHENSIVE STUDIES - GENERAL RULE.** Comprehensive studies to determine the regional flood flow discharge for a significant segment of a river or stream shall generally use the log-Pearson Type III distribution method as described in Bulletin #17 of the Hydrology Committee, U.S. Water Resources Council, entitled "Guidelines For Determining Flood Flow Frequency", March 1976. The technique described in Bulletin #17 shall be modified under the following circumstances:

(a) When determining skew, a log-normal analysis (zero skew) shall be used instead of the generalized skew map found in Bulletin #17.

(b) When less than 100 years of adequate data is available for the applicable watershed gaging station, regional flood flow frequency discharge shall be determined by more than one method in accordance with the chart on page 17 of said Bulletin #17.

(c) Where the discharge events of record can be separated into those occurring due to rainfall and those due to melting snow, those events shall be analyzed separately and separate frequency curves developed. These curves shall then be combined to determine the critical flood flow frequency discharge.

(d) Outliers are defined in Bulletin #17. The technique described in Bulletin #17 eliminates low outliers. Computations which do not eliminate low outliers shall be made to determine flood flow frequency discharges. These computations shall be compared to those which eliminate low outliers, and then shall be submitted to the department for its determination of reasonable flood flow frequency discharge.

(2) **COMPREHENSIVE STUDIES - EXCEPTIONAL TECHNIQUES.** Comprehensive studies to determine regional flood flow discharges for significant segments of a river or stream shall be computed using synthetic hydrographs, which are combined and routed through the

Register, July, 1977, No. 259
Environmental Protection

basin to critical locations within the municipal limits, when any of the following conditions exist in the watershed:

(a) The watershed is or has been rapidly urbanizing so that runoff during storms is significantly increased relative to conditions existing during that period of available record. This method shall apply when significant increases in urbanization occur. One example of significant urbanization is where more than 20% of the watershed has been urbanized or where the urbanization of the watershed has exceeded a 10% growth rate in any 10-year period.

(b) Dams upstream of the study area affect the validity of gaging records on the river or stream.

(c) Flood plain development upstream of the study area has significantly altered storage capacity of the river or stream so as to affect the validity of gaging records.

(3) **CASE-BY-CASE ANALYSIS.** Where comprehensive studies do not exist for a given river or stream, a case-by-case analysis is required for regional flood flow discharge determinations. This case-by-case analysis on proposed developments in the flood plain areas shall be made using several acceptable techniques, which include at least one of the following:

(a) When adequate gaging data exists, the applicable technique described in subsection (1) or subsection (2) shall be used.

(b) When inadequate gaging data exists, acceptable hydrologic techniques shall be used, which include at least one of the following:

1. The current USGS empirical equations, developed from regression analysis of stream gaging data, using a positive upper confidence interval equal to one standard error of estimate. (See USGS Publication entitled "Estimating Magnitude and Frequency of Floods in Wisconsin", by Conger.)

2. Current USDA soil conservation service techniques, such as found in Section 4, SCS National Engineering Handbook (NEH4), entitled "Hydrology", SCS, U.S.D.A.; Technical Release No. 55 (TR55), entitled "Urban Hydrology For Small Watersheds", Engineering Division, SCS, U.S.D.A., January, 1975.

(c) Drainage area comparisons shall be used only in combination with one of the above techniques.

(4) **ADDITIONAL REQUIREMENTS - RAPIDLY URBANIZING WATERSHEDS.** In watersheds where significant future development is projected, the county, city or village may require that computations for regional flood flow discharges shall reflect increased runoff from such anticipated future development. These computations shall be made using one of the following techniques:

(a) A synthetic hydrograph based upon projected watershed development shall be produced at various locations, and then combined and routed through the basin to critical locations within the study limits.

(b) A mathematical model shall be developed to determine the effects of various projected developments in the watershed on the regional flood flow discharge. Local units of government may project

what percentage of watershed development they will allow and shall determine regional flood flow discharges based upon that data. Where watersheds contain more than one local unit of government, agreements between those local units of government may be necessary to restrict future watershed development. In order to insure that future flood flows do not exceed the regional flood flow discharges used in regulations by those local units of government, future watershed development may be restricted to a certain percentage of the watershed.

(5) **APPROVAL OF OTHER METHODS OF COMPUTATION.** In special instances the department may use or authorize the use of other acceptable hydrologic methods for determining regional flood flow discharges.

(6) The document referred to in Subsection (1) is available for inspection at the U.S. Water Resources Council, 2120 L Street, Northwest, Suite 800, Washington, D.C. 20037; it may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (mention title and stock number 052-045-00031-2). The document referred to in Subsection (3) (b) 1 is available for inspection at the Geological Survey - Water Resource Division, U.S. Department of the Interior, at the following four locations: 1815 University Avenue, Madison, Wisconsin 53706; 1 East Eau Claire Street, Rice Lake, Wisconsin 54868; 1029 ½ East Main Street, Merrill, Wisconsin 54452; 500 Riverview Avenue, Waukesha, Wisconsin 53186. The documents referred to in Subsection (3) (b) 2 are available for inspection at the Soil Conservation Service, U.S. Department of Agriculture, 4601 Hammersley Road, Madison, Wisconsin 53711; they may be purchased from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22151 (mention title and appropriate accession number: NEH4 = PB244463/AS; TR55 = PB244631/AS).

(7) Copies of the documents referred to in subsections (1), (3) (b) 1 and (3) (b) 2 are also available for inspection in the following offices:

(a) The Department of Natural Resources, 4610 University Avenue, Madison, Wisconsin;

(b) The Office of the Secretary of State, Capitol, Madison, Wisconsin;

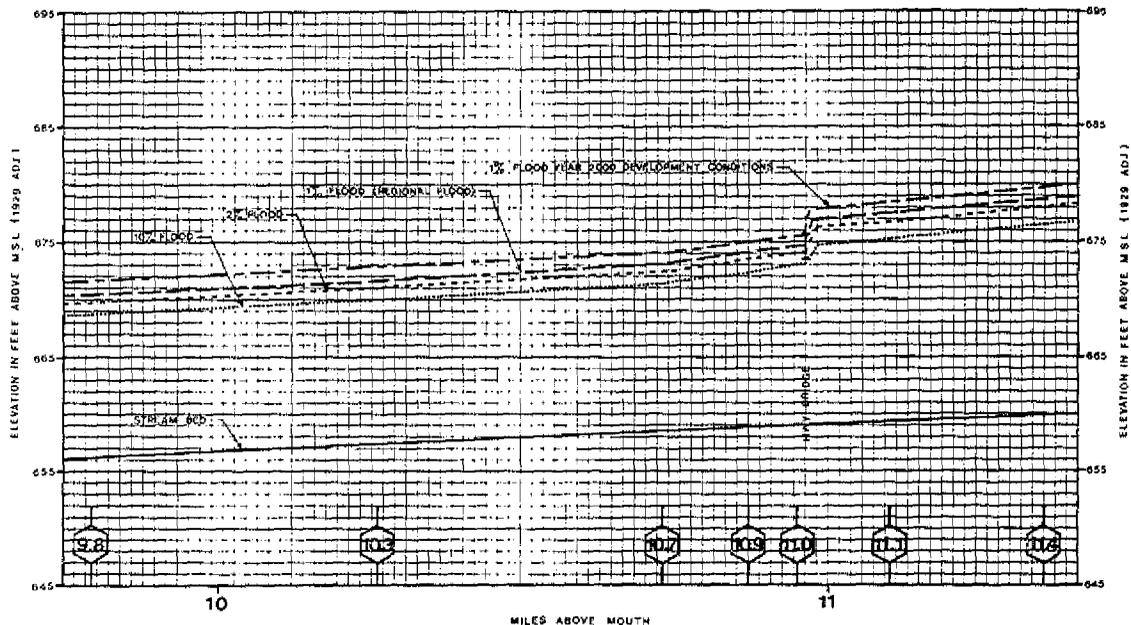
(c) The Office of the Revisor of Statutes, Capitol, Madison, Wisconsin.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.08 Water surface profile of the regional flood. After computation of the regional flood flow discharge, using the methods contained in section NR 116.07, a water surface profile based upon that data shall be developed showing the elevations of the regional flood along the streams and flood plains in the county, city or village. The elevations on this profile shall be used to develop the flood plain zoning maps.

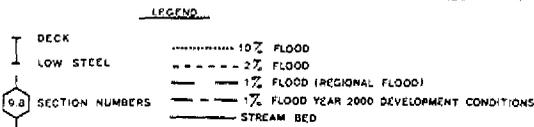
History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

Figure 1
 HIGH WATER AND STREAM BED PROFILES
 OF THE
NAME RIVER
CITY WISCONSIN



- 8 -

Register, July, 1977, No. 259
 Environmental Protection



NR 116.09 Data required to be shown on flood plain zoning maps. The flood plain zoning maps shall delineate the entire flood plain (that area covered during the regional flood).

(1) **WHERE ADEQUATE ENGINEERING DATA EXISTS.** Where adequate engineering data exists the maps shall show the following:

(a) The floodway area (that area necessary to pass the regional flood);

(b) The flood fringe area (that area outside the floodway but still covered by the regional flood);

(c) The regional flood elevation, consistent with the water surface profile of the regional flood, should be clearly lettered at identifiable positions on the official flood plain zoning maps. If for any reason that elevation is not shown on the maps, the profile shall be attached to and made part of said maps; and

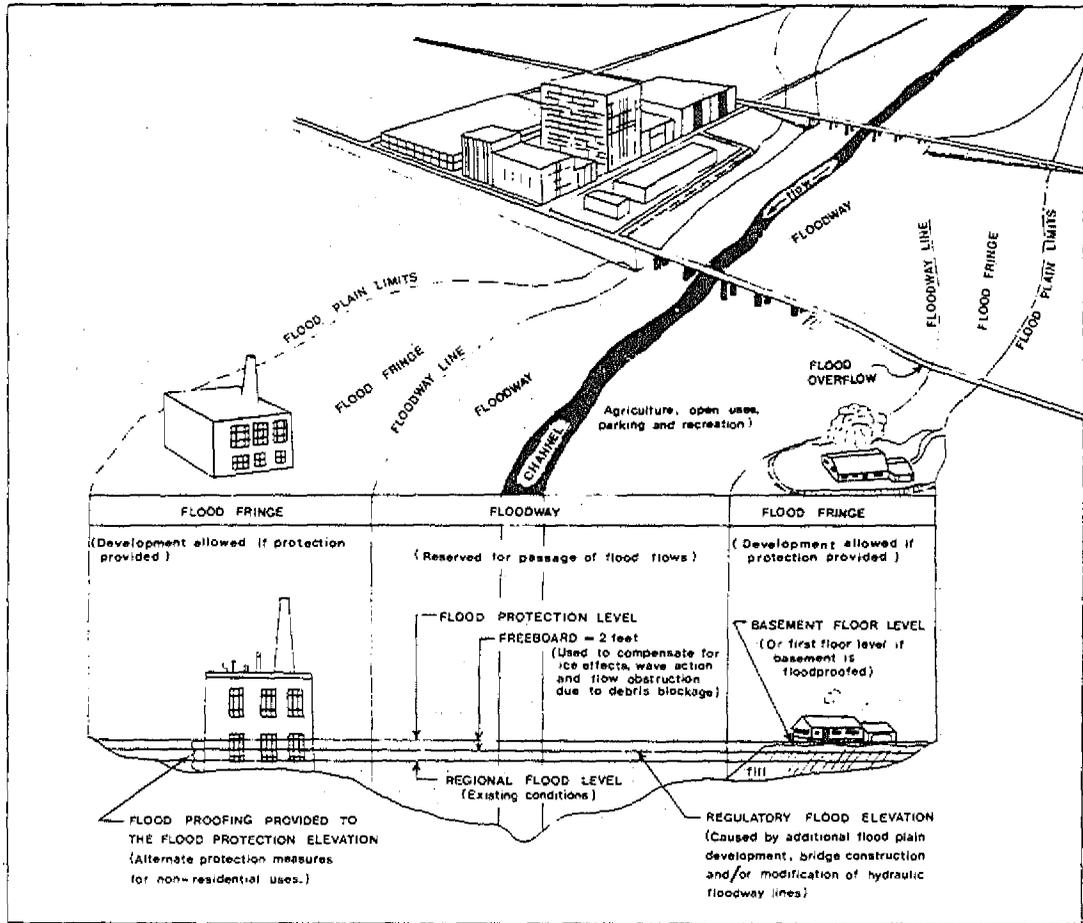
(d) Where technical information is available to ascertain the magnitude of floods larger than the regional flood (such as the standard project flood), the flood plain limits of these large floods may be reflected on the official flood plain zoning maps for public information purposes.

(2) **WHERE ADEQUATE ENGINEERING DATA DOES NOT EXIST.** Where adequate engineering data does not exist, maps based upon historical floods, flood prone area maps, flood hazard boundary maps, aerial photos or detailed soils maps may initially serve as a basis for flood plain delineation, provided that:

(a) The associated text of the zoning ordinance provides for a procedure similar to sections NR 116.20(2) and NR 116.21(3) to ascertain the effects of the proposed construction of every project upon flood flows and the flood protection elevation; and

(b) The local unit of government has initiated a program to ultimately obtain an engineering study for regional flood data in problem areas.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.



Register, July, 1977, No. 269
Environmental Protection

NR 116.10 Conflicts between water surface profiles and flood plain zoning maps. Accepted engineering principles and other techniques shall govern the delineation of the flood plain limits on the official flood plain zoning maps. Where a conflict exists between the flood plain limits illustrated on the maps and the actual field conditions, the elevations from the water surface profile as related to actual field elevations shall be the governing factor in locating regulatory flood plain limits.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

NR 116.11 Initial delineation of floodway lines. (1) **GENERAL RULE-HYDRAULIC FLOODWAY LINES.** As a general rule, the official floodway line shown on the flood plain zoning maps shall be the hydraulic floodway lines. These hydraulic floodway lines shall be determined by hydraulic and engineering studies based upon existing conditions unless the county, city or village elects to require that regional flood flow computations shall be based upon projected future development (see section NR 116.07(4)). These hydraulic floodway lines shall reflect the outer limits of effective flow in a river or stream.

(2) **RIVERWARD MODIFICATION OF HYDRAULIC FLOODWAY LINES TO DELINEATE OFFICIAL FLOODWAY LINES.** (a) In some instances, the official floodway lines may be delineated riverward from the hydraulic floodway lines, but only to accommodate existing development (not a single use), comprehensive community plans, or flood protection facilities such as levees.

(b) The provisions herein shall apply to the delineation of official floodway lines.

1. Any increase equal to or greater than 0.1 foot (3 centimeters) in the height of the regional flood due to the delineation of the official floodway lines riverward from the hydraulic floodway lines must be approved by the department prior to becoming effective. The department may approve the increase, provided:

a. Appropriate legal arrangements have been made with all affected local units of government and all property owners for any increased flood elevations on those properties.

b. All such affected local units of government shall amend their water surface profiles, flood plain zoning maps, and zoning ordinances to reflect the increased flood elevations.

2. The effects of delineating the official floodway lines riverward from the hydraulic floodway lines:

a. Shall be calculated using an equal degree of hydraulic encroachment from the hydraulic floodway lines for a hydraulic reach on both sides of a river or stream; and

b. Shall be determined by hydraulic and engineering studies which are calculated to the nearest 0.1 foot (3 centimeters).

(3) **LANDWARD MODIFICATIONS OF HYDRAULIC FLOODWAY LINES TO DELINEATE OFFICIAL FLOODWAY LINES.** In some instances the official floodway lines may be delineated landward from the hydraulic floodway lines to be consistent with other local codes, ordinances, and

Register, July, 1977, No. 269
Environmental Protection

the state law. In these cases, only the official floodway lines shall be shown on the flood plain zoning maps; the current hydraulic floodway lines, which reflect the water surface profile used for regulation, shall be kept on file by the county, city or village.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.12 Amendments of official floodway lines. (1) **INITIAL DETERMINATIONS.** Prior to amending official floodway lines, for whatever reason, a county, city or village shall:

- (a) Assure that the provisions of section NR 116.11 (2) (b) are met;
- (b) Require adequate technical data from the applicant and submit such data to the department for review and concurrence in the effect of the proposed amendment on the height of the regional flood; and
- (c) Assure that the proposed amendments meet the purpose of section NR 116.01.

(2) **AMENDMENT PROCESS.** Upon completion of the steps in subsection (1) above, the county, city or village shall meet all applicable legal requirements for amending its water surface profiles, flood plain zoning maps, and zoning ordinances.

(3) **SUBMISSION TO THE DEPARTMENT FOR APPROVAL.** If the county, city or village amends its official floodway lines, it shall also amend its water surface profiles, flood plain zoning maps and flood plain zoning ordinances and submit these amendments to the department for approval pursuant to section NR 116.21 (6).

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.13 Uses in floodway areas. (1) **PROHIBITED USES.** The following uses are generally prohibited in floodway areas: Any fill, deposit, obstruction, excavation, storage of materials, or structure which, acting alone or in combination with existing or future similar works, will cause an increase equal to or greater than 0.1 foot (3 cm.) in the height of the regional flood or will affect the existing drainage courses or facilities. Said increase shall be calculated using an equal degree of hydraulic encroachment from the hydraulic floodway lines for a hydraulic reach on both sides of a river or stream. Increases equal to or greater than 0.1 foot (3 cm.) may be permitted, but only if amendments are made to the official floodway lines, water surface profile, flood plain zoning maps and flood plain zoning ordinances. All such amendments shall meet the provisions of sections NR 116.12 and NR 116.21 (6). Notwithstanding any of the above language, the following uses are always prohibited in floodway areas:

- (a) Any structures that are:
 1. Designed for human habitation; or
 2. Associated with high flood damage potential; or
 3. Not associated with permanent open space uses.
- (b) Any storage of materials that are buoyant, flammable, explosive, or injurious to human, animal, plant, fish or other aquatic life.

Register, July, 1977, No. 259
Environmental Protection

(c) Any uses which are not in harmony with, or which may be detrimental to, the uses permitted in the adjoining districts.

(d) Any on-site sewage disposal system, whether public or private, except portable latrines that are removed during flooding, or systems associated with public recreational areas that meet the applicable provisions of local zoning ordinances and Wis. Adm. Code section H 62.20.

(e) Any wells, whether public or private, which are used to obtain water for ultimate human consumption.

(f) Any solid waste disposal site, whether public or private.

(2) PERMITTED USES. Counties, cities and villages, using the appropriate procedure described in section NR 116.21, may issue permits allowing the uses in floodway areas described below, but only if the effects of such uses are consistent with all of the standards contained in subsection (1) above.

(a) Open space uses having a relatively low flood damage potential, such as those uses associated with agriculture, recreation, parking, storage yards, or certain sand and gravel operations.

(b) Certain structures which are accessory to permitted open space uses or historical areas, if the structures meet all of the following criteria:

1. Are not designed for human habitation;

2. Have a low flood damage potential;

3. Are to be constructed and placed on the building site so as to offer minimum obstruction to the flow of flood waters. Whenever possible, structures will be constructed with the longitudinal axis parallel to the direction of flow of flood waters, and will be placed with their longitudinal axes approximately on the same line as those of adjoining structures;

4. Are firmly anchored to prevent them from floating away and restricting bridge openings or other restricted sections of the stream or river; and

5. All service facilities, such as electrical and heating equipment, must be at or above the flood protection elevation for the particular area.

(c) Campgrounds, provided all of the following criteria are met and approval is granted by the department:

1. The character of the river system and the elevation of all portions of the campground are such that 72 hours warning of an approaching flood can be given to all persons using that campground;

2. An adequate flood warning system is in existence which will provide for proper notice to all persons in the campground and make evacuation mandatory. Such a system shall involve an annual renewable written agreement between the weather bureau or corps of engineers, and the county sheriff or city police which shall specify a flood elevation at which evacuation shall occur;

3. The campground complies with all applicable local and state laws and regulations, including those of the department of health and social services;

4. The campground shall have signs at all entrances warning of the flood hazard involved;

5. Only mobile recreational vehicles with self-contained holding tanks or easily removable tents are allowable. No other habitable structures or buildings are permitted;

6. No roads are filled more than 0.5 foot (15 cm.) above the natural ground elevation;

7. On-site sewage disposal systems may be permitted provided they meet the applicable provisions of Wis. Adm. Code section H 62.20 (this is an exception to section NR 116.13 (1) (d)).

8. Litter collection facilities shall be placed at or flood proofed to the flood protection elevation or be removed during flooding.

(d) Uses permitted by the department pursuant to chapters 30 and 31, Wis. Stats., provided that the necessary permits and amendments are granted by the county, city or village to the official floodway lines, water surface profiles, flood plain zoning maps and flood plain zoning ordinances.

(e) Public utilities, streets and bridges provided that:

1. Adequate flood proofing measures are provided to the flood protection elevation;

2. Construction shall not cause any increase equal to or greater than 0.1 foot (3 cm.) in the height of the regional flood as reflected in the water surface profile based upon existing conditions, except that reasonable increases shall be approved if the conditions of section NR 116.11 (2) (b) are met; and

3. The county, city or village amends its official floodway lines, water surface profiles, flood plain zoning maps and flood plain zoning ordinances to reflect any changes resulting from such construction in accordance with the provisions of sections NR 116.12 and NR 116.21 (6).

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.14 Uses in flood fringe areas (outside of the floodway).

(1) GENERAL. (a) Counties, cities and villages, using the appropriate procedure described in section NR 116.21, may issue permits allowing uses in flood fringe areas which are compatible with the criteria in this section.

(b) All flood fringe developments shall be compatible with local comprehensive plans. In the absence of formal plans, development shall be compatible with the uses permitted in adjoining districts.

(c) Flood fringe developments may be permitted only when such developments do not cause any increase equal to or greater than 0.1 foot (3 cm.) in the height of the regional flood of any tributaries to the main stream, drainage ditches, or any other drainage facilities or systems. Increases greater than 0.1 foot (3 cm.) may be permitted, but only if amendments are made to the affected official floodway

Register, July, 1977, No. 259
Environmental Protection

lines, water surface profiles, flood plain zoning maps and flood plain zoning ordinances in accordance with the provisions of sections NR 116.12 and NR 116.21 (6).

(d) Flood fringe developments may be permitted only when such developments do not materially affect the storage capacity of the flood plains, based upon an equal degree of hydrologic encroachment (volume of storage area that is lost), particularly in flood plain areas upstream from urban areas. For the purposes of this subsection, "materially" is defined as any increase in the discharge of the regional flood which causes a rise in the water surface profile of 0.1 foot (3 cm.).

(2) RESIDENTIAL USES. (a) Any structure or building used for human habitation (seasonal or permanent), which is to be erected, constructed, reconstructed, altered, or moved into the flood fringe area shall be placed on fill, with the finished surface of the first floor at or above the flood protection elevation. If any such structure or building has a basement, it shall be flood proofed in accordance with section NR 116.16. Any community that is eligible for the federal flood insurance program must comply with the HUD standards which currently do not allow basements in flood plain areas. An exception to that basement requirement may be granted by HUD, but only on a community-by-community basis.

(b) Fill elevation shall:

1. Be one foot above the regional flood profile elevation, which is based upon the official floodway lines;
2. Extend at such elevation at least 15 feet beyond the limits of any structure or building erected thereon; and
3. Be contiguous to lands outside the flood plain where the depth and duration of flood waters are sufficient to cause rescue and relief problems.

(c) Where existing streets or sewer lines are at elevations which make compliance with these provisions impractical, the department may authorize the use of other flood proofing measures or methods in accordance with section NR 116.16. The structure or building shall be flood proofed to the flood protection elevation.

(3) ACCESSORY USES. An accessory structure (not connected to a principal structure) shall meet the applicable provisions of section NR 116.13(2) (b) 1., 2., 4. and 5. A lesser degree of protection, compatible with these criteria and the criteria in subsection (4) below, may be permissible for any such accessory structure.

(4) COMMERCIAL USES. Any commercial structure or building which is to be erected, constructed, reconstructed, altered or moved into the flood fringe area shall meet the requirements of subsections (2) (a) and (b) above. Certain yards, parking lots and other accessory land uses may be at lower elevations. However, no such area in general use by the public shall be inundated to a depth greater than 2 feet or subjected to flood velocities greater than 4 feet per second upon the occurrence of the regional flood. Depths greater than 2 feet may be permitted by the department provided an adequate warning system exists to protect life and property.

(5) **MANUFACTURING AND INDUSTRIAL USES.** Any manufacturing or industrial structure or building which is to be erected, constructed, reconstructed, altered or moved into the flood fringe area shall be protected to the flood protection elevation utilizing fill, levees, floodwalls, adequate flood proofing measures or any combination thereof. On streams or rivers having protracted flood durations, greater protection may be required to minimize interference with normal plant operations. A lesser degree of protection, compatible with these criteria and the criteria in subsection (4) above, may be permissible for storage yards, parking lots and other auxiliary uses.

(6) **STORAGE OF MATERIALS.** Storage of any materials which are buoyant, flammable, or explosive, or which in times of flooding could be injurious to property, water quality, or human, animal, plant, fish or aquatic life, shall be either flood proofed to or placed at or above the flood protection elevation. Adequate measures shall be taken to assure that said materials will not enter the river or stream during flooding.

(7) **PUBLIC UTILITIES, STREETS AND BRIDGES.** (a) When failure or interruption of public facilities would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area, adequate flood proofing measures shall be provided to the flood protection elevation; a lesser degree of protection may be provided for minor or auxiliary roads or utilities when these conditions do not exist.

(b) Public utilities, streets and bridges on the flood fringe should be designed to be compatible with the local comprehensive flood plain development plans.

(8) **SEWAGE SYSTEMS.** All on-site sewage disposal systems shall meet the applicable provisions of the local zoning ordinances and Wis. Adm. Code section H 62.20 and chapter H 65.

(9) **WELLS.** All wells, whether public or private, shall be flood proofed to the flood protection elevation and shall meet the applicable provisions of Wis. Adm. Code chapters NR 111 and NR 112.

(10) **SOLID WASTE DISPOSAL SITES.** All solid waste disposal sites, whether public or private, are prohibited in flood fringe areas.

(11) **DEPOSITION OF MATERIALS.** Any deposition of materials for any purpose may be permitted only if the provisions of this section are met.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.15 Nonconforming uses. (1) **GENERAL.** Insofar as the standards in this section are not inconsistent with the provisions of sections 59.97 (10) and 62.23 (7) (h), Wis. Stats., they shall apply to all nonconforming uses. The existing lawful use of a structure or building or its accessory use which is not in conformity with the provisions of a flood plain zoning ordinance may be continued subject to the following conditions:

(a) No modifications or additions to a nonconforming use shall be permitted unless they are made in conformity with the provisions of this section. For the purposes of this section, the words "modification" and "addition" shall include, but not be limited to,

Register, July, 1977, No. 259
Environmental Protection

any alteration, addition, modification, rebuilding or replacement of any such existing structure or accessory use. Ordinary maintenance repairs are not considered structural repairs, modifications or additions; such ordinary maintenance repairs include internal and external painting, decorating, paneling and the replacement of doors, windows and other nonstructural components; and

(b) If a nonconforming use is discontinued for 12 consecutive months, it is no longer permitted and any future use of the structure or building shall conform with the appropriate provisions of the flood plain zoning ordinance for floodway and flood fringe areas.

(2) COUNTY, CITY AND VILLAGE RESPONSIBILITIES. (a) County, city and village flood plain zoning ordinances shall regulate nonconforming uses in a manner consistent with this section and the applicable state statutes. These regulations shall apply to the modification or addition of any structure or to the use of any structure or premises which was lawful before the passage of the flood plain zoning ordinance or any amendment thereto.

(b) As requests are received for modifications or additions to nonconforming structures in the floodway, counties, cities and villages shall develop a list of those nonconforming structures, their assessed value and a list of the cost of those activities associated with changes to those structures enumerated in section NR 116.15(3) (a).

(3) FLOODWAY AREAS. (a) No modifications or additions shall be allowed to any existing structures which are not in compliance with permitted floodway standards or uses, unless such modifications or additions have been granted by permit, special exception (conditional use) or variance and meet all of the following criteria:

1. The modifications or additions to a structure will not increase the amount of obstruction to flood flows;

2. Any addition to a structure shall be flood proofed, by means other than the use of fill, to the flood protection elevation;

3. In areas regulated by counties, no structural repairs, modifications or additions to a structure, which exceed over the life of the structure 50% of its present equalized assessed value shall be allowed unless the entire structure is flood proofed, by means other than the use of fill, to the flood protection elevation. In areas regulated by cities and villages, no structural repairs, modifications or additions to a structure, which exceed over the life of the structure 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming use; and

4. If any nonconforming structure is destroyed or is so badly damaged that it cannot be practically restored, it cannot be replaced, reconstructed, or rebuilt unless the provisions of sections NR 116.13 and NR 116.14 are met. For the purposes of this subsection, restoration is deemed impractical where the total cost of such restoration would exceed 50% of the present equalized assessed value of said structure. Where such damage occurs in areas regulated by counties, the entire structure shall be flood proofed to the flood protection elevation, by means other than fill.

(b) No new on-site sewage disposal system, or additions to existing on-site sewage disposal systems, shall be allowed in a floodway area.

Any replacement, repair or maintenance of an on-site sewage disposal system in a floodway area shall meet the applicable provisions of the flood plain zoning ordinance and Wis. Adm. Code section H 62.20.

(c) No new well or modifications to an existing well, used to obtain water for ultimate human consumption shall be allowed in a floodway area. Any replacement, repair or maintenance of a well in a floodway area shall meet the applicable provisions of the flood plain zoning ordinance and Wis. Adm. Code chapters NR 111 and NR 112.

(4) **FLOOD FRINGE AREAS.** (a) No modifications or additions to any existing structure or building in the flood fringe area shall be permitted unless such modifications and additions comply with the applicable regulations for that particular use in flood fringe areas as contained in the local ordinances.

(b) Where compliance with the provisions of paragraph (a) above would result in unnecessary hardship, and only where the structure will not be either used for human habitation or be associated with a high flood damage potential, the county, city or village may grant a variance from those provisions, using the criteria listed below. Modifications or additions to structures or buildings which are protected to elevations lower than the flood protection elevation may be permitted if:

1. Human lives are not endangered;
2. Public facilities, such as water or sewer, are not to be installed;
3. Flood depths will not exceed 4 feet;
4. Flood velocities will not exceed 2 feet per second; and
5. The structure will not be used for storage of materials described in section NR 116.14 (6).

(c) Any new, addition to, replacement, repair or maintenance of an on-site sewage disposal system in a flood fringe area shall meet all the applicable provisions of the flood plain zoning ordinances and Wis. Adm. Code section H 62.20 and chapter H 65.

(d) Any new, addition to, replacement, repair or maintenance of a well in a flood fringe area shall meet the applicable provisions of the flood plain zoning ordinance and Wis. Adm. Code chapters NR 111 and NR 112.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.16 Flood proofing. (1) **GENERAL.** When flood proofing measures are required by either local ordinances of chapter NR 116, such measures shall be designed to withstand the flood velocities, depths, forces, flotation and other factors associated with the regional flood, to assure protection to the flood protection elevation. A plan or document, certified by a registered professional engineer or architect that the flood proofing measures are adequately designed, shall be submitted to the local unit of government prior to its authorization to proceed.

(2) **FLOOD PROOFING MEASURES.** Flood proofing measures shall include, but are not limited to, the following:

- (a) Anchorage of structures to foundations.

- (b) Installation of water-tight doors, bulkheads and shutters.
- (c) Reinforcement of walls and floors to resist water pressures.
- (d) Use of paints, membranes or mortars to reduce seepage of water through walls.
- (e) Addition of mass or weight to structures to prevent flotation.
- (f) Installation of pumps to lower water levels in structures.
- (g) Construction of wells, water supply and waste treatment systems so as to prevent the entrance of flood waters into such systems.
- (h) Subsurface drainage systems, including pumping facilities, to relieve external foundation wall and basement flood pressures.
- (i) Cutoff valves on sewer lines or the elimination of gravity flow basement drains.
- (j) Placement of essential utilities above flood protection elevations.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.17 Flood control works or protective works. (1) **LEVEES OR FLOODWALLS.** (a) No increase equal to or greater than 0.1 foot (3 cm.) in the height of the regional flood caused by construction of levees or floodwalls shall be allowed unless the increase is wholly contained within the upstream extent of such levee or flood wall, or unless amendments are made to the official floodway lines, water surface profiles, flood plain zoning maps and flood plain zoning ordinances in accordance with the provisions of sections NR 116.12 and NR 116.21 (6).

(b) The minimum height and design of any levee or floodwall shall be calculated using whichever of the following provides the greater protection from floods:

1. The flood profile of the regional flood, with that regional flood confined between the proposed levees or floodwalls, plus 3 feet of freeboard; or

2. The standard project flood and/or the 500-year flood confined between the proposed levees or floodwalls.

(c) Exceptions to the standards prescribed in paragraph (b) above may be granted by the department on a case-by-case basis for levees and floodwalls not used to protect human life.

(d) All flood plain developments landward of any levee or floodwall shall provide for interior drainage using designated ponding areas, pumps or other similar means.

(e) The criteria in section NR 116.14 shall apply to flood fringe development until such time as the levees and floodwalls are constructed and operative. If such levees or floodwalls become inadequate or inoperative, the zoning regulations shall be amended to reflect the preconstruction conditions.

(2) **AGRICULTURAL LEVEES.** (a) Counties, cities and villages may permit agricultural levees which meet all applicable provisions of this subsection. For purposes of this section, an agricultural levee is one

constructed to protect agricultural lands from lower floods (10-year frequency or more often).

(b) Agricultural levees shall be designed and constructed so that the levees will overtop upon the occurrence of the 10-year frequency flood.

(c) Increases in flood heights in the area upstream from agricultural levees shall not exceed 0.5 foot (15 cm.) for the 10-year frequency flood, based upon an assumption of equal degree of hydraulic encroachment on both sides of a river or stream for a hydraulic reach. No increase is allowed unless the written consent of the affected property owners is obtained prior to construction.

(d) Agricultural levees shall be designed and constructed to be overtopped and to cause no increase during the occurrence of the regional flood.

(e) The zoning administrator shall notify the department of the construction of any agricultural levees.

(3) **RESERVOIRS AND CHANNEL IMPROVEMENTS.** No anticipated changes in the flood protection elevations or flood plain and floodway limits, based upon proposed reservoir or channel improvements, shall be effective until the reservoir or channel improvements are constructed and operative. If such improvements become inoperative or ineffective, the zoning regulations shall be amended to reflect the preconstruction conditions.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

NR 116.18 Procedures for changing flood plain and floodway limits. Counties, cities or villages shall not change the limits of the flood plain or the floodway without first amending the applicable portions of the water surface profiles, flood plain zoning maps and flood plain zoning ordinances and securing department approval to such amendments. The flood fringe designation on flood plain maps shall not be removed from any area unless it can be shown that the area has been filled to the flood protection elevation and is contiguous to other lands lying outside the flood plain.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

NR 116.19 Appointment and duties of zoning administrator, zoning agency and board of adjustment/appeals. (1) **APPOINTMENT POWERS.** Counties, cities and villages shall provide in their flood plain zoning ordinances for the appointment of appropriate boards and staff, and the development of necessary policies and procedures, to administer the flood plain zoning ordinance in accordance with this section. Where a zoning administrator, planning agency or a board of adjustment/appeals has already been appointed to administer a zoning ordinance adopted under sections 59.97, 59.971 or 62.23(7), Wis. Stats., these officials shall also administer the flood plain zoning ordinance.

(2) **ZONING ADMINISTRATOR.** A zoning administrator and such additional staff as needed shall be appointed and given the duties and powers to:

Register, July, 1977, No. 269
Environmental Protection

(a) Advise applicants of the provisions of the flood plain zoning ordinance and provide assistance in preparing permit applications and appeals;

(b) Issue permits and inspect properties for compliance with the flood plain zoning ordinance;

(c) Keep the official records of all water surface profiles, flood plain zoning maps, flood plain zoning ordinances, nonconforming uses and changes thereto, permit applications, permits, appeals, variances and amendments related to the flood plain zoning ordinance;

(d) Submit copies of any required data, special exception permits, variances, amendments, case-by-case analyses, annual reports, and any other required information to the department. An annual summary showing only the number and types of zoning actions taken by the county, city or village shall be submitted to the department by the zoning administrator; and

(e) Investigate, prepare reports and report violations of the flood plain zoning ordinance to the appropriate county, city or village committee and to the municipal attorney, corporation counsel or district attorney, with copies to the appropriate department district office.

(3) ZONING AGENCY. A zoning agency or committee shall be appointed and given the duties and powers to:

(a) Oversee the functions of the office of the zoning administrator;

(b) Review and act upon all proposed amendments to the flood plain zoning ordinance;

(c) In some cases, a zoning committee may act in place of the board of adjustment/appeals, if so designated by the municipality, to hear and decide special exception permits (conditional uses). However, a zoning committee cannot act upon requests for a variance; and

(d) Maintain a complete public record of all its proceedings.

(4) BOARD OF ADJUSTMENT/APEALS. A board of adjustment (in counties) or board of appeals (in cities and villages) shall be appointed and given the duties and powers in accordance with sections 59.99 and 62.23 (7), Wis. Stats., to:

(a) Hear and decide appeals where there is an alleged error in any interpretation, order, requirement, decision, or determination made by the zoning administrator in the enforcement or administration of the flood plain zoning ordinance;

(b) Hear and decide all requested special exceptions (conditional uses) to the terms of the flood plain zoning ordinance, using the criteria found in section NR 116.21 (3);

(c) Hear and decide all requested variances to the terms of the flood plain zoning ordinance;

(d) Maintain a complete public record of all its proceedings; and

(e) Make all of its decisions within a reasonable time and in the form of a written statement, resolution or order signed by the sec-

retary. The zoning administrators shall not be the secretary of the board of adjustment/appeals.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.20 County, city and village responsibilities. (1) JURISDICTION. The flood plain zoning ordinance shall require authorization (permits, special exceptions, variances and amendments) from the appropriate county, city or village for any of the following activities in flood plain areas:

- (a) Any new use or change in use of land or water.
- (b) Any new use or change in use of a structure or building.

(c) The above activities include, but are not limited to, the following:

1. Any structure or building or accessory use which is to be erected, constructed, reconstructed, altered or moved into the flood plain area;
2. Any alteration, addition, modification, rebuilding or replacement of any existing structure or building or accessory use;
3. Any deposition of materials for any purpose; and
4. Any sanitary waste disposal or water supply facilities, both public and private.

(2) **ADMINISTRATIVE PROCEDURES.** The flood plain zoning ordinance shall establish administrative procedures for obtaining all required permits, special exceptions (conditional uses), variances, appeals and amendments. These procedures shall provide for the following:

(a) An application shall be made to the zoning administrator for all zoning permits, special exceptions (conditional uses), variances and amendments. The application shall include, but not be limited to, the information listed below.

1. The name and address of the applicant and property owner(s);
2. The legal description of the property and the type of proposed use;
3. A map plan which accurately locates or describes the proposal with respect to the floodway and flood plain, and which provides all pertinent information such as the fill dimensions and elevations, building floor elevations, and flood proofing data; and
4. For all subdivision proposals, and all other proposals if the area affected exceeds 5 acres or the estimated cost of the proposal exceeds \$75,000, the applicant shall provide all computations which are required to show the effect of the proposal on flood heights, velocities and flood plain storage. The county, city or village may transmit this data to the department for review.

(b) In those instances where inadequate data exists and the conditions in subsection (2) (a) 4. above are not present, the county, city or village may transmit the above information to the department for a determination of flood protection elevations and for an evaluation of the effects of the proposal upon flood heights, velocities and flood plain storage. Additional information, such as valley cross sections or

survey data, may be required by the department when needed to determine the effects of the proposal; this information shall then be obtained from the applicant by the county, city or village.

The department shall advise the county, city or village of its findings within 30 days after receiving the data, or within 30 days after receiving all requested additional information. Failure of the department to respond within 30 days may be construed to mean it has no comment.

(c) Public hearings shall be held by counties, cities or villages on all special exceptions (conditional uses), variances, appeals and amendments. Proper notice shall be given of such public hearings in accordance with appropriate statutes; mailed notice of such public hearings and a copy of the application shall be given to the department. Such notice shall specify the time and place of the hearing and give sufficient details concerning the subject matter of the public hearing.

(d) A copy of all decisions granting or denying a special exception (conditional use), variance or amendment to the flood plain zoning ordinance shall be mailed within 10 days to the department.

(3) **CERTIFICATE OF COMPLIANCE.** No vacant land in the flood plain, and no building hereafter erected, altered or moved into the flood plain, shall be occupied or used until the applicant obtains a certificate of compliance from the county, city or village. Counties, cities and villages may require that said certificate shall be issued only after the applicant has submitted to the local zoning administrator or building inspector a certification by a registered professional engineer or registered land surveyor that the following items were accomplished in compliance with the flood plain zoning ordinance:

(a) The elevation of fill;

(b) The elevation of the first floor; and

(c) Any other technical information required by the county, city or village.

(4) **ENFORCEMENT AND PENALTIES.** Each flood plain zoning ordinance shall include a separate section establishing appropriate penalties for violations of various provisions of the ordinance. An appropriate penalty, as reflected in section 87.30 (2), Wis. Stats., may include an injunction, abatement, removal and/or fine or forfeiture. Any violation of the provisions of the flood plain zoning ordinance shall be investigated and reported to the appropriate municipal attorney, corporation counsel or district attorney who shall expeditiously prosecute the violator.

(5) **PUBLIC INFORMATION.** (a) Where useful, marks on bridges or buildings or other markers may be set to show the depth of inundation during the regional flood at appropriate locations within the flood plain.

(b) All available information in the form of maps, engineering data and regulations should be readily available and widely distributed.

(c) All legal descriptions of property in the flood plain should include information relative to the zoning classification when such property is transferred.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.

NR 116.21 Permits, special exceptions (conditional uses), variances, appeals and amendments. (1) **GENERAL.** The flood plain zoning ordinance shall list the specific types of uses which may be authorized by permit, special exception (conditional use), variance or amendment, indicating the particular authorization required for each type of use. These authorizations shall not be contrary to the provisions of this chapter or other state law, or to applicable municipal ordinances.

(2) **PERMITS.** Counties, cities and villages shall issue permits for uses in flood plain areas which are in compliance with the applicable provisions for permitted uses in their flood plain zoning ordinances. These permits shall be issued by the zoning administrator.

(3) **SPECIAL EXCEPTIONS (CONDITIONAL USES).** Any use requiring a special exception (conditional use) permit may be allowed only upon application to the zoning administrator, public hearing and issuance of a special exception (conditional use) permit by the board of adjustment/appeals or, where appropriate, the zoning committee. When determining whether to grant or deny a special exception (conditional use) permit, the board of adjustment/appeals shall assure compliance of the proposal with:

- (a) The provisions of the flood plain zoning ordinance;
- (b) The purpose and objective of flood plain management, as enumerated in section NR 116.01; and
- (c) Local comprehensive plans and other land use controls.

(4) **VARIANCES.** Any prohibited deviation from the standards of the flood plain zoning ordinance, for which a permit has been denied by the zoning administrator, may be allowed only upon written request for a variance submitted to the zoning administrator, public hearing, and issuance of a variance by the board of adjustment/appeals. The board may authorize in specific cases such variance from the terms of the ordinance as will not be contrary to the public interest where, owing to special conditions and the adoption of the flood plain zoning ordinance, a literal enforcement of the provisions of the ordinance will result in unnecessary hardship. A variance:

- (a) Shall be consistent with the spirit of the flood plain zoning ordinance.
- (b) Shall not permit a lower degree of flood protection in the floodway area than the flood protection elevation.
- (c) Shall not be granted for a use that is common to a group of adjacent lots or premises. (In such a case, the zoning ordinance would have to be amended through proper procedures.)
- (d) Shall not be granted unless it is shown that the variance will not be contrary to the public interest or damaging to the rights of other persons or property values in the area.

(e) Shall not be granted for actions which require an amendment to the flood plain zoning ordinance as described in subsection (6) below.

(f) Shall not have the effect of granting or increasing a use of property which is prohibited in that zoning district by the flood plain zoning ordinance.

(g) Shall not be granted solely on the basis of economic gain or loss.

(h) Shall not be granted for a self-created hardship.

(5) **APPEALS.** Appeals to the board of adjustment/appeals may be taken by any party aggrieved by any decision of the zoning administrator. Requests for special exception (conditional use) permits may be considered as appeals. Such appeals shall specify the grounds thereof and be filed within a reasonable period of time with the zoning administrator. The flood plain zoning ordinance shall set forth the time limitations for filing appeals. The zoning administrator shall forthwith transmit to the board of adjustment/appeals all records of the matter concerning the appeal. After public hearing, the board's decision shall either affirm, reverse, vary or modify in whole or in part the order, requirement, decision, or determination appealed from. All appeal decisions must conform to the applicable provisions of the flood plain zoning ordinance. The board's decision may be appealed to the courts in accordance with applicable state law.

(6) **AMENDMENTS.** (a) Official amendments are required for any changes in the official floodway lines, water surface profiles, flood plain zoning maps or flood plain zoning ordinance. Actions which require an amendment by the county, city or village include, but are not limited to, the following:

1. Any change in the official floodway lines or in the boundary of the flood plain area;
2. Settlement of conflicts between the water surface profiles and flood plain zoning maps, in accordance with section NR 116.10;
3. Any fill or encroachment into the floodway which will result in raising the elevation of an area in the floodway to a height at or above the elevation of the regional flood;
4. Any fill or encroachment that will cause a change in the water surface profiles of the regional flood; and
5. Any upgrading of flood plain zoning ordinances in accordance with section NR 116.05.

(b) Amendments may be made upon petition of any interested party in accordance with the appropriate provisions of sections 59.97 (3) and (4) and 62.23 (7) (d), Wis. Stats.

(c) All proposed amendments shall be referred to the appropriate county, city or village zoning agency for a public hearing and recommendation to the governing body which shall approve or disapprove the proposed amendment.

(d) Amendments of official floodway lines shall meet the provisions of section NR 116.12.

(e) No amendments to official floodway lines, water surface profiles, flood plain zoning maps or flood plain zoning ordinances shall become effective until they have been approved by the department.

History: Cr. Register, July, 1977, No. 269, eff. 8-1-77.

NR 116.22 Department duties. (1) ASSISTANCE TO COUNTIES, CITIES AND VILLAGES. The department shall provide assistance to counties, cities and villages in the development, adoption and administration of their official floodway lines, water surface profiles, flood plain zoning maps and flood plain zoning ordinances. Such assistance shall include, but not be limited to, the activities described below.

(a) The department shall establish and upgrade standards for local flood plain zoning ordinances.

(b) When requested by a county, city or village, the department shall evaluate flood hazards and the effects of proposals in flood plain areas upon water surface profiles, floodway limits and flood velocities as provided in section NR 116.20 (2). Requests for such evaluations must come from a county, city or village, not from individual property owners or applicants.

(c) The department shall work with federal agencies to provide technical guidance and computer facilities for certain hydrologic, hydraulic and engineering studies. Generally, the necessary topographic and other base maps and field surveys will be the responsibility of the county, city or village.

(d) The department shall establish priorities for engineering studies to be done in counties, cities and villages by federal agencies.

(e) The department shall respond to the requests from counties, cities and villages to provide them assistance in enforcement actions against violations of their flood plain zoning ordinances.

(f) The department shall respond to requests from counties, cities and villages for assistance in developing hydraulic and official floodway lines.

(g) The department shall review all regional flood flow determinations. No such determination shall be used until department approval has been secured.

(2) REVIEW AND APPROVAL OF FLOOD PLAIN ZONING ORDINANCES. The department shall issue a certificate of approval to a county, city or village upon a finding that the adopted flood plain zoning ordinance meets the provisions of this chapter. The department review of flood plain zoning ordinances may include, but is not limited to, determinations that:

(a) The most accurate maps were utilized in delineating the flood plains;

(b) All flood plain zoning maps and flood plain zoning ordinances are compatible with all other shoreland regulations, existing zoning and land use plans;

(c) All water surface profiles, flood plain zoning maps and flood plain zoning ordinances are compatible with those of the adjoining communities on the same streams or rivers; and

(d) The floodway and flood plain lines shown on the flood plain zoning maps are accurate.

(3) **MONITORING.** The department shall monitor the administration and enforcement of flood plain zoning ordinances in counties, cities and villages. In so doing, the department may:

(a) Establish and upgrade standards for the review and evaluation of the administration and enforcement of flood plain zoning ordinances.

(b) Review and approve or deny proposed amendments to water surface profiles, flood plain zoning maps and flood plain zoning ordinances.

(c) Review flood plain zoning permits, and all special exceptions (conditional uses), variances and amendments to flood plain zoning ordinances, to ensure in each instance compliance with the applicable flood plain zoning ordinances and this chapter.

(d) Review state and federal projects to assure that public works proposals in flood plain are compatible with local flood plain zoning ordinances and the provisions of this chapter.

(4) **ENFORCEMENT.** The department shall assist counties, cities and villages in achieving a consistent statewide approach to flood plain enforcement. This assistance may include, but is not limited to, the measures listed below.

(a) The department may request that corrective action be taken by the county, city or village where construction is occurring in a flood plain area which is either contrary to an existing flood plain zoning ordinance or which would be contrary to an approved flood plain zoning ordinance. Such corrective action may include, where appropriate, the following:

1. Active prosecution of violations of the flood plain zoning ordinance;

2. An injunction to stop construction until an adequate flood plain zoning ordinance can be adopted and approved by the department; and

3. Adoption of an adequate flood plain zoning ordinance and submittal to the department for approval.

(b) The department may seek an injunction to stop construction in the flood plain area until an adequate flood plain zoning ordinance is adopted and approved, when the construction would violate such an approved flood plain zoning ordinance.

(c) The department may seek adoption of an adequate flood plain zoning ordinance in accordance with the provisions of section 87.30(1), Wis. Stats.

(d) The department may seek an injunction, abatement, removal and/or fine for any violation of a flood plain zoning ordinance in accordance with section 87.30(2), Wis. Stats.

History: Cr. Register, July, 1977, No. 259, eff. 8-1-77.