

## **SECTION 23. FLOODPLAIN OVERLAY DISTRICT**

23.010 Purpose. To protect life, health, and property: to minimize expenditures of public monies for costly flood control and flood control projects; to minimize rescue and relief efforts generally undertaken at the expense of the general public; to minimize danger to public facilities such as sewer and water facilities and, streets and bridges; to maintain flood water storage capacity; and to discourage the victimization of unwary residents. The standards set out in this section shall apply in this district.

23.020 Warning And Disclaimer Of Liability. The degree of flood protection intended to be provided by this ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or flood height may be increased by man-made or natural causes such as ice jams and bridge openings restricted by debris. This section does not imply that areas outside of floodplain zoning district boundaries or land uses permitted within such district will always be totally free from flooding or flood damage; nor shall this section create liability on the part of or cause of action against the county or any officer or employee thereof for any flood damage that may result from reliance on this section.

### 23.030 General Provisions.

- A. Areas to be Restricted. Areas restricted by this ordinance include all land within the boundaries set forth in Section 1.040 (Purpose, Intent and Nature of the Ordinance; Jurisdiction) that would be inundated by the “regional flood”, as defined in Section 2 (Rules and Definitions).
- B. Boundaries:
  1. The boundary of a floodplain districts and where shown, the floodway and the floodfringe districts shall be those areas designated as “A-Zones” on the Flood Insurance Rate Maps or Flood Hazard Boundary Maps.
  2. Where Flood Insurance Rate Maps, Flood Hazard Boundary Maps, or any other maps adopted by the county determining flood boundaries are unavailable, the boundaries established in the Menominee County Shoreland Protection Ordinance (#68) shall govern.
  3. These are the official maps for Menominee County and are on file in the zoning office. If more than one map is referenced, the regional flood profiles govern boundary discrepancies according to Section 23.050 (B).

23.040 Establishment of Districts. The floodplain areas within the jurisdiction of this section shall be one (1) main district entitled “General Floodplain District (GFP)”, and shall be as information becomes available, subdivided into two (2) districts:

- A. Floodway District; (FW)
- B. Floodfringe District; (FF)

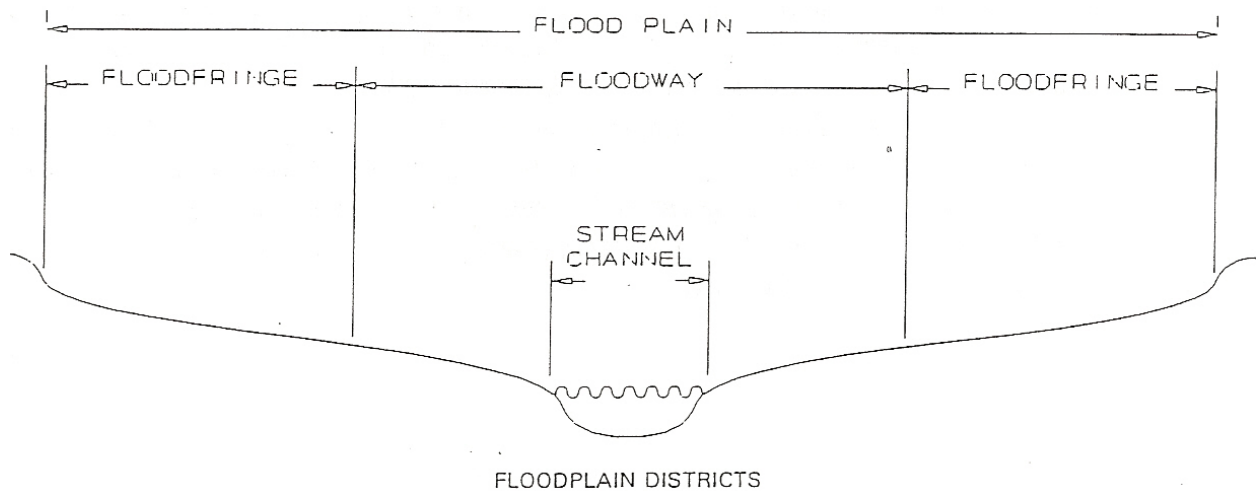
### 23.050 Special Provisions Applicable to All Floodplain Districts.

- A. No development shall be allowed in the floodplain areas which will cause an

- obstruction to flow, or cause an increase in regional flow height due to floodplain storage area lost, which is equal to or exceeding one one-hundredth of a foot (0.01 feet). Obstructions and increases equal to or greater than one one-hundredth of a foot (0.01 feet) may be permitted only after amendments to the ordinance and/or the official floodplain map, which includes the floodway lines and water surface profiles, in accordance with Section 23.120, but only if the accumulative effect of the proposed development will not increase the height of the regional flood more than one (1) foot for the hydraulic reach of the stream, as defined in Section 2 (Rules and Definitions).
- B. Located floodplain boundaries. Where an apparent discrepancy exists between the location of the outermost boundary of the Floodfringe District / General Floodplain District shown on the official floodplain map and actual field conditions, the location shall be initially determined by the Zoning Administrator using the criteria in Section 23.050(B)(1&2). Where the Zoning Administrator finds that there is a significant difference between the map and actual field conditions, the map shall be amended using the procedures established in Section 23.110. Disputes between the Zoning Administrator and an applicant over the location or the district boundary line shall be settled according to Section 23.110.
1. Where flood profiles exist, the location of the district boundary line shall be estimated by the Zoning Administrator using both the scale appearing on the map, and the elevations shown on the water surface profile of the regional flood. Where discrepancies exist between the map and the actual field condition, the regional flood elevations shall govern. A map amendment is required where there is a significant discrepancy between the map and field conditions. The Zoning Administrator shall have the authority to grant or deny a land use permit on the basis of a district boundary derived from elevations shown on the water surface profile of the regional flood, whether or not a map amendment is required. The Zoning Administrator shall be responsible for initiating any map amendments required under this section.
  2. Where flood profiles do not exist, the location of the district boundary line shall be estimated by the Zoning Administrator using the scale appearing on the map, visual on-site inspection, and any available information provided by the Department of Natural Resources. Where there is significant difference between the map and the actual field conditions, the map shall be amended. When a map amendment has been drafted by the zoning office, recommended by the Zoning Committee, and approved by the County Board, the Zoning Administrator shall have the authority to grant or deny a land use permit.
- C. Compliance with the provisions of this section shall not be grounds for the removal of lands from the floodplain district unless:
1. Such lands are filled to a height of at least two (2) feet above the elevation of the regional flood for the particular area,
  2. Such lands are contiguous to other lands lying outside the floodplain district,
  3. Where required, an official letter of map amendments has been issued by the Flood Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA).

- D. Utility facilities such as dams, storm sewers and related structures, flowage areas, transmission lines, pipelines, water monitoring devices, and waste water treatment facilities are conditional uses, and subject to county regulations and applicable federal regulations.
- E. Navigational and drainage aids such as channels, channel markers, buoys, and other such devices are permitted, provided that prior to any alteration or relocation of watercourse the zoning office shall notify adjacent communities, the Department of Natural Resources, the office of FIA of FEMA, and require the applicant to secure necessary permits. The flood carrying capacity within the altered or relocated portion on any watercourse shall be maintained.
- F. Other water related uses such as docks, piers, wharves, bridges, culverts and river crossing of utilities are permitted subject to any pier dockline regulations, or any other regulations that are required pursuant to county codes or ordinances and any applicable state or federal regulations.
- G. Filling in the floodplain requires review by the Zoning Committee for recommendation to the County Board and the issuance of a conditional use permit.
- H. Within these districts, all uses not listed as permitted or conditional uses shall be prohibited.

**23.060 General Floodplain District (GFP). Applicability.** The provisions for the GFP district shall apply to all floodplains listed as “A-Zones” on the official floodplain zoning map for which regional flood data is not available, or where regional flood data is available but floodways have not been delineated. As adequate regional flood information becomes available and floodways are delineated for portions of the district, such portions shall be placed in the floodfringe or floodway district, as appropriate.



**23.070 Procedures For Determining Floodway and Floodfringe Limits.**

- A. Applicability. When any developments are proposed within a general floodplain district, a determination shall be made to establish the boundaries of the floodway and

determine whether floodway or floodfringe uses apply, and where applicable, to determine the regional flood elevation.

- B. Upon receiving an application for development, the zoning office shall:
1. Require the applicant to submit at the time of application, two (2) copies of an aerial photograph or a plan which accurately locates the floodplain developments, together with all pertinent information such as, but not limited to, the nature of the proposal, legal description of the property, fill limits and elevations, building flood elevations, and floodproofing measures.
  2. Require the applicant to furnish any of the following additional information as is deemed necessary by the zoning office to evaluate the effect of the proposal upon flood flows, and determine the boundaries of the floodway, and where applicable, the regional flood elevation:
    - a. A typical valley cross-section, showing the channel of the stream, the floodplain adjoining each side of the channel; the cross-section area to be occupied by the existing structures on the site; location and elevation of streets, water supply, sanitary facilities, soil types and other pertinent information.
    - b. Site plan, showing elevations or contours of the ground, pertinent structures; fill or storage elevations, size, location and special arrangement of all proposed and existing structures on site; location and elevation of all streets, water supply, sanitary facilities, soil types and other pertinent information.
    - c. Profile, showing the slope of the bottom of the channel or flow of the stream.
    - d. Specifications for building construction and materials, floodproofing, filling, dredging, channel improvements, storage of materials, water supply, and sanitary facilities.

23.080 Floodfringe District (FF).

- A. Applicability. The provisions of this section shall apply to all areas within the regional floodfringe district, as shown to be in the general floodplain district, and are determined to be in the floodfringe area pursuant to Section 23.070.
- B. Permitted Uses. The following uses shall be allowed by permit within the floodfringe district and the floodfringe portions of the general floodplain district: any structures, land use developments may be permitted to the extent that they are not prohibited by this ordinance or any other state or federal code, and provided that a land use permit has been issued by the zoning office.
- C. Standards for Development in Floodfringe Areas.
1. All of the provisions of Section 23.050 shall apply,
  2. Residential Uses. Any structure or building used for human habitation, which is to be erected, constructed, reconditioned, altered, or moved into the floodfringe area shall meet or exceed the following standards:
    - a. The lowest floor excluding the basement or crawlway, shall be placed on fill at or above the flood protection elevation (which is a point two

- (2) feet above the regional flood elevation) except where Section 23.080(C)(2)(b) is applicable. The fill elevation shall be one (1) foot or more above the regional flood elevation, extending at least fifteen (15) feet beyond the limits of the structure. The zoning office may authorize other floodproofing measures where existing streets or sewer lines are at elevations which make compliance impractical, provided that the Board of Adjustment grants a variance due to dimensional restrictions.
- b. The basement crawlway floor be placed at the regional flood elevation providing it is floodproofed to the flood projection elevation. No permit or variance shall allow any floor, basement or crawlway below the regional flood elevation.
  - c. Contiguous dryland access shall be provided from a structure or building to land which is outside of the floodplain, except as provided in Section 23.080(C)(2)(d).
  - d. In existing developments where existing streets or sewer lines are at elevations which make compliance with Section 23.080(C)(2)(c) impractical, the County Board may permit new developments and substantial improvements where access roads are at or below the regional flood elevations, provided:
    - 1) The county has written assurances from the appropriate local units of police, fire and emergency services that rescue and relief will be provided to the structure (s) by wheeled vehicles, considering the anticipated depth, duration and velocity of the regional flood event; or
    - 2) The local Emergency Planning Commission has an adequate natural disaster plan concurred with the Division of Emergency Government.
3. Commercial and Institutional Uses. In commercial and institutional districts, any structure or building which is to be erected, constructed, reconstructed, altered or moved into the floodfringe district shall meet the requirements of Section 23.080(C)(2). Storage yards, parking lots and other accessory structures or land uses may be at lower elevations, subject to the requirements of Section 23.080(C)(5). However, no such area in general use by the public shall be inundated to a depth greater than two (2) feet or subject to flood velocities greater than four (4) feet per second during the regional flood. Inundation of such yards or parking areas exceeding two (2) feet may be allowed provided an adequate warning system exists to protect life and property.
4. Manufacturing, Agriculture, and Industrial Uses. Any manufacturing, agricultural, or industrial structure or building which is erected, constructed, reconstructed, altered, or moved into the floodfringe district shall be protected to the flood protection elevation utilizing fill, levees, floodwalls, adequate floodproofing measures in accordance with Section 23.100, or any combination thereof. On streams or rivers having prolonged flood durations, greater protection may be required to minimize interference with normal

operations of the facility. A lesser degree of protection, compatible with the criteria in Section 23.070(C)(3&5) may be permissible for storage yards, parking lots and other accessory structures or uses.

5. The storage or processing of materials that are buoyant, flammable, explosive, or which in times of flooding could be injurious to human, animal, or plant life, shall be at or above the protection elevation for the particular area, or floodproofed in compliance with Section 23.100.
6. Public utilities, streets and bridges should be designed to be compatible with the local emergency government plans; and
  - a. When failure or interruption of public utilities, streets or bridges would result in danger to public health or safety, or where such facilities are essential to orderly functioning of the area, construction of and substantial improvements to such facilities may only be permitted if they are floodproofed, in compliance with Section 23.100, to the flood protection elevation.
  - b. Minor or auxiliary roads or nonessential utilities may be constructed at lower elevations providing they withstand flood forces to the regional flood elevation.
7. Wells. All wells, whether public or private, shall be floodproofed to the flood protection elevation pursuant to Section 23.100, and shall meet the other applicable state and federal codes.
8. Solid Waste Transfer and Disposal Sites. All solid waste disposal sites, whether public or private, are prohibited within floodfringe districts.
9. Accessory Uses. An accessory structure not connected to a principal structure shall meet all the applicable provisions of Section 23.090(C)(2)(a-e).

A lesser degree of protection, compatible with these criteria and the criteria in Section 23.080(C)(3) for commercial development, is permissible.

#### 23.090 Floodway District (FW).

- A. Applicability. The provisions of this section shall apply to all areas within the regional floodway district, as shown on the official floodplain zoning maps, and to the floodway portion of the General Floodplain District, as determined pursuant to Section 23.070.
- B. Permitted Uses. The following open-space uses have a low flood damage potential and, not obstructing flood flows, shall be allowed by permit within the floodway district, and in the floodway portion of the General Floodplain District, provided they are not prohibited by any other district or ordinance, and provided further that they meet all of the standards contained as follows, and a land use permit has been issued by the zoning office.
  1. Commercial agricultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, and sod farming,
  2. Nonstructural, industrial or commercial uses, such as loading areas, parking areas,
  3. Private and public recreational uses, such as golf courses, driving ranges,

archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails,

4. Uses or structures accessory to open space uses, or essential for historic areas that are not in conflict with the provisions in 23.070(C)(3&4),
5. Extraction of sand, gravel, or other materials,
6. Marine, docks, piers, and wharves,
7. Railroads, streets, bridges, pipelines and other water related uses, such as culverts and river crossings of utilities,
8. Any uses subject to county regulation and state or federal law.

C. Standards for Development in Floodway District.

1. Any development in floodway districts shall meet all of the provisions of Section 23.050 and the zoning office shall be provided with the following information:
  - a. A cross-section elevation view of the proposal, perpendicular to the watercourse, including whether the proposed development will obstruct flow,
  - b. An analysis calculating the effect of this proposal on regional flood height.
2. Structures which are necessary to permitted open space may be permitted providing the structures:
  - a. Are not designed for human habitation,
  - b. Have a low flood damage potential,
  - c. Are constructed and placed on the building site so as to offer minimum obstruction to flow of floodwaters. Whenever possible, structures will be constructed with the longitudinal axis parallel to the direction of flow of floodwaters, and will be placed with the longitudinal axis approximately on the same line as any adjoining structures,
  - d. Are firmly anchored to prevent them from floating away and restricting bridge openings or other restricted sections of stream or river, and
  - e. Have all service facilities, such as electrical and heating equipment, at or above the flood protection elevation.
3. Public utilities, streets and bridges, provided that:
  - a. Adequate floodproofing measures are provided to the flood protection elevation,
  - b. Construction does not cause an increase in the regional flood height according to Section 23.050, except where the water surface profiles, floodplain zoning maps and floodplain zoning ordinances are amended as needed, to reflect any changes resulting from such construction.
4. Fills or deposition of materials may be permitted, upon County Board Approval, provided that:
  - a. Fills or deposition of materials does not encroach on the channel area between the ordinary high water mark on each side of the stream unless a permit has been granted by the zoning office and pursuant to Section

404 of the Federal Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1344 has been issued, if applicable, and the other requirements of this section are met, and

- b. The fill or other materials will be protected against erosion by riprap, vegetative cover, sheet piling and/or bulk heading sufficient to prevent erosion,
- c. The provisions of Section 23.050 are met to assure that the special provisions applicable to all floodplains are applied whenever filling or the deposition of materials in the floodplains is considered.

D. Prohibited Uses. The following uses shall be prohibited in the floodway district:

- 1. The storage of any materials that are buoyant, flammable, explosive, or injurious to human, animal, plant, fish or other aquatic life,
- 2. Uses which are not allowed in the underlying districts of this ordinance,
- 3. All private or public on-site sewage disposal systems; except portable latrines that are removed during flooding, the systems associated with public recreational areas and campgrounds,
- 4. All public or private wells which are used to obtain water
- 5. Any solid and/or hazardous waste transfer or disposal site, public or private,
- 6. Structures designed for human habitation, permanent or seasonal,
- 7. All wastewater treatment ponds and facilities,
- 8. All sanitary sewer or water lines except those to service existing or proposed development outside the floodway which complies with the regulations for the floodplain area occupied.

#### 23.100 Floodproofing.

A. Where floodproofing measures are required, they shall be designed to:

- 1. Withstand the flood pressures, depths, velocities, uplift and impact forces, and other factors associated with the regional flood,
- 2. Assure protection to the flood protected elevation,
- 3. Provide anchorage of structures to foundations to resist flotation and lateral movement,
- 4. Ensure that the structural walls and floors are watertight and completely dry without human intervention during flooding, to the flood protection elevation;

B. Other floodproofing measures may include:

- 1. Installation of watertight doors, bulkheads and shutters,
- 2. Reinforcement of walls and floors to resist pressures,
- 3. Use of plants, membranes or mortars to reduce seepage of water through walls,
- 4. Additional mass or weight to structures to prevent flotation,
- 5. Placement of essential utilities above the flood protection elevation,
- 6. Pumping facilities and/or subsurface drainage systems for buildings to relieve external foundation wall, and basement floor pressures, and to lower water levels in structures,
- 7. Construction of water supply and waste treatment systems to prevent the



- entrance of floodwaters,
- 8. Construction to resist rupture or collapse caused by water pressure or floating debris,
- 9. Cutoff valves on sewer lines, or elimination of gravity-flow basement drains.
- C. No permit or variance shall be issued until the applicant submits, to the zoning office, a plan or document certified by a registered professional engineer or architect that flood proofing measures are adequately designed to protect the structure or development to the flood protection elevation for the particular area.

23.110 Mapping Disputes. The following procedure shall be used by the Zoning Committee for recommendation to the County Board in disputes of a floodplain zoning district boundary:

- A. A flood district boundary is established by flood maps or engineering studies pursuant to Section 23.030(B); the flood elevation or flood profiles for the point in question shall be the governing factor in locating the district boundary. If no elevation or profiles are available to the Zoning Committee for recommendation to the County Board, any other available evidence may be examined.
- B. In all cases, the person contesting the location of the district boundary shall be given a reasonable opportunity to present the case to the Zoning Committee for recommendation to the County Board and; if so chooses, submit technical evidence. Where it is determined that the district boundary as mapped is incorrect, the Committee shall proceed to recommend to the County Board for a map amendment pursuant to Section 23.120.

23.120 Amendment Procedures.

- A. General Provisions. The County Board can from time to time, alter, supplement or change the boundaries of districts and the regulations contained in this section in the manner provided by law.
- B. Actions which require an amendment include, but are not limited to the following:
  - 1. Any change in the official floodway lines or the boundary of the floodplain district,
  - 2. Settlement of conflicts between the water surface profiles and floodplain zoning maps,
  - 3. Any fill in the floodplain which raises the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain,
  - 4. Any fill or encroachment that will cause a change equal to or greater than one one-hundredth of a foot (0.01feet) in the water surface profile of the regional flood,
  - 5. Any upgrading of section 23, the Floodplain Overlay District, required by law.
- C. Amendment petitions shall be submitted as prescribed in Section 34.060 (Administration; Changes and Amendments).

23.130 Other Permits. It is the responsibility of the property owner to secure all other necessary permits from all appropriate federal, state and local agencies.