

**Article XVII: Part II: Floodplain Overlay District Regulations (Added 6/14/01)****Section 246: General Provisions**

- (a) Purpose. The purpose of these provisions is to prevent the loss of life and property from flood or other dangers; prevent the creation of health and safety hazards, the disruption of commerce and governmental services; avoid the extraordinary and unnecessary expenditure of public funds for flood protection and relief; prevent the impairment of the tax base; comply with federal and state laws that address the need for floodplain management; implement the intent of the Middleburg comprehensive plan, qualify Middleburg residents for the insurance and subsidies available through the National Flood Insurance Program; preserve and protect floodplains in as natural a state as possible for the preservation of wildlife habitats; maintain the natural integrity and function of streams; protect water quality; and promote a zone for ground water recharge by:
- (1) Regulating uses, activities, and development which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, or frequencies.
  - (2) Restricting or prohibiting certain uses, activities, and development from locating within districts subject to flooding.
  - (3) Requiring all uses, activities, and developments that do occur in flood-prone districts to be protected and/or floodproofed against flooding and flood damage.
  - (4) Protecting individuals from buying land and structures that are unsuited for intended purposes because of flood hazards.
- (b) Applicability. These provisions shall apply to all lands within the Town of Middleburg that are identified as being within a floodplain as defined by this ordinance. For the purposes of regulation under this Ordinance, a distinction is made between major floodplains and minor floodplains, as defined below. The sources of delineation of the floodplain shall include, but not be limited to:
- The Flood Insurance Rate Map of Loudoun County, Virginia, Panel 350, by the Federal Emergency Management Agency, dated July 5, 2001, as amended, hereinafter referred to as the FIRM Map (This study shall represent the minimum identification of floodplain.);
  - Floodplain or flood hazard studies by the United States Geological Survey or other Federal agency, such as the Corps of Engineers or the USDA Soil Conservation Service; and
  - Detailed site-specific engineering studies conducted by engineering firms or government agencies and approved by the Town of Middleburg.

- (1) The major floodplain shall include areas subject to inundation by waters of the one hundred (100)-year flood, and shall include all lands shown on the FIRM Map, as amended, that are located in Zones A, AE, AH, or AO. The Approximated Zone A floodplain, shown as Zone A on the FIRM Map, is that major floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred (100)-year floodplain boundary has been approximated.
  - (2) The minor floodplain shall include areas subject to inundation by waters of the five hundred (500)-year flood and areas of one hundred (100)-year flood with average depths of less than one foot or with drainage areas of less than one square mile, and shall include all lands shown on the FIRM Map, as amended, in the shaded Zone X. The Approximated Zone X floodplain, shown as shaded Zone X on the FIRM Map, is that minor floodplain area for which no detailed flood profiles or elevations are provided, but where a Zone X boundary has been approximated.
  - (3) For Approximated Zone X and/or Approximated Zone A floodplains, flood elevations from federal, state, and other acceptable sources shall be used, when available. Where the specific flood elevation cannot be determined for these areas using other sources of data, such as the U. S. Army Corps of Engineers Floodplain Information Reports, U.S. Geological Survey Flood-Prone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review and approval by the Town and any other reviewing authorities.
- (c) Overlay Concept
- (1) The Floodplain Overlay District described above shall be an overlay to the existing underlying zone as shown on the Middleburg Zoning Map, and as such, the provisions for the floodplain overlay district shall serve as a supplement to the underlying district provisions.
  - (2) For any conflict between the provisions or requirements of the Floodplain Overlay District and those of any underlying district, the more restrictive provisions and/or those pertaining to the floodplain district shall apply.
  - (3) In the event any provision concerning a Floodplain Overlay District is declared inapplicable as a result of any legislative or administrative actions or judicial decision, the basic underlying provisions shall remain applicable.

(d) Boundaries of Floodplain Overlay District

- (1) The boundaries of the Floodplain Overlay District are established as described in the text of Section 246(b), which shall include, at a minimum, the flood areas delineated on the FIRM Map, which is declared to be a part of this ordinance, and which shall be kept on file at the Town of Middleburg offices. The FIRM Map and other approved studies referred to in Section 246(b) should be consulted prior to undertaking any regulated activity, and shall collectively comprise the floodplain overlay district map.
- (2) The limits of the 100-year floodplain shall be depicted upon a plat for any property for which a site plan is required by Section 171 of this Ordinance or for which a subdivision plat is required by the Middleburg Subdivision & Site Plan Ordinance. Such plat shall be recorded among the land records with the notation that any use of the property lying within the 100-year floodplain shall be consistent with the requirements of the Floodplain Overlay District.

(e) District Boundary Changes. The delineation of any of the Floodplain Overlay District may be revised by the Town of Middleburg where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U. S. Army Corps of Engineers or other qualified agency, or an individual documents the need for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration.

(f) Boundary Disputes. Should a dispute concerning any flood hazard district boundary arise, resolution of such dispute shall be made by the Administrator, based upon advice of the Town Engineer. Any party aggrieved by this decision may request an interpretation by the Board of Zoning Appeals as specified in Article IV of this Ordinance.

(g) Compliance and Liability

- (1) No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with the terms and provisions of this ordinance and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this ordinance.
- (2) The degree of flood protection sought by the provisions of this ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that districts outside the floodplain district, or that land uses permitted within such district, will be free from flooding or flood damages.

- (3) This ordinance shall not create liability on the part of the Town of Middleburg or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.
- (h) Abrogation and Greater Restrictions. This ordinance supersedes any ordinance currently in effect in flood-prone districts. However, any underlying ordinance shall remain in full force and effect to the extent that its provisions are more restrictive than this Ordinance.

## **Section 247: District Provisions**

### (a) General Provisions

#### (1) Permit Requirement.

All uses, activities, and development occurring within the Floodplain Overlay District shall be undertaken only upon the issuance of a zoning permit. Such development shall be undertaken only in strict compliance with the provisions of this Ordinance and with all other applicable codes and ordinances, such as, but not limited to the Virginia Uniform Statewide Building Code and the Town of Middleburg Subdivision and Site Plan Ordinance. Prior to the issuance of any such permit, the Administrator shall require all applications to include compliance with all applicable state and federal laws. Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodway of any watercourse, drainage ditch, or any other drainage facility or system.

#### (2) Alteration of Watercourse.

Permitted alterations shall not include the relocation of any channels, watercourse or stream. Prior to any proposed alteration of any channels or of any watercourse, stream, etc., within the Town, a permit shall be obtained from the U. S. Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Further notification of the proposal shall be given by the applicant in a form approved by the Administrator to all affected adjacent landowners, jurisdictions, the Division of Soil and Water Conservation (Department of Conservation and Recreation), and the Federal Insurance Administration.

#### (3) Drainage Facilities

Storm drainage facilities shall be designed to convey the flow of storm water runoff in a safe, efficient, and environmentally responsible manner. The system shall ensure proper drainage along streets and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties and to protect water quality.

(4) Development Application Submission Requirements

- (i) All applications for development in the floodplain overlay district including, but not limited to rezonings, special exceptions, site plans, and zoning permits, issued for activities in the floodplain shall incorporate, in addition to the information required by Article XIII of this Ordinance and the Middleburg Subdivision & Site Plan Ordinance, the following information:
- The elevation of the one hundred (100)-year flood.
  - Topographic information showing existing and proposed ground elevations.
  - For structures to be elevated, the elevation of the lowest floor (including basement).
  - For structures to be floodproofed (possible for non-residential uses only), the elevation to which the structure will be floodproofed.
  - Jurisdictional wetlands delineation that has been confirmed by the U. S. Army Corps of Engineers.
  - Baseline biological assessment of stream water quality and habitat.
- (ii) Grading plans and/or construction plans and profiles that include existing and proposed ground elevations are required for all uses and development activities in the Floodplain Overlay District, except for agricultural or horticultural uses not requiring the erection of structures. Such grading plans shall be submitted as part of any development application including lands with the floodplain.
- (b) Permitted Uses. The following uses, having a low flood damage potential, causing no obstruction of flood flows, and having minimal adverse impact on the ecological integrity of the stream shall be permitted within the Floodplain Overlay District upon a finding by the Zoning Administrator that such use is permitted in the underlying zoning district and is in conformance with the standards of this ordinance and the Middleburg Subdivision and Site Plan Ordinance. Uses allowed in the underlying district shall be prohibited to the extent not permitted by right or by special exception in the Floodplain District. Where any uses, structures or improvements will result in an alteration to the floodplain, applications for alterations must be submitted to the Zoning Administrator in accordance with this ordinance, and any alteration must meet the criteria contained in this ordinance.

(1) Permitted Uses in Major Floodplains.

- (i) Agricultural, horticultural, viticultural, equestrian and other similar uses; provided, however, that such use does not include a building or involve major fill, as defined in this ordinance;
- (ii) Public or private recreational uses, such as picnic grounds, hiking and horseback riding trails, playing fields, and other similar park and open space uses, but not the following: a swimming pool, any use requiring major fill as defined in this ordinance, or any paved tennis or play court;

- (iii) Public and private utility lines, and all public uses and public improvements performed by or at the direction of the Town, or as may be required by Town ordinances, to include, but not be limited to erosion control, stormwater management and best management facilities and similar uses, provided the installation of such facilities is accomplished with appropriate easements or agreements and with the minimum disruption necessary to the floodplain;
- (iv) Residential accessory uses and structures, such as play areas, gardens, patios, decks, playhouses, doghouses, and storage sheds, which do not require major fill. All such permitted accessory structures shall be anchored to prevent flotation and shall not exceed 840 square feet in floor area, and any portion of such structure located in the floodplain shall not exceed 100 square feet.
- (v) Restoration and rehabilitation of historic structures included or eligible for inclusion on a federal, state or local historic register;
- (vi) Alterations of the floodplain associated with any permitted or special exception uses in the Floodplain Overlay District. However, no channelization shall occur except to protect existing habitable structures subject to periodic flooding. Applications for alterations must be submitted in accordance with Section 248.
- (vii) Road crossings of the floodplain meeting Virginia Department of Transportation (VDOT) and Town design requirements, subject to the procedures and standards of Section 248 and the following additional criteria and provisions:
  1. The proposed crossing may result in a rise in the water surface elevation of the base flood of no more than one (1) foot.
  2. Any proposed road crossing must be a feature shown on the Comprehensive Plan.
  3. A floodplain alteration in accordance with the Loudoun County Facilities Standards Manual shall be submitted delineating all increases in the base flood, and the new floodplain limits shall be approved by FEMA, where a FEMA designated floodplain or floodway will be altered. FEMA will not allow any increase in the base flood elevation within FEMA-designated floodway.
  4. The road crossing shall be designed and constructed in accordance with the standards and regulations of VDOT and/or the Town, whichever shall apply.
  5. An instrument describing the increase in the floodplain limits, and executed by each affected property owner, shall be recorded upon approval of the alteration for the road crossing.
  6. The proposed crossing shall not result in an off-site increase in the water surface elevation of the base flood or an on-site increase affecting existing buildings and structures.

- (2) Permitted uses in minor floodplains.
- (i) Uses allowed under Section 247(b)(1).
  - (ii) Alterations. Applications for alterations whether or not associated with a permitted or special exception use must be submitted in accordance with Section 248, and any alteration must meet the criteria contained in that section. To the extent that the boundaries of the floodplain change as a result of the alteration, any areas no longer within the floodplain may be used for any use in the underlying district, subject to the provisions of the applicable district regulations and conditions of any approved special exception.
  - (iii) Stormwater management improvements, whether or not associated with uses permitted by right or special exception in the Floodplain Overlay District.
  - (iv) Farm ponds designed by the Soil Conservation Service.
  - (v) Basketball or tennis courts.

(c) Special Exception Uses.

The Town Council may permit certain uses and structures in the floodplain with a special use permit issued in accordance with the provisions and standards of Article V, subject to the additional standards in subsection (c)(2) below.

- (1) Permissible Special Exception Uses.
- (i) Riding stables
  - (ii) Structures or uses required for a public utility, road crossings and stormwater management improvements not otherwise permitted by this Ordinance.
  - (iii) Incidental accessory structures not otherwise permitted in the Floodplain Overlay District and associated with uses permitted by right or special exception in the Floodplain Overlay District, in accordance with section (c)(2) below.
- (2) Standards For A Special Exception. In considering applications for a special exception in a Floodplain Overlay District, the Town Council must be satisfied that the following standards and those of Article V have been met:
- (i) The proposed use will not increase the danger to life and property due to increased flood heights or velocities.
  - (ii) The proposed use will not increase the danger that materials may be swept downstream to the injury of others.
  - (iii) The proposed water supply and sanitation systems are designed to prevent disease, contamination, and unsanitary conditions.
  - (iv) The proposed use or structure must be located and designed to limit its susceptibility to flood damage, and available alternative locations, not subject to flooding, for the proposed use must be considered.
  - (v) The proposed use is compatible with existing and planned development.
  - (vi) The proposed use is in harmony with the comprehensive plan.
  - (vii) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site should not cause significant damage.

(d) Use Limitations. All permitted and special exception uses in a floodplain shall be subject to the following provisions:

- (1) Except as may be permitted by Section 247(b)(1)(iii) and (vii), any new construction, substantial improvements, or other development, including fill, when combined with all other existing, anticipated and planned development, shall not increase the water surface elevation above the 100-year flood level upstream and downstream, calculated in accordance with the provisions of the Loudoun County Facilities Standards Manual, as amended, (FSM).
- (2) No structure or substantial improvement to any existing structure shall be allowed unless in conformance with the requirements of the Uniform Statewide Building Code, including the floodproofing provisions of that code.
- (3) Stable vegetation shall be protected and maintained in the floodplain in order to minimize erosion and sedimentation and to protect water quality and wildlife habitat. Any maintenance requiring use of mechanized equipment, such as earth moving equipment, must receive prior approval from the Administrator in writing and shall be accomplished in conformance with other applicable requirements of this Ordinance and other Town regulations. Routine maintenance and enhancement by property owners of stream banks and channels, such as planting of native vegetation, stabilization of damaged banks and removal of stream obstructions, such as fallen trees and debris, is encouraged.
- (4) There shall be no storage of herbicides, pesticides, or toxic or hazardous substances as set forth in Title 40, Code of Federal Regulations, Parts 116.4 and 261.30, et. seq., as amended, in a floodplain.
- (5) When as-built floor elevations are required by federal regulations or the Virginia Uniform Statewide Building Code for any structure, such elevations shall be submitted to the Town on a standard Federal Emergency Management Agency (FEMA) Elevation Certificate prior to approval of the occupancy permit. If a non-residential building is being floodproofed, then a FEMA Floodproofing Certificate shall be completed in addition to the Elevation Certificate. In the case of special exception uses, the Elevation Certificate shall show compliance with the approved special use permit elevations.
- (6) Recreational Vehicles. Recreational vehicles as defined in this ordinance shall not be placed on sites within the floodplain.

**Section 248: Alterations.**

(a) Procedures for Alterations to the Floodplain.

Applications for alterations to the floodplain shall be in accordance with the applicable requirements of the FSM, subject to the following procedures:

- (1) A Type II floodplain alteration application as defined in the FSM shall be submitted concurrently with rezoning, special use permit, site plan or subdivision applications. Approval of floodplain alteration applications will be required prior to or concurrently with approval of the aforementioned applications.
- (2) The applicant shall submit to the Administrator detailed studies in accordance with Section 5.400 of the FSM.
- (3) The Administrator shall refer the submitted studies to the appropriate agencies for review and recommendations based on Subsection 248(b), below. The Administrator shall notify the Virginia Water Control Board, the Federal Emergency Management Agency and any adjacent property owners and adjacent jurisdictions that may be impacted prior to the approval of any alteration of a watercourse that is designated as FEMA floodplain.
- (4) Following review of the application, the Administrator shall approve or disapprove the application and notify the applicant.

(b) Engineering and Environmental Criteria for Proposed Alterations to the Floodplain.

All proposed alterations to the floodplain shall be reviewed by the Administrator, in consultation with appropriate agencies, to determine whether the following criteria have been met:

- (1) Alterations to the floodplain shall result in no off-site increase in the water surface elevation of the base flood, except as otherwise provided for in Section 247(b)(1)(vii). Alterations in a FEMA designated floodway shall result in no rise in the water surface elevation of the base floodplain, consisting of the water channel and overbank areas capable of conveying the deep and fast moving water discharge of the base flood.
- (2) Alterations to the floodplain shall not create erosive water velocity on or off-site (where erosive water velocity is based on analysis of the surface material and permissible velocities for specific cross sections affected by the proposed alteration, using standard engineering tables as a general guide), and the mean velocity of stream flow at the downstream end of the site after alteration shall be no greater than the mean velocity of the stream flow under existing conditions.
- (3) Relocation or alteration of the natural stream channel shall not be permitted.
- (4) The maximum allowable slope of any filled area on the floodplain alteration plan shall be 2:1.
- (5) The floodplain alteration plan shall further include plans for erosion control of cut and fill slopes and restoration of excavated areas. The site plan shall provide for tree protection and incorporate the use of natural materials and bioengineering techniques on cut and fill slopes.

- (6) Alterations to the floodplain shall be in conformance with the provisions of the FSM and the Erosion and Sediment Control Law, Va. Code Section 21-89.1 et seq., as amended.
- (7) The flood carrying capacity within the altered floodplain shall be maintained.

**Section 249: Density Calculations.**

For purposes of calculating the permitted floor area and number of residential units in the underlying zoning district, the land area in any portion of the Floodplain Overlay District shall be treated as follows:

- (a) Any portion of the Floodplain Overlay District in a minor floodplain shall be included as part of the land area for such calculations.
- (b) Except to the extent permitted in approved Town Floodplain Studies, any portion of the regulatory floodplain within the Floodplain Overlay District in a major floodplain shall be excluded as part of the land area for such calculations.

**Section 249a: Variances: Factors to be Considered**

In passing upon applications for variances in floodplain areas, the Board of Zoning Appeals shall satisfy all relevant factors and procedures specified in Article IV and consider the following additional factors:

- (a) The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development, or activity within any FEMA-designated floodway that will cause any increase in the one hundred (100)-year flood elevation.
- (b) The danger that materials may be swept on to other lands or downstream to the injury of others.
- (c) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
- (d) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
- (e) The requirements of the facility for a streamside location.
- (f) The availability of alternative locations not subject to flooding for the proposed use.
- (g) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- (h) The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
- (i) The safety of access by ordinary and emergency vehicles to the property in time of flood.
- (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.

- (k) The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (l) Such other factors which are relevant to the purposes of this ordinance.

The Board of Zoning Appeals may refer any application and accompanying documentation pertaining to any request for a variance to the Town Engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.

Variations shall be issued only after the Board of Zoning Appeals has determined that the variance will be the minimum required to provide relief from any hardship to the applicant and that the granting of such will not result in:

- (a) unacceptable or prohibited increases in flood heights,
- (b) additional threats to public safety,
- (c) extraordinary public expense; and will not
- (d) create nuisances,
- (e) cause fraud or victimization of the public, or
- (f) conflict with local laws or ordinances.

The Board of Zoning Appeals shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one hundred (100)-year flood elevation (a) increases the risks to life and property and (b) will result in increased premium rates for flood insurance.

A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances that are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

#### **Section 249b: Existing Structures in Floodplain Overlay Districts**

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the provisions of Article VIII and the following conditions:

- (a) Existing structures in the Floodplain Overlay District shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed expansion would not result in any increase in the one hundred (100) year flood elevation.
- (b) Any modifications, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any floodplain area to an extent or amount of less than fifty (50) percent of its market value, elevation and/or floodproofing should be considered to the greatest extent possible.

- (c) The modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its locations in a floodplain area, to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with the provisions of this ordinance and the Virginia Uniform Statewide Building Code.