

## CHAPTER 5: OVERLAY DISTRICTS

---

### Contents:

- 5.01 General Provisions of Overlay Districts
- 5.02 Airport Impact Overlay District
- 5.03 Floodplain Overlay District
- 5.04 Mountainside Overlay District
- 5.05 Limestone Overlay District
- 5.06 Quarry Notification Overlay District
- 5.07 Village Conservation Overlay District
- 5.08 Historic Overlay District

### 5.01 General Provisions of Overlay Districts

---

**Purpose.** The Overlay Districts in Chapter 5 are established to provide special regulations in designated areas of the County.

- A. **Applicability.** Overlay Districts in Chapter 5 are Zoning Districts that overlap and overlay applicable underlying Zoning Districts, and also may overlap other applicable Overlay Districts, so that any land subject to an Overlay District also is subject to the underlying Zoning District, as well as any other Overlay District that the land is located within.
- B. **Establishment of Overlay Districts.** Overlay Districts are established and amended by the procedures in Chapter 11 unless otherwise stated by the Overlay District.
- C. **Overlay District Boundaries.** Refer to Chapter 1 for provisions related to the interpretation of Overlay District map features and Overlay District boundaries.
- D. **Specific Definitions.** Defined terms used in an Overlay District are provided in Chapter 1. Defined terms used specifically in Section 5.03, Floodplain Overlay District, are provided in Section 5.03.01.
- E. **Uses.** The applicability of uses in the underlying zoning district is governed by any applicable overlay district. Unlike underlying zoning districts, Overlay Districts may also regulate activities and accessory uses that otherwise are not listed in use tables in Chapter 3. The listing of an accessory use or activity in an Overlay District does not mean that such activity or accessory use is not permitted if not listed in an underlying Zoning District.
- F. **Additional Procedures.** Specific additional procedures in Overlay Districts, including submission requirements, are provided in [Chapter 11](#).

**Note:** *Airport Impact Overlay District regulations are being amended separately from the Zoning Ordinance Rewrite in a stand-alone zoning ordinance amendment, ZOAM-2021-0002. Contact Project Manager Josh Peters at [joshua.peters@loudoun.gov](mailto:joshua.peters@loudoun.gov) for information or to comment on that ZOAM.*

### 5.02 Airport Impact Overlay District

---

**Purpose.** The purpose of this Overlay District is to:

- Acknowledge the unique land use impacts of airports.
- Regulate the siting of noise sensitive uses.
- Ensure that the heights of structures are compatible with airport operations.

- *Complement Federal Aviation Administration (FAA) regulations regarding noise and height.*

## A. Applicability.

### 1. **District Boundaries.** The AIOD boundaries are as follows:

- a. Boundaries are based on the Ldn 60 and 65 aircraft noise contours and an area that extends 1 mile beyond the Ldn 60 aircraft noise contour. The County will use the following sources as a basis for delineating the Ldn aircraft noise contours:
  1. Washington Dulles International Airport: The FAA Part 150 Noise Compatibility Programs, Washington Dulles International Airport, August, 1992, and
  2. Leesburg Municipal Airport: Environmental Assessment Report. October, 1985.
- b. For the purpose of administering these regulations the AIOD has 3 airport noise impact areas:
  1. Outside of but within 1 mile of the Ldn 60.
  2. Between the Ldn 60 - Ldn 65.
  3. Within the Ldn 65 or higher.

### B. **Use Limitations For the Construction of Dwellings.** In addition to the use limitations and regulations for the Zoning District over which an AIOD is located, the following use limitations apply to the construction of dwellings:

#### 1. For areas outside of but within 1 mile of the Ldn 60:

- a. **Disclosure Statement.** The applicant must disclose in writing to all prospective purchasers that they are located within an area that will be impacted by aircraft overflights and aircraft noise. Such notification will be accomplished by inclusion of this information in all sales contracts, brochures, and promotional documents, including the illustrative site plan(s) on display within any sales related office(s), as well as in homeowner association documents, and by inclusion on all subdivision plats and site plans, and within all deeds of conveyance.

#### 2. For areas between the Ldn 60 - Ldn 65:

- a. **Disclosure Statement.** The applicant must disclose in writing to all prospective purchasers that they are located within an area that will be impacted by aircraft overflights and aircraft noise. Such notification will be accomplished by inclusion of this information in all sales contracts, brochures, and promotional documents, including the illustrative site plan(s) on display within any sales related office(s), as well as in homeowner association documents, and by inclusion on all subdivision plats and site plans, and within all deeds of conveyance.
- b. **Acoustical Treatment.** The applicant must incorporate acoustical treatment into all dwelling units to insure that interior noise levels within living spaces (not including garages, sunrooms, or porches) do not exceed an average sound level of 45 db(A) Ldn. Compliance with this standard must be based upon a certification from an acoustical engineer licensed in the Commonwealth of Virginia, submitted at the time of zoning permit approval, that the design and construction methods and materials to be used in the construction of the dwelling are such that the foregoing standard will be met, assuming exterior noise levels between 60 to 65 Ldn.
- c. **Avigation Easements.** Prior to the approval of any subdivision plat creating residential lots or for existing lots of record and prior to the approval of a zoning permit, the owner(s) of such parcel or parcels must dedicate an avigation easement to the Metropolitan Washington Airports Authority, indicating the right of flight to pass over the property, as a means to securing the long-term economic viability of Washington Dulles International Airport.

#### 3. Within the Ldn 65 or higher airport noise impact area, dwellings are not permitted. However, new dwelling units and additions to existing dwellings may be permitted, provided that:

- a. The lot was recorded or had subdivision plat approval prior to the effective date of adoption of this Ordinance.

- b. The new dwelling or addition complies with the acoustical treatment requirements for residential districts set forth in the Virginia Uniform Statewide Building Code.
4. No building or other structure will be located in a manner or built to a height that constitutes a hazard to aerial navigation. Where a structure is proposed in a location or to be built to a height that may be hazardous to air traffic such structure must not be erected without certification from the FAA that it will not constitute a hazard to air traffic.
- C. **Disclosure Statement Required.** A disclosure statement must be placed on all subdivision plats, site plans, and deeds to any parcel or development within the AIOD, that clearly identifies any lot that is located within the AIOD and any airport noise impact area of the AIOD (i.e., Section 5.02.B.2.a, 5.02.B.2.b, or 5.02.B.2.c) in which the lot is located.

## 5.03 Floodplain Overlay District

**Purpose.** *The purpose of this overlay district is to conserve the natural state of watercourses and watersheds and to prevent the:*

- *Loss of life and property.*
  - *Creation of health and safety hazards.*
  - *Disruption of commerce and governmental services.*
  - *Extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by:*
    - *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, and frequencies.*
    - *Restricting or prohibiting certain uses, activities, and development from locating within areas subject to flooding.*
    - *Requiring all those uses, activities, and developments that do occur in areas susceptible to flooding to be protected and/or flood-proofed against flooding and flood damage.*
    - *Preventing individuals from using land and erecting structures which are unsuited for intended purposes because of flood hazards.*
- A. **Applicability.** These provisions apply to all privately and publicly owned lands within the jurisdiction of the County of Loudoun and identified as being located within the Floodplain Overlay District (FOD). Only those uses set forth in Section 5.03.E and 5.03.F will be permitted or special exception uses within the FOD, and land so encumbered may be used in a manner permitted in the underlying zoning district only if and to the extent such use is also permitted in the FOD. The degree of flood protection sought by Section 5.03 is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study, but does not imply total flood protection. 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. Section 5.03 does not imply that property outside the FOD or land uses permitted within the FOD will be free from flooding or flood damages. Section 5.03 must not create liability on the part of Loudoun County or any officer or employee thereof for any flood damages that result from reliance on Section 5.03 or any administrative decision lawfully made thereunder.
- B. **Authority.** Authority for these provisions includes:
1. Flood Damage Reduction Act, Va. Code Sections 10.1-600 et seq.
  2. Va. Code Sections 15.2-2200 through 15.2-2329 (Planning, Subdivision of Land and Zoning).
  3. Soil Conservation Districts Law, Va. Code Sections 10.1-500 et seq.
  4. Erosion and Sediment Control Law, Va. Code Section 62.1-44.15:51 et seq.

5. Potomac River Basin Compact, Va. Code Section 28.2-1001.
  6. National Flood Insurance Act of 1968, 42 U.S.C. 4001 et seq., as amended by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004.
  7. Code of Federal Regulations, Title 44, Section 59.1-70.9.
- C. **Definitions.** The key words and phrases defined in Section 5.03.01 apply when used in Section 5.03.
- D. **Administration.**
1. **Designation of Floodplain Administrator.** The Zoning Administrator, or his/her designee, shall administer and implement these regulations and is referred to herein as the Floodplain Administrator.
  2. **Duties and Responsibilities of the Floodplain Administrator.** The Floodplain Administrator must :
    - a. Review all applications for development located within the FOD.
    - b. Interpret FOD boundaries in accordance with Section 11.02 and provide available base flood elevation and flood hazard information.
    - c. Review applications for development to determine whether proposed activities will be reasonably safe from flooding and meet the requirements of Section 5.03.
    - d. Review applications for reconstruction, rehabilitation, addition, or other improvement of a structure to determine whether such proposed activities constitute substantial improvements.
    - e. Review applications for development to determine whether all necessary permits have been obtained from the Federal, State, or local agencies from which prior or concurrent approval is required; in particular, permits from state agencies for any construction, reconstruction, repair, or altering of a dam, reservoir, or waterway obstruction (including bridges, culverts, structures), any altering of a watercourse, or any change of the course, current, or cross section of a stream or body of water, including any change to the 100-year frequency floodplain of free-flowing non-tidal waters of the State.
    - f. Verify that applicants proposing to alter a watercourse have notified affected adjacent towns, cities, county or state government, the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and other appropriate agencies (Virginia Department of Environmental Quality, United States Army Corps of Engineers) and have submitted copies of such notifications to the Federal Emergency Management Agency (FEMA).
    - g. Inspect or cause to be inspected, buildings, structures, and other development for which permits have been issued to determine compliance with Section 5.03 or to determine if non-compliance has occurred or violations have been committed.
    - h. Review submitted FEMA Elevation Certificate applications and require incomplete or deficient applications to be corrected.
    - i. Submit to FEMA, or require applicants to submit to FEMA, data and information necessary to maintain Flood Insurance Rate Maps (FIRMs), including Floodplain Studies and Floodplain Alterations approved in accordance with the Facilities Standards Manual (FSM), within six months after such data and information becomes available if the analyses indicate changes in base flood elevations.
    - j. Maintain and permanently retain records that are necessary for the administration of the FOD, including:
      1. Flood Insurance Studies, Flood Insurance Rate Maps (including historic studies and maps and current effective studies and maps), and Letters of Map Change; and
      2. Documentation supporting approval or denial of development permits, Elevation Certificates, documentation of the elevation (in relation to the datum on the FIRM) to which structures have been floodproofed, other required design certifications, variations pursuant to Section 5.03.K, and records of enforcement actions taken to correct violations of these regulations.

- k. Enforce the provisions of these regulations, investigate violations, issue notices of violations or stop work orders, and require permit holders to take corrective action.
  - l. Advise the Board of Supervisors regarding the intent of these regulations and, for each application for a variation pursuant to Section 5.03.K, prepare a staff report and recommendation.
  - m. Administer the requirements related to proposed work on existing buildings:
    - 1. Make determinations as to whether buildings and structures that are located in FOD (Major Floodplain only) and that are damaged by any cause have been substantially damaged.
    - 2. Make reasonable efforts to notify owners of substantially damaged structures of the need to obtain a permit to repair, rehabilitate, or reconstruct such damaged structures; and prohibit the non-compliant repair of substantially damaged buildings except for temporary emergency protective measures necessary to secure a property or stabilize a building or structure to prevent additional damage.
  - n. Undertake, as determined appropriate by the Floodplain Administrator due to the circumstances, other actions which may include but are not limited to: issuing press releases, public service announcements, and other public information materials related to development permit requests and repair of damaged structures; coordinating with other Federal, State, and local agencies to assist with substantial damage determinations; providing owners of damaged structures information related to the proper repair of damaged structures in FOD; and provide property owners with information necessary to file claims for Increased Cost of Compliance coverage under the National Flood Insurance Program (NFIP) flood insurance policies.
  - o. Notify FEMA when the corporate boundaries of the County have been modified and:
    - 1. Provide a map that clearly delineates the new corporate boundaries or the new area for which the authority to regulate pursuant to Section 5.03 has either been assumed or relinquished through annexation or otherwise; and
    - 2. For any new area for which the authority to regulate pursuant to this Section 5.03 has been assumed, prepare necessary amendments to the Zoning Map and appropriate requirements, and submit such amendments to the Board of Supervisors for adoption. A copy of the amended regulations must be provided to Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and FEMA.
  - p. Upon the request of FEMA, complete and submit information regarding the number of buildings in the FOD (Major Floodplain only), number of approved permits for development in the FOD (Major Floodplain only), number of approved variations pursuant to Section 5.03.K. Any variations that are approved must be noted in the annual or biennial report submitted to FEMA's Federal Insurance Administrator.
  - q. Serve as a referral agent on all legislative land development applications.
3. **Delineation of the FOD.** The original basis for the delineation of the FOD shall be the floodplain as shown on the Flood Insurance Study (FIS) and the Flood Insurance Rate Map (FIRM) for the County of Loudoun prepared by FEMA, Federal Insurance Administration, dated February 17, 2017. The boundaries of the floodplain and FOD may change based on information submitted in accordance with this Chapter, and/or subsequent revisions or amendments to the FIS and FIRM approved by FEMA.
- E. **Permitted Uses.** The following uses shall be permitted within the FOD provided such uses conform with Section 5.03. Uses allowed in the underlying district shall be prohibited to the extent such uses are not permitted or special exception uses in the FOD. Where any uses, structures, or improvements will result in development within the FOD, an application for a Floodplain Alteration shall be submitted in accordance with Section 5.03.H.2 and the FSM.

1. Permitted uses in FOD (Major Floodplain). Such uses shall not cause any increases in base flood elevation of the FOD (Major Floodplain) unless otherwise provided below.
  - a. Agriculture, horticulture, forestry, and fisheries, not requiring the erection of structures, except that incidental structures shall be permitted in accordance with this Section. An increase in base flood elevation may be permitted provided a Conditional Letter of Map Revision (CLOMR) is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use.
  - b. Passive and Active Recreation Uses, except swimming pools, provided that the area of impervious surfaces within the FOD (Major Floodplain) does not exceed 3% of the area of FOD (Major Floodplain) located within the subject parcel and the boundary of the FOD (Major Floodplain) does not change.
  - c. Stormwater management improvements as follows:
    1. Rooftop disconnection. Associated soil amendments shall be located outside of areas of existing tree cover and shall not require the clearing of existing tree cover.
    2. Sheet flow to conservation area.
    3. Sheet flow to vegetated filter and associated soil amendments located outside of areas of existing tree cover and not requiring the clearing of existing tree cover.
    4. Grass channel and associated soil amendments.
    5. Soil amendments located outside of areas of existing tree cover and not requiring the clearing of existing tree cover.
    6. Other stormwater management improvements provided that such improvements shall only serve permitted or approved special exception uses in the FOD, and shall only serve those portions of such uses that are located within the FOD.
  - d. Utility lines in the floodplain and road crossings. An increase in base flood elevation on site may be permitted provided a CLOMR is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use. Road crossings shall be designed and constructed in accordance with the standards and regulations of the Virginia Department of Transportation (VDOT) and/or the FSM, whichever shall apply.
  - e. Public roads shown on the Comprehensive Plan or included in a Capital Improvement Program project. An increase in base flood elevation may be permitted provided a CLOMR is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use.
  - f. Public roads, private roads, and driveways.
  - g. Repair, reconstruction, or improvement of existing residences, so long as the footprint of the existing residence is not increased within the FOD and provided that such repair, reconstruction, or improvement, whether located within or outside of the FOD, is not a substantial improvement. If such repair, reconstruction or improvement is a substantial improvement then conformance with Section 5.03.I shall be required.
  - h. Parking areas accessory to permitted or approved special exception uses in the FOD. All such parking areas shall be equipped with best management practices in accordance with Chapter 5 of the FSM and Chapter 1096 of the Codified Ordinances.
  - i. Incidental structures, not exceeding 840 square feet of floor area, associated with permitted or approved special exception uses in the FOD, and temporary structures associated with Special Events in the FOD. Incidental structures include storage sheds, maintenance sheds, backstops, bath houses and locker rooms. Provided, however, bulk storage of gasoline, chemicals, fuels, or similar substances are prohibited in the FOD; and further provided that any new construction shall comply with applicable FEMA standards.

- j. Temporary storage of material or equipment necessary in the construction of permitted or special exception uses in the FOD.
  - k. Alterations of the floodplain associated with any permitted or approved special exception uses in the FOD. Such alterations shall not relocate or alter the natural active channel except for road crossings permitted under Section 5.03.E.1.d or Section 5.03.E.1.m, to protect existing habitable structures subject to periodic flooding, or for stream restoration permitted under Section 5.03.E.1.p. Applications for alterations of the floodplain shall be in accordance with Section 5.03.H.2. To the extent that the boundaries of the FOD change as a result of an approved Floodplain Alteration, any areas no longer within the FOD may be used for any use in the underlying zoning district, subject to the provisions of the applicable zoning district regulations and conditions of any approved special exception.
  - l. Restoration and rehabilitation of historic structures.
  - m. Road crossings that result in an increase in the base flood elevation off-site provided that:
    - 1. A CLOMR is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use.
    - 2. The road crossing shall be a feature shown on the Comprehensive Plan or included in a Capital Improvements Program project.
    - 3. The road crossing shall be designed and constructed in accordance with the standards and regulations of the Virginia Department of Transportation and/or the FSM, whichever shall apply.
    - 4. The resulting increase in the base flood elevation shall not affect existing buildings and structures.
    - 5. Affected off-site property owners may at any time mitigate impacts on their land as a result of an increase in the base flood elevation by:
      - a. Submitting a Floodplain Alteration to reclaim that portion of their land subject to the increase in base flood elevation as a result of the road crossing, provided there is no increase in the base flood elevation; and/or
      - b. Requesting a modification of the building setback or parking setback requirements on specific lots or parcels of land affected by the increase in the base flood elevation by special exception approved by the Board of Supervisors, in accordance with Section 11.11.01 and 5.03.G of the Zoning Ordinance.
  - n. Public water utility drinking water supply reservoirs, including, without limitation, reclaimed quarries.
  - o. Maintenance of the design conditions of an approved Floodplain Alteration.
  - p. Stream Restoration designed in accordance with the FSM and approved by the County. An increase in base flood elevation may be permitted provided a CLOMR is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use.
  - q. Wetland Mitigation. An increase in base flood elevation may be permitted provided a CLOMR is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use.
  - r. Flood mitigation practices carried out in order to minimize and reduce flood risk in accordance with the Code of Federal Regulations, Title 44. Section 78.1, et seq.
  - s. Special Events, pursuant to 11.11.08, without land disturbing activity.
2. Permitted uses in floodplains in FOD (Minor Floodplain), with or without an increase in base flood elevation:
- a. Uses allowed under Section 5.03.E.1, except that increases in the base flood elevation in the FOD (Minor Floodplain) shall be permitted.
  - b. Alteration of the floodplain whether or not associated with a permitted or approved special exception use in the FOD. To the extent that the boundaries of the FOD change as a result of the Floodplain Alteration, any areas no longer within the FOD may be used for any use in the underlying zoning district,

subject to the provisions of the applicable zoning district regulations and conditions of any approved special exception.

- c. Stormwater management improvements whether or not associated with permitted or approved special exception uses in the FOD.
- d. Ponds designed by the Natural Resources Conservation Service, a Licensed Professional Engineer, or a Class B Land Surveyor.
- e. Basketball or tennis courts, and swimming pools.
- f. Parking areas less than 5,000 square feet not otherwise permitted. Such parking areas shall not be subject to 100-year flooding greater than 1 foot in depth, shall be equipped with best management practices in accordance with Chapter 5 of the FSM and Chapter 1096 of the Codified Ordinances, and shall not result in any change in existing grade.

F. **Special Exception Uses.** The following uses and structures may be permitted in the FOD (Major Floodplain or Minor Floodplain) by the Board of Supervisors by special exception, subject to Section 11.11.01 and Section 5.03.G, provided that such uses conform with Section 5.03 and such uses shall not cause any increase in the base flood elevation of the FOD (Major Floodplain) unless otherwise provided below. Uses allowed in the underlying district shall be prohibited to the extent such uses are not permitted or special exception uses in the FOD. Where any uses, structures, or improvements will result in development within the FOD, an application for a Floodplain Alteration shall be submitted in accordance with Section 5.03.H.2 and the FSM.

1. Marinas, boat rentals, docks, piers, wharves, water ski jump facilities.
2. Special Events, pursuant to 3.05.D, with land disturbing activity.
3. Riding stables.
4. Structures required for the operation of a public utility not otherwise permitted by this Ordinance.
5. Incidental structures, greater than 840 square feet of floor area, associated with permitted or approved special exception uses in the FOD. Incidental structures include storage sheds, maintenance sheds, backstops, bath houses, and locker rooms. Provided, however, bulk storage of gasoline, chemicals, fuels, or similar substances are prohibited in the FOD; and further provided that any new construction shall comply with applicable FEMA standards.
6. Passive and Active Recreation Uses, except swimming pools, provided that the area of impervious surfaces within the FOD (Major Floodplain) does not exceed 10% of the area of FOD (Major Floodplain) located within the subject parcel, that cause the boundary of the FOD (Major Floodplain) to change, and/or that cause an increase in base flood elevation. Such increase in base flood elevation may be permitted provided a CLOMR is obtained from FEMA prior to approval of the requisite Floodplain Alteration application for such use.

G. **Standards For A Special Exception.** In considering applications for a special exception, the Board of Supervisors shall be satisfied that the following standards and those of Section 11.11.01 have been met:

1. The proposed use will not increase the danger to life and property due to increased flood heights or velocities.
2. The proposed use will not increase the danger that materials may be swept downstream to the injury of others.
3. The proposed water supply and sanitation systems are designed to prevent disease, contamination, and unsanitary conditions.
4. The proposed use or structure shall be located and designed to limit its susceptibility to flood damage, and available alternative locations, not subject to flooding, for the proposed use shall be considered.
5. The proposed use is compatible with existing and planned development.
6. The proposed use is in harmony with the Comprehensive Plan.
7. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site shall not cause significant damage.



## H. Floodplain Overlay District Development Procedures.

1. **Floodplain Information to be Submitted with Land Development Applications.** All new subdivision proposals and other proposed development greater than 50 lots or 5 acres, whichever is the lesser, on any parcel of land which includes FOD within its boundaries, shall include with such proposals base flood elevation data in accordance with Chapter 5 of the FSM. The submission of such base flood elevation data shall be considered a request for a cartographic interpretation pursuant to Section 11.02, to interpret the exact location of the boundaries of the FOD based on such data.
2. **Floodplain Alteration.** Any proposed development in the FOD shall require approval of a Declaration of No Impact to Floodplain or Floodplain Alteration in accordance with Chapter 5 of the FSM. Any required Floodplain Alteration shall conform with the following:
  - a. **Procedures for Floodplain Alterations.** Applications for Floodplain Alterations shall be in accordance with Chapters 5 and 8 of the FSM and conform with the following procedures:
    1. An approved CLOMR from FEMA shall be provided prior to approval of a Floodplain Alteration that proposes any increase in the base flood elevation within the FOD (Major Floodplain).
    2. Floodplain Alterations that would result in changes to the boundaries of the FOD shall be subject to the following:
      - a. The application for such Floodplain Alteration shall be considered a request for a cartographic interpretation pursuant to Section 11.02 to interpret the exact location of the boundaries of the FOD upon approval of the Floodplain Alteration.
      - b. Prior to approval of a Floodplain Alteration that would result in any increase in the base flood elevation off-site or other changes to the boundaries of the FOD off-site, an instrument describing the change in the base flood elevation executed by each affected property owner shall be recorded among the land records of Loudoun County, Virginia.
  - b. **Engineering and Environmental Criteria for Floodplain Alterations.** All proposed alterations to the floodplain shall meet the following criteria:
    1. Alterations to the floodplain shall not create erosive water velocity on-site 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), 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.
    2. Alterations to the floodplain shall be in conformance with Chapter 1220 of the Codified Ordinances of Loudoun County and the Erosion and Sediment Control Law, Va. Code Section 62.1-44.15:51 et seq.
    3. The flood carrying capacity within the altered floodplain shall be maintained.
3. **Zoning Permit Required.** All development occurring within the FOD (Major Floodplain), including placement of manufactured homes, shall be undertaken only upon the approval of a zoning permit. The following provisions shall apply to all such zoning permits:
  - a. In addition to the requirements of Section 11.04.B.5, the application for such zoning permit shall include the following:
    1. Copies of all necessary permits from Federal, State, or local agencies from which prior or concurrent approval is required.
    2. The base flood elevation.
    3. The elevation of the lowest floor (including basement).
    4. For a structure to be flood-proofed (non-residential only), the elevation to which the structure will be flood-proofed.

5. Topographic information showing existing and proposed ground elevations.

**I. Floodplain Overlay District Development Standards:**

1. **General Development Standards.** The following provisions shall apply to development located in the FOD (Major Floodplain):
  - a. Residential Construction. New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, including basement, elevated to or above (1 foot freeboard recommended) the base flood elevation.
  - b. Non-Residential Construction. New construction or substantial improvement of any commercial, industrial, or non-residential building (including manufactured homes) shall have the lowest floor, including basement, elevated to or above the base flood elevation. Non-residential buildings may be flood-proofed in lieu of being elevated provided that all areas of the building components lower than 1 foot above the base flood elevation are water tight with walls impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A licensed professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification, including the base flood elevation to which such structures are floodproofed, shall be retained by Floodplain Administrator.
  - c. All new construction and substantial improvements (including manufactured homes) shall be in accordance with all applicable sections of this Ordinance, the FSM, and Chapter 1410 of the Codified Ordinances, and anchored to prevent flotation, collapse, or lateral movement of the structure.
  - d. Newly placed manufactured homes and/or substantial improvements to manufactured homes shall meet all applicable State anchoring requirements for resisting wind forces and shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
  - e. All new construction and substantial improvements (including manufactured homes) shall be constructed with materials and utility equipment resistant to flood damage.
  - f. All new construction or substantial improvements (including manufactured homes) shall be constructed by methods and practices that minimize flood damage.
  - g. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities, including duct work, shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
  - h. New and replacement public and individual water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
  - i. New and replacement public sewer systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
  - j. Individual sewage disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
  - k. Prior to the approval of a Floodplain Alteration for any proposed alteration or relocation of any channel or watercourse, all required permits shall be obtained from the U. S. Army 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 agencies). The applicant shall provide notification of such alteration or relocation to the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and FEMA. If such alteration or relocation results in a change to the floodplain in an adjacent town, city, county, or state, notification shall also be provided by the applicant to such jurisdiction.

- I. The flood carrying capacity within an altered or relocated portion of any channel or watercourse shall be maintained. Under no circumstances shall any development adversely affect the water carrying capacity of any channel or watercourse.
2. **Space Below the Lowest Floor.** In FOD (Major Floodplain), fully enclosed areas, of new construction or substantially improved structures, which are below the base flood elevation shall meet the following minimum standards:
  - a. Such areas shall not be designed or used for human habitation. Such areas shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to such areas shall be the minimum necessary to allow for parking of vehicles (garage door), limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator).
  - b. Such areas shall be constructed entirely of flood resistant materials below the base flood elevation.
  - c. Such areas shall include measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters that are either certified by a licensed professional engineer or architect or that meet the following minimum design criteria:
    1. Provide a minimum of 2 openings on different sides of each enclosed area. Foundation enclosures made of flexible skirting are not considered enclosed areas for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, are considered as enclosed areas and require such openings.
    2. The total net area of all openings must be at least 1 square inch for each square foot of enclosed area subject to flooding.
    3. If a building has more than 1 enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
    4. The bottom of all required openings to such enclosed areas shall be no higher than 1 foot above the adjacent grade.
    5. Openings shall only be equipped with screens, louvers, or other opening coverings or devices that permit the automatic flow of floodwaters in both directions.
3. **Standards for Recreational Vehicles.** The following provisions shall apply to recreational vehicles located within the FOD (Major Floodplain):
  - a. Any recreational vehicles placed on a site shall be fully licensed, on its wheels or jacking system, and attached to the site only by quick disconnect type utilities and security devices, and shall have no permanently attached additions; or
  - b. Recreational vehicles placed on a site for 180 days or longer shall be deemed to be manufactured homes and shall meet all development standards of Section 5.03.I.1 and 5.03.I.2.
4. **Standards for Subdivision Proposals.** The following provisions shall be required for any subdivision of a parcel that includes FOD (Major Floodplain):
  - a. All subdivision proposals shall be consistent with the need to minimize flood damage.
  - b. All subdivision proposals that have public utilities and facilities, such as sewer, gas, electrical, and water systems, shall have such utilities and facilities located and constructed to minimize flood damage.
  - c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- J. **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 FOD shall be included as part of the land area for such calculations.
- K. **Variations.**

1. **Authority.** Pursuant to Code of Federal Regulations 44CFR60.6, the Board of Supervisors may approve a variation of the standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3 for any proposed development within the FOD (Major Floodplain) in the instances as set forth below. Requests for approval of a variation of the standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3 shall be made in accordance with the procedures for a Minor Special Exception application as set forth in Section 11.11.02, except that the issues for consideration shall be as set forth in Section 5.03.K.2. No variation shall be approved for any proposed development within the FOD (Major Floodplain) that will cause any increase in the base flood elevation of the FOD (Major Floodplain).
  - a. New construction and substantial improvements to be erected on a lot of 1/2 acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood elevation provided that such new construction or substantial improvement is protected by methods that minimize flood damages during the base flood and creates no additional threats to public safety.
  - b. Repair or rehabilitation of historic structures provided that such repair or rehabilitation shall not preclude the structure's continued designation as a historic structure and the variation is the minimum necessary to preserve the historic character and design of the structure.
2. **Application for a Variation of the Standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3.** Any person owning property, or having a possessory or contract interest in property and the consent of the owner, may file an application for variation of the standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3 in regard to such property with the Floodplain Administrator. The application shall contain the following information and such additional information as required by Section 11.01.F:
  - a. The particular standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3 that prevent the proposed construction on, or use of, the property.
  - b. The existing zoning of the property, including any previously approved modifications, conditions, or proffers.
  - c. The special conditions, circumstances or characteristics of the land, building, or structure that prevent the use of the land in compliance with the standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3.
  - d. The particular hardship that would result if the specified standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3 were to be applied to the property.
  - e. The extent to which it would be necessary to vary the standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3 in order to permit the proposed construction on, or use of, the property.
  - f. An explanation of how the requested variation conforms to each of the applicable standards set out in Section 5.03.K.4.
3. **Issues for Consideration.** In considering an application for a variation of the standards of Sections 5.03.I.1, 5.03.I.2., and 5.03.I.3, the following factors shall be given reasonable consideration:
  - a. The danger to life and property due to increased flood heights or velocities caused by encroachments.
  - 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 importance of the services provided by the proposed facility to the community.
  - f. The requirements of the facility for a waterfront location.
  - g. The availability of alternative locations not subject to flooding for the proposed use.
  - h. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.

- i. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
  - j. The safety of access by ordinary and emergency vehicles to the property in time of flood.
  - k. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.
  - l. The historic nature of a structure.
  - m. Such other factors which are relevant to the purposes of this ordinance.
4. **Decision on Application for Variation of the Standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3.** No such variation of the standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3 shall be approved by the Board of Supervisors unless all of the following findings are made:
- a. The applicant has demonstrated good and sufficient cause.
  - b. Failure to grant the variation of the standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3 would result in exceptional hardship to the applicant.
  - c. Granting of such variation of the standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3 will not result in:
    1. Any increase in base flood elevation of the FOD (Major Floodplain);
    2. Additional threats to public safety;
    3. Extraordinary public expense;
    4. The creation of nuisances;
    5. Fraud or victimization of the public; or
    6. Conflicts with other local laws or ordinances.
  - d. The variation of the standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3 is the minimum required to provide relief.
5. **Notice of Approval.** Upon approval of a variation of the standards of Sections 5.03.I.1, 5.03.I.2, and 5.03.I.3, the Floodplain Administrator shall notify the applicant of such approval, in writing, and that development in accordance with the approved variation may increase the risks to life and property and may result in increased premium rates for flood insurance.

## 5.03.01 FOD Definitions

---

**Alteration.** A development action which will change the cross section of the floodplain and will increase either the erosive velocity or height of floodwaters either on-site or off-site. Alterations include, but are not limited to, land disturbing activities.

**Base flood.** The flood having a 1% chance of being equaled or exceeded in any given year. Also known as the 100-year flood.

**Base flood elevation.** The water surface elevations of the base flood. The water surface elevation of the base flood is calculated based on the datum specified on Loudoun County's Flood Insurance Rate Map.

**Basement.** That portion of a building having its floor below ground level on all sides.

**Conditional Letter of Map Revision (CLOMR).** A formal review and written comment from FEMA on a proposed project that would, upon construction, cause an increase in base flood elevation. Upon completion of the construction of such project, a Letter of Map Revision (LOMR) issued by FEMA, determining that the increase was warranted, shall be required.

**Cross section.** Shape and dimensions of a channel and valley of the floodplain perpendicular to the line of flow.

**Development.** Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

**Elevated building.** A non-basement building built to have the lowest floor elevated above the ground level by means of solid foundation perimeter walls, pilings, or columns (posts and piers).

**Flood or Flooding.**

1. A general or temporary condition of partial or complete inundation of normally dry land areas from:
  - a. The overflow of inland waters; or,
  - b. The unusual and rapid accumulation or runoff of surface waters from any source.
  - c. Mudflows which are proximately caused by flooding as defined in paragraph 1.b of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
2. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature such as a flash flood, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph 1.a of this definition.

**Flood Insurance Rate Map (FIRM).** The official map of Loudoun County on which the Federal Emergency Management Agency (FEMA) has delineated areas in the floodplain subject to inundation of the base flood and the risk premium zones based on the technical data in the Flood Insurance Study. The FIRM that has been made available digitally is called the Digital Flood Insurance Rate Map (DFIRM).

**Flood Insurance Study (FIS).** A report by FEMA that examines, evaluates, and determines flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudflow and/or flood-related erosion hazards.

**Floodplain.** Any land area susceptible to being inundated by water from the base flood and having a drainage area greater than 100 acres. For purposes of regulation under this Zoning Ordinance, a distinction is made between the Major Floodplain and Minor Floodplain. Major Floodplain corresponds to Zones AE and A as shown on the FIRM, as may be subsequently revised or amended by FEMA, and is considered to be the Special Flood Hazard Area by FEMA. All watersheds draining greater than 640 acres must be considered Major Floodplain. Minor Floodplain must correspond to watersheds of 640 acres or less that are not designated as Zone AE or A.

**Floodproofing.** Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, or structures and their contents.

**Floodway.** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without any cumulative increase the base flood elevation. Floodways are included within, and regulated as, FOD (Major Floodplain). Floodways are not shown on the FIRM but are included within the Special Flood Hazard Area designated on the FIRM, which is regulated as FOD (Major Floodplain).

**Freeboard.** A factor of safety expressed in feet above a flood level for purposes of floodplain management. “Freeboard” compensates for the many unknown factors that contribute to flood heights greater than the height calculated for Base Flood, such as wave action, bridge openings, and the hydrological effect of urbanization in the watershed.

**Historic structure.** Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on the Virginia Landmarks Register; or,
4. Individually listed on the Loudoun County Register of Heritage Resources.

**Lowest floor.** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Code of Federal Regulations 44CFR §60.3.

**Manufactured Home.** A structure constructed and subject to federal regulation, which is transportable in one or more sections; is built on a permanent chassis; is designed to be used as a single-family dwelling, with or without a permanent foundation, when connected to utilities. The term "manufactured home" also includes recreational vehicles placed on a site for greater than 180 consecutive days whether connected to utilities or not.

**New construction.** Structures for which the start of construction commenced on or after January 5, 1978. All such structures shall comply with the Loudoun County regulations in effect at the time of construction. Any improvement(s) to a structure shall comply with the Loudoun County regulations in effect at the time of construction of the improvement(s).

**Recreational Vehicle.** A vehicle that is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.

**Road, Crossing of the Floodplain, or Road Crossing.** Any public road, private road, or driveway traversing a floodplain generally perpendicular to the flow of the drainageway.

**Special Flood Hazard Area (SFHA).** The land in the floodplain subject to a 1% percent or greater chance of being flooded in any given year. This area corresponds to where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V as shown on the FIRM.

**Start of construction.** Means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of the construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

**Stormwater Management Improvements.** Surface or subsurface drainage improvements, storm sewers, detention and retention ponds, and other such improvements as required by the Facilities Standards Manual (FSM), the Loudoun County Stormwater Management Ordinance, Chapter 1096 of the Codified Ordinances of Loudoun County, or the Loudoun County Erosion and Sediment Control Ordinance and Plan, Chapter 1220 of the Codified Ordinances of Loudoun County.

**Stream Corridor.** Includes the stream and extends in cross section from the channel's Ordinary High Water Mark towards the upland (perpendicular to the direction of streamflow) to a point on the landscape where channel-related surface and/or soil moisture no longer influence the plant community.

**Stream Restoration.** Converting an unstable, altered, or degraded stream corridor, including adjacent riparian area and flood-prone areas, to its natural stable condition considering recent and future watershed conditions.

**Structure.** An assembly of materials forming a construction for occupancy or use including, among others, buildings, stadiums, gospel and circus tents, platforms, stagings, observation towers, telecommunications towers, radio and TV broadcasting towers, water tanks, trestles, piers, open sheds, coal bins, shelters, walls, power line towers, pipelines, railroad tracks, manufactured homes, and gas or liquid storage tanks that are principally above ground.

**Substantial damage.** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

**Substantial improvement.** Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred flood related damages on 2 occasions in which the cost of the repair on the average equaled or exceeded 25% of the market value of the structure at the time of each such flood event or substantial damage regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
2. Any altering, repair, or rehabilitation of a historic structure, provided that the altering, repair, or rehabilitation will not preclude the structure's continued designation as a historic structure. Historic structures undergoing altering, repair, or rehabilitation that would constitute a substantial improvement as defined above, must comply with all requirements of Section 4.02 that do not preclude the structure's continued designation as a historic structure. Documentation that a specific requirement of Section 4.02 will cause removal of the structure from the National Register of Historic Places or the Virginia Landmarks Register must be obtained from the Secretary of the Interior or the State Historic Preservation Officer. Any exemption from the requirements of Section 4.02 will be the minimum necessary to preserve the historic character and design of the structure.

**Utility Lines in the Floodplain.** Storm sewers, sanitary sewers, water lines, and similar lines running generally parallel and perpendicular to the flow of the drainageway; and other public utility lines traversing a floodplain generally perpendicular to the flow of the drainageway.

**Violation.** The failure of a structure or other development to be fully compliant with this Section 4.02. A structure or other development without a FEMA approved Elevation Certificate, other certifications, or other evidence of compliance required in this Section 4.02 shall be presumed to be in violation until such time as that documentation is provided.

**Watercourse.** A lake, river, creek, stream, wash, channel, or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial damage resulting from flooding may occur.

## 5.04 Mountainside Overlay District

**Purpose.** The purpose of this Overlay District is to regulate land use and development on the mountainsides of the County, to provide for low density residential development in mountainside areas and to achieve the following goals:



- *Ensure mountainside development will not result in substantial damage to significant natural resource areas, wildlife habitats, or native vegetation areas.*
  - *Ensure that mountainside development is compatible with the slope of the land.*
  - *Ensure proper design is used in grading and in the development of structures, roadways, and drainage improvements.*
  - *Ensure mountainside conditions are properly identified and incorporated into the planning process for subdivision and site development.*
  - *Prevent erosion and minimize clearing and grading.*
  - *Protect tree cover and native vegetation.*
  - *Ensure all development is compatible with the existing topography and soils conditions.*
- A. **Authority.** Authority for provisions in Section 5.04 includes:
1. Chapter 11, Title 15.2, Code of Virginia (Planning, Subdivision of Land and Zoning);
  2. Soil and Water Conservation, Va. Code Title 10.1, Chapter 5;
  3. Environmental Quality law, Va. Code Title 10.1, Chapter 11.1;
  4. State Water Control law, Code of Virginia Title 62.1, Chapter 3.1; and
  5. Uniform Statewide Building Code;
- B. **Applicability.**
1. The MOD is defined by the presence of certain natural features such as elevation, forests, steep slopes, unstable soils, and groundwater recharge areas that are commonly associated with these areas and features, as shown on the MOD map:
    - a. **Somewhat Sensitive Areas.** Areas with potentially slight or limited environmental and/or public safety impacts from development;
    - b. **Sensitive Areas.** Areas with moderate environmental and/or public safety impacts from development; and
    - c. **Highly Sensitive Areas.** Areas with potentially severe environmental and/or public safety impacts from development.
    - d. Ridgelines.
    - e. Springs.
- C. **Uses and Activities.**
1. **Activities Not Subject to MOD Setbacks and Performance Standards.** The following Uses, Land Disturbances, or Land-Disturbing Activities are allowed within the MOD and are not subject to the Setbacks of Section 5.04.D and Performance Standards of Section 5.04.E and 5.04.F, in accordance with the following specified restrictions:
    - a. **Bona Fide Agriculture.** Bona Fide Agriculture (not including any building or structure) pursuant to Section 4.08.01, except that structures, and Agriculture that is not Bona Fide Agriculture, is subject to MOD Setbacks and Performance Standards in Section 5.04; or
    - b. **Virginia Department of Transportation, Public Utilities, and Municipal Utilities.** The Virginia Department of Transportation (VDOT), Loudoun Water, and other municipal utilities or public utilities as defined in Section 56-232 of the Virginia State Code, or public service corporations as defined in Section 56-1 of the Code of Virginia, do not require a special exception pursuant to the requirements of Section 5.04 as follows:
      1. Any Covered Activities must obtain a locational clearance approved by the Zoning Administrator and the Department of Building and Development.

2. **Covered Activities Subject to MOD Setbacks and Performance Standards.** All other Covered Activities permitted by right in the underlying zoning district are permitted in the MOD and all other Covered Activities permitted by special exception in the underlying zoning district are permitted by special exception in the MOD. These permitted and special exception Covered Activities are subject to the MOD setbacks in Section 5.04.D and performance standards in Sections 5.04.E and 5.04.F (including any applicable additional special exception approvals required pursuant to Sections 5.04.E.1, 5.04.F.1, or 5.04.F.2), except in accordance with the following limitations:

a. **Permitted Expansion of an Existing Single Family Detached Dwelling in a Highly Sensitive Area.** Any expansion of an existing single family detached dwelling that existed within a Highly Sensitive Area prior to October 4, 1995 is not required to obtain a special exception approval pursuant to Section 5.04.F.1 as follows:

1. The expansion is subject to the performance standards of Sections 5.04.E and 5.04.F and
2. The expansion does not increase the total floor area or height of the single family detached dwelling, as existed on October 4, 1995, by more than 50%.
3. The expansion is not permitted into a Mountainside Resource Protection Setback.

b. **Permitted Uses and Activities within the Mountainside Resource Protection Setbacks.** The following Covered Activities with specified limitations are permitted within the Mountainside Resource Protection Setbacks required under Section 5.04.D, pursuant to the performance standards of Sections 5.04.E and 5.04.F:

1. Fences and associated clearing to the minimum extent necessary for the installation and maintenance of the fence. Fences must not obstruct surface water flow;
2. Publicly accessible trails and other passive recreation facilities, including facilities for pedestrian, bike or other non-motorized uses, provided that such facilities are designed with permeable materials;
3. Remedial revegetation and site restoration using Native Plants in accordance with the FSM and restored to pre-land disturbance conditions except that the removal of invasive plant species is required in accordance with the reforestation standards in the Facilities Standards Manual; and
4. **Up to 1 Single-Family Dwelling on an Existing Lot of Record in Mountainside Resource Protection Setbacks.** On any existing lot of record as of the adoption date of this Ordinance containing a Mountainside Resource Protection Setback pursuant to Section 5.04.D, up to 1 single-family dwelling and an accessory unpaved or permeable surfaced and maintained driveway or parking area, and/or detached garage, and incidental structures is permitted.

3. **Prohibited Covered Activities.**

- a. Extractive Industries are prohibited within the MOD.

D. **Mountainside Resource Protection Setbacks.**

1. Covered activities are subject to the following setbacks.

- a. **Ridgeline Protection Setback.** Except as permitted by Section 5.04.C, Covered Activities are not permitted within Ridgelines.
- b. **Spring Protection Setback.** Except as permitted by Section 5.04.C., Covered Activities must be setback at least 100 feet from a spring. This setback does not apply to the expansion or construction of any public reservoir on Catoctin Creek.

2. **Subdivision of land within Mountainside Resource Protection Setbacks.** Any application for subdivision of land subject to any of the Mountainside Resource Protection Setbacks set forth in Section 5.04.D must provide an exhibit, plat, or plan demonstrating a Buildable Area exclusive of any Mountainside Resource Protection Setback area on any lot meeting the minimum lot requirements.

- E. Performance Standards in Somewhat Sensitive and Sensitive Areas.** Covered Activities in Somewhat Sensitive and Sensitive Areas of the MOD must comply with the following standards:
1. The subdivision of land into 3 or more lots in Sensitive Areas requires a Special Exception approval except as not required pursuant to Section 5.04.C.3.
  2. In somewhat sensitive areas, land disturbing activities exclusive of a dwelling, driveway, drainfield, and wells are permitted subject to the following:
    - a. Selective clearing, to the extent necessary to locate the use, of up to 50% of forestal areas on existing slopes less than 15%.
    - b. Selective clearing, to the extent necessary to locate the use, of up to 25% of forestal areas on existing slopes of 15% to 25%.
    - c. No clearing of existing slopes greater than 25% except the minimum necessary to locate the use.
    - d. The limits of land disturbing activities are reduced by 50% in the following soil conditions associated with major groundwater recharge areas: soil mapping units 27, 48, 50, 52, 54, 55 and 89.
  3. On lots in Sensitive Areas containing 10 acres or less, no more than 1 acre of land disturbing activity is permitted, exclusive of a dwelling, driveway, drainfield, and well. On lots containing more than 10 acres, land disturbing activities must not exceed 10% of the lot exclusive of a dwelling, driveway, drainfield, and well. In addition to these constraints, where the existing slope is 15% or greater, land disturbing activity limits are reduced by 50% and are permitted only if the applicant demonstrates that no suitable alternative locations exist on areas with existing slopes less than 15%.
  4. A grading plan is required in Sensitive Areas that demonstrates methods to minimize erosion.
  5. No land disturbing activity is permitted on soil mapping units 59 or 88 except for access roads and driveways when no alternatives exist.
  6. Prior to any land disturbing activity on existing slopes of 25% or more, or in soil mapping units 27, 59, 88 or 89, the applicant must provide a Type I Preliminary Soils Review in accordance with the FSM concurrent with Zoning Permit application.
  7. Prior to any land disturbing activity, the applicant must provide a scaled exhibit that shows the existing and proposed slope contour and ground cover and how the disturbed area will be restored. If the exhibit is associated with an application, the exhibit must be the same size and scale as the associated application.
- F. Performance Standards in Highly Sensitive Areas.** Covered activities in Highly Sensitive Areas of the MOD must comply with the following standards in addition to the Performance Standards in Somewhat Sensitive and Sensitive Areas set forth in Section 5.04.E. If there is a conflict between these sections, the more restrictive standard applies.
1. A special exception approval is required for all Covered Activities in Highly Sensitive Areas, except as not required pursuant to Section 5.04.C.3.
  2. The subdivision of land into 3 or more lots in Highly Sensitive Areas requires a Special Exception approval except as not required pursuant to Section 5.04.C.3.
  3. No land disturbances land disturbing activity is permitted on soil mapping units 59 or 88 except for access roads and driveways when no alternatives exist.
  4. The centerline grade of private roads and driveways must not exceed 14%. Under drainage and culvert design must conform to the requirements of the FSM.
  5. Land disturbances and land disturbing activity, exclusive of utility easements, must be minimized and require a grading permit, but are allowed as necessary for building sites and related improvements, not to exceed 1 acre exclusive of a dwelling, driveway, drainfield and well, and existing cleared areas. Conditions for limiting clearing for a Special Exception required pursuant to Section 5.04.F may include, but not be limited to:
    - a. Selective clearing up to a maximum 50% of existing forest areas on existing 0-15% slopes.

- b. Selective clearing up to a maximum 25% of existing forest areas on existing 15-25% slopes; and
  - c. Minimal clearing for roads and driveways on existing slopes of greater than 25%.
6. Standards set out in Sections 5.04.F.1, 5.04.F.2, and 5.04.F.3 may be modified by Special Exception Review procedures set forth in Section 11.11 if the application satisfies the public purpose of those standards to an equivalent degree.
  7. Where a site is served by groundwater, a proven supply approved by the County Health Department must be provided as follows:
    - a. **Existing lots.** Prior to issuance of a zoning permit.
    - b. **Lots created after October 4, 1995.** Prior to approval of a record plat.
    - c. Such other standards which are relevant, including Section 11.11 Factors for Consideration and Section 1.02, Purposes of Zoning Goals, Purpose, and Intent.
- G. **Additional MOD Procedures.** Refer to Section 11.01.F.3.d for additional MOD procedures and submission requirements.

## 5.05 Limestone Overlay District

**Purpose.** *The purpose of this Overlay District is to preserve and protect the unique geologic characteristics and the groundwater quality in its limestone area. The provisions of Section 5.05 are intended to regulate land use and development in areas underlain by limestone and in areas with Karst features and Karst terrain to:*

- *Protect the health, safety, and welfare of the public, resulting from subsidence or other earth movement;*
- *Protect groundwater and surface water resources from contamination; and*
- *Reduce the potential for property damage resulting from subsidence or other earth movement.*

A. **Authority.** Authority for these provisions includes:

1. Chapter 11, Title 15.2, Code of Virginia (Planning, Subdivision of Land and Zoning);
2. Soil and Water Conservation, Code of Virginia Title 10.1, Chapter 5;
3. Environmental Quality law, Code of Virginia Title 10.1, Chapter 11.1;
4. State Water Control law, Code of Virginia Title 62.1, Chapter 3.1; and
5. Uniform Statewide Building Code;

B. **Applicability.**

1. **Covered Activities.** Section 5.05 applies to Covered Activities within the Limestone Overlay District (LOD) except Covered Activities that are not subject to LOD setbacks and development standards under Section 5.05.B.2.
2. **Covered Activities Not Subject to LOD Setbacks and Development Standards.** The following Covered Activities are permitted within the LOD subject to any associated specified regulations, and are not subject to LOD Setbacks and Development Standards:
  - a. **Bona Fide Agriculture.** Bona Fide Agriculture (not including any building or structure), pursuant to Section 4.08.01. Except as specified in Section 5.05.B.2.d., structures, and Agriculture that is not Bona Fide Agriculture, is subject to all regulations in Section 5.05; or
  - b. **Gardens.** Gardens, except that no cutting, filling, or berming is required to create such garden; or
  - c. **Paving of Existing Driveways.** The paving of any driveway that existed on February 17, 2010, except that any proposed paving requires a locational clearance approved by the Department of Building and Development; or

- d. **Structures or Land Disturbance of 720 Square Feet or Less.** Any land disturbing activities or structures involving the disturbance of 720 square feet or less of land, except that:
  - 1. Land disturbing activities are not permitted within 20 feet of a Karst/Sensitive Environmental Feature;
  - 2. No structures, even if 720 square feet or less, are permitted within the Karst/Sensitive Environmental Feature Setback;
  - 3. This exemption does not apply to swimming pools, principal dwellings, and accessory dwellings, or to structures or land disturbing activities whose purpose is to change water flow; and
  - 4. This exemption does not apply to wells, except in cases involving the replacement of a dry well serving an existing inhabited structure.

**C. Identification of Karst/Sensitive Environmental Features and Required Setbacks.**

- 1. **Geophysical Study.** For all Covered Activities on properties subject to the LOD as identified on the LOD Map, the applicant must submit a Geophysical Study in accordance with Chapter 6 of the FSM. The Geophysical Study must identify the following Karst/Sensitive Environmental Features associated with limestone bedrock:
  - a. Sinkholes, Swallets, or Closed depressions.
  - b. Rock outcrops.
  - c. Underground solution channels within 45 feet of the surface.
  - d. Cave openings.
  - e. Springs.
  - f. Perennial Sinking Streams.
- 2. **Geotechnical Report.** A Geotechnical Report in accordance with Chapter 6 of the FSM is required to verify the location, extent, and conditions of any of the Karst/Sensitive Environmental Features listed in Section 5.05.D.1 whenever recommended by the Geophysical Study.
- 3. **Karst/Sensitive Environmental Feature Setbacks.** Each Karst/Sensitive Environmental Feature within the LOD including, without limitation, those identified by any required Geophysical Study, or any Preliminary Soils Review as required by the Facilities Standards Manual, must be identified on the land development application and is subject to the setbacks specified below in Table 5.05-1:

**Table 5.05-1 Karst/Sensitive Environmental Feature Setbacks**

Karst/Sensitive Environmental Feature	Minimum Setback (in feet) <sup>1</sup>
Rock Outcrop (setback required for drilling any well)	10
Sinkhole, swallet, or closed depression	100
Cave Opening	100
First emergence of a spring	100
First emergence of a spring that is on a slope greater than 15% and is downslope from the land disturbing activities, development, or impervious surface coverage	200
Perennial Sinking Stream	100
Underground solution channels within 45 feet of the surface	50
Any other identified Karst/Sensitive Environmental Feature	50

<sup>1</sup> The minimum setback is measured outward from the outermost edge of the Karst/Sensitive Environmental Feature as described in Table 5.05-1.

4. **Reduction of the Karst/Sensitive Environmental Feature Setbacks.** The Karst/Sensitive Environmental Feature Setback may be reduced by up to 50% if the Geophysical Study concludes that the risks of collapse and groundwater contamination are non-existent or insignificant for the proposed location and use. However, no reduction is permitted for the Karst/Sensitive Environmental Feature Setback associated with the following:

- a. Any Perennial Sinking Stream.
- b. Any spring.
- c. Any sinkhole, swallet, closed depression, or cave opening that receives either a perennial or intermittent sinking stream.
- d. Any rock outcrop (for drilling any well).

#### D Uses and Activities.

1. **Prohibited Pollution Sources.** The following uses and activities are prohibited within the LOD:

- a. Facilities or uses that generate or manufacture hazardous substances.
- b. Storage of hazardous substances in an aggregate amount greater than 55 gallons (or the dry weight equivalent) on site at any one time, excluding heating oil or gasoline within above ground storage tanks.
- c. Automotive Use Category uses identified in Section 3.02.
- d. Underground storage tanks, except for propane tanks and water cisterns shown on an approved Geophysical Study.
- e. Waste-related Use Category uses identified in Section 3.02.
- f. Convenience store (with gasoline sales).

2. **Permitted Uses and Activities Within Karst/Sensitive Environmental Feature Setbacks.**

- a. The following Covered Activities are permitted within Karst/Sensitive Environmental Feature Setbacks subject to required LOD Development Standards under Section 5.05.E and Mitigation Measures under Section 5.05.F and in accordance with the specified limitations:

1. Fences that do not obstruct surface water flow.
2. Publicly accessible trails and other passive recreation facilities, including facilities for pedestrian, bike or other non-motorized uses, provided that such facilities are designed with permeable materials and setback a minimum of 25 feet from each Karst/Sensitive Environmental Feature.
3. Restoration and vegetation, including the removal of invasive plant species in accordance with the reforestation standards in the Facilities Standards Manual.
4. Residential structures are prohibited within Karst/Sensitive Environmental Feature Setbacks (as set forth in 5.05.D.3 or as may be reduced pursuant to the provisions in Section 5.05.D.4), except as follows:

1. On any lot existing on February 17, 2010, where there is no feasible development site available outside of the Karst/Sensitive Environmental Feature Setback, a single principal dwelling, and/or a drainfield for such principal dwelling, if otherwise permitted under this Zoning Ordinance, may be permitted if, prior to the approval of a Zoning Permit, the following requirements are met:
  - a. A Geophysical Study is provided for the proposed principal dwelling and/or drainfield.
  - b. All recommendations of the Geophysical Study are complied with.
  - c. Such principal dwelling and/or drainfield, is sited on the lot as far from the Karst/Sensitive Environmental Feature as feasible.

- d. If the Geophysical Study shows that subsidence poses a serious risk to public health or safety or to the safety of residents or users of the proposed principal dwelling and/or drainfield, the design of the proposed principal dwelling and/or drainfield must be certified, both structurally and geotechnically, by a professional engineer.
    2. No structures for uses other than a principal dwelling and/or drainfield (i.e. no structures for accessory uses) are permitted within the Karst/Sensitive Environmental Feature Setback.
  3. **Permitted Uses and Activities Outside of Karst/Sensitive Environmental Feature Setbacks.**
    - a. **Permitted By Right.** Except for Prohibited Pollution Sources under Section 5.05.E.1, all uses and structures permitted by right in any underlying zoning district(s) and any applicable overlay zoning district are permitted within the LOD if located outside of the Karst/Sensitive Environmental Feature Setbacks, subject to development standards under Section 5.05.E and mitigation measures under Section 5.05.F.
    - b. **Permitted By Special Exception.** Except for Prohibited Pollution Sources under Section 5.05.E.1, all uses and structures permitted by special exception in any underlying zoning district(s) and any applicable overlay zoning district may be permitted within the LOD by separate special exception approval pursuant to Section 11.11 if located outside of the Karst/Sensitive Environmental Feature Setbacks, subject to development standards under Section 5.05.E and mitigation measures under Section 5.05.F.
  4. **Permitted Changes to Legally Existing Covered Activities within the LOD.** The expansion, alteration, or reconstruction of existing buildings, structures, and impervious surfaces that legally existed on February 17, 2010, is permitted and is not subject to the Development Standards under Section 5.05.E or Mitigation Measures under Section 5.05.F, provided that:
    - a. Such alteration does not increase the total footprint of a building or structure, or increase total impervious surface area (exclusive of existing buildings and structures), as it existed on February 17, 2010, by more than 25% or 2,000 square feet, whichever is greater, and;
    - b. Any such expansion, alteration, or reconstruction does not encroach into a Karst/Sensitive Environmental Feature Setback.
    - c. If the existing building, structure, or impervious surface is located within a Karst/Sensitive Environmental Feature Setback, then such expansion, alteration, or reconstruction must not get closer to the Karst/Sensitive Environmental Feature than the closest point of the existing building, structure, or impervious surface as it existed on February 17, 2010.
    - d. If expansion away from a Karst/Sensitive Environmental Feature is not feasible, then such expansion may get closer to the Karst/Sensitive Environmental Feature if such expansion is in conformance with Section 5.05.D.2.4.
    - e. A locational clearance for the expansion or alteration is approved by the Department of Building and Development.
    - f. A locational clearance is not required for the reconstruction of a building, structure, or impervious surface in the exact location it occupied on February 17, 2010.
  5. **Creation of New Lots within the LOD.** Prior to approval of any buildable lot created after February 17, 2010, the applicant must demonstrate on a scaled plat, plan, or exhibit that there is a sufficient area on the lot outside of the Karst/Sensitive Environmental Feature Setbacks for intended uses, to include sewage disposal and well sites, where applicable, unless an approved sewage disposal site already exists that is subject to Section 1066.17 of the Codified Ordinances and/or an approved well site already exists that is subject to Section 1040.19 of the Codified Ordinances.

- E. **Development Standards for the LOD.** Unless otherwise specified in the LOD, all Covered Activities in the LOD are subject to the following development standards:
1. **Structures in Potential Subsidence Areas.** Structures are prohibited in all areas where a Geophysical Study indicates that potential subsidence may occur that would cause property damage, physical injury, or harm to the public or future residents, unless there are no alternative locations within a given lot of record, and a subsequent Geotechnical Report indicates that such potential harm can be mitigated. In such cases the structures must be constructed in accordance with all mitigation techniques recommended by the Geotechnical Report.
  2. **Site Grading.** A grading permit is required for all land disturbing activities. Site grading, including any fill or berm placement, must maintain natural drainage patterns. A Geophysical Study is required for all berms and filling operations.
    - a. If no alternative exists other than to impact natural drainage patterns, then drainage must be designed to avoid damage to Karst/Sensitive Environmental Features as identified in the required Geophysical Study, and in any subsequently required Geotechnical Report, by mimicking pre-development volumes.
  3. **Surface Water Run-Off.**
    - a. Non-point source pollution load of surface runoff from land disturbing activity that is naturally conveyed to a Karst/Sensitive Environmental Feature identified in Table 5.05-1 must meet the stormwater quantity and quality standards specified in Chapter 5 of the FSM prior to entering such feature(s).
    - b. Surface water runoff must not be redirected or concentrated to enter a Karst/Sensitive Environmental Feature identified in Table 5.05-1.
    - c. Post-development flow of surface water runoff to a Karst/Sensitive Environmental Feature identified in Table 5.05-1 that receives a sinking stream must be the same as pre-development flow of surface water runoff to such Karst/Sensitive Environmental Feature.
  4. **Limits of Disturbance and Revegetation.** Disturbed areas must be limited to what is necessary to locate the use, and any disturbed areas that are not covered by paving, stone, or other solid materials must be revegetated.
  5. **Water Supply.** Water supply is subject to Section 6.200 of the FSM, the Virginia Department of Health Private Well Regulations and/or the Virginia Department of Health Waterworks Regulations as applicable, and the following standards:
    - a. Wells are allowed in the LOD for individual lots and subdivisions with fewer than 15 lots, and for subdivisions in which each lot of the subdivision contains 10 or more acres of land. Installation of wells is subject to Chapter 1040 of the Codified Ordinances and Section 1245.10 of the LSDO.
    - b. Communal Water Supply Systems are required for all subdivisions of 15 or more lots approved after February 17, 2010, except for subdivisions in which each lot of the subdivision contains 10 or more acres of land.
      1. If a Communal Water Supply System is required for the subdivision, all lots must be served by the Communal Water Supply System.
  6. **Sewage Disposal.** Sewage is subject to the following standards:
    - a. Individual Sewage Disposal Systems. Individual Sewage Disposal Systems, are allowed in the LOD for individual lots and subdivisions with fewer than 15 lots, and for subdivisions in which each lot of the subdivision contains 10 or more acres of land. Individual Sewage Disposal Systems are subject to Chapter 1066 of the Codified Ordinances, and Chapter 1067 of the Codified Ordinances if applicable, Section 1245.10 of the LSDO, and must comply with requirements of the Virginia Department of Health – Division of Sewage and Water Services and the Loudoun County Health Department.



- b. **Public Sewer or Communal Wastewater Systems.** Public Sewer or Communal Wastewater Systems designed in accordance with applicable LCSA standards are required for all subdivision of 15 or more lots approved after February 17, 2010, except for subdivisions in which each lot of the subdivision contains 10 or more acres of land or if the applicant demonstrates to the County that other types of systems are available that will achieve and maintain the same or superior treatment results. Communal Wastewater Systems in the LOD are subject to the following standards:
  - a. Public Sewer or Communal Wastewater Systems must be located outside of Karst/Sensitive Environmental Feature Setbacks if sufficient Buildable Area exists on the property; or
  - b. Where insufficient Buildable Area exists on the property outside of the Karst/Sensitive Environmental Feature Setbacks the following standards must be met:
    - a. As much of the proposed Public Sewer or Communal Wastewater System must be located outside the Karst/Sensitive Environmental Feature Setbacks as possible; and
    - b. The applicant must demonstrate through a Geophysical Report and Detailed Soils Site Investigation Report acceptable to the County that the Public Sewer or Communal Wastewater System will:
      - A. Not result in a change in the levels of pre-development run-off within the Karst/Sensitive Environmental Setbacks area.
      - B. Enhance soils filtration.
      - C. Not have an adverse environmental impact on underlying aquifers and groundwater.
    - c. All Public Sewer or Communal Wastewater Systems must be capable of producing secondary effluent, or better, as identified in the Sewage Handling and Disposal Regulations of Virginia.
- 7. **Golf Course Use.** Any golf course use within the LOD must meet the following standards:
  - a. A Water Management Plan must be approved by the Department of Building and Development; and
  - b. A Nutrient Management Plan must be approved by the Loudoun County Soil and Water Conservation District and the Department of Building and Development.
- 8. **Stormwater Management Best Management Practice Facilities (BMPs).** BMP facilities constructed within the LOD must meet the following standards:
  - a. Must not be located within Karst/Sensitive Environmental Feature Setbacks.
  - b. Must provide a Geophysical Study.
  - c. Stormwater management ponds, sediment traps, and sediment basins must be lined with impervious materials in accordance with Chapter 5 of the FSM.
- 9. **Irrigation Systems.** Irrigation systems are prohibited unless the water for such system is supplied from a source that is not dependent on groundwater, such as, but not limited to, cisterns and stormwater management ponds. Communal Water Supply Systems that obtain water through communal wells are not an acceptable source of water for irrigation systems.
- 10. **Explosives and Blasting.** Blasting within LOD is subject to Section 6.157 of the FSM.
- 11. **Notice to Property Owners.** The following or similar language must be contained in all deeds of conveyance and on all subdivision plats and site plans applicable to land in the LOD:
  - a. "In addition to the requirements of any underlying zoning district(s) and any other applicable zoning overlay districts, this property also is subject to the requirements of the Limestone Overlay District (LOD). Please contact the Zoning Administrator for more information."
  - b. "Maintenance of Individual Sewage Disposal Systems must be done in accordance with all State and County requirements to help prevent potential groundwater contamination."

- F. **Mitigation Measures for the LOD.** In addition to compliance with the development standards in Section 5.05.F, Covered Activities must employ measures necessary to mitigate any potential adverse impacts to the County's subsurface water resources or Karst/Sensitive Environmental Features associated with limestone bedrock, as identified in the required Geophysical Study as set forth in Section 5.05.D, and any subsequently required Geotechnical Report, or in any other study required by the Zoning Ordinance, LSDO, or FSM.
1. **General.** Mitigation measures must be directly related to proposed land disturbing activities and its potential adverse impact on the County's water resources or Karst/Sensitive Environmental Features associated with limestone bedrock identified on the subject property.
  2. **Mitigation Measures.** If mitigation measures are recommended by a study required by the Zoning Ordinance, LSDO, or FSM to protect against ground surface collapse, surface or groundwater pollution, and/or spring contamination, the County must require such measures to mitigate the identified adverse impacts. Such measures may include, but are not limited to, the following list. This provision must not be construed to limit the County's ability to impose mitigating conditions in its review of special exception applications, nor its ability to accept mitigating proffers in its review of zoning map amendment applications:
    - a. **Ineligibility for Density Increases.** The applicant may not be eligible for density increases otherwise permitted for cluster subdivisions under the Zoning Ordinance.
    - b. **Use of a Cluster Subdivision.** Where not otherwise required by this Zoning Ordinance, the County may require that new lots be created through a cluster subdivision.
    - c. **Landscaping and Reductions in Impervious Surface Coverage.** The County may require:
      1. Reductions in the maximum impervious surface coverage allowed.
      2. Reductions in the area devoted to landscaped lawns.
      3. Use of xeriscape (i.e., use of native plant materials and landscape materials that have lower water and nutrient requirements).
    - d. **Storage Tank Testing and Containment.** The County may require leak testing and secondary containment for above ground storage tanks other than propane or water tanks.
    - e. **Conservation of Native Plants.** The County may require retention of existing Native Plant vegetation to the maximum extent feasible, and in accordance with Tree Conservation Standards in Chapter 7 of the FSM.
    - f. **Groundwater Protection.** The County may require the applicant to establish a regular system of groundwater monitoring by a qualified professional for the proposed development and such other measures as may be recommended by other County Ordinances.
    - g. **Prohibition of Additional Specific Pollution Sources.** The County may prohibit specific pollution sources, as defined in Chapter 5 of the FSM as "stormwater hotspots," and other uses and activities with high risk of releasing pollutants, if the applicant does not propose effective mitigation measures acceptable to the County, provide evidence that such pollution sources will be monitored, and that facility design standards will be followed.
- G. **Additional LOD Procedures.** Refer to Section 11.01.F.3.c for additional LOD procedures and submission requirements.

## 5.06 Quarry Notification Overlay District

**Purpose.** *The purpose of this Overlay District is to acknowledge the unique land use impact of a quarry on neighboring land uses and the need to notify the owners of the presence of a neighboring quarry.*

### A. **Applicability.**

1. **District Boundaries.** The QNOD boundaries are based on the presence of quarrying operations at any location in the County. The QNOD includes all parcels within 3,000 feet of any property approved for quarrying operations whether or not blasting operations occur on such property.
- B. **Use Limitations.** In addition to the use limitations and regulations for the zoning district over which the QNOD is located, the following use limitation applies:
  1. **Full Disclosure Statement.** For all residential and/or nonresidential structures constructed within the QNOD, the owner must disclose in writing to all prospective purchasers that they are located within an area that may be impacted by quarry operations and blasting. Such notification will be accomplished by inclusion of this information in all of the following:
    - a. Sales contracts.
    - b. Brochures.
    - c. Promotional documents.
    - d. Illustrative site plan(s) on display within any sales related office(s).
    - e. Homeowner association documents.
    - f. Subdivision plats and site plans.
    - g. Deeds of conveyance.

## 5.07 Village Conservation Overlay District – VCOD

---

**Purpose:** *The purpose of this overlay district is to:*

- *Implement the Rural Historic Village Place Type of the General Plan.*
  - *Recognize that each Rural Historic Village has a unique character linked to its historic development pattern, spatial organization, and location within the County and sense of place that should be preserved and enhanced.*
  - *Support the retention and reinforcement of historic development patterns, character, and visual identity of individual villages.*
  - *Protect the small, compact, pedestrian-scale, rural communities characterized by low-density residential development situated on smaller lots interspersed with limited commercial uses and encourage extension of this development pattern when new construction occurs.*
  - *Protect and reinforce the commercial core of villages that provides for the daily needs of village residents, surrounding rural residents, and visitors.*
  - *Ensure new commercial and residential construction is designed to complement surrounding properties and maintain the existing development pattern within each Village by:*
    - *Respecting each village’s historic precedents for lot size, building setbacks, spacing, and orientation to the road.*
    - *Considering the context of each village’s historic buildings by designing new buildings that are compatible in siting, size, scale, massing, materials, design details, and roof forms.*
  - *Maintain areas of open space and natural areas on the perimeter of the villages to retain a hard edge and visual separation of the Rural Historic Villages from the surrounding agricultural landscape.*
  - *Preserve existing trees and vegetation, which define building lots and contribute to the streetscape.*
- A. **Applicability.** The Village Conservation Overlay District (VCOD) is established as an overlay district, meaning that it is a district overlaid upon other districts. Land within the VCOD may be used as permitted in the underlying district, subject to the VCOD Development Standards of this district.
  - B. **District Boundaries.** The VCOD boundaries are as established on the adopted zoning map and affect the following villages set forth below.

1. Aldie
  2. Ashburn
  3. Bluemont
  4. Bowmantown (also known as Aldie Mountain)
  5. Lincoln
  6. Loudoun Heights
  7. Lucketts
  8. Neersville
  9. Paeonian Springs
  10. Philomont
  11. St. Louis
  12. Taylorstown
  13. Waterford
- C. **Expansion of VCOD Boundaries.** Expansion of the VCOD is only permitted in areas designated as the Rural Historic Village Place Type in the General Plan.
- D. **VCOD Development Standards.** When the following requirements conflict with other provisions of this Ordinance, the following requirements apply unless otherwise noted:
1. **Building Height.** Proposed buildings must have a building height that does not exceed 25% of the average height of principal buildings on the same side of the road within 150 feet of both sides of the lot or lots being developed.
    - a. The building height is not permitted to exceed the maximum building height permitted in the underlying zoning district.
  2. **Building Features.** Proposed buildings should be consistent with the following building design elements of existing buildings within 300 feet of the lot or lots being developed:
    - a. Building stories;
    - b. Roof type;
    - c. Front or side (if visible from the road) porch type and location; and
    - d. Building orientation.
  3. **Building Area.** The gross square footage of proposed buildings must be within 50% of the average gross square footage of principal buildings on the same side of the road within 150 feet of both sides of the lot or lots being developed.
  4. **Average Front Yard.** Notwithstanding the front yard requirements for the underlying zoning district, the depth of a front yard on a lot on which a principal building or an addition to an existing principal building is proposed must have a front yard depth that is within 25% of the average distance between principal buildings and front lot lines of lots on the same side of the road and within 150 feet of both sides of the lot being developed.
  5. **Average Side Yard.** The depth of the side yard on a lot on which a principal building or an addition to an existing principal building is proposed must have a side yard depth that is within 50% of the average distance between principal buildings and side lot lines on the same side of the road and within 150 feet of both sides of the lot being developed.
    - a. Side yards are not permitted to be less than the minimum side yard permitted in the underlying zoning district.

6. **Average Rear Yard.** Notwithstanding the rear yard requirements for the underlying zoning district, the depth of the rear yard on a lot on which a principal building or an addition to an existing principal building is proposed must have a rear yard depth that is within 50% of the average distance between principal buildings and rear lot lines of lots on the same side of the road and within 150 feet of both sides of the lot being developed.
7. **Lot Coverage.** The maximum lot coverage for existing lots less than 1 acre in size may be increased by up to 25% of the maximum lot coverage permitted in the underlying zoning district for the purpose of constructing an addition to an existing principal building or an accessory building.
8. **Maximum Lot Size.** The size of any new lot created after the adoption date of this ordinance is not permitted to be greater than the largest existing lot along the same road as and within 100 feet of the new lot.
9. **Variation of Lot Sizes and Dimensions.** In all new subdivisions containing 6 or more lots, a mixture of lot sizes and dimensions must be provided as follows:
  - a. No more than 33% of all lots are permitted to be similar in total lot area.
    1. For purposes of this subsection, “similar” lot areas is defined as within 500 square feet of each other.
  - b. The lot width for new lots must be within 51% of the average of the smallest lot width and the largest lot width of existing residential lots within 300 feet of the subject lot or lots to be subdivided.
    1. *Exception.* If the subject lot or lots to be subdivided is not within 300 feet of an existing residential lot in the VCOD, the lot width requirement does not apply.
  - c. Larger and wider lots are encouraged on corners.
  - d. Smaller lots are encouraged adjacent to parks and open spaces.
10. **Garage Standards.** Garages constructed in the VCOD after the adoption date of this ordinance must meet the following requirements.
  - a. Front-loaded garages are subject to a set back at least 20 feet behind the front plane of all principal buildings.
    1. *Exception.* When a lot on the same side of the road and within 150 feet of the subject lot has a garage with a setback less than 20 feet from the front plane of all principal buildings on such lot, the minimum garage setback may be equal to the garage setback on such lot.
  - b. Garages must be detached from the principal building.
  - c. The maximum width and height of a garage door opening is the width and height needed to accommodate two automobiles.
11. **Connections to Existing Roads.** Within the VCOD, the connections to the existing road network for any new development must be provided pursuant to Section 7.07.02 and as follows:
  - a. If feasible, the new road must be designed in a way that does not dead end and require a cul-de-sac, i.e., the road must connect to another road at each end.
  - b. The road network for new developments of 6 or more lots must connect to existing roads where feasible and continue the predominate road pattern in the village.
    1. When blocks are the predominate road pattern, the length of new blocks must be within 30% of the average existing length of blocks in the village; and
    2. Blocks designed to include a mid-block through-alley may be a maximum of 2 times the average existing length of blocks without a mid-block through-alley in the village.
  - c. All development plans must incorporate and continue all roads stubbed out to or shown as stubbed out to the boundary of the development by previously approved development plans/plats or existing development.

12. **Sidewalks.** Sidewalks may be provided for the lot or lots being developed in accordance with the Facilities Standards Manual (FSM).
13. **Street Trees.** Street trees must be provided in accordance with Section 7.04.02.E.

## 5.08 Historic Overlay District

---

**Purpose.** The purpose of the Historic Overlay District (HOD) is to:

- Protect the historic character and resources of established HODs in the County.
  - Foster civic pride and preserve an appreciation for the historic values on which the County and the Nation were founded.
  - Maintain and improve property values.
  - Protect and enhance the County's attraction to tourists and visitors.
  - Provide for the education and general welfare of the people of the County.
  - Protect against destruction of or encroachment upon historic areas.
  - Promote the general welfare through the preservation and protection of historic places and areas of historic interest in the County.
  - Otherwise accomplish the general purposes of this Zoning Ordinance, the General Plan, and the provisions of Chapter 22, Title 15.2, Code of Virginia of 1950, as amended.
- A. **Authority.** HODs are regulated in accordance with the provisions §§ 15.2-2306 and 15.2-2283 of the Code of Virginia of 1950, as amended.
- B. **Applicability.** The requirements of Section 5.08 apply to each parcel located in the County HOD established pursuant to Section 11.10.08. HODs are regulated in accordance with the provisions of:
1. Section 5.08, Section 12.03, and Section 11.10.08 of this Zoning Ordinance; and
  2. The individual Historic District Guidelines for any established HOD, which are hereby incorporated into, and adopted as part of, this Zoning Ordinance.
- C. **Certificate of Appropriateness – Administrative for Minor Actions (CAPA).** The Zoning Administrator has the authority to approve CAPAs for the following minor actions.
1. Minor amendments to a previously approved CAPP where the work authorized by the previously approved CAPP has not been completed and the proposed amendment is in substantial conformance with the previously approved CAPP.
  2. Installation, removal, or replacement of fences and gates.
  3. Installation, removal, or replacement of signs, pursuant to Chapter 8.
  4. Removal of non-contributing material.
  5. Minor alteration of a non-contributing structure.
  6. Construction of accessory structures that are 250 square feet or less.
  7. Replacement of windows and/or doors.
  8. Installation or replacement of storm windows and storm doors.
  9. Replacement of siding.
  10. Replacement of roofs.
  11. Minor alteration to small architectural details, to include, without limitation, shutters, lighting fixtures, gutters, and downspouts.
  12. Screening of utilities, trash cans, and dumpsters.

13. Demolition of non-contributing accessory structures and site elements.
- D. **Certificate of Appropriateness (CAPP).** The HDRC has the authority to approve CAPPs for the following purposes:
  1. **Erection, Reconstruction, Alteration, Moving, or Restoration.** No building or structure, including fences, walls, and signs, is permitted to be erected, reconstructed, altered, moved, or restored within an HOD unless and until the HDRC has approved a CAPP, except as otherwise provided below.
    - a. **Exemption.** Ordinary repairs and/or maintenance of an exterior feature that do not involve a significant change in design, material, or outer appearance do not require HDRC approval of a CAPP.
    - b. **Exception.** A building or structure does not require HDRC approval of a CAPP if:
      1. The Zoning Administrator determines, in conjunction with the application for a zoning permit, that the proposed work would not have a clear and substantial detrimental impact on the character of the HOD; and
      2. The work to be completed is to a building or structure primarily used for farm purposes; and
      3. The building or structure is located on a parcel that meets one of the following:
        - a. Classified by the Office of the County Assessor under the land use tax assessment program as Agriculture.
        - b. Subject to a farm plan approved by the Loudoun County Soil and Water Conservation District.
  2. **Razing or Demolition.** No permit to raze or demolish a building or structure, including fences, walls, and signs, within an HOD will be approved unless and until the HDRC has approved a CAPP.
    - a. **Exception.** Buildings, structures, fences, wall, or signs within an HOD may be razed or demolished without a CAPP in accordance with Sections 5.08.C., 5.08.H., or 5.08.I.
  3. **Minimum Yard and Setback Reductions in HODs.** The Zoning Administrator will grant a reduction of the minimum yard or setback applicable to a building or structure in an HOD if the following criteria are met.
    - a. The HDRC must approve a CAPP that includes the reduction of the minimum yard and/or setback requirements and make a finding that such yard and/or setback reduction is consistent with the existing streetscape and adopted Historic District Guidelines for the HOD, and
    - b. The reduction of the yard and/or setback requirement does not violate sight distance regulations of Section 7.07.04 and of the Virginia Department of Transportation.
- E. **CAPP and CAPA Application and Procedures.** All CAPP and CAPA requests must follow the application and procedures requirements of Section 11.13.
- F. **Required Maintenance and Demolition by Neglect.** The owner of any building or structure, including fences, walls, and signs, located within an HOD must:
  14. Maintain buildings and structures in accordance with Chapter 1410 of the Codified Ordinances of Loudoun County; and
  15. Prevent any deterioration or decay to buildings and structures, including fences, walls, and signs, that may result in a loss of its structural integrity, cause any unsafe or hazardous condition, or produce a detrimental effect upon the character of the HOD or the life and character of the building or structure. Such deterioration includes, without limitation, the following:
    - a. Deterioration of any exterior architectural feature.
    - b. Deterioration of any exterior wall or other structural support.
    - c. Deterioration of any roof or element of the roof support system.
    - d. Deterioration of any chimney.
    - e. Deterioration or crumbling of exterior stucco, plaster, or mortar.

- f. Ineffective waterproofing of, or lack of a protective coating on any exterior wall, roof, and foundation, to include, without limitation, broken windows and doors.
  - g. Poorly maintained landscaping or plant overgrowth, to include, without limitation, any dead overhanging tree or limb, root, or invasive tendrilled climbing vine, causing, or which may cause, damage or deterioration.
- G. The County may institute appropriate procedures for the acquisition of any building or structure that remains in a substantially deteriorated or deteriorating condition following notice to the owner thereof that the owner is in violation of Section 5.08.D of this Ordinance.
- H. **Right to Raze or Demolish.** The owner of any historic landmark, building, or structure located within an HOD is, as a matter of right, entitled to raze or demolish such historic landmark, building, or structure provided that the following conditions are met.
1. The owner has submitted an application for a CAPP to raze or demolish such historic landmark, building, or structure in accordance with Section 11.13;
  2. The owner has, for a period of time set forth in Table 5.08-1 and at a price reasonably related to its fair market value, made a bona fide offer to sell such historic landmark, building, or structure and the land pertaining thereto to any person, firm, corporation, government, or agency thereof, or political subdivision or agency thereof, which gives reasonable assurance that it will preserve and restore the historic landmark, building, or structure and the land pertaining thereto; and
  3. No bona fide contract, binding upon all parties thereto, has been executed for the sale of any such historic landmark, building, or structure, and the land pertaining thereto, prior to the expiration of the applicable time period as set forth in Table 5.08-1.
    - a. Any appeal that may be taken to the Court, in accordance with Section 5.08.F. of this Zoning Ordinance will not affect the right of the owner to make a bona fide offer to sell.
    - b. No offers to sell are permitted to be made more than 1 year after a final decision by the HDRC, but thereafter the owner may renew their request to the HDRC to approve the razing or demolition of the historic landmark, building, or structure.

Offering Price	To Sell Period
Less than \$25,000	3 months
\$25,000 or more but less than \$40,000	4 months
\$40,000 or more but less than \$55,000	5 months
\$55,000 or more but less than \$75,000	6 months
\$75,000 or more but less than \$90,000	7 months
\$90,000 or more	12 months

4. **Bona Fide Offer to Sell and Procedures for Filing Notice of Offer.** Before making a bona fide offer to sell as provided for in this Section, an owner must first file a notice with the Zoning Administrator.
  - a. The notice must include the following:
    1. Property identification.
    2. Offering price.
    3. Date the offer of sale is to begin.
    4. Name and address of the listing real estate agent, if any.
    5. Reasonable assurances that the historic landmark, building, or structure will be preserved.



- b. No time period set forth in the time schedule contained in Table 5.08-1 will begin to run until said notice has been filed.
- c. Within 5 days of receipt of a notice, copies of the notice must be delivered to the HDRC.
- 5. **Question as to Price.** Questioning whether a historic landmark, building, or structure has been offered for sale at a price reasonably related to its fair market value is permitted in accordance with the following process:
  - a. A written petition signed by at least 5 persons owning real estate in the vicinity of property offered for sale must be filed with the HDRC on or before 15 days after the offer of sale has begun; or
  - b. The HDRC may question said price on its own motion.
  - c. Upon receipt of the petition referenced in 5.a., or upon its own motion, the HDRC must, at the expense of the County, appoint 3 disinterested real estate appraisers, familiar with property values in Loudoun County, who will forthwith make an appraisal of the historic landmark, building, or structure in question and file a written report with the HDRC stating whether or not the offer to sell the historic landmark, building, or structure is at a price reasonably related to its fair market value.
    - 1. The concurring opinion of any 2 of the 3 appraisers will be final and binding.
      - a. In the event the opinion is that the offer to sell the historic landmark, building, or structure is at a price reasonably related to its fair market value, the owner may continue to offer the property for sale pursuant to this Section 5.08.E.
      - b. In the event the opinion is that the offer to sell the historic landmark, building, or structure is not at a price reasonably related to its fair market value, the date of the offer to sell first established pursuant to this Section is void, and new notice pursuant to Section 5.08.E.4, listing a price reasonably related to the appraisers' opinion of fair market value, must be refiled in order for the owner to be considered to have made a bona fide offer to sell in accordance with Section 5.08.E.
    - d. Notwithstanding an adverse opinion by the appraisers, if an owner has entered into a binding bona fide contract as provided in this Section 5.08.E prior to the date the appraisers have filed their report with the HDRC, the price is deemed reasonably related to the fair market value.
- I. **Hazardous Conditions.** Nothing in Section 5.08 prevents razing or demolition without HDRC approval due to unsafe conditions if the following conditions have been met:
  - 1. **Landmarks, Buildings, or Structures.** The Building Official determines and verifies in writing that the unsafe conditions of a historic landmark, building, or structure within an HOD would endanger life or property and necessitate razing or demolition in accordance with Chapter 1410 of the Codified Ordinances of Loudoun County.
  - 2. **Walls, Fences, and Signs.** The Zoning Administrator determines and verifies in writing that the unsafe conditions of a wall, fence, or sign within an HOD would endanger life or property and necessitate razing or demolition.
- J. **Maintenance of Inventory of Buildings and Structures.** Following the establishment of a new HOD, the Zoning Administrator will maintain an inventory of the historic landmarks, sites, build-ings, and struc-tures of particular historic value located within the HOD create pursuant to Section 11.10.08.C4. Following addition to or removal from an existing HOD, the Zoning Administrator will update the inventory for the HOD.
- K. **Enforcement.** In addition to the remedies provided in Section 12.01 et seq. of the Zoning Ordinance, the Zoning Administrator has the authority to order that work be stopped and that all CAPPs, CAPAs, or other permits for the work being performed on a building or structure located within an HOD be revoked, or if no CAPP, CAPA, or other permit has been approved, to require the approval of the necessary CAPP or CAPA prior to the continuation of work on said building or structure.