



COUNTY OF HENRICO, VIRGINIA
BOARD OF SUPERVISORS
MINUTE

Agenda Item No. 259-21



Page No. 1 of 1

Agenda Title: ORDINANCE — To Add a New Article I Titled “Floodplain management” to Chapter 10 of the Code of the County of Henrico to Regulate Floodplains in the County

<p>For Clerk's Use Only:</p> <p>Date: <u>8/10/2021</u></p> <p><input checked="" type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p><input type="checkbox"/> Amended</p> <p><input type="checkbox"/> Deferred to:</p>	<p style="text-align: center;">BOARD OF SUPERVISORS ACTION</p> <p>Moved by (1) <u>Branin</u> Seconded by (1) <u>Nelson</u> (2) _____ (2) _____</p> <p>REMARKS: <u>motion approved</u> <u>the ordinance will become</u> <u>effective September 1, 2021</u></p> <p style="text-align: center; font-size: 2em; font-weight: bold; opacity: 0.5;">APPROVED</p>	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> <th style="text-align: center;">OTHER</th> </tr> </thead> <tbody> <tr> <td>Branin, T.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Nelson, T.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>O'Bannon, P.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Schmitt, D.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Thornton, F.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		YES	NO	OTHER	Branin, T.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nelson, T.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	O'Bannon, P.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Schmitt, D.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Thornton, F.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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After a duly advertised public hearing, the Board of Supervisors of Henrico County, Virginia, adopted the attached ordinance.

Comments: The Director of Public Works recommends approval of the Board paper, and the County Manager concurs.

By Agency Head  By County Manager 

Copy to: _____

Certified: _____
A Copy Teste: _____
Clerk, Board of Supervisors

Date: _____

Article I. FLOODPLAIN MANAGEMENT

Division 1: Purpose and Applicability

Sec. 10-1. Purpose and Applicability

The purpose of this article is to promote and protect the health, safety, and general welfare of county residents and to minimize losses due to flood hazards through provisions designed to:

- (a) prevent development and land disturbing activities from increasing flood or drainage hazards;
- (b) protect new buildings and major improvements to buildings from flood damage;
- (c) protect human life and health from the hazards of flooding;
- (d) lessen the burden on taxpayers for future flood and drainage control projects, repairs to flood-damaged public facilities and utilities and flood rescue and relief operations; and
- (e) make federally subsidized flood insurance available for property within the county.

This article shall apply to privately and publicly owned lands within areas designated as a Special Flood Hazard Area (SFHA) and areas adjacent to SFHAs, as outlined in this article. These areas are shown on the county's current Floodplain Maps. No development shall occur within these areas except in accordance with the provisions of this article.

State law reference: Code of Virginia § 15.2-984.

Sec. 10-2. Compliance and Liability

- (a) No land shall hereafter be developed, and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered, except in full compliance with the provisions of this article and any other applicable laws and regulations.
- (b) The degree of flood protection sought by this article is deemed reasonable for regulatory purposes and is based on acceptable engineering study methods. However, compliance with this article will not guarantee total protection from flooding or flood damages due to heavy rainfalls, increases in flood heights due to man-made or natural causes such as debris blockage of bridge openings, or other causes.
- (c) The county and its officers and employees shall not be responsible for flood damages that result from reliance on this article or any administrative decision related to its enforcement.

Division 2. Definitions

Sec. 10-3. Definitions

500-year Floodplain: The land at risk for flooding from a 0.2 percent (500-year) flood in any given year. This area may be identified as a Shaded X Zone or Shaded X5 Zone on the Floodplain Maps.

Accessory or Appurtenant Structure: A structure which is on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. An accessory structure is considered nonresidential for the purposes of this article and may include detached garages, sheds, barns, or greenhouses.

Addition: An extension or increase in the floor area or height of an existing building or structure.

Agricultural Structure: A structure that is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, including aquatic animals or plants associated with aquaculture activities. An agricultural structure does not include any structure used for human habitation.

Alteration of a Watercourse: A dam, impoundment, channel relocation, change in channel alignment, channelization, change in cross-sectional area of the channel or the channel capacity, or any other change associated with development which may increase the base flood elevation.

ASCE 24: Published by the American Society of Civil Engineers (ASCE), ASCE 24, *Flood Resistant Design and Construction* is a referenced standard in the Uniform Statewide Building Code that provides minimum requirements and expected performance for the siting, design, and construction of buildings and structures in flood hazard areas that are subject to building code requirements.

Base Flood: The flood having a one percent chance of being equaled or exceeded in any given year. This may also be referred to as the 100-year flood.

Base Flood Elevation (BFE): The water surface elevation of the base flood as shown either on (1) the most recent Federal Emergency Management Agency Flood Insurance Rate Map or Flood Insurance Study or (2) the county's most recent Comprehensive Drainage Map, whichever is higher. For areas without mapped base flood elevations, the developer shall use the 100-year flood elevations and floodway information from federal and state sources when available or, if such information is not available, flood elevations derived from sufficiently detailed hydrologic and hydraulic computations by a professional engineer who certifies the correct use of currently accepted technical concepts.

Basement: Any area of the building having its floor subgrade (below ground level) on all sides.

Community Special Flood Hazard Area: Also referred to as the Community SFHA, the land subject to a one percent or greater chance of flooding in any given year, based on 100-acre drainage areas or less, as identified on the county's current Comprehensive Drainage Maps. These areas do not include and are in addition to FEMA Special Flood Hazard Areas.

Conditional Letter of Map Revision (CLOMR): Either (1) a formal review and comment from FEMA stating that a proposed project complies with the minimum NFIP requirements for the project with respect to delineation of FEMA SFHAs or (2) a letter from the county engineer that provides conditional approval of a study, based on as-built conditions, that changes the location of the Community SFHA. A CLOMR does not revise the Floodplain Maps.

County Comprehensive Drainage Map. The most recent map approved by and maintained by the county engineer on the county's GIS designating the 100-year floodplain in the county. The county engineer may amend the County Comprehensive Drainage Map at any time upon review of additional engineering studies of floodplain areas.

Critical Facility: A structure or other improvement that, because of its function, size, service area, or uniqueness, has the potential to result in serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if it is destroyed or damaged or if its functionality is impaired. Critical facilities include health and safety facilities, utilities, government facilities, and hazardous materials facilities.

Dam Break Inundation Zone: The area downstream of a dam that would be inundated or otherwise directly affected by the failure of the dam. A dam's dam break inundation zone shall be as shown on the dam break inundation zone map for that dam filed with the Virginia Department of Conservation and Recreation.

Dam: A manmade structure across a watercourse used to restrain water.

Development: Any man-made change to improved or unimproved real estate, including buildings or other structures, as well as mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.

Dry Floodproofing: A combination of measures that results in a structure and its attendant utilities and equipment being watertight with all elements substantially impermeable and with structural components having the capacity to resist flood loads.

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, such as posts and piers.

Encroachment: The advance or infringement of uses, fill, excavation, buildings, permanent structures, or development into a floodplain which may impede or alter the flow capacity of a floodplain. Building renovations within the existing building footprint area are not considered an Encroachment.

Erosion: The process of the gradual wearing away of land masses.

FEMA: Federal Emergency Management Agency.

FEMA Special Flood Hazard Area: Also referred to as the FEMA SFHA, the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year as designated by FEMA. The area may be designated on a Flood Insurance Rate Map as Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V.

Flood Insurance Rate Map (FIRM): An official map of a community, on which the Federal Insurance Administrator has delineated both the FEMA SFHAs and the risk premium zones

applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

Flood Insurance Study (FIS): An examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (*i.e.*, mudflow) and/or flood-related erosion hazards.

Flood or Flooding: Defined as either:

(a) a general and temporary condition of partial or complete inundation of normally dry land areas from: (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, or (3) mudslides (*i.e.*, mudflows) which are proximately caused by flooding as defined in paragraph (a)(2) 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.

(b) 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 an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in a partial or complete inundation of normally dry land.

Flood Damage-Resistant Materials: Any construction materials capable of withstanding direct and prolonged contact with floodwaters without sustaining any damage that requires more than cosmetic repair.

Floodplain Administrator: The person appointed to administer, implement, and enforce the provisions of this article. This person is also known as the Floodplain and Dam Safety Manager.

Floodplain Management: The operation of an overall program of corrective and preventive measures for reducing flood damage, including emergency preparedness plans, flood control works, and floodplain management regulations.

Floodplain Maps: The current Flood Insurance Rate Maps and Flood Insurance Study for Henrico County prepared by the Federal Emergency Management Agency, Federal Insurance Administration, effective December 18, 2007, and the current County Comprehensive Drainage Map, effective December 18, 2007, and subsequent revisions or amendments thereto.

Floodplain or Flood-Prone Area: Any land area susceptible to being inundated by water from any source other than a dam break.

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

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation. The Floodway is part of the SFHA. This may also be referred to as the Regulatory Floodway.

Freeboard: A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Functionally Dependent Use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term only includes docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities. The term does not include long-term storage or related manufacturing facilities.

GIS: Geographic Information System.

Habitable Building: A structure designed primarily for or used for human habitation. This includes houses, condominiums, townhomes, restaurants, retail establishments, manufacturing buildings, commercial buildings, office buildings, manufactured homes, and similar uses. It does not include Accessory Structures.

Highest Adjacent Grade: The highest natural elevation of the ground surface next to the walls of a proposed structure prior to construction.

Historic Structure: Any structure that is: (a) listed individually in the National Register of Historic Places maintained by the U. S. Department of Interior or preliminarily determined by the U. S. Secretary of the Interior as meeting the requirements for individual listing on the National Register, or (b) certified or preliminarily determined by the U. S. 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, or (c) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the U. S. Secretary of the Interior, or (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either: (1) by an approved state program as determined by the U. S. Secretary of the Interior or (2) directly by the U. S. Secretary of the Interior in states without approved programs.

Hydrologic and Hydraulic Engineering Analysis: Analyses performed by a licensed professional engineer in accordance with standard engineering practices to determine the base flood, other frequency floods, flood elevations, floodway information and boundaries, and flood profiles.

Impounding Structure: A dam across a watercourse or a manmade structure outside a watercourse used or to be used to retain or store waters or other materials as defined by Code of Virginia § 10.1-604. The term includes (i) all dams that are 25 feet or greater in height and that create

an impoundment capacity of 15 acre-feet or greater and (ii) all dams that are six feet or greater in height and that create an impoundment capacity of 50 acre-feet or greater. The term "impounding structure" does not include: (a) dams licensed by the State Corporation Commission that are subject to a safety inspection program, (b) dams owned or licensed by the United States government, (c) dams operated primarily for agricultural purposes which are less than 25 feet in height or which create a maximum impoundment capacity smaller than 100 acre-feet, (d) water or silt retaining dams approved pursuant to Code of Virginia § 45.1-222 or § 45.1-225.1, or (e) obstructions in a canal used to raise or lower water.

Increased Cost of Compliance (ICC) Coverage: Covers expenses that a property owner must incur above the cost to repair physical damage a building actually sustains from a flooding event to comply with mitigation requirements of state or local floodplain management ordinances or laws. Acceptable mitigation measures are higher elevation, greater floodproofing, relocation, demolition, or any combination thereof.

Land Disturbing Activity: Any clearing, grading, excavating, transporting, or filling of land.

Letter of Map Amendment (LOMA): An amendment to the Flood Insurance Rate Map approved by FEMA based on technical data that establishes that a specific property is not located in a FEMA SFHA. However, a LOMA is site specific and is not shown on the Floodplain Maps.

Letter of Map Change (LOMC): A Letter of Map Change is (1) an official FEMA letter that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study or (2) an official county letter that amends or revises the most recent County Comprehensive Drainage Map.

Letter of Map Revision (LOMR): A revision to the Floodplain Maps based on technical data that shows a change or changes to flood zones or flood elevations or floodplain and floodway delineations or planimetric features. This includes (1) a revision approved by FEMA to revise a FEMA SFHA on a Flood Insurance Rate Map or Flood Insurance Study or (2) a revision approved by the county engineer to revise a Community SFHA on the most recent County Comprehensive Drainage Map.

Levee System: A flood protection system which consists of a levee or levees and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Levee: A man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water to provide protection from temporary flooding.

Lowest Adjacent Grade: The lowest natural elevation of the ground surface next to the walls of a structure.

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 if such enclosure does not violate the applicable enclosure requirements in Sec. 10-10(c) of this article.

Manufactured Home: A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term Manufactured Home does not include a recreational vehicle. A Manufactured Home may be considered a Residential or Non-Residential Building depending on its use.

Market Value: The value of a building, excluding land value, that is determined by an appraiser certified in Virginia. The tax value of the building may be used for this value.

Mean Sea Level: For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum to which base flood elevations shown on a community's Floodplain Maps are referenced.

Mechanical Equipment: Includes electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities.

Mixed-Use Building: A building that has both residential and non-residential uses.

Mudslide: A condition where there is a river, flow, or inundation of liquid mud down a hillside usually as a result of a loss of brush cover and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A Mudslide (*i.e.*, mudflow) may occur as a distinct phenomenon while a landslide is in progress and will be recognized as such by the Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.

New Construction: For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

NFIP: National Flood Insurance Program.

Non-Residential Building: A building or accessory structure where the primary use is commercial or not for human habitation.

No-Rise Certification: A certification statement signed by a professional engineer licensed to practice in the Commonwealth of Virginia certifying that a proposed project will not increase the base flood elevations in the community.

Post-FIRM: Construction or other development for which the "start of construction" occurred on or after the effective date of the initial Flood Insurance Rate Map.

Pre-FIRM: Construction or other development for which the "start of construction" occurred before the effective date of the initial Flood Insurance Rate Map.

Principally Above Ground: At least fifty-one percent of the actual cash value of the structure, less land value, is above ground.

Prolonged Contact with Floodwaters: Partial or total inundation by floodwaters for 72 hours or more.

Recreational Vehicle: A vehicle which is: (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) designed to be self-propelled or permanently towable by a light duty truck; and (d) designed primarily for use as temporary living quarters for recreational, camping, travel, or seasonal use rather than as a permanent dwelling.

Repetitive Loss Structure: A building covered by a contract for flood insurance that has incurred flood-related damages on two occasions in a 10-year period for which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each flood event and at the time of the second flood event had increased costs of compliance coverage in the contract for flood insurance.

Residential Building: A non-commercial building designed for habitation by one or more families or a mixed-use building, including any building or portion of a building occupied or designed to be occupied exclusively for residential purposes. The term includes guesthouses, cabins, and sleeping units but does not include a tent, recreational vehicle, hotel or motel, boardinghouse, hospital, or other accommodation used for transient occupancy.

Riverine: Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Severe Repetitive Loss Structure: A structure that is covered under a contract for flood insurance made available under the NFIP and has incurred flood related damage for which four or more separate claims payments have been made under flood insurance coverage with each such claim exceeded \$5,000 and the cumulative amount of such claims payments exceeded \$20,000. The term also includes a structure covered by flood insurance made available under the NFIP for which at least two separate claims payments have been made under such coverage and the cumulative amount of such claims payments exceeds the market value of the insured structure.

Special Flood Hazard Area (SFHA): Land subject to a one percent or greater chance of flooding in any given year. This area includes both FEMA Special Flood Hazard Areas and Community Special Flood Hazard Areas and may also be referred to as the 100-year floodplain.

Start of Construction: The date the building permit is issued for construction, repair, reconstruction, rehabilitation, addition placement, or other improvements, provided the actual start of such activity 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, or the installation of streets and/or walkways. It also does not include excavation for a basement, footings, piers, or foundations, the erection of temporary forms, or the installation on the property of accessory buildings, such as garages or sheds that are not occupied as dwelling units or as parts of the main structure. For a substantial improvement, the actual start of

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. This definition does not apply to new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348).

Structure: A walled and roofed building that is principally above ground. Walled is considered “two or more outside rigid walls” and roofed is “a fully secured roof.” This may also be referred to as a building.

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 percent 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 percent of the market value of the structure before the Start of Construction of the improvement. This term includes improvements to structures which have incurred Substantial Damage, regardless of the amount of the actual repair work performed. For the purposes of this article, the relocation of a residential structure within the SFHA is deemed a substantial improvement. This term does not, however, include any 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 improvements necessary to assure safe living conditions.

Substantially Impermeable: Use of flood damage-resistant materials and techniques for dry floodproofing portions of a structure, which result in a space free of cracks, openings, or other channels that permit unobstructed passage of water and seepage during flooding and which results in a maximum accumulation of 4 in. of water depth in such space during a period of 24 hours.

Uniform Statewide Building Code (USBC): The current edition of the Virginia Uniform Statewide Building Code as authorized by the Code of Virginia, § 36-98.

Variance: A grant of relief from any requirement of this article. Variances may only be granted in compliance with the provisions of Division 5 of this article.

Violation: The failure of a structure or other development to be fully compliant with this article.

Water Surface Elevation (WSE): The height of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas. These heights are shown on maps by reference to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified),

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 flood damage may occur.

Wet Floodproofing: Floodproofing method that relies on the use of flood damage-resistant materials and construction techniques in areas of a structure that are below the elevation required by this article and are intentionally allowed to flood.

Division 3: Administration and Interpretation

Sec. 10-4. Designation of the Floodplain Administrator

The Floodplain Administrator is responsible for administering and implementing this article. However, the Floodplain Administrator may implement this article by:

- (a) delegating his or her duties and responsibilities in this article to qualified technical personnel, plan examiners, inspectors, and other employees.
- (b) entering into a written agreement or written contract with a community or private sector entity to carry out specific provisions of these requirements. Administration of any part of this article by another entity shall not relieve the community of its responsibilities pursuant to the participation requirements of the National Flood Insurance Program as set forth in the Code of Federal Regulations at 44 C.F.R. 59.22.

Sec. 10-5. Duties and Responsibilities of the Floodplain Administrator

The duties and responsibilities of the Floodplain Administrator shall include:

- (a) reviewing applications for permits to determine whether proposed activities will be located in the SFHA.
- (b) interpreting floodplain boundaries and providing available BFE and flood hazard information.
- (c) reviewing applications to determine whether proposed activities will be reasonably safe from flooding and requiring new construction and substantial improvements to meet the requirements of these requirements.
- (d) reviewing applications to determine whether all necessary permits have been obtained from the federal, state, or local agencies from which prior or concurrent approval is required. These permits shall include permits from state agencies for any construction, reconstruction, repair, or alteration of a dam, reservoir, or waterway obstruction (including bridges, culverts, structures), any alteration 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 Commonwealth.
- (e) verifying that applicants proposing an alteration of a watercourse have notified impacted adjacent communities, the Virginia Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and other appropriate agencies, such as the Virginia Department of Environmental Quality and the U.S. Army Corps of Engineers, and have submitted copies of such notifications to FEMA.
- (f) approving applications and issuing permits to develop in the SFHA if the requirements of this article have been met.
- (g) inspecting, or causing to be inspected, buildings, structures, and other development for which permits have been issued to determine compliance with these requirements.

- (h) reviewing Elevation Certificates and Floodproofing Certificates and requiring incomplete or deficient certificates to be corrected.
- (i) submitting to FEMA, or requiring applicants to do so, data and information necessary to maintain FIRMs, including hydrologic and hydraulic engineering analyses prepared by or for the county, within six months after such data and information becomes available if the analyses indicate changes in BFEs or boundary changes.
- (j) maintaining and permanently keeping records that are necessary for the administration of these requirements, including:
 - (1) FISs, FIRMs, and LOMCs; and
 - (2) Documentation supporting issuance and denial of permits, Elevation Certificates, documentation of the elevation to which structures have been floodproofed, inspection records, required design certifications, variances, and records of enforcement actions taken to correct violations of these requirements.
- (k) enforcing the provisions of these requirements, investigating violations, issuing notices of violations or stop work orders, and requiring permit holders to take corrective action as needed to comply with this article.
- (l) creating, and amending as necessary, a Technical Guidance Manual to help explain the application of this article using charts and other written materials.
- (m) advising the county engineer, county manager, board of supervisors, and others regarding the intent of these requirements.
- (n) administering the requirements related to proposed work on existing buildings that may be substantially damaged:
 - (1) making determinations as to whether damaged structures in the SFHA are substantially damaged.
 - (2) coordinating with federal, state, and local agencies to assist with substantial damage determinations.
 - (3) making reasonable efforts to notify owners of substantially damaged structures of their need to obtain permits to repair, rehabilitate, or reconstruct.
 - (4) prohibiting the non-compliant repair of substantially damaged buildings except for emergency measures to secure a property or temporarily stabilize a building or structure to prevent additional damage.
- (o) issuing public service announcements and other information related to permit requests and repair of damaged structures.
- (p) providing owners of damaged structures information about the proper repair of damaged structures in SFHAs.
- (q) assisting property owners with documentation required to file claims for Increased Cost of Compliance coverage under NFIP flood insurance policies.
- (r) notifying FEMA when the corporate boundaries of the county have been modified.
- (s) completing and submitting a report concerning participation in the NFIP at the request of FEMA.
- (t) considering known flood, mudslide, and flood-related erosion hazards in official actions regarding land management and use throughout the county, even if those hazards have not been specifically delineated via mapping or surveying.

- (u) maintaining records of all variance actions, including notifications and justifications for the granting of variances. All issued variances shall be recorded in the annual or biennial report as requested by FEMA.

Sec. 10-6. Use and Interpretation of Floodplain Maps

The county's Floodplain Maps shall include the current effective FEMA FIRMs and the current effective County Comprehensive Drainage Maps in the county's online GIS. The Floodplain Administrator shall make interpretations, where needed, as to the exact location of SFHAs, floodplain boundaries, floodway boundaries, and BFEs.

The following shall apply to the use and interpretation of floodplain maps and data:

- (a) Where available topography information, such as GIS maps, LiDAR, and field surveys, indicates that adjacent ground elevations:
 - (1) are below the BFE, even in areas not delineated as SFHA, the area shall be considered as SFHA and subject to the requirements of this article;
 - (2) are above the BFE and the area is labelled as SFHA on the floodplain maps, the area shall be regulated as SFHA unless the applicant obtains an approved LOMC.

The Floodplain Administrator may require field survey information to verify adjacent ground elevations from a licensed land surveyor or professional engineer.

- (b) Where BFE and floodway data have not been identified, including in areas where SFHAs have not been identified, any other reasonable flood hazard data available from a federal, state, or other source shall be reviewed and used. The Floodplain Administrator is authorized to require the applicant to determine the BFE and/or floodway in accordance with accepted hydrologic and hydraulic engineering practices, and the determination must be made by a licensed professional engineer.
- (c) BFEs and designated floodplain or floodway boundaries for effective SFHAs that are more restrictive shall take precedence over BFEs and floodplain or floodway boundaries created by any other source unless a CLOMR has been approved. Other sources of data shall be reasonably used if such sources show increased BFEs and/or wider floodplain or floodway boundaries than have been adopted for the effective SFHA.
- (d) If a Preliminary FIRM and/or a Preliminary Flood Insurance Study has been provided by FEMA:
 - (1) Upon the issuance of a Letter of Final Determination by FEMA, the preliminary flood hazard data shall be used and shall replace the effective SFHA for the purposes of administering these regulations.
 - (2) Prior to the issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data shall be deemed the best available data pursuant to Sec. 10-6(b) and used where no BFEs and/or floodplain or floodway areas are provided on the effective Floodplain Maps.

- (3) Prior to issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data is permitted where the preliminary BFEs, floodplain or floodway areas exceed the BFEs and/or designated floodplains or floodway widths on the effective Floodplain Maps. Such preliminary data may be subject to change and/or appeal to FEMA.

Sec. 10-7. SFHA Boundary Changes

The county may revise the delineation of any SFHA when (1) natural or man-made changes have occurred, (2) detailed studies have been conducted by the U. S. Army Corps of Engineers or another qualified entity, or (3) an owner or developer documents the need for a boundary change. The revision must be documented in an approved LOMR.

Division 4: Permit and Development Standards

Sec. 10-8. Floodplain Development Permit Requirements

A Floodplain Development Permit is necessary for any use, activity, or development within a SFHA. All development must strictly comply with this article and other applicable requirements. The application must show compliance with all legal requirements before issuance of such permit, and the Floodplain Administrator shall review all sites to verify they are reasonably safe from flooding. Under no circumstances may any use, activity, or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.

The following specific requirements must be met before any development in the floodplain occurs:

- (a) The applicant shall submit the application fee, application form, and required information for a Floodplain Development Permit to the Floodplain Administrator. All applications must state the elevation of the lowest floor for all structures to be elevated or the elevation to which the structures will be floodproofed in an Elevation Certificate (FEMA Form 086-0-33).
- (b) On receiving the application, the Floodplain Administrator shall determine whether the application is complete. If the Floodplain Administrator determines the application is incomplete, the Floodplain Administrator shall provide written notice of the submission deficiencies and shall not process the application further. When the Floodplain Administrator determines that the application is complete, the Floodplain Administrator shall review the application for compliance with this article.
- (c) The Floodplain Administrator must issue a Floodplain Development Permit and include any conditions necessary to ensure compliance with this article.

Sec. 10-9. Development Standards – General

The following provisions shall apply to all permitted development:

- (a) Development shall not cause an increase in the BFE, reduce the flood-carrying capacity of any watercourse, drainage ditch, or other drainage facility or system, or similar adverse impacts. The applicant shall submit a No-Rise Certificate, signed and sealed by a licensed professional engineer, with sufficient supporting technical data such as a hydrologic and hydraulic analysis, as determined by the Floodplain Administrator. Compensatory storage may be utilized to satisfy the no rise requirement for any type of development if engineering data shows the site is hydraulically equivalent and the Floodplain Administrator approves the plans for each compensatory storage area.
- (b) Fill may not be placed in the SFHA, including the placement of fill to remove a lot from the SFHA in order to construct a building or structure.
- (c) Mechanical equipment shall be designed and/or located to prevent water from entering or accumulating within its components during conditions of flooding.
- (d) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- (e) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.
- (f) On-site waste disposal systems shall be located and constructed to avoid their impairment or contamination during flooding.
- (g) Any repair, replacement, or reconstruction of a damaged or destroyed building or structure must comply with the requirements of Sec. 10-13.
- (h) An owner or developer must obtain a permit from the U. S. Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (as applicable) prior to any proposed alteration or relocation of any channel or watercourse within the county. Furthermore, the applicant shall notify all affected adjacent jurisdictions, the Virginia Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and FEMA.
- (i) Any alteration or relocation of any channel or watercourse must maintain the flood carrying capacity of the channel or watercourse.
- (j) There shall be no encroachment, including fill, new construction, substantial improvements, or other development within the floodway unless hydrologic and hydraulic analysis performed in accordance with standard engineering practices show the encroachment will not result in any increase to the BFE. The Floodplain Administrator may require a CLOMR and/or a LOMR.
- (k) New or substantially improved Critical Facilities and new or substantially improved residential structures may not be located inside the SFHA.
- (l) A new Critical Facility may be located in the 500-year floodplain if the building or structure is outside the SFHA and its lowest floor is elevated to either the BFE plus two feet or the 500-year flood elevation plus one foot, whichever is greater.
- (m) New or substantially improved residential structures may not be located closer to a SFHA than 15 feet.

- (n) New buildings or structures other than Critical Facilities or residential structures may be constructed in the SFHA if the elevation of the lowest floor, including mechanical equipment, is a minimum of two feet above the BFE.
- (o) New construction or substantial improvements located in the 500-year floodplain or that are closer to the SFHA than 40 feet shall have the lowest floor, including mechanical equipment, elevated a minimum of one foot above the BFE.

Sec. 10-10. Elevation and Construction Standards

- (a) New construction and substantial improvements, including manufactured homes, shall be:
 - (1) built in accordance with this article and the USBC, and anchored to prevent flotation, collapse, or lateral movement of the structure,
 - (2) constructed with materials and utility equipment resistant to flood damage, and
 - (3) constructed with methods and practices that minimize flood damage.
- (b) *Enclosures Below the Lowest Floor:* Fully enclosed areas of new construction or substantially improved structures which are below the lowest floor shall:
 - (1) not be designed or used for human habitation,
 - (2) be used solely for parking of vehicles, building access, or limited storage of maintenance equipment for the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator).
 - (3) be constructed entirely of flood resistant materials;
 - (4) include measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, flood openings must meet the following minimum design criteria:
 - a. there must be a minimum of two openings on different sides of each enclosed area subject to flooding.
 - b. the total net area of all openings must be at least one square inch for each square foot of enclosed area subject to flooding.
 - c. there must be openings to allow floodwaters to automatically enter and exit each enclosed area if a building has more than one enclosed area.
 - d. the bottom of all required openings shall be no higher than one foot above the adjacent grade.
 - e. openings may be equipped with screens, louvers, or other opening coverings or devices that permit the automatic flow of floodwaters in both directions without manual operation or human intervention.
- (c) *Accessory Structures:* Detached accessory structures used only for parking of vehicles and/or storage may be permitted with the lowest floor below the BFE if the following conditions are met:

- (1) the structure is not larger than 600 square feet - approximately the size of a one-story two-car garage and walls.
 - (2) the structure has flood openings in compliance with the requirements Sec. 10-10(c) to protect the structure from hydrostatic pressure.
 - (3) the structure is anchored to resist flotation, collapse, and lateral movement.
 - (4) flood damage-resistant materials are used below the BFE.
 - (5) mechanical, electrical, and utility equipment is elevated or dry-floodproofed to or above the BFE. Dry-floodproofing must be certified by a licensed professional engineer or architect.
- (d) *Elevation Certificates:* An Elevation Certificate (FEMA Form 086-0-33) must be submitted and approved by the Floodplain Administrator after the lowest floor of a new building or structure has been completed and before further construction has begun. In addition, an Elevation Certificate must be submitted and approved by the Floodplain Administrator after construction is completed to ensure compliance with this article prior to the issuance of a certificate of occupancy or temporary certificate of occupancy. Another certification may be required to certify corrected as-built construction. Failure to submit the Elevation Certificate or failure to make required corrections shall be cause to withhold the issuance of a certificate of occupancy or temporary certificate of occupancy.
- (e) *Recreational Vehicles:* Recreational vehicles may not be parked within the SFHA for more than 180 consecutive days and must be fully licensed and ready for highway use. For purposes of this subsection, a recreational vehicle is ready for highway use if it is on wheels or a jacking system, is attached to the site only by quick disconnect-type utilities and security devices, and has no permanently attached additions.
- (f) *Storage of Materials and Equipment:* Storage of hazardous materials is prohibited in the SFHA. Storage of other materials and equipment may be permitted in the SFHA if the materials and equipment will not become debris during a flood by being elevated at or above the BFE or anchored to resist flotation or located in an enclosure or being removable from the site prior to a flood. To treat the materials or equipment as being removable from the site, the owner must provide (1) a copy of the contract with a trucking company to ensure the availability of removal equipment when needed, or (2) evidence of removal equipment on the property if a trucking company will not be used. In either case, the owner must provide a written designation of a location outside the SFHA to which the materials or equipment will be removed.
- (g) *Dryland Access:* New roads, driveways, and parking areas located in the SFHA must be designed and constructed so that they will not be overtopped by more than six inches of water during the 100-year flood.
- (h) *Swimming Pools:* Accessory swimming pools may be permitted in the SFHA if they are constructed in accordance with this article, the USBC, and ASCE 24.
- (i) *Tanks:* The placement of gas and liquid storage tanks must be in compliance with the USBC and ASCE 24.

- (j) *Stormwater Management Facilities:* New stormwater management facilities may not be constructed within the SFHA. Stormwater management facilities located adjacent to the SFHA that discharge into it must meet the requirements in Sec. 10-9(a).
- (k) *Temporary Structures:* Before issuance of a Floodplain Development Permit by the Floodplain Administrator for a temporary structure, all applicants must submit a plan for removal of the structure in the event of a flood-related severe weather notification (hurricane, tropical storm, flood, flash flood, etc.) which includes the following information:
 - (1) certification that the requirements of Sec. 10-9(a) and Sec. 10-9(b) have been met;
 - (2) a specified time period for the temporary use. The time period may not exceed three months and is renewable for up to one year;
 - (3) the name, address, and phone number of the individual responsible for the removal of the structure;
 - (4) the amount of time prior to the event when the structure will be removed;
 - (5) a copy of a contract with a trucking company to ensure the availability of removal equipment when needed or evidence of removal equipment on the property if a trucking company will not be used. In either case, the owner must provide a written designation of a location outside the SFHA to which the structure will be removed.
- (l) *Temporary Encroachments:* Temporary encroachments into the SFHA may be exempt from the requirements of Sec. 10-9(a) and Sec. 10-9(b) if a Floodplain Development permit is issued. Temporary encroachments include sediment control devices, temporary stream crossings, haul roads and construction entrances, storage of equipment, and soil stockpiling. The following conditions must be met to qualify for the exemption:
 - (1) The proposed temporary encroachment shall not be in place more than three months and is renewable for up to one year with written approval from the Floodplain Administrator. Temporary sediment control devices may be kept in place longer than one year if required by the appropriate regulatory agency, and,
 - (2) Supporting documentation, including a hydrologic and hydraulic analysis (if required by the Floodplain Administrator) must be submitted by a licensed professional engineer indicating that the proposed project will not impact any existing buildings or overtop any roadway surfaces.

Sec. 10-11. Dams and Other Water-Impounding Structures

Construction of a dam or other water-impounding structure to impound water shall comply with the following requirements:

- (a) The construction's effect upon the BFE above the dam or water-impounding structure shall not endanger human life or property.
- (b) The dam or water-impounding structure shall be designed and constructed in accordance with the requirements of the Virginia Dam Safety Act, § 10.1-604 et seq.

of the Code of Virginia, as amended, its implementing regulations, and any requirements of the county engineer to minimize hazards below the dam resulting from failure of the dam or water-impounding structure.

Sec. 10-12. Subdivision Proposals

- (a) Any subdivision proposal or other proposed development that exceed 50 lots or five acres, whichever is less, in an area where BFE data is not available or the SFHA has not been delineated shall include data using detailed methodologies, including a hydraulic and hydrologic analysis, comparable to those contained in a FIS. Once identified, those areas shall be subject to the requirements of this article.
- (b) Any proposed subdivision in a SFHA shall include measures to reduce flood damage.
- (c) Any proposed subdivision in a SFHA shall ensure that public utilities and facilities, such as sewer, gas, electrical and water systems, are located and constructed to minimize flood damage.
- (d) Any proposed subdivision in a SFHA shall provide adequate drainage to reduce exposure to flood hazards.

Sec. 10-13. Existing Structures and Uses

- (a) A structure or use that lawfully existed before the adoption of this article but does not satisfy the current requirements of this article may continue.
- (b) An existing structure in the floodway may not be expanded or enlarged if the proposed expansion or enlargement would result in an increase in the BFE.
- (c) If a modification, alteration, repair, reconstruction, or improvement to a structure in a floodplain would cost less than 50 percent of the market value of the structure, the modification, alteration, repair, reconstruction, or improvement must be designed to minimize flood damage. If such structure does not comply with the current requirements of this article, the modification, alteration, repair, reconstruction, or improvement must not increase the amount of nonconformity.
- (d) A substantial improvement must meet the requirements of this article for new construction, and the entire structure must conform with the current USBC after the substantial improvement is completed. If a substantial improvement will be located in the 500-year floodplain or will be between 15 and 40 feet from the SFHA, the lowest floor of the substantial improvement, including mechanical equipment, must be elevated a minimum of one foot above the BFE.
- (e) An existing residential structure may not be enlarged if any part of the enlarged structure will be in, or within 15 feet of, the SFHA.
- (f) A residential structure may be relocated only if the new location of the structure is entirely outside the SFHA and the new location does not violate the provisions of this article.

Division 5. Appeals and Variances

Sec. 10-14. Variance Application Process

Applicants may seek a variance from the county engineer under Sec. 10-16 or an administrative variance from the Floodplain Administrator under Sec. 10-17.

Applications for variances shall be submitted to the county engineer and filed with the Floodplain Administrator. The Floodplain Administrator shall not accept any application without the required fee. If a variance application is filed because of a natural disaster that is the subject of a federal emergency declaration, the Floodplain Administrator may waive application and advertising fees and give the application expedited processing.

Sec. 10-15. Variance Requirements

No variance shall be granted unless the following minimum requirements are met:

- (a) a showing of good and sufficient cause;
- (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant;
- (c) a determination that such variance will not create or result in:
 - (1) unacceptable or prohibited increases in flood heights;
 - (2) additional threats to public safety;
 - (3) extraordinary public expense;
 - (4) nuisances;
 - (5) fraud or victimization of the public; or
 - (6) conflicts with other existing laws or ordinances;
- (d) the granting of the variance will not be detrimental to other property in the vicinity;
- (e) the circumstances giving rise to the variance application are not of a general or recurring nature;
- (f) the need for the variance arises from the physical character of the property or from the use or development of adjacent property and not from the personal or financial situation of the applicant: and,
- (g) the variance shall be the minimum necessary to provide relief.

Sec. 10-16. County Engineer Variance

The county engineer may grant a variance from the requirements of this article when strict application of this article would effectively prohibit or unreasonably restrict the use of the subject property. The variance may include reasonable conditions to obtain compliance with this article to the maximum extent practicable. Variances may be granted for a functionally dependent use if the development is protected by methods that minimize flood damage during the base flood and create no additional threats to public safety. Variances for repair or rehabilitation of historic structures may be granted upon a determination that the proposed repair or rehabilitation will not preclude

the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

However, the county engineer may not grant a variance for a proposed use, development, or activity within a floodway that will cause an increase of the BFE unless FEMA or the county engineer has issued a CLOMR.

Before granting a variance, the county engineer must determine that the variance application satisfies the requirements of Sec. 10-15 and consider the following additional factors:

- (a) the danger to life and property due to increased flood heights or velocities caused by encroachments.
- (b) the risk of injury to others if materials are swept onto other lands or transported in floods.
- (c) the water supply and sanitation system proposed for the development and their ability to prevent disease, contamination, and unsanitary conditions.
- (d) the susceptibility of the proposed facility to flood damage and the effect of such damage on individual owners.
- (e) the importance to the community of the services that will be provided by the proposed facility.
- (f) the availability of alternative locations for the proposed use that are not subject to flooding.
- (g) the compatibility of the proposed use with existing reasonably anticipated development.
- (h) the compatibility of the proposed use with the comprehensive plan and county floodplain management program.
- (i) vehicular access to the property during floods.
- (j) the expected heights, velocity, duration, rate of rise, and sediment transport of foreseeable flood waters on the property.
- (k) any other factors particularly relevant to the purposes of this article.

Sec. 10-17. Administrative Variance

The Floodplain Administrator may grant administrative variances for the following uses, development, or redevelopment:

- (a) minor filling in the SFHA necessary to protect or restore natural floodplain functions or to stabilize stream banks to protect public roads and utilities. The requirements of Sec. 10-9 must be met.
- (b) dry-floodproofing of nonresidential structures in lieu of requiring higher elevation of the structure if the following conditions apply:
 - (1) elevating the structure is not reasonably feasible because of the nature of the lot and/or the use of the structure, and

- (2) all areas of the building components below the elevation corresponding to the BFE plus three feet must be watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy; this must be designed and constructed in accordance with the VA USBC and ASCE 24 and be certified by a professional engineer or architect. The following is required regarding the certification:
 - a. a Floodproofing Certificate (*FEMA Form 086-0-34*) with supporting data and an inspection and operational plan that includes, but is not limited to, installation, exercise, and maintenance of floodproofing measures must be provided, and
 - b. said certification, operational plan, and inspection and maintenance plan shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, operational plan, and inspection and maintenance plan submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make said corrections required shall be cause to withhold the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy.
- (c) rebuilding of a residential structure within the SFHA or setback area that has been substantially damaged by some cause other than flooding if there is no site outside of the SFHA or setback area for relocation of the structure and the lowest floor, including mechanical equipment, is elevated to the BFE plus two feet. If the structure has an enclosure below the lowest floor, the requirements in Sec. 10-10(c) must be met.
- (d) locating stormwater management facilities in the SFHA if a location outside of the SFHA is not feasible, and the following conditions have been met:
 - (1) the requirements in Sec. 10-9(a) and Sec. 10-9(b) have been met.
 - (2) engineering data shows that the proposed stormwater management facility will operate effectively for its intended purpose during a 10-year flood event or the required design storm for the project, whichever is greater, and will have structure stability during a 100-year flood event.

Sec. 10-18. Notification

If a variance is granted to construct a structure below the BFE, the Floodplain Administrator shall notify the applicant in writing that construction below the BFE will result in increased premium rates for flood insurance and increase risks to life and property.

Sec. 10-19. Appeal of Variance Decisions

An applicant aggrieved by a decision of the Floodplain Administrator may appeal the decision to the county engineer within 30 days of the decision. The county engineer may modify, reverse, or affirm the Floodplain Administrator's decision.

An aggrieved applicant may appeal a variance decision of the county engineer within 30 days of the county engineer's decision to the Henrico County Circuit Court.

Division 6. Enforcement

Sec. 10-20. Inspections

The Floodplain Administrator, or designee, is authorized to conduct inspections and conduct other investigations to determine whether the property and the use thereof conforms to the requirements of this article. Such inspections shall comply with constitutional search and seizure requirements.

Sec. 10-21. Violations

Violations of this article are unlawful, and any person convicted of a violation of this article shall be subject to the provisions of Sec. 1-13 of this Code. In addition, the county may declare any structure constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this article to be a nuisance subject to abatement.