

**ARTICLE 16 FLOODPLAIN MANAGEMENT, EROSION AND SEDIMENT
CONTROL, AND STORMWATER MANAGEMENT**

TITLE 1. DEFINITIONS AND GENERAL PROVISIONS

16-1-101. Definitions.

In this article, the following words have the meanings indicated.

- (1) "Accessory" has the meaning stated in Article 18 of this Code.
- (2) "Adequate outfall" means an outfall that has adequate capacity and stability as determined in the County Procedures Manual.
- (3) "Administration" for the purpose of Title 4 means the Maryland Department of the Environment (MDE), Water Management Administration (WMA).
- (4) "Agricultural land management practices" means those methods and procedures used in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources. Import and export of fill material, logging and timber removal operations or the conversion of forest to pasture or cropland are not part of this definition.
- (5) "As-built plan" means a plan drawn to the same scale as the approved plans which shows that the location, dimensions, elevations, and status of the resulting grading, drainage structures, drainage systems, and erosion and sediment control practices are in substantial conformance with the previously approved plans, noting any substantial deviations.
- (6) "Basement" means that portion of a structure having its lowest floor below ground or grade elevation on all four sides.
- (7) "Best management practice (BMP)" has the meaning stated in COMAR 26.17.02.02.
- (8) "Buffer Management Plan" has the meaning stated in Article 17 of this Code.
- (9) "Certificate of occupancy" means an official form issued by the Director certifying that a structure has been built in accordance with approved plans and providing that the structure may be inhabited or used for the intended purpose.
- (10) "Certification" means a statement signed and sealed by a design professional that specific construction, inspections, or tests have been performed and that they comply with the applicable requirements of this article.

NOTE: Article 16 Floodplain Management, Erosion and Sediment Control, and Stormwater Management is new in its entirety. For purposes of convenience and clarity, the convention of 10 point capitals for new language is not used.

- (11) “Channel protection storage volume” (CPv) has the meaning stated in COMAR 26.17.02.02.
- (12) “Clearing” has the meaning stated in Article 17 of this Code.
- (13) “Concept Plan” has the same meaning as COMAR 26.17.02.02.
- (14) “County Procedures Manual” means the Anne Arundel County Stormwater Management Practices and Procedures Manual.
- (15) “Critical area” has the meaning stated in Article 18 of this Code.
- (16) "Department" means the Department of Inspections and Permits.
- (17) “Design Manual” has the meaning stated in COMAR 26.17.02.02.
- (18) “Design professional” means a professional engineer, professional land surveyor, or professional landscape architect licensed by the State.
- (19) “Developed woodlands” has the meaning stated in Article 17 of this Code.
- (20) “Developer” has the meaning stated in Article 17 of this Code.
- (21) "Development" has the meaning stated in Article 17 of this Code.
- (22) “Direct discharge” has the meaning stated in COMAR 26.17.02.02.
- (23) "Director" means the Director of the Department of Inspections and Permits or the Director’s designee.
- (24) “Disturbance” has the meaning stated in Article 17 of this Code.
- (25) “DPW Design Manual” means the Department of Public Works Design Manual and the Standards and Specifications for Construction.
- (26) “Drainage area” has the meaning stated in COMAR 26.17.02.02.
- (27) "Easement" has the meaning stated in Article 17 of this Code.
- (28) "Elevation certificate" means an official FEMA form used to certify the elevation of a structure that is prepared by a design professional authorized to certify elevations.
- (29) “Environmental site design (ESD)” has the meaning stated in COMAR 26.17.02.02.
- (30) “Erosion” has the meaning stated in COMAR 26.17.01.01.
- (31) “Estimated cost” means the total cost estimated by the Department based on unit prices adopted by the Director.
- (32) “Exemption” means those land development activities that are not subject to the stormwater management requirements contained in Title 4 of this article.

(33) “Extreme flood volume” (Qf) has the meaning stated in COMAR 26.17.02.02.

(34) "Federal Emergency Management Agency" (FEMA) means the federal agency responsible for floodplain management.

(35) “Fill” means a deposit of soil, rock, or other materials placed by humans.

(36) “Final stormwater management plan” has the meaning stated in COMAR 26.17.02.02.

(37) "Flood" means a temporary inundation of normally dry land.

(38) “Flood Insurance Rate Map (FIRM)” means the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to Anne Arundel County.

(39) “Flood Insurance Study” means the official report provided by the Federal Emergency Management Agency that contains the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, the water surface elevations of the base flood, and supporting technical data.

(40) “Flooding” means stormwater runoff from a natural or human-made stormwater runoff conveyance system that inundates an existing structure or that overflows onto land that lies outside of floodplain easements, drainage easements, or areas shown on federal insurance rate maps as flood-prone areas.

(41) "Floodplain" means an area that after total development of the watershed in accordance with applicable zoning would be inundated by water from any source as determined by the County Procedures Manual.

(42) "Floodproofing" means any combination of structural or nonstructural changes, adjustments, or actions, which reduce or eliminate flood damage to a structure, contents, utilities, and equipment.

(43) "Floodproofing certificate" means an official FEMA form prepared by a design professional and used to certify that a nonresidential structure has been designed and constructed to be floodproofed to the flood protection elevation.

(44) "Flood protection elevation" means the elevation of the 100-year flood plus one foot freeboard.

(45) “Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot in height.

(46) “Forest” has the meaning stated in Article 17 of this Code.

(47) “Forest management plan” has the meaning stated in Article 17 of this Code.

(48) "Freeboard" means an additional height used as a factor of safety in determining the elevation of a structure or floodproofing to compensate for factors that may increase the flood heights.

(49) "Grading" means to cause the disturbance of the earth, and the term includes clearing, excavating, filling, including hydraulic fill, stockpiling of earth materials, grubbing, rootmat or top soil disturbance, or a combination of any of these operations, including logging and timber removal operations.

(50) "Grading permit" means a permit issued to authorize grading to be performed in accordance with this article.

(51) "Historic structure" means a structure that is listed on the Maryland Inventory of Historic Properties, the National Register of Historic Places, or the National Historic Landmarks.

(52) "Impervious surface" has the meaning stated in Article 18 of this Code.

(53) "Individual lot development" means development on a site for which subdivision approval is not required.

(54) "Infiltration" means the passage or movement of water into the soil surface.

(55) "Lowest floor" means the lowest floor of the lowest enclosed area including basements, except that an unfinished or flood-resistant enclosure used solely for parking, building access, or storage may not be considered the lowest floor.

(56) "Manufactured home" means a structure transportable in one or more sections that is built on a permanent chassis and is designed for use as a dwelling with or without a permanent foundation when connected to the required utilities, and the term includes manufactured homes, trailers, and other similar vehicles placed on a site for more than 180 consecutive days.

(57) "Maximum extent practicable (MEP)" has the meaning stated in COMAR 26.17.02.02.

(58) "Mean high-water line" has the meaning stated in Article 18 of this Code.

(59) "New construction" means structures for which construction commenced on or after July 25, 1988.

(60) "New development" means development on a site where subdivision, site development plan, or permit approval is required.

(61) "Nonstructural stormwater management practice" means those practices set forth in COMAR 26.17.02.08.

(62) "Offsite stormwater management" means the design and construction of a facility necessary to control stormwater from more than one development site.

(63) "One-hundred year flood" means a flood that has a 1% chance of being equaled or exceeded in a given year.

(64) “Onsite stormwater management” means the design and construction of systems necessary to control stormwater within an immediate development site.

(65) “Outfall” means the point at which a proposed stormwater conveyance system carrying stormwater runoff from a site discharges into an existing stormwater conveyance system.

(66) “Overbank flood protection volume” (Qp) has the meaning stated in COMAR 26.17.02.02.

(67) “Planning and Zoning Officer” means the Planning and Zoning Officer or the Officer’s designee.

(68) “Planning techniques” has the meaning stated in COMAR 26.17.02.02.

(69) “Point of investigation” means the point located downstream from a site discharge where the post-development runoff is less than or equal to 10 % of the total runoff to that point. All runoff computations shall be based on the 10-year storm, curve number and time of concentration based on ultimate development and no peak management for the total runoff to that point.

(70) “Private stormwater management” means the ESD planning techniques, treatment practices, and structural stormwater measures used to satisfy the minimum control requirements of Title 4 of this article that are not considered public stormwater management.

(71) “Public stormwater management” means the ESD Planning Techniques, treatment practices, and structural stormwater measures used to satisfy the Minimum Control requirements of Title 4 of this article for projects where the stormwater management system is owned or maintained by the Department of Public Works, the Department of Recreation and Parks, the Department of Central Services, or any other County agency or department.

(72) “Recharge volume (REv)” has the meaning stated in COMAR 26.17.02.02.

(73) “Redevelopment” has the meaning stated in COMAR 26.17.02.02.

(74) “Regenerative step pool conveyance system” has the meaning stated in the County Procedures Manual.

(75) “Responsible personnel” has the meaning stated in COMAR 26.17.01.01.

(76) “Retrofitting” has the meaning stated in COMAR 26.17.02.02.

(77) “Sediment” has the meaning stated in COMAR 26.17.01.01.

(78) “Site” has the meaning stated in COMAR 26.17.02.02.

(79) “Site improvement” means storm drains, roads, curbs and gutters, concrete work, stabilization, stormwater management facilities, and other structural improvements.

(80) “Slope” means an inclined surface of a fill, excavation, or natural terrain.

(81) "Stabilization" means the prevention of soil movement by vegetative or structural means.

(82) "Standard grading plan" means a plan that may be used in lieu of a grading permit only for certain minor grading and earth disturbance associated with minor commercial and residential construction.

(83) "Steep slope" has the meaning stated in Article 17.

(84) "Stormwater" has the meaning stated in COMAR 26.17.02.02.

(85) "Stormwater management system" has the meaning stated in COMAR 26.17.02.02.

(86) "Stormwater management site development plan" has the same meaning as "site development" as defined in COMAR 27.17.02.02.

(87) "Structural stormwater management practice" means those practices set forth in COMAR 26.17.02.08C.

(88) "Structure" has the meaning stated in Article 18 of this Code.

(89) "Subdivision" has the meaning stated in Article 17 of this Code.

(90) "Substantial improvement" means any reconstruction, rehabilitation, addition or other improvement to a structure other than an historic structure, the cost of which equals or exceeds 50% of the State's assessed value of the structure or, an appraisal performed by a professional real estate appraiser of the market value of the structure (less land value) before commencement of the reconstruction, rehabilitation, addition or other improvement or, if the structure has been damaged and is being restored, before the damage occurred, but the term does not include the minimum repairs needed to correct violations of State or County health, safety, or sanitary codes.

(91) "Tributary streams" has the meaning stated in Article 17.

(92) "Water quality volume" (WQv) has the meaning stated in COMAR 26.17.02.02.

(93) "Watercourse" means any natural or artificial stream, river, creek, ditch, channel, canal, conduit, culvert, drain, waterway, gully, ravine, or wash in which water flows continuously or intermittently, and the term includes any adjacent area that is subject to inundation from overflow or floodwater.

(94) "Watershed" has the meaning stated in COMAR 26.17.02.02.

16-1-102. Scope.

The provisions of this article are minimum requirements that apply in addition to other requirements of this Code and other law and regulations.

16-1-103. Conflict of laws.

If any provision of this article conflicts with other County law, the provision that establishes the higher standard for protection of the natural environment shall prevail.

16-1-104. Compliance with other law.

Except as otherwise provided by this article, all development, grading, and other activity under this article shall comply with all applicable federal, State, and County law and regulations, the County Procedures Manual, and the DPW Design Manual.

16-1-105. Federal and State permits.

The County may issue a permit conditioned on the applicant having obtained all necessary permits from all applicable State and federal agencies. The issuance of federal or State permits does not exempt development from compliance with this article.

16-1-106. Right of entry.

It is a condition of a permit applied for or issued under this article that officers and employees of the County and, for purposes of Title 4, the Administration may enter onto the site to inspect for compliance with the provisions of this article.

16-1-107. Liability for damages.

The issuance of a permit under this article or compliance with this article does not relieve a person from responsibility for damage to persons or property otherwise imposed by law or impose liability on the County for damages.

16-1-108. Unit prices.

The Director shall adopt unit prices to be used by applicants in connection with the submission of cost estimates required by this article.

16-1-109. Denial of permits after notice of violation.

(a) **Denial of permit.** The County may deny the issuance of permits under this article if it determines that the applicant has been served with notice of any violation on the property for which the permit is sought and the violation has not been resolved.

(b) **Notice of intent.** The Director of Inspection and Permits shall give notice of intent to enforce this section by including in any notice of violation a provision stating that the property may be subject to denial of additional permits under this section until the violation is corrected.

(c) **Remedies and penalties.** The remedies and penalties set forth in this section are in addition to and do not supersede remedies and penalties provided in Title 5 of this article or elsewhere in this Code or imposed by a court.

(d) **No appeal.** The applicant may not appeal the denial of additional permits based on enforcement of this section.

TITLE 2. FLOODPLAIN MANAGEMENT

SUBTITLE 1. GENERAL PROVISIONS

16-2-101. Scope; overlay.

(a) **Scope.** This title applies to all development, new construction and substantial improvements to existing structures in a floodplain district. An application for subdivision or for a building or grading permit is an application for development under this title.

(b) **Overlay.** This title is an overlay that applies to all land located in the County.

16-2-102. Disclaimer of County's liability.

The degree of flood protection provided by this title is considered reasonable for regulatory purposes and is based on engineering experience and scientific methods of study. Nothing in this title means that land outside the areas of special flood hazard or development within those areas will be free from flooding or flood damage. Larger floods can and will occur on rare occasions, and flood heights may be increased by manmade or natural causes. The issuance of a permit or the grant of any other approval is not a representation, guarantee, or warranty and does not create liability on the part of the County, its officials, or employees.

16-2-103. Establishment of floodplain district and subdistricts.

(a) **Establishment of floodplain district.** A floodplain district is established. It includes the areas in the County subject to inundation by the waters of the 100-year flood as determined and delineated by:

(1) the Flood Insurance Study and Wave Height Study for Anne Arundel County, Maryland (Unincorporated Areas), dated November 2, 1982, and the Flood Insurance Study and Wave Height Study for the Town of Highland Beach, Maryland (Incorporated Area), dated April 15, 1982, with accompanying flood insurance rate and floodway maps by FEMA and all subsequent revisions; or

(2) more restrictive floodplain studies or data approved in connection with an application for a building or grading permit or for subdivision.

(b) **Subdistricts.** The floodplain district consists of the following subdistricts:

(1) "nontidal 100-year floodplain," designated as zones A2, A3, A4, A5, A6, A7, A8, A9, A10, A13, A14, and A15 on the flood insurance rate maps;

(2) "approximated floodplain," designated as zone A on the flood insurance rate maps, and with an approximated boundary because a detailed study has not been performed and water surface elevations have not been provided;

(3) "coastal floodplain," designated as zones A2, A3, A4, A5, A6, A7, A8, A9, A10, A13, A14, and A15 with an elevation number (EL-) on the flood insurance rate maps and based on detailed study information and profiles;

(4) "coastal high hazard areas," designated within coastal floodplains as zones V9, V10, V11, and V12 with an elevation number (EL-) on the flood insurance rate maps and subject to inundation by high-velocity waters and wave action based on a detailed wave height study; and

(5) “floodway,” designated as floodway within the 100-year nontidal floodplain on maps titled “flood boundary and floodway maps”.

(c) **Revisions to floodplain district.** The floodplain district boundaries may vary periodically as revisions to the flood insurance study and flood insurance rate maps are made and, upon receipt of changes by the Office of the County Executive, the changes automatically constitute changes to the boundaries of the floodplain district. The Office of Planning and Zoning may revise the delineation of the floodplain district only in compliance with the National Flood Insurance Program (NFIP) and the requirements of the State and only when there are changes through natural or other causes as indicated by detailed hydrologic and hydraulic studies. Changes to the delineation of the floodplain district shall be subject to the review and approval of FEMA and the State, except that approval is not required and elevations shall be used if there is a conflict between map boundaries and elevations plotted on a topographic map.

(d) **Request for map amendment.** A developer or owner who believes that property has been erroneously included in a designated floodplain district on the flood insurance rate maps may submit scientific or technical information to FEMA for review for a possible map amendment. Any development in a floodway that may result in an increase in water surface elevations or a change to the floodway shall be submitted to FEMA for a conditional letter of map revision.

(e) **Boundary disputes in approximated floodplain.** As promptly as possible after receipt of written notice of a dispute concerning a district boundary in an approximated floodplain, the Planning and Zoning Officer shall make an interpretation and render a decision in writing.

16-2-104. Amendments.

This title and all amendments to it are subject to the approval of FEMA and the State.

16-2-105. Unsafe structures.

The Department shall declare a structure that is constructed, enlarged, altered, or relocated in violation of this title to be an unsafe structure and abatable as an unsafe structure under §§ 15-2-101 and 15-1-105 of this Code and shall immediately notify FEMA and the State Water Resources Administration in writing of any structure or property in violation of this title.

SUBTITLE 2. DEVELOPMENT

16-2-201. Required information.

(a) **Application for a building or grading permit.** An application for a building or grading permit for land located in a floodplain district shall contain or be accompanied by the following information:

(1) a demonstration that new structures cannot be located outside the floodplain and that encroachments into the floodplain are minimized;

(2) the elevations of the proposed final grading; the lowest floor levels; the floor area below the lowest floor; the existing ground contours; the 100-year flood elevation; and the high-

velocity water and wave action elevation, including its relation to a stream channel, shoreline, floodplain district, and floodplain subdistrict, as certified by a design professional;

(3) the method of elevating a proposed structure, including details of proposed fills, pile structures, retaining walls, foundations, and erosion protection measures, as prepared by a design professional;

(4) the methods used to protect electrical, plumbing, and mechanical systems and utilities from flooding;

(5) for a substantial improvement to an existing structure, the State's assessed value or, at the developer's option, a current "as is" appraisal performed by a professional real estate appraiser of the market value of the structure, excluding land value;

(6) for a relocation, alteration, or modification of all or part of a watercourse or stream, evidence that notice has been sent as required by § 16-2-204 and an engineering study prepared by a design professional that analyzes all reasonable alternatives and fully evaluates the effects of the construction, using applicable 100-year flood and floodway data prepared by FEMA, and that includes a certification that the flood-carrying capacity within the watercourse or stream will not be affected;

(7) an acknowledgment that flood insurance for a structure not elevated or floodproofed in conformance with this title may be available only at prohibitive rates or not at all and that construction below the level of the 100-year flood increases risk to life and property; and

(8) for accessory structures, a statement on the building plans that reads as follows: "No conversion of this area to habitable space is to occur unless the lowest floor is elevated to one foot above the 100-year flood elevation. At this site the 100-year flood elevation is _____."

(b) **Application for subdivision.** An application for subdivision on land that includes areas within a floodplain district shall include:

(1) a delineation of the 100-year flood elevation if determined by the flood insurance study or watershed studies conducted by the County; and

(2) if the 100-year floodplain elevation has not been determined, the developer shall determine the 100-year floodplain elevation in accordance the County Procedures Manual and delineate the elevation on the proposed plans. Plans shall be certified by a design professional.

16-2-202. Development requirements.

(a) **Scope.** This section does not apply to piers or structures for the wet storage of watercraft if the piers or storage structures do not contain habitable space.

(b) **Generally.** Development may not occur in the floodplain if an alternative location for the development exists. All development shall be consistent with applicable flood hazard and watershed management plans and shall be undertaken in a manner that minimizes adverse impact on aquatic or terrestrial habitats and related flora and fauna. Grading, necessary provisions for drainage, erosion, and sediment control, and vegetative establishments may not increase flooding. Structures shall be constructed and placed on the lot so as to offer the minimum

obstruction to the flow and height of floodwater. Materials that are hazardous, buoyant, flammable, or explosive, or that in times of flooding could be injurious to human, animal, or plant life, are prohibited below the flood protection elevation. Basements are prohibited. Reconstruction, rehabilitation, or restoration of a historic structure may not cause an increase in the elevation of the 100-year flood level. If a proposed building, structure or substantial improvement is sited in two different subdistricts or in a subdistrict with two different 100-year elevations, the more restrictive regulations or the higher flood elevation shall prevail.

(c) **Elevation to flood protection elevation; exceptions.** All structures, new construction, substantial improvements and new habitable space shall have the lowest floor elevated to the flood protection elevation, except that:

(1) an expansion that increases the footprint of a structure is not required to have the lowest floor elevated to the flood protection elevation if the expansion is the minimum necessary to correct violations of State or County health, safety, or sanitary codes;

(2) an accessory structure or attached garage is not required to have the enclosed area below the lowest floor elevated to the flood protection elevation if the provisions of this section and § 16-2-203 are met; and

(3) new construction of or substantial improvements to nonresidential structures may be floodproofed in lieu of having the lowest floor elevated to the flood protection elevation if:

(i) the floodproofing designs ensure that areas below the flood protection elevation are watertight with walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy for flooding to the flood protection elevation; and

(ii) a FEMA floodproofing certificate is provided.

(d) **Water equalizing vents.** New construction of or substantial improvements to a lowest floor or enclosed area below the lowest floor that is not required under this section to be elevated to the flood protection elevation shall be constructed with water equalizing vents in accordance with the requirements of the Building Code adopted by Article 15, Title 2, of this Code.

(e) **Electrical, plumbing, and mechanical systems; utilities.** Electrical, plumbing, and mechanical systems shall be installed in accordance with § 15-2-101 of this Code for commercial structures and § 15-2-102 of this Code for residential structures. New or replacement water and sewer connections shall be designed and floodproofed to eliminate or minimize the potential for flood damage, including infiltration of floodwater into the connections and discharges from the connections into floodwater. Onsite waste disposal connections shall be located to avoid impairment to them or contamination from them during flooding. Gas, electrical, and other facility and utility connections shall be located, constructed, and floodproofed to eliminate or minimize potential for flood damage. New storm drainage facilities within or leading to or from a floodplain shall be adequately designed, floodproofed, and installed to eliminate or minimize potential for property damage from the floodwaters of the 100-year flood and to minimize adverse environmental impact of their installation and use.

(f) **Coastal high hazard areas.** Manufactured homes and the placement of fill are prohibited in coastal high hazard areas. New construction of or a substantial improvement to a structure in a coastal high hazard area is prohibited unless the construction or improvement is in accordance

with the Federal Emergency Management Agency's Coastal Construction Manual (FEMA 55), Manufactured Home Installation in Flood Hazard Areas (FEMA 85), Flood Resistant Design and Construction (ASCE 24-05) and NFIP Technical Bulletin 5 and 9.

(g) **Floodways.** All residential development, manufactured homes and the placement of fill are prohibited in a floodway. New construction of or a substantial improvement to a structure in a floodway is prohibited unless hydrologic and hydraulic analyses based on floodway models and performed in accordance with standard engineering practices demonstrate that the construction or improvement will not cause an increase in downstream or upstream flooding or erosion. Structures and fences, except two-wire fences, that impede, retard, or change the direction of the flow of water, that catch or collect debris carried by water, or that are placed where the natural flow of the stream or floodwaters will carry debris downstream are prohibited.

16-2-203. Attached garages; accessory structures.

(a) **Scope.** This section applies to attached garages and to all accessory structures, including detached garages, of less than 600 square feet, except that it does not apply to piers or structures for the wet storage of watercraft if the piers or storage structures do not contain habitable space.

(b) **One-story structures of 300 square feet or less.** A one-story accessory structure of 300 square feet or less may be constructed below the flood protection elevation if:

(1) the structure is used for parking, storage, or building access only;

(2) the floor elevation is at or above existing grade and does not qualify as a basement and is equipped with flood equalization vents in accordance with the applicable provisions of the International Building Code or the International Residential Code as required by Article 15 of this Code;

(3) the structure is constructed and located so as to minimize flood damage; and

(4) the structure is firmly anchored to prevent flotation.

(c) **Other accessory structures and garages; non-conversion agreement.** The developer of a two-story accessory structure, an attached garage, or an accessory structure that has more than 300 square feet shall comply with the requirements of subsection (b) and execute a non-conversion agreement provided by the County that prohibits conversion of the area to habitable space unless elevated to the flood protection elevation. The agreement shall be recorded among the land records.

16-2-204. Relocation, alteration, or modification of a watercourse or stream.

(a) **Prohibition.** Relocation, alteration, or modification of a watercourse or stream in a floodplain district is prohibited.

(b) **Notice.** If a modification granted under this title allows development that includes the relocation, alteration, restoration, or modification of a watercourse or stream, the developer shall maintain the flood carrying capacity of the altered, relocated, or restored watercourse. The developer shall provide notice of the relocation, alteration, restoration, or modification by certified mail to the Federal Emergency Management Agency, to the State, and to all lot owners within 175 feet of the portion of the watercourse or stream to be relocated or altered.

16-2-205. Certificate of occupancy.

A certificate of occupancy may not be issued in a floodplain district until the Director has been provided with a completed FEMA elevation certificate that verifies the as-built elevation of the construction.

16-2-206. Record of permit actions; tracking.

(a) **Record.** The Department shall maintain a record of all floodplain district permit actions and shall make the record available on request by FEMA or by the State. The record shall include the date the permit was issued, the as-built lowest floor elevation of all new construction or substantial improvement, the issuance date of a certificate of occupancy, a copy of the completed elevation certificate, and any map amendments issued by FEMA.

(b) **Tracking.** All permits subject to this title shall be tracked by property location to determine if the cumulative value of improvements over a three-year period constitutes a substantial improvement of the structure.

SUBTITLE 3. MODIFICATIONS

16-2-301. Modifications.

(a) **Where application is filed.** An application for a modification from the requirements of this title shall be filed with the Office of Planning and Zoning if it relates to roads, utilities, storm drains, stormwater structures, stream restoration, or other infrastructure proposed in the subdivision process. Otherwise, the application shall be filed with the Department.

(b) **Contents.** An application for a modification to Planning and Zoning shall be done in accordance with § 17-2-108 of this Code. A modification application to the Department shall:

- (1) set forth good cause accompanied by an engineering analysis;
- (2) demonstrate that no reasonable alternative exists outside the floodplain district;
- (3) explain the non-economic hardship to the applicant if relief is not granted; and
- (4) demonstrate that the grant of a modification will not result in increased flood heights.

(c) **Determination.** The County may not grant a modification until it has received comments and a copy of any required modification or variance from the State. The County may grant a modification, with or without conditions, if it determines that:

- (1) the applicant has demonstrated good cause;
- (2) no reasonable alternative exists outside the floodplain district;
- (3) a failure to grant the modification would result in non-economic hardship to the applicant;

(4) the granting of the modification will not result in increased flood heights, a threat to public safety, extraordinary public expense, a nuisance, a fraud on or victimization of the public, or a conflict with State or County law; and

(5) the modification is consistent with sound management and is the minimum necessary, considering the flood hazard, to afford relief.

(d) **Prohibited modifications.** A modification to the provisions contained in § 16-2-202(f) and (g) relating to development in coastal high hazard areas and floodways is prohibited. A modification to the requirement that the lowest floor of a new or substantially improved residential structure be elevated to the flood protection elevation is prohibited.

TITLE 3. EROSION AND SEDIMENT CONTROL

SUBTITLE 1. GENERAL PROVISIONS

16-3-101. Scope.

This title applies to all clearing and grading in the County. The 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control or any superseding document adopted by the State shall control erosion and sediment control principles, methods, and practices. This includes adherence to COMAR 26.17.01.00 and all Anne Arundel Soil Conservation District policies for site development.

16-3-102. Repair or restoration.

Erosion, sediment deposition, disturbance of vegetative cover, or other damage that occurs as a result of development or a violation of this title shall be repaired and restored to meet the requirements of this title.

16-3-103. Maintenance of protective measures.

(a) **Protective measures required.** A permittee shall conduct or provide for daily inspections and shall maintain continually in effective operational condition all surfaces, erosion control measures, vegetative covers, and other protective measures in accordance with the approved grading permit plans or standard grading plan until removed with the permission of the Department. Any measures that are disturbed or destroyed in the course of operations shall be immediately repaired. Any failure of a sediment control device shall be reported immediately to the Department and the device repaired and restored before development work on the site is resumed.

(b) **Inspections.** For the purpose of compliance with this section the permittee shall conduct:

(1) daily monitoring inspections of the approved erosion and sediment controls for each day any construction activity is underway;

(2) weekly inspections of the approved erosion and sediment controls for sites where no construction activities are taking place; and

(3) monitoring inspections of the approved erosion and sediment controls the next day after a rainfall event that results in runoff.

(c) **Reports.** During construction, the permittee shall maintain at the site written reports of all monitoring inspections and reports shall contain the following information:

- (1) the date and time of the inspection;
- (2) the name of the individual who performed the inspection;
- (3) the Certificate of Training number of the individual who performed the inspection;
- (4) an assessment of the conditions of the approved erosion and sediment controls;
- (5) a description of any erosion and sediment control implementation and maintenance performed; and
- (6) a description of the present phase of construction.

(d) **Availability of reports.** At any time during the construction the written reports must be made available to the Department for review and evaluation or submitted to the Department as may be required.

16-3-104. Enclosure of sediment basins and traps.

(a) **Sediment basins.** A sediment basin located in a residential zoning district shall be enclosed with a chain link fence that is not less than six feet above the ground. Gates shall be securely closed so that only authorized personnel can gain access. Other types of enclosures may be used only with the approval of the Department before installation. The Department also may require that a sediment basin located in a zoning district other than a residential zoning district is enclosed if the basin is located within 500 feet of a residential use.

(b) **Sediment traps.** The Department may require a sediment trap to be enclosed if the Department determines that enclosure is necessary to ensure public safety.

16-3-105. Revolving fund.

There is a revolving fund to support the cost of work done by the County after an owner or permittee fails, neglects, or refuses to do the required work. The Controller shall allow an expenditure from the general County capital projects fund on a revolving basis to support the cost of the work.

16-3-106. Stay pending appeal.

(a) **Applicability.** This section applies to an appeal from the issuance of a grading permit for grading on land within 100 feet of the mean high-water line, a tributary stream, or the edge of a tidal wetland or within the expanded buffer provided for in § 18-13-104(a) of this Code. This section also applies to an appeal from the issuance of a grading permit for disturbance of one acre or more on any lot other than one that is part of a larger site with an active or completed grading permit that provides for site improvements and future development of lots on that site.

(b) **Stay pending decision by the Board of Appeals.** The timely filing of an appeal automatically stays all action under the permit pending a final decision by the Board of Appeals.

The Board shall hear and decide the appeal within 45 days of the filing of the appeal. If the Board fails to issue a final written decision within 45 days, the stay shall be terminated and may not be reinstated.

SUBTITLE 2. GRADING PERMIT

16-3-201. Approval required; exceptions.

(a) **Approval required.** Except as provided in subsection (b), a person may not:

- (1) grade without a grading permit issued by the Department;
- (2) clear in the critical area buffer, expanded buffer, or buffer modification area described in §18-13-104 without a buffer management plan or forest management plan; or
- (3) do logging without a grading permit issued by the Department.

(b) **Exceptions.** Approval is not required for clearing or grading associated with:

- (1) accepted agricultural land management practices;
- (2) the laying of gas, electrical, telephone, or cable television lines that disturbs less than 100 linear feet;
- (3) activities that are subject exclusively to State approval and enforcement under State law;
- (4) activities under a standard grading plan approved by the Department under § 16-3-202; or
- (5) routine yard or garden maintenance disturbing less than 5,000 square feet of land or unless prohibited by subsection (a)(2) of this section or other applicable State or Federal law.

16-3-202. Standard grading plan.

A standard grading plan may be used in lieu of a grading permit if:

- (1) the applicant files a standard grading plan application that is approved by the Department; and
- (2) the applicant certifies that construction will meet the conditions and limitations established on the standard grading plan and will be carried out in compliance with this title.

16-3-203. Application.

(a) **Who may file.** Any person may file an application for a grading permit, but the application shall be accompanied by an affidavit of the owner stating that the proposed work is authorized if the application is filed by a person other than the owner.

(b) **Contents.** An application shall include all information required by the Department. The information ordinarily shall include:

(1) a site development plan in accordance with the requirements of §§ 17-4-101 et seq. of this Code;

(2) an erosion and sediment control plan;

(3) the application fee and the permit fee; and

(4) a cost estimate prepared by a design professional for all site improvements not covered by a public works agreement.

16-3-204. Erosion and sediment control plan.

An erosion and sediment control plan shall contain all information required by COMAR 26.17.01.07. In addition, an erosion and sediment control plan shall contain all information required by the Department. The information required by the Department ordinarily shall include:

(1) the signature and seal of a design professional;

(2) a boundary line survey tied to the County coordinate system;

(3) a detailed plan (plan sheet 24" x 36") at a scale that is no smaller than a 1" = 40';

(4) the elevations, dimensions, location, extent, and slope of proposed grading, including building and driveway grades, utilities, sewer, water, storm drains and, if applicable, the 100-year flood elevation clearly indicated with finished contours at the same interval as required or used for existing topography;

(5) the estimate of the quantity of excavation and fill involved;

(6) complete storm drainage studies and stormwater management analysis if not previously submitted in accordance with the provisions of Article 17 of this Code;

(7) an appropriate legend;

(8) a 100-foot adjacent peripheral strip, showing existing topography at a contour interval as specified by the Department;

(9) an acknowledgement that all clearing, grading, construction, and development will be done pursuant to the plan;

(10) an identification of responsible personnel;

(11) the use and extent of fills;

(12) a statement that inspections will be requested as required by § 16-3-302;

(13) any enclosure of sediment basins or traps required by § 16-3-104;

(14) the location of the erosion control monitoring device for any piped outfall, sediment trap outfall, sediment basin outfall, or open channel outfalls that serve as a sediment and erosion control feature during construction; and

(15) a statement in the construction sequence that the construction of the first floor walls of any building or structure may not proceed until the foundation has been backfilled, the disturbed areas have been stabilized and a certificate is provided to the inspector verifying the grades and drainage patterns shown on the approved Erosion and Sediment Control Plan have been obtained.

16-3-205. Erosion control monitoring device.

(a) **Requirements.** The erosion control monitoring device is to be shown on the erosion and sediment control plan and shall be an iron survey stake embedded at least 2.5 feet into the centerline of the receiving channel with the elevation of the top of the stake recorded on the stake. At least one device shall be provided for each site outfall. The total number and locations of the devices shall be determined by the Anne Arundel Soil Conservation District.

(b) **Repair required.** At any time during the construction and before a certificate of completion is issued, any sediment deposition or channel erosion measured at the monitoring device shall be repaired as directed by the Department.

16-3-206. Criteria for issuance.

The Department may not issue a grading permit unless:

(1) an erosion and sediment control plan is approved by the Anne Arundel Soil Conservation District;

(2) the State Highway Administration approves the application for the grading permit, if applicable;

(3) the applicant agrees in writing that all development will comply with the approved erosion and sediment control plan;

(4) a stormwater management plan is approved in accordance with the requirements of this article;

(5) a site development plan is recommended for approval as provided in § 17-4-203 of this Code;

(6) the Office of Planning and Zoning approves the cost estimate filed with the application; and

(7) the applicant pays the grading fee and provides the security required by §§16-3-207 and 16-3-208.

16-3-207. Fees; refunds.

(a) **Fees.** The fees set forth in the chart in this subsection apply to all grading permits other than those issued for work on property owned or leased and developed by the County or the Board of Education.

Grading Permit Category	Fee
Application	\$25
Single family dwelling on lot of 20,000 square feet or less	\$400
Single family dwelling on lot over 20,000 square feet	\$650
Churches, parsonages, and incorporated nonprofit eleemosynary and community associations	\$65
Forest harvest operation	\$100
Grading permit, other than for a single family dwelling, a church or nonprofit agency, or standard logging plan, is based on an approved cost estimate, as follows: \$0 to \$500 \$500.01 to \$1,250 over \$1,250	 \$45 \$90 \$90 plus 7% of costs over \$1,250
Additional work	Difference between the fee for the original permit and the fee required for the fee required for the entire grading and sediment control project
Renewal of expired permit	\$25

(b) **Refunds.** On request of the applicant, the Department may refund 50% of a permit fee if for any reason the permit is not issued. The maximum amount retained by the County may not exceed \$1,000. Application fees are nonrefundable.

(c) **Site improvements covered by a Public Works Agreement (PWA).** Site improvements covered by a PWA are not included in grading and erosion control costs and fee calculations.

16-3-208. Security.

(a) **Security required.** An applicant other than the County, the Board of Education, or a public utility, or an applicant for a forest harvest operation shall provide the County with security in an amount equal to the approved cost estimate as shown on the approved grading and sediment control computation sheet. The security shall be in the form of a cash deposit, certified check, cashier’s check, irrevocable letter of credit, or bond from a bonding company or financial institution acceptable to the County. A public utility shall provide a letter of guarantee in a form approved by the Office of Law.

(b) **Full release.** Security given under this section shall be released if the Department issues a certificate of completion after having determined that the minimum requirements of this title have been met.

(c) **Partial release.** The Department may allow a partial release of the security given under this section, not to exceed 50% of the obligations or remaining obligations under the permit, if the applicant has performed at least 50% of the obligations or remaining obligations under the

permit and the County determines that a partial release of the security will not impair implementation of the provisions of this title.

(d) **Forfeiture.** If an applicant fails to comply with any term or condition of the permit, the County may declare that the security is forfeited to the County.

(e) **Costs in excess of security.** The cost of work performed under the provisions of this article in excess of that for which the County is compensated by security shall be an obligation of the owner of the property. The costs shall be levied and collected from the owner in the same manner as County real property taxes and shall have the same priority rights, bear the same interest and penalties, and in every respect be treated as County real property taxes. The interest rate charged to the property owner shall be the maximum legal rate. This subsection does not apply to a bona fide purchaser of a subdivided lot who had no financial interest in the development of the lot prior to acquiring legal title unless the violation is attributable to that purchaser.

16-3-209. Revisions.

(a) **Department authorized to require revisions.** If the Department finds that an approved plan, site development plan, or stormwater management plan is not adequate to effect compliance with the law because of design errors, unanticipated site conditions, failure to follow the approved phasing, or other conditions, the Department may require revisions to the plan.

(b) **Major revisions.** The Department will process major revisions of approved plans in the same procedural manner as the initial application for the grading permit. The approved revision shall be dated by the Soil Conservation District and noted on the erosion and sediment control plan.

(c) **Minor revisions.** The Department may approve minor revisions to the approved Erosion and Sediment Control Plan based on a list of minor revisions approved by the Anne Arundel Soil Conservation District. To apply for a minor revision, the permittee shall have the design professional responsible for the grading permit plans prepare five sets of the permit plans showing the plan changes in red for review. These plans shall be transmitted to the Department. If approved, the plan sets will be stamped with the date approved and distributed.

16-3-210. Posting.

A permittee shall post the approved grading permit in a conspicuous onsite location during construction and shall maintain a copy of the approved plan and any approved revisions on site.

16-3-211. When application abandoned.

An application for a permit shall be deemed abandoned 180 days after the date of filing unless the application has been pursued in good faith or a permit has been issued.

16-3-212. Expiration of issued permit.

A grading permit expires:

(1) if installation and inspection of all erosion and sediment control measures shown as Phase I on the approved plans has not occurred within one year from the date of issuance;

(2) two years after approval by the Anne Arundel Soil Conservation District unless a renewal of the Anne Arundel Soil Conservation District approval is obtained;

(3) one year after work has stopped with respect to a permit under which work has begun and stopped;

(4) upon the transfer of a permit to another person without approval from the Department;
or

(5) six years after issuance.

16-3-213. Renewal of expired grading permit.

(a) **Request for renewal.** Within 6 months after the expiration of a grading permit, the permittee may file a written request with the Director to renew the permit if the conditions under which the permit was originally issued have remained unchanged.

(b) **Renewal time period.** The Director may grant one or more renewals, extending the expiration date by not more than one year. A new request is required for each additional renewal.

(c) **Conditions for approval.** If a permit is extended under the provisions of this section, the Director may require that the project address ESD to the MEP.

SUBTITLE 3. INSPECTIONS AND COMPLETION OF WORK

16-3-301. Pre-construction meeting.

At least 48 hours before commencing work under a grading permit and approved plans, a permittee shall notify the Department of the intended date of commencement. Work may not commence until the permittee or responsible personnel have met on the site with a representative of the Department to review the approved plans.

16-3-302. Requests for inspections.

A permittee shall request that the Department inspect work upon:

(1) completion of installation of all erosion and sediment control measures shown as Phase I on the approved plans and before proceeding with any other grading or building construction;

(2) stabilization at the time of foundation backfill; and

(3) final stabilization before the removal of erosion and sediment controls.

16-3-303. Supervision of inspections and tests.

The Department may require that inspections and testing of a grading operation be performed under the direction of a design professional and that the design professional provide certifications as required by the Department.

16-3-304. Records.

On completion of work for which a grading permit was issued, the Department shall require the following for its files and shall also require copies for the Anne Arundel Soil Conservation District and the Department of Public Works:

(1) an as-built plan as required by § 16-4-302;

(2) an acknowledgement by the permittee that grading, drainage, structures, systems, and erosion and sediment control practices have been completed in substantial conformance with the approved plans and all required specifications as required by COMAR 26.17.01.07B 3h; and

(3) a report summarizing the inspection reports, field and laboratory tests, and locations of tests and field observations.

16-3-305. Notification of completion.

The permittee shall notify the Department when the grading operation is ready for final inspection. The Department will not give final approval unless all work and required stabilization, including the installation of all drainage structures, stormwater management facilities and erosion protective devices, has been completed and all required reports and other information have been submitted.

16-3-306. Certificate of completion.

The Department shall issue a certificate of completion for a project for which a grading permit is required within 60 days after it receives a written notice of completion of the project if after an inspection the Department finds that the permittee has complied with the provisions of this title.

SUBTITLE 4. MODIFICATIONS

16-3-401. Modifications.

(a) **Filing of request.** An applicant shall file a written request for a modification of this title with the Director and, if required, with the Anne Arundel Soil Conservation District. The request shall state the specific modification requested and the reasons for the request.

(b) **Approval.** The Director may approve an application for a modification to a provision of this title that is not required by State law upon an affirmative written finding that:

(1) practical difficulties or unnecessary hardship will result from strict application of this title;

(2) the purposes of this title will be served by an alternative proposal;

(3) the request is not based on financial considerations; and

(4) the modification is not detrimental to the public health, safety, or welfare or injurious to other properties.

(c) **Conditions.** In modifying a provision of this title, the Director may require conditions to secure the objectives of the provision that has been modified.

TITLE 4. STORMWATER MANAGEMENT

SUBTITLE 1. GENERAL PROVISIONS

16-4-101. Applicability.

(a) **Applicability of this title.** This title applies to all new development and redevelopment projects that do not have an issued grading permit or final plan approval for erosion and sediment control and stormwater management plans by May 4, 2010. This includes adherence to COMAR 26.17.02.00.

(b) **Inapplicability of this title.** The Planning and Zoning Officer may grant an Administrative Waiver to a development that meets the conditions of COMAR 26.17.02.01 and the grandfathering provisions in the County Procedures Manual.

(c) **Exemptions.** Except in the critical area, the following activities are exempt from the provisions of this title:

(1) agricultural land management practices;

(2) development, other than a new single family detached dwelling, that does not disturb over 5,000 square feet of land area;

(3) additions or modifications that are not classified as substantial improvements to existing single family detached dwellings if land disturbance is less than 5,000 square feet; and

(4) development regulated under State law that provides for managing stormwater runoff.

16-4-102. Administration and enforcement.

The Department and the Office of Planning and Zoning shall administer and enforce this title.

16-4-103. County Procedures Manual.

(a) **Preparation.** The Planning and Zoning Officer and the Director shall prepare and regularly update the County Procedures Manual for Stormwater Management Design, Construction, and Maintenance in furtherance of the provisions of this title.

(b) **Written interpretations.** The Director and the Planning and Zoning Officer may issue written interpretations to clarify the requirements of the County Procedures Manual.

16-4-104. Compliance with design standards, the County Procedures Manual, watershed management studies, and flood management plans.

(a) **Documents adopted.** The following documents, referred to in this title as design standards, are adopted as establishing requirements for stormwater management principles, methods, and practices in this County:

(1) the latest edition of the 2000 Maryland Stormwater Design Manual Volumes I and II (Maryland Department of the Environment, April 2000);

(2) the latest edition of the USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 378 (January 2000) or latest edition;

(3) the latest edition of the County Procedures Manual; and

(4) the latest edition of the DPW Design Manual.

(b) **Compliance with title and design standards required; conflicting standards.** Each developer required to submit a stormwater management plan and provide stormwater management shall comply with this title and the design standards. In the event of a conflict among the design standards, the more restrictive provision shall govern.

(c) **Consistency with watershed management studies or flood management plans.** If applicable, stormwater management plans shall be consistent with watershed studies conducted by the County or with flood management plans as approved by the Administration in accordance with the Flood Hazard Management Act of 1976.

SUBTITLE 2. STORMWATER MANAGEMENT PLANS

16-4-201. Stormwater management plans required.

(a) **Requirement.** A developer may not undertake any development or land disturbance that is subject to the provisions of this title without an approved stormwater management plan.

(b) **Preparation.** A stormwater management plan shall be prepared by a design professional, according to the requirements of the State Code for the type of stormwater management plan required.

(1) **ESD Planning Techniques and Practices.** Stormwater management plans shall demonstrate that environmental site design (ESD) has been implemented to the maximum extent practicable (MEP) using the ESD Planning Techniques and Practices in COMAR 26.17.02.08.B and the Design Manual.

(2) **Contents and submission of Stormwater Management Plans.** The developer shall be responsible for submitting phased stormwater management plans for development projects according to the comprehensive review and approval process in COMAR 26.17.02.09.E and the County Procedures Manual including, but not limited to, the concept plan, stormwater management site development plan, the final stormwater management plan, and an operations and maintenance plan.

(c) **Review.** The Office of Planning and Zoning shall review the stormwater management plan to determine whether the plan meets the requirements of this title and give notification of approval or reasons for disapproval. In granting approval of a stormwater management plan, the Office of Planning and Zoning may impose such conditions as it considers necessary to ensure compliance with the provisions of this title and the preservation of the public health and safety.

(d) **Additional approvals required.** If the stormwater management plan includes stormwater management practices that require small pond approval, a stormwater management plan shall be approved by the MDE and by the Anne Arundel Soil Conservation District.

(e) **Easements, right-to-discharge, and other property interests.** If a stormwater management plan involves direction, increases, or relocation of some or all of the stormwater runoff from the site in a manner that materially alters the flow characteristics of depth, velocity, width, or rate by more than 10%, or concentrates the discharge, a developer shall obtain from abutting and adjacent property owners any necessary easement, right-to-discharge, or other property interest concerning flow of water. This does not relieve the developer from obtaining any necessary easements, right-to-discharge, or other property interest concerning flow of water from adjacent property owners.

(f) **Summary Sheet.** The plan shall include a summary sheet that lists the types of practices being utilized, their street location and addresses, the grid coordinates in NAD 83, and the size of the drainage area being treated.

16-4-202. Minimum control requirements – in general.

(a) New development.

(1) **ESD requirements.** The planning techniques, nonstructural practices, and design methods specified in the Design Manual shall be used to implement ESD to the MEP. The use of ESD planning techniques and treatment practices shall be exhausted before any structural best management practice (BMP) is implemented. All stormwater management plans must be designed using the ESD sizing criteria, recharge volume, water quality volume, and stream channel protection storage volume criteria according to the Design Manual.

(2) **MEP standard.** The MEP standard is met when channel stability is maintained, predevelopment groundwater recharge is replicated, nonpoint source pollution is minimized, and regenerative step pool conveyance systems are employed to the extent possible on all public stormwater systems. Structural management practices may be used only if determined to be absolutely necessary.

(3) **Overbank flood protection.** Overbank flood protection (Q_p) is required as specified in the County Procedures Manual.

(4) **Extreme flood volume.** Extreme flood volume (Q_f) is required as specified in the County Procedures Manual.

(b) Redevelopment.

(1) Unless otherwise specified in an approved watershed management plan, the minimum control requirements for redevelopment are:

(i) reduction of existing impervious area by at least 50% within the limits of disturbance according to the Design Manual;

(ii) implementation of ESD to the MEP to provide water quality treatment for at least 50% of the existing impervious area within the limits of disturbance; and

(iii) use of a combination of (i) and (ii) for at least 50% of the existing site impervious area.

(2) Alternative stormwater management measures may be used to meet the requirements of this title if it can be satisfactorily demonstrated to the Office of Planning and Zoning that impervious area reduction has been maximized and ESD has been implemented to the MEP. Alternative stormwater management measures include but are not limited to:

(i) use of an onsite structural BMP;

(ii) use of an offsite structural BMP to provide water quality for an area equal to or greater than 50% of the existing impervious area; and

(iii) use of a combination of impervious area reduction, ESD implementation, and onsite or offsite structural BMP for an area equal to or greater than 50% of the existing site impervious area within the limits of disturbance.

(3) If it can be demonstrated to the Office of Planning and Zoning that all attempts to reduce impervious area, implement ESD to the MEP, and use alternative measures described in paragraph (2) above have been exhausted, then the following alternatives may be considered:

(i) watershed or stream restoration;

(ii) retrofitting an existing stormwater management facility, including existing BMP upgrades, filtering practices, and offsite ESD implementation;

(iii) a combination of ESD and an onsite or offsite structural BMP;

(iv) payment of a fee-in-lieu;

(v) a partial modification of the treatment requirements if ESD is not practicable;

(vi) using design criteria based on watershed studies conducted by the County;

or

(vii) implementing stormwater management practices to provide water quality control for 50% of the existing impervious area.

(4) The Office of Planning and Zoning may consider the prioritization of alternatives in 16-4-202(b)(3) after determining that it is not practicable to meet the 2009 regulatory requirements using ESD. In deciding what alternatives may be required, the Office of Planning and Zoning may consider factors including, but not limited to:

(i) whether the project is in an area targeted for development incentives such as a Priority Funding Area, a designated Transit Oriented Development Area, or a designated Base Realignment and Closure Revitalization and Incentive Zone;

(ii) whether the project is necessary to accommodate growth consistent with comprehensive plans; or

(iii) whether bonding and financing have already been secured based on an approved development plan.

(5) Stormwater management shall be addressed according to the new development requirements in the Design Manual for any net increase in impervious area.

16-4-203. Requirements in addition to the minimum control requirements.

The approving authority may require more than the minimum control requirements specified in this subtitle if:

(1) hydrologic or topographic conditions warrant;

(2) flooding, stream channel erosion, or water quality problems exist between the site outfall and the designated point of investigation; or

(3) the County has completed a watershed management study that indicates that additional requirements are necessary.

16-4-204. Alternative stormwater management practices.

Alternative stormwater management practices that meet the performance criteria of using ESD to the MEP established in the Design Manual may not be used unless they are approved by the Administration and then by the County.

16-4-205. Reduction of pollutant loadings from new impervious surface in the IDA.

(a) **Scope.** This section applies to intensely developed areas (IDA) in the critical area. The provisions of this section are in addition to other requirements of this subtitle.

(b) **Disturbance of less than 5,000 square feet in the buffer and expanded buffer.** For development sites in the IDA on which disturbance is less than 5,000 square feet in the buffer and expanded buffer, pollutant loadings from new impervious surface shall be reduced as follows and in the following order of priority:

(1) for disturbance of less than 1,000 square feet:

(i) planting in the buffer and expanded buffer at a ratio of two times the area of new impervious surface;

(ii) planting on site in the critical area outside the buffer and expanded buffer at a ratio of two times the area of new impervious surface; or

(iii) payment of a fee-in-lieu in the amount of \$1.20 per square foot of new impervious surface; or

(2) for disturbance of between 1,000 and 5,000 square feet:

(i) planting in the buffer and expanded buffer at a ratio of two times the area of new impervious surface;

(ii) planting on site in the critical area outside the buffer and expanded buffer at a ratio of two times the area of new impervious surface;

(iii) planting at an offsite location in the critical area at a ratio of two times the area of new impervious surface; or

(iv) payment of a fee-in-lieu of \$1.20 per square foot of new impervious surface.

(c) **Disturbance of less than 5,000 square feet outside the buffer and expanded buffer.** For development sites in the IDA on which disturbance is less than 5,000 square feet outside the buffer and expanded buffer, pollutant loadings from new impervious surface shall be reduced as follows and in the following order of priority:

(1) for disturbance of less than 1,000 square feet:

(i) planting on site in the critical area at a ratio equal to the area of new impervious surface; or

(ii) payment of a fee-in-lieu in the amount of \$0.60 per square foot of new impervious surface; or

(2) for disturbance of between 1,000 and 5,000 square feet:

(i) planting on site in the critical area at a ratio equal to the area of new impervious surface;

(ii) planting off site in the critical area at a ratio equal to the area of new impervious surface; or

(iii) payment of a fee-in-lieu of \$0.60 per square foot of new impervious surface.

(d) **Pollutant reduction requirements.** For new development and redevelopment sites, pollutant loadings from impervious surfaces shall be reduced by at least 10% below the level of pollution from the site prior to development. This requirement will be met by implementing ESD to the MEP. Offsets permitted by the design standards and the technical report may be used either on site or off site in the same critical area watershed to reach the 10% pollutant reduction requirement of this section after implementing ESD to the MEP.

(e) **Fees-in-lieu.** Fees paid in lieu under this section shall be maintained in a separate fund to be used by the County for projects that improve water quality within the same major watershed as the property for which the fees were collected.

16-4-206. Modifications to minimum control requirements.

(a) **When modifications allowed.** An application for a modification from the requirements of this title shall be filed with the Office of Planning and Zoning only if the modification request is consistent with implementing ESD to the MEP.

(b) **Application.** The application shall include an analysis of the impacts of stormwater flows downstream in the watershed. The analysis shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed

development on a dam, highway, structure, or natural point of restricted stream flow. The point of investigation shall be downstream of the tributary outfall and shall be established with the concurrence of the approving authority. The analysis shall be in accordance with any watershed studies conducted by the County.

SUBTITLE 3. INSPECTIONS, COMPLETION OF WORK, AND MAINTENANCE

16-4-301. Inspections.

(a) **Notification by developer.** A developer shall notify the Department at least 48 hours before commencing work and on completion of any work in conjunction with the stormwater management plan.

(b) **Inspections by the County.** The Department shall make and document regular inspections, at a minimum, at each stage of construction and shall include the information specified in COMAR 26.17.02.10.

(c) **Violations.** When any violation is observed, the Department shall provide to the developer and to any onsite personnel written notice describing the nature of the violation and the required corrective action. The developer may not proceed with work until the Department inspects and approves the work previously completed.

16-4-302. Completion.

(a) **As-built plans and certification.** When construction is complete, the applicant shall submit to the Department as-built plans and an as-built certification prepared by a design professional. At a minimum, the as-built certification shall include a set of drawings comparing what was constructed to the approved stormwater management plan. The Department may require any additional information that is necessary to determine that the work complies with the approved stormwater management plan.

(b) **Certificate of occupancy.** A certificate of occupancy may not be issued until the required stormwater management system is completed to the satisfaction of the Department.

16-4-303. Maintenance.

(a) **Generally.** The property owner shall perform preventive maintenance to ensure that a stormwater management system is functioning properly. The Department shall inspect all stormwater management practices during the first year of operation and every three years thereafter to ensure that preventive and routine maintenance is performed.

(b) **Inspection reports.** The Department shall prepare and keep maintenance inspection records for all stormwater management systems as required by COMAR 26.17.02.11.

(c) **Immediate danger.** If, on inspection by the Department, the condition of a stormwater management practice presents an immediate danger to the public health, safety, or the natural environment because of an unsafe condition or improper maintenance, the Department shall take such action as may be necessary to protect the public and make the practice safe. Any cost incurred by the County shall be assessed against the owner, as provided in § 1-9-101 of this Code.

SUBTITLE 4. STORMWATER PRACTICES

16-4-401. Private stormwater management

(a) **Inspection and maintenance agreement.** Before the issuance of a grading permit for property that will have private stormwater management, the owner of the property shall execute an inspection and maintenance agreement with the County.

(b) **Scope of agreement.** The inspection and maintenance agreement shall:

(1) provide that the owner is responsible for installation of the private stormwater management;

(2) adopt by reference and incorporate the final stormwater management plan and the maintenance schedule required by § 16-4-201(c);

(3) require the owner to maintain inspection records for the stormwater management system and to supply them to the Department every three years or upon request;

(4) prohibit the owner from altering the private stormwater management without prior approval from the Department;

(5) allow the County or its agents to access the private stormwater management system to ensure that the system is properly still in place and maintained and functioning as intended;

(6) allow the Department to perform any necessary work to correct a violation and return the stormwater management practice to proper working condition if the property owner, after reasonable notice from the Department, fails to correct a violation;

(7) provide that the cost of work performed by the Department be levied and collected from the owner of the property in accordance with subsection (c);

(8) bind subsequent owners of the property to the agreement; and

(9) be recorded among the land records of the County.

(c) **Liability for cost of work performed by the Department.** The cost of work performed by the Department under the provisions of this section shall be levied and collected as provided in § 1-9-101 of this Code.

(d) **Repairs, restoration, and maintenance by owner.** The owner of property with a private stormwater management practice, and any other person or agent in control of the property, shall maintain the private stormwater management and promptly repair and restore it so that it remains at all times in a condition that is in accordance with the final stormwater management plan.

16-4-402. Revolving fund - private stormwater management practices.

(a) **Establishment.** There is a revolving fund to support the cost of repairs or reconstruction of private stormwater management practices undertaken by the County.

(b) **Expenditures.** The Controller may allow an expenditure of up to \$100,000 for each fiscal year from the general County capital projects funds on a revolving fund basis to support the cost of repairs or reconstruction undertaken by the County.

16-4-403. Public Stormwater Management.

(a) **Manuals.** All public stormwater management shall comply with the Design Manual and the County Procedures Manual.

(b) **Outfall requirements.** All new public stormwater outfalls shall be regenerative step pool conveyance systems as detailed in the County Procedures Manual unless the applicable design standards contained in the County Procedures Manual cannot be met.

TITLE 5. VIOLATIONS, ENFORCEMENT, AND PENALTIES

16-5-101. Violations.

(a) **Generally.** It is a violation of this article to:

- (1) use property in violation of this article;
- (2) permit another person to use property in violation of this article;
- (3) perform work for another person in violation of this article;
- (4) violate any notice or order issued by the Department;
- (5) discharge or permit the discharge of stormwater runoff from a site to a storm drain or watercourse without first obtaining the approval of the Department;
- (6) spill, dump or dispose of any material or substance other than natural stormwater runoff to a stormdrain or watercourse unless authorized by a valid NPDES permit issued by the State of Maryland;
- (7) alter the ESD Planning Techniques, treatment practices and structural stormwater measures used to satisfy the Minimum Control requirements of Title 4;
- (8) alter the site runoff characteristics on which a prior approval was based without the prior approval of the Department;
- (9) occupy a building or dwelling prior to the completion of the stormwater management system to the satisfaction of the Department; or
- (10) clear a developed woodland or forest in the Critical Area unless authorized under an issued grading permit, building permit, buffer or forest management plan, or standard grading plan.

16-5-102. Enforcement.

(a) **Remedies independent.** The enforcement measures set forth in this title are independent remedies and may be utilized in any manner considered necessary by the Department.

(b) **Duty to correct after fine or imprisonment.** The imposition of a fine or imprisonment for a violation of this article does not excuse the violation, and a person convicted of a violation of this article shall correct or remedy the violation within a reasonable time.

(c) **Persons who have liability for violations.** A property owner is liable for a violation of this article that occurs at or from the owner's property, whether or not committed by the property owner.

(d) **Enforcement measures available.** For a violation of this article or any term or condition of a permit, the Department may take enforcement measures through any appropriate means, including:

(1) injunctive or any other appropriate court proceedings;

(2) the suspension or revocation of the permit, denial of Certificates of Occupancy, or the denial of the issuance of additional permits until the violation is cured;

(3) the issuance of a stop work order;

(4) the issuance of notice of a violation;

(5) the imposition of civil fines; and

(6) the pursuit of a criminal prosecution.

16-5-103. Stop work order.

(a) **Grounds for issuance.** The Department may issue a stop work order if it determines that a person has violated this article or any term or condition of a permit.

(b) **Content.** A stop work order shall describe the violation and prohibit all construction on site other than work expressly designated in the order to environmentally or materially secure the site.

(c) **Notice; compliance.** The Department shall notify the permittee of a stop work order by first class mail, postage prepaid, or by an electronic or facsimile communication. The Department shall post the order at the work site and the permittee shall comply immediately.

(d) **Removal.** A stop work order may not be removed from the site by anyone other than the Department.

16-5-104. Notice of violation.

(a) **Grounds for issuance.** The Department may issue a notice of violation to an owner or permittee who has violated this article or any term or condition of a permit that orders the person to cure the violation within the time specified in the notice.

(b) **Content.** A notice of violation shall describe the violation and shall require the owner or permittee to cure the violation within a specified time.

(c) **Notice.** The Department shall serve a notice of violation on the owner or permittee by first class mail, postage prepaid, or by an electronic or facsimile communication.

(d) **Noncompliance; completion of work by County.** If the owner or permittee fails, neglects, or refuses to comply with a notice of violation, the Department may complete the work in a manner that the Department deems appropriate, and the owner and permittee shall compensate the Department for all costs incurred, including costs for administration, construction, consultants, equipment, inspection, notification, remediation, repair, and restoration.

16-5-105. Civil fines.

(a) **Generally.** A violation of any provision of this article is a civil offense, punishable by a civil fine as provided by § 9-2-101 of this Code.

(b) Critical Area violations.

(1) **Disturbance of more than 5,000 square feet in the critical area.** It is a Class A civil offense to perform any grading in whole or in part in the critical area if the disturbance exceeds 5,000 square feet and is performed in violation of Title 4 of this article.

(2) **Disturbance of 5,000 square feet or less in the critical area.** It is a Class B civil offense to perform any grading in whole or in part in the critical area if the disturbance is 5,000 square feet or less and the grading is performed in violation of Title 4 of this article.

(3) **Stormwater management violations in the critical area.** It is a Class A civil offense to violate any provision of Title 4 of this article in the critical area.

(4) **Other critical area violations.** Except as otherwise provided by this section, it is a Class B civil offense to violate any provision of Article 17, Title 8.

(c) **Stormwater violations outside the critical area.** It is a Class B civil offense to violate any provision of Title 4 of this article outside the critical area.

(d) **Other violations.** It is a Class C civil offense to violate any other provision of this article.

16-5-106. Clearing in violation of the law.

A person who clears in violation of the law shall plant at a ratio of three times the area cleared. Any fee-in-lieu of planting shall be as set forth in § 17-11-101 for clearing in violation of either the forest conservation or the critical area provisions of Article 17, and the fee shall be paid on demand.