1 CHAPTER 76 CHAPTER 76 FLOODPLAIN REGULATIONS 2 Sections: 3 76.1 Purpose and General Provisions. 4 76.2 Applicability. 5 76.3 Permit Procedures. 76.4 Issuance of Permit. 6 7 76.5 Site Development Regulations in Floodplain Zones. 8 76.6 Regulation of Structures and Development in Nontidal and Tidal Floodplains. 9 76.2. Purpose and General Provisions. 10 Purpose. The purpose of this chapter is to establish standards and regulations for development in 11 floodplain areas to: 12 Manage and in some cases prevent development in areas subject to flooding; and 76.1 GENERAL 13 **PROVISIONS** 76.2 14 **DEFINITIONS** 76.3 15 **ADMINISTRATION** 16 76.4 REQUIREMENTS IN ALL FLOOD HAZARD AREAS 17 76.5 REQUIREMENTS IN FLOOD HAZARD AREAS (A ZONES) THAT ARE NOT COASTAL HIGH HAZARD AREAS (V ZONES) OR COASTAL A ZONES 18 19 REOUIREMENTS IN COASTAL HIGH HAZARD AREAS (V ZONES) AND 76.6 20 **COASTAL A ZONES VARIANCES** 21 76.7 22 76.8 **ENFORCEMENT** 23 SUBSEQUENT AMENDMENTS 76.9 24 25 26 **76.1**GENERAL PROVISIONS 27 A. Findings 28 The Federal Emergency Management Agency has identified special flood hazard areas within the 29 boundaries of St. Mary's County, MD. Special flood hazard areas are subject to periodic inundation which 30 may result in loss of life and property, health and safety hazards, disruption of commerce and governmental 31 services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, 32 all of which adversely affect the public health, safety and general welfare. Structures that are inadequately 33 elevated, improperly *floodproofed*, or otherwise unprotected from flood damage also contribute to flood 34 losses. 35 The Board of County Commissioners for St. Mary's County, by resolution, agreed to meet the requirements 36 of the National Flood Insurance Program and St. Mary's County, MD was accepted for participation in the 37 program on February 19, 1987. As of that date, all development and new construction as defined herein, 38 are to be compliant with these regulations. 39 B. Statutory Authorization 40 The Maryland General Assembly, in Md. Code Ann., Land Use Article, Title 4, has established as policy of the State that the orderly development and use of land and structures requires comprehensive regulation 41 42 through the implementation of planning and zoning control, and that planning and zoning controls shall be implemented by local government in order to, among other purposes, secure the public safety, promote 43 44 health and general welfare, and promote the conservation of natural resources. 45 C. Statement of Purpose 46 It is the purpose of these regulations to promote the public health, safety and general welfare, and to:

1. Protect human life, health and welfare;

Encourage the utilization of

- 1.2. Require appropriate construction practices in order to prevent or minimize future flood damage; and in the future;
 - a. Provide for the review of all activities proposed within identified floodplains and, by the issuance of permits for those activities that comply with the objectives of this Ordinance, assure compliance with relevant federal and state programs, including:
- 3. Minimize *flooding* of water supply and sanitary sewage disposal systems;
- **4.** Maintain natural drainage;
- **5.** Reduce financial burdens imposed on the *community*, its governmental units and its residents, by discouraging unwise design and construction of *development* in areas subject to *flooding*;
- 6. Minimize the need for rescue and relief efforts associated with *flooding* and generally undertaken at the expense of the general public;
- 7. Minimize prolonged business interruptions;
- 8. Minimize damage to public facilities and other utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges;
- 9. Reinforce that those who build in and occupy *special flood hazard areas* should assume responsibility for their actions;
- **10.** Minimize the impact of *development* on adjacent properties within and near *flood*-prone areas;
- 11. Provide that the *flood* storage and conveyance functions of *floodplains* are maintained;
- **12.** Minimize the impact of *development* on the natural and beneficial functions of *floodplains*;
- 13. Prevent *floodplain* uses that are either hazardous or environmentally incompatible; and
- 2.14. Meet community participation requirements of the National Flood Insurance Program (44 CFR Parts 59 79) as set forth in the Code of Federal Regulations (CFR) at 44 CFR Section 59.22.

D. Areas to Which These Regulations Apply

These regulations shall apply to all special flood hazard areas within the jurisdiction of St. Mary's County identified in Section 76.1.5, below.

E. Basis for Establishing Special Flood Hazard Areas and BFEs

- For the purposes of these regulations, the minimum basis for establishing special flood hazard areas and base flood elevations is the Flood Insurance Study for St. Mary's County, Maryland and Incorporated Areas dated October 19, 2004 and November 19, 2014, or the most recent revision thereof, and the accompanying Flood Insurance Rate Map(s) and all subsequent amendments and revisions to the FIRMs. The FIS and FIRMs are retained on file and available to the public at the Department of Land Use and Growth Management.
- Where field surveyed topography or digital topography indicates that ground elevations
 are below the closest applicable base flood elevation, even in areas not delineated as a
 special flood hazard on the FIRM, the area shall be considered as special flood hazard
 area.
- 3. To establish base flood elevations in special flood hazard areas that do not have such elevations shown on the FIRM, the Floodplain Administrator may:

1 Provide the best available data for base flood elevations, or 2 3 -Require Maryland Waterway Construction Permit Program for n 4 U.S Army Corps of Engineers Section 10 and 404 Permit Programs ontidal 5 floodplains. 6 Maryland Tidal and Nontidal Wetlands Permit Programs.; and 7 Maryland Coastal Zone Management Program. 8 the applicant to obtain available information from Federal, State or 9 other sources, or 10 11 May require the applicant to establish special flood hazard areas and base flood 12 elevations as set forth in Section 76.3.3, Section 76.3.4, and Section 76.3.5 of 13 these regulations. 14 15 F. Abrogation and Greater Restrictions. This Ordinance supersedes any 16 17 These regulations are not intended to repeal or abrogate any existing regulations and ordinances, including 18 subdivision regulations, zoning ordinances, building codes, or any existing easements, covenants, or deed 19 restrictions. In the event of a conflict between these regulations and any other ordinance in effect in flood 20 prone areas. However, any other ordinance shall remain in full force to the extent that its provisions 21 are, the more restrictive, shall govern. 22 23 G. Interpretation 24 25 In the interpretation and application of these regulations, all provisions shall be: 26 27 Considered as minimum requirements; 28 29 Liberally construed in favor of the governing body; and 30 31 Deemed neither to limit nor repeal any other powers granted under State statutes. 32 33 34 **Warning and Disclaimer of Liability** A.H. 35 36 .—The degree of flood protection provided required by this Ordinance these regulations is considered 37 reasonable for regulatory purposes and is based on scientific and engineering experience and scientific 38 methods of study. Floods of greater magnitude may considerations. Larger floods can and will occur 39 or, and flood heights may be increased by man-made or natural causes. This Ordinance does These 40 regulations do not imply that flooding will not occur land outside of the delineated special flood zones, 41 norhazard areas or uses that are permitted development and land uses within the floodplainsuch areas 42 will be free of from flooding and associated or flood damage. This Ordinance does 43 44 These regulations shall not create liability on the part of St. Mary's Mary's County, any officer, or 45 employee thereof, the Maryland Department of the Environment (MDE) or the Federal Emergency 46 Management Agency (FEMA), for any flood damage that may result results from reliance on this 47 Ordinance. these regulations or any administrative decision lawfully made hereunder. 48 I. Severability

Should any section or provision of these regulations be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the regulations as a whole, or any part thereof other than the part so declared to be unconstitutional or invalid.

76.2 DEFINITIONS

The definitions of this section apply specifically to the provisions of this Chapter and shall supersede the meaning found in Article 9 for the purposes of floodplain regulation. Unless specifically defined below, words or phrases used in this Chapter shall be interpreted to have the meaning found in Article 9, and, if not defined in Article 9, shall be interpreted to have the meaning they have in common usage and to give these regulations the most reasonable application.

- 1. Accessory Structure: A detached building or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal structure. For the purposes of these regulations, an accessory structure shall be used solely for parking of vehicles and limited storage.
- 2. Agreement to Submit an Elevation Certificate: A form on which the applicant for a permit to construct a building or structure, to construct certain horizontal additions, to place or replace a manufactured home, to substantially improve a building, structure, or manufactured home, agrees to have an Elevation Certificate prepared by a licensed professional engineer or licensed professional surveyor, as specified by the Floodplain Administrator. A signed agreement must be submitted to the County before a permit will be issued.
- 3. <u>Alteration of a Watercourse:</u> For the purpose of these regulations, alteration of a watercourse includes, but is not limited to widening, deepening or relocating the channel, including excavation or filling of the channel. Alteration of a watercourse does not include construction of a road, bridge, culvert, dam, or in-stream pond unless the channel is proposed to be realigned or relocated as part of such construction.
- 4. Area of Shallow Flooding: A designated Zone AO on the Flood Insurance Rate Map with a 1-percent annual chance or greater of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident; such flooding is characterized by ponding or sheet flow.
- 5. Base Building: The building to which an addition is being added. This term is used in provisions relating to additions.
- 6. Base Flood: The flood having a one-percent chance of being equaled or exceeded in any given year; the base flood also is referred to as the 1-percent annual chance (100-year) flood.
- 7. Base Flood Elevation: The water surface elevation of the base flood in relation to the datum specified on the community's Flood Insurance Rate Map. In areas of shallow flooding, the base flood elevation is the highest adjacent natural grade elevation plus the depth number specified in feet on the Flood Insurance Rate Map, or at least four (4) feet if the depth number is not specified.
- 8. Basement: Any area of the building having its floor subgrade (below ground level) on all sides.
- 9. Building Code(s): The effective Maryland Building Performance Standards (COMAR 05.02.07) with local amendments.
- 10. Coastal A Zone: An area within a special flood hazard area, landward of a coastal high hazard area (V Zone) or landward of a shoreline without a mapped coastal high hazard area, in which the principal source(s) of flooding are astronomical tides and storm surges, and in which, during base flood conditions, the potential exists for breaking waves with heights greater than or equal to 1.5 feet. The landward limit of the Coastal A Zone is delineated on FIRMs as the Limit of Moderate Wave Action (LiMWA).

- 11. Coastal High Hazard Area: An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms. Coastal high hazard areas also are referred to as "V Zones" and are designated on FIRMs as zones VE or V1-30.
- 12. Critical and Essential Facilities: Buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes. Critical and essential facilities typically include hospitals, fire stations, police stations, storage of critical records, facilities that handle or store hazardous materials, and similar facilities.
- 13. Declaration of Land Restriction (Non-Conversion Agreement): A form signed by the owner to agree not to convert or modify in any manner that is inconsistent with the terms of the permit and these regulations, certain enclosures below the lowest floor of elevated buildings and certain accessory structures. The form requires the owner to record it on the property deed to inform future owners of the restrictions.
- 14. Development: Any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, placement of manufactured homes, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- 15. Elevation Certificate: FEMA Form 086-0-33 on which surveyed elevations and other data pertinent to a property and a building are identified and which shall be completed by a licensed professional land surveyor or a licensed professional engineer, as specified by the Floodplain Administrator. When used to document the height above grade of buildings in special flood hazard areas for which base flood elevation data are not available, the Elevation Certificate shall be completed in accordance with the instructions issued by FEMA.
- 16. Enclosure Below the Lowest Floor: An unfinished or flood-resistant enclosure that is located below an elevated building, is surrounded by walls on all sides, and is usable solely for parking of vehicles, building access or storage, in an area other than a basement area, provided that such enclosure is built in accordance with the applicable design requirements specified in these regulations. Also see "Lowest Floor."
- 17. : Structures for which the "start of construction" commenced before February 19, 1987 (the initial effective date of the St. Mary's County Flood Insurance Rate Map). The date for the "start of construction" is the date a permit was issued by the County. The Flood Administrator may require verification that the construction was completed. The primary source for verification of proof of construction will be County records. "Existing construction" may also be referred to as "existing structures" or "Pre-FIRM structures."
- 19. Federal Emergency Management Agency (FEMA): The Federal agency with the overall responsibility for administering the National Flood Insurance Program.
- 20. Flood or Flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - a. The overflow of inland or tidal waters, or
 - b. The unusual and rapid accumulation or runoff of surface waters from any source.
- 21. Flood Damage-Resistant Materials: Any construction material that is capable of withstanding direct and prolonged contact with floodwaters without sustaining any damage that requires more than cosmetic repair.
- 22. Flood Insurance Rate Map (FIRM): An official map on which the Federal Emergency Management Agency has delineated special flood hazard areas to indicate the magnitude and nature of flood

hazards, to designate applicable flood zones, and to delineate floodways, if applicable. FIRMs that have been prepared in digital format or converted to digital format are referred to as Digital FIRMs (DFIRM).

- 23. Flood Insurance Study (FIS): The official report in which the Federal Emergency Management Agency has provided flood profiles, floodway information, and the water surface elevations.
- 24. Flood Opening: A flood opening (non-engineered) is an opening that is used to meet the prescriptive requirement of 1 square inch of net open area for every square foot of enclosed area. An engineered flood opening is an opening that is designed and certified by a licensed professional engineer or licensed architect as meeting certain performance characteristics, including providing automatic entry and exit of floodwaters; this certification requirement may be satisfied by an individual certification for a specific structure or issuance of an Evaluation Report by the ICC Evaluation Service, Inc.
- 25. Flood Protection Elevation (FPE): The base flood elevation plus three (3) feet of freeboard. Structures in the Special Flood Hazard Area shall have the lowest floor, including basement, elevated to the Flood Protection Elevation. The Flood Protection Elevation also applies to all mechanical and electrical equipment, including duct work, electrical utility service entrance, meters, panels, outlets, and switches.
- 26. Flood Protection Setback: A distance measured perpendicular to the top of bank of a watercourse that delineates an area to be left undisturbed to minimize future flood damage and to recognize the potential for bank erosion. Along nontidal waters of the State, the flood protection setback is:
 - a. 100 feet, if the watercourse has special flood hazard areas shown on the FIRM, except where the setback extends beyond the boundary of the flood hazard area; or
 - b. 50 feet, if the watercourse does not have special flood hazard areas shown on the FIRM.
- 27. Flood Zone: A designation for areas that are shown on Flood Insurance Rate Maps:
 - a. Zone A: Special flood hazard areas subject to inundation by the 1-percent annual chance (100-year) flood; base flood elevations are not determined.
 - <u>b.</u> Zone AE: Special flood hazard areas subject to inundation by the 1-percent annual chance (100-year) flood; base flood elevations are determined; floodways may or may not be determined. In areas subject to tidal flooding, the Limit of Moderate Wave Action (LiMWA) is delineated to define the landward limit of the Coastal A zone.
 - c. Zone AH and Zone AO: Areas of shallow flooding, with flood depths of 1 to 3 feet (usually areas of ponding or sheet flow on sloping terrain), with or without BFEs or designated flood depths.
 - d. Zone X (shaded): Areas subject to inundation by the 0.2-percent annual chance (500-year) flood; areas subject to the 1-percent annual chance (100-year) flood with average depths of less than 1 foot or with contributing drainage area less than 1 square mile; and areas protected from the base flood by levees.
 - e. Zone X (unshaded): Areas outside of Zones designated A, AE, A1-30, AO, VE, V1-30, and X (shaded).
 - f. Zone VE: Special flood hazard areas subject to inundation by the 1-percent annual chance (100-year) flood and subject to high velocity wave action (also see coastal high hazard area).
- 28. Floodplain: Any land area susceptible to being inundated by water from any source (see definition of "Flood" or "Flooding").

76.3. Floodproofing Applicability.

O. The floodplain regulations herein shall apply to all lands within the unincorporated area of St.

Mary's County being subject to inundation by floodwaters of the 100-year, regulatory flood or base flood and as delineated on the most recent revision of the County floodway maps and FEMA Flood Insurance Rate Maps (FIRMs) and described in the flood insurance study (FIS) prepared by the Federal Emergency Management Agency (FEMA). Emphasis is on flood height elevation rather than the actual detail of the maps, so that if map boundaries and elevations disagree, elevations prevail, with no approval from FEMA required.

1. The regulated floodplain includes:

- a. Mapped Areas. The Planning Director or his designee shall determine the floodplain zone in which the development activity is proposed using the County floodway maps and FIS if available or, if not, by using the FIRM. The 100 year floodplain may be expanded beyond the designations on the FIRM due to elevation.
 - (1) Non tidal floodplains. Consisting of the floodway and the floodway fringe, non-tidal floodplains may have detailed engineering study data, profiles, and water surface elevations, or may have approximate delineation only.
 - (2) Tidal floodplains. Consisting of areas subject to coastal or tidal flooding by the 100-year flood due to high tides, hurricanes, tropical storms, and steady on shore winds, these areas are landward of 0.0 National Geodetic Vertical Datum (NGVD) designated on the FIRM.
 - (3) Coastal High Hazard Areas. Consisting of areas subject to coastal or tidal flooding with the addition of high velocity water and wind action. These areas are designated as V-Zones on the FIRM.
- b. *Approximate Floodplain Areas*. The following areas along non-tidal streams that do not have FEMA delineation as described above are subject to regulation by this Ordinance and the state.
- c. Areas along Streams. In cases in which development is proposed in the vicinity of "U.S.G.S. blue line" streams, which have no delineated 100 year flood plain, a 50 foot drainage way protection buffer from the centerline of the stream shall be subject to the provisions of this chapter.

If a portion of a lot, parcel, or tract lies within the regulated floodplain, the restrictions upon uses and structures shall apply only to that portion of the lot, parcel, or tract located within the flood zone. or Floodproofed: Any combination of structural and nonstructural additions,

- 2. If a structure is located within more than one flood zone, the more restrictive applicable regulations shall apply for the entire structure.
- 3. Where interpretation is needed as to the exact location of flood zone boundaries, the Planning Director shall make the necessary interpretation. Any person contesting the interpretation of the location of boundaries or those boundaries shown on the official floodplain map may appeal the decision to the Board of Appeals and shall submit his own technical evidence. Pursuant to federal flood insurance Program requirements, where map information shows a structure in the floodplain and actual site conditions show the structure to be out of the floodplain, the applicant shall be required to meet all floodplain regulations unless a letter of map amendment (LOMA) is issued by FEMA. It shall be the applicant's responsibility to seek and obtain the LOMA.

76.4. Permit Procedures.

0. General.

A permit is required for all development in any regulated floodplain zone. Receipt of federal or state permits does not exempt development from the provisions of this Ordinance.

1. Information Required for a Permit.

a. Applicants for development in or adjacent to a regulated floodplain shall be required to provide information necessary to evaluate the proposed development for compliance with regulations of this chapter, including:

76.5. Issuance of Permit.

Considerations.

- a. Prior to issuance of a permit, the Planning Director shall determine the location of the project relative to floodways, floodplains, or V zones and shall note on the permit the proper elevation to which the lowest floor of proposed structures must be elevated. In approximate floodplains where a floodplain elevation is not available, the applicant shall be required to obtain such elevation. The applicant must agree to secure all other required permits, an elevation certificate, floodproofing certificate, engineering analysis, or other required verifications deemed appropriate by the Planning Director.
- b. Permits shall be granted by the Planning Director only after determining that the proposed development will conform to the requirements of this Ordinance and all other applicable local codes and ordinances. All other necessary permits or approvals must be applied for or granted. Permits are valid only after all other necessary permits have been granted.

Caution shall be exercised when approving development downstream of existing or proposed dams. The condition of the dam, as well as the design criteria, hazard class, and danger reach, shall be investigated by the applicant to avoid increasing potential hazards. Downstream development within the dam break flood wave shall be denied unless the dam meets the design standards for a high hazard dam.

- 1. After Issuance and During Construction
 - a. After issuance of a permit, no changes of any kind shall be made to the approved permit or any of the plans, specifications, or other documents submitted with the application without the written approval of the Planning Director. A copy of the permit or other verification must be displayed at the construction site during construction activity.
 - b. Work shall be completed within one year of the date of the permit unless a greater time is specified in the permit or a written extension is granted.
 - c. During construction, the Planning Director or an authorized representative shall inspect the site to determine that the work is in compliance with the permit. Any work found to be non-compliant must be corrected before any additional work is undertaken.
- 2. Record of Permits. A record of all floodplain permits shall be maintained and be available upon request by the Federal Emergency Management Agency or its authorized agent during periodic assessments of St. Mary's County's participation in the National Flood Insurance Program. All documents needed to support any permit action, such as elevation certificates, map amendments or revisions, variance actions, shall be available for review during these assessments.
- **3.** Conditioned Permits for Accessory Structures and Garages.
 - a. A conditioned permit, for up to a total size of 600 square feet may be issued at the discretion of the Planning Director when the 300 square foot exemption is exceeded for accessory structures. In order to qualify, the structure's use must be incidental to the primary structure, and it can be used only for limited storage or parking of vehicles. The provisions of Section 76.6.7.b must also be met.
 - b. A conditioned permit is subject to the applicant's completion of a non-conversion agreement stating that the use of the accessory structure may not change from that permitted and that it must be equipped with the proper water equalizing vents. A statement of the greater flood risk and possibly higher flood insurance premiums must be included on the permit. In addition, a declaration of land restriction must be recorded on a form approved by the Planning Director that states that the permitted structure may not be used for human habitation without first complying with the requirements of this Ordinance.
- 4. Fees. A fee may be charged at the time of application as established by the St. Mary's County Commissioners.
 - 76.6. Site Development Regulations in Floodplain Zones.
- Split Properties or Structures., or adjustments to buildings or
 - If a proposed structure is in more than one flood zone, the more stringent applicable flood zone provisions shall apply to the entire structure.

1 Flood Protection Floration 2 The flood protection elevation shall be one foot above the floodplain elevation. 3 The Planning Director may grant a waiver of the elevation requirement when a structure is substantially 4 improved, upon findings that: 5 The structure is individually listed on the federal National Register of Historic Places (1)6 or National Historic Landmark program, the Maryland Inventory of Historic 7 Properties or the County's historic sites survey inventory; and 8 The listing agency verifies that the modifications proposed do not preclude its 9 continued designation as an historic structure. 10 76.7. Regulation of Structures and Development in Nontidal and Tidal Floodplains. 11 General. Due to the inherent hazards and risks involved, development may not occur in the regulated floodplain where alternative locations exist on site outside the floodplain. Before a permit is issued, 12 the applicant shall demonstrate that new structures cannot be located out of the regulated floodplain 13 14 and that necessary encroachments onto the floodplain are minimized. New and Substantially Improved Structures. 15 The following provisions shall apply to residential structures within the regulated floodplain: 16 17 (1) All new residential structures, including manufactured homes, shall have the lowest 18 floor elevated at or above the flood protection elevation. 19 All substantially which reduce or eliminate flood damage to real estate or improved residentialreal 20 property, water and sanitary facilities, structures, including manufactured homes, shall have the lowest floor elevated to or above the flood protection elevation. and their contents, such 21 22 In-nontidal floodplains, horizontal expansions that increase the footprint but result in 23 less than substantial improvement shall also have the lowest floor elevated to or 24 above the flood protection elevation. 25 The elevation of the lowest floor shall be field verified and certified by a registered 26 surveyor or professional engineer on the elevation certificate, after the lowest floor 27 has been constructed. 28 Enclosures below the flood protection elevation must be constructed with water (4)29 equalizing vents to meet the specifications of Section 76.6.7. 30 Improvements in tidal floodplains that are determined to be less than substantial shall be constructed to minimize damage during flooding or shall be elevated to the 31 32 greatest extent possible. 33 The following provision shall apply to non residential the buildings or structures within the 34 regulated floodplain: 35 All new or substantially improved non-residential structures shall either be elevated 36 as set forth above for residential structures or shall be flood proofed. 37 Horizontal expansions in the nontidal floodplain that increase the footprint but result 38 in less than substantial improvement shall also have the lowest floor elevated to or 39 above the flood protection elevation. 40 State regulations do not allow the floodproofing option for new non-residential structures in nontidal 41 floodplains. 42 21.29Floodproofing designs must insure that areas below the flood protection elevation are 43 watertight with walls substantially impermeable to the passage of water and with structural 44 components capable having the capability of resisting hydrostatic and hydrodynamic loads and effects 45 of buoyancy. If the floodproofing option is chosen, a floodproofing certificate must be completed 46 by a registered professional engineer or architect who shall reviewState regulations at COMAR 47 26.17.04.11(B)(7) do not allow new nonresidential buildings in nontidal waters of the design and 48 specifications and certify that the non-residential structure will meet this standard State to be 49 floodproofed. 50

- 30. Floodproofing Certificate: FEMA Form 086-0-34 that is to be completed, signed and sealed by a licensed professional engineer or licensed architect to certify that the design of floodproofing and proposed methods of construction are in accordance with the applicable requirements of Section 76.5.5.b of these regulations.
- 31. Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to pass the base flood discharge such that the cumulative increase in the water surface elevation of the base flood discharge is no more than a designated height. When shown on a FIRM, the floodway is referred to as the "designated floodway."
- 32. Freeboard: A margin of safety that compensates for uncertainty in the factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions.

 Factors of uncertainty include wave action, obstructed bridge openings, debris and ice jams, sea level rise, storm intensity, and the hydrologic effect of urbanization in a watershed.
- 33. Free-of-Obstruction: A term that describes open foundations (pilings, columns, or piers) without attached elements or foundation components that would obstruct the free passage of floodwaters and waves beneath structures that are elevated on such foundations.
- 34. 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 includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo (including seafood) or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
- 35. Highest Adjacent Grade: The highest natural elevation of the ground surface, prior to construction, next to the proposed foundation of a structure.
- 36. Historic Structure: Any structure that is:
 - a. Individually listed in the National Register of Historic Places (a listing maintained by the U.S.
 Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listings on the National Register;
 - b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the
 historical significance of a registered historic district or a district preliminarily determined by the
 Secretary to qualify as a registered historic district;
 - c. Individually listed on the Maryland Register of Historic Places maintained by the Maryland Historical Trust; or
 - d. Individually listed on the inventory of historic places maintained by St. Mary's County, through the authority provided to the County as a Certified Local Government for Historic Preservation as designated by the Secretary of the Interior.
- 37. Hydrologic and Hydraulic Engineering Analyses: Analyses performed by a licensed professional engineer, in accordance with standard engineering practices that are accepted by the Maryland Department of the Environment (Nontidal Wetlands & Waterways) and FEMA, used to determine the base flood, other frequency floods, flood elevations, floodway information and boundaries, and flood profiles.
- 38. Letter of Map Change (LOMC): A Letter of Map Change is an official FEMA determination, by letter, that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:
 - a. Letter of Map Amendment (LOMA): An amendment based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the

- current effective Flood Insurance Rate Map and establishes that a specific property or structure is not located in a special flood hazard area.
- b. Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, floodplain and floodway delineations, and planimetric features. A Letter of Map Revision Based on Fill (LOMR-F) is a determination that a structure or parcel of land has been elevated by fill above the base flood elevation and is, therefore, no longer exposed to flooding associated with the base flood. In order to qualify for this determination, the fill must have been permitted and placed in accordance with St. Mary's County's floodplain management regulations.
- c. Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed flood protection project or other project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A Conditional Letter of Map Revision Based on Fill (CLOMR-F) is a determination that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.
- 39. Licensed: As used in these regulations, licensed refers to professionals who are authorized to practice in the State of Maryland by issuance of licenses by the Maryland Board of Architects, Maryland Board of Professional Engineers, Maryland Board of Professional Land Surveyors, and the Maryland Real Estate Appraisers and Home Inspectors Commission.
- 40. Limit of Moderate Wave Action (LiMWA): Inland limit of the area affected by waves greater than 1.5 feet during the base flood. Base flood conditions between the VE Zone and the LiMWA will be similar to, but less severe than those in the VE Zone.
- 41. Lowest Floor: The lowest floor of the lowest enclosed area (including basement) of a building or structure; the floor of an enclosure below the lowest floor is not the lowest floor provided the enclosure is constructed in accordance with these regulations. The lowest floor of a manufactured home is the bottom of the lowest horizontal supporting member (longitudinal chassis frame beam).
- 42. <u>Manufactured Home:</u> 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 connected to the required utilities. The term manufactured home does not include a recreational vehicle.
- 43. Market Value: The price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts. For the purposes of these regulations, the market value of a building is determined by a licensed real estate appraiser or the most recent, full phased-in assessment value of the building (improvement) determined by the Maryland Department of Assessments and Taxation.
- 44. Maryland Department of the Environment (MDE): A principal department of the State of Maryland that is charged with, among other responsibilities, the coordination of the National Flood Insurance Program in Maryland (NFIP State Coordinator) and the administration of regulatory programs for development and construction that occur within the waters of the State, including nontidal wetlands, nontidal waters and floodplains, and State and private tidal wetlands (Tidal Wetlands). Unless otherwise specified, "MDE" refers to the Department's Wetlands and Waterways Program.
- 45. Mixed-use Structure: Any structure that is used or intended for use for a mixture of nonresidential and residential uses in the same structure.

- 46. National Flood Insurance Program (NFIP): The program authorized by the U.S. Congress in 42 U.S.C. §§4001 4129. The NFIP makes flood insurance coverage available in communities that agree to adopt and enforce minimum regulatory requirements for development in areas prone to flooding (see definition of "Special Flood Hazard Area").
- 47. Natural Grade: The grade unaffected by construction techniques such as fill, landscaping, or berming.

1. New Fill.

- 48. Construction: Structures, including additions and improvements, and the placement of more than 600 cubic yards of fill per parcel/lot in the floodplain is prohibited manufactured homes, for which the start of construction commenced on or after February 19, 1987 (the initial effective date of the St. Mary's County Flood Insurance Rate Map) including any subsequent improvements, alterations, modifications, and additions to such structures.
- 49. Nontidal Waters of the State: See "Waters of the State." As used in these regulations, "nontidal waters of the State" refers to any stream or body of water within the State that is subject to State regulation, including the "100-year frequency floodplain of free-flowing waters." COMAR 26.17.04.01 states that "the landward boundaries of any tidal waters shall be deemed coterminous with the wetlands boundary maps adopted pursuant to Environment Article, §16-301, Annotated Code of Maryland." Therefore, the boundary between the tidal and nontidal waters of the State is the tidal wetlands boundary.
- 50. Person: An individual or group of individuals, corporation, partnership, association, or any other entity, including State and local governments and agencies.
- 51. Post -FIRM structures: See New Construction.
- 52. Pre-FIRM structures: See Existing Construction.
- 53. Recreational Vehicle: A vehicle that is built on a single chassis, 400 square feet or less when measured at the largest horizontal projection, designed to be self-propelled or permanently towable by a light duty truck, and designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.
- 54. Special Flood Hazard Area (SFHA): The land in the floodplain subject to a one-percent or greater chance of flooding in any given year. Special flood hazard areas are designated by the Federal Emergency Management Agency in Flood Insurance Studies and on Flood Insurance Rate Maps as Zones A, AE, AH, AO, and A99, and Zones VE and V1-30. The term includes areas shown on other flood maps that are identified in Section 75.1.5.
- 55. Start of Construction: Structures, including additions and improvements, and the placement of manufactured homes, for which the start of construction commenced on or after February 19, 1987, the initial effective date of the St. Mary's County Flood Insurance Rate Map, including any subsequent improvements, alterations, modifications, and additions to such structures.

The date the building permit was issued, provided the construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was started within 180 days of permit issuance according to County records.

The actual start means either the first placement of permanent construction of a structure on a site, such as pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the state of excavation; or the placement of a manufactured home on a foundation.

For substantial improvements, 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.

- 56. Structure: That which is built or constructed; specifically, a walled and roofed building, including gas or liquid storage tank that is principally above ground, as well as a manufactured home.
- 57. Substantial Damage: Damage of any origin sustained by a building or structure whereby the cost of restoring the building or structure to its before damaged condition would equal or exceed 50 percent of the market value of the building or structure before the damage occurred. Also used as "substantially damaged" structures.
- 58. Substantial Improvement: Any reconstruction, rehabilitation, addition, or other improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the building or structure before the start of construction of the improvement. Also called "substantially improved" structures. The term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:
 - a. Any project for improvement of a building or 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 prior to submission of an application for a permit and which are the minimum necessary to assure safe living conditions; or
 - b. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.
- 59. Temporary Structure: A structure installed, used, or erected for a period of less than 180 days.
- 60. Violation: Any construction or development in a special flood hazard area that is being performed without an issued permit. The failure of a building, structure, or other development for which a permit is issued to be fully compliant with these regulations and the conditions of the issued permit. A building, structure, or other development without the required design certifications, the Elevation Certificate, or other evidence of compliance required is presumed to be a violation until such time as the required documentation is provided.
- 61. Watercourse: The channel, including channel banks and bed, of nontidal waters of the State.
- 62. Waters of the State: [See Environment Article, Title 5, Subtitle 1, Annotated Code of Maryland.]

 Waters of the State include:
 - a. Both surface and underground waters within the boundaries of the State subject to its jurisdiction;
 - b. That portion of the Atlantic Ocean within the boundaries of the State;
 - c. The Chesapeake Bay and its tributaries;
 - d. All ponds, lakes, rivers, streams, public ditches, tax ditches, and public drainage systems within the State, other than those designed and used to collect, convey, or dispose of sanitary sewage; and
 - e. The floodplain of free-flowing waters determined by MDE on the basis of the 100-year (1-percent annual chance) flood frequency.

76.3 ADMINISTRATION

1. Designation of the Floodplain Administrator

The Director of the Department of Land Use and Growth Management is hereby appointed to administer and implement these regulations and is referred to herein as the Floodplain Administrator. The Floodplain Administrator may:

- a. Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees.
 - Enter into a written agreement or written contract with another Maryland community or private sector entity to administer specific provisions of these regulations.
 Administration of any part of these regulations 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 (CFR) at 44 CFR Section 59.22.

2. Duties and Responsibilities of the Floodplain Administrator

The duties and responsibilities of the Floodplain Administrator shall include but are not limited to:

- a. Review applications for all development to determine whether proposed activities will be located in flood hazard areas.
- b. Interpret floodplain boundaries and provide available base flood elevation and flood hazard information.
- Review applications to determine whether proposed activities will be reasonably safe from
 flooding and require new construction and substantial improvements in special flood hazard areas to meet the requirements of these regulations.
- d. Review 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; in particular, permits from MDE 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 nontidal waters of the State.
- e. Verify that applicants proposing an alteration of a watercourse have notified adjacent communities and MDE (NFIP State Coordinator), and have submitted copies of such notifications to FEMA.
- f. Advise applicants for new construction or substantial improvement of structures that are located within an area of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act that Federal flood insurance is not available on such structures; areas subject to this limitation are shown on Flood Insurance Rate Maps as Coastal Barrier Resource System Areas (CBRS) or Otherwise Protected Areas (OPA).
- g. Approve applications and issue permits to develop in flood hazard areas if the provisions of these regulations have been met, or disapprove applications if the provisions of these regulations have not been met.
- Inspect or cause to be inspected, buildings, structures, and other development for which permits
 have been issued to determine compliance with these regulations or to determine if non-compliance has occurred or violations have been committed.
- i. Review Elevation Certificates and require incomplete or deficient certificates to be corrected.
- j. Submit to FEMA, or require applicants to submit to FEMA, data and information necessary to maintain FIRMs, including hydrologic and hydraulic engineering analyses prepared by or for St. Mary's County, within six months after such data and information becomes available if the analyses indicate changes in base flood elevations or boundaries.
- k. Maintain and permanently keep records that are necessary for the administration of these regulations, including:
 - (1) Flood Insurance Studies, Flood Insurance Rate Maps (including historic studies and maps and current effective studies and maps) and Letters of Map Change; and

- (2) Documentation supporting issuance and denial of permits, Elevation Certificates, documentation of the elevation (in relation to the datum on the FIRM) to which structures have been floodproofed, other required design certifications, variances issued prior to November 19, 2014, and records of enforcement actions taken to correct violations of these regulations.
- Enforce the provisions of these regulations, investigate violations, issue notices of violations or stop work orders, and require permit holders to take corrective action.
- m. Administer the requirements related to proposed work on existing structures:
 - (1) Make determinations as to whether buildings and structures that are located in flood hazard areas and that are damaged by any cause have been substantially damaged.
 - (2) Make reasonable efforts to notify owners of substantially damaged structures of the need to obtain a permit to repair, rehabilitate, or reconstruct, and prohibit the non-compliant repair of substantially damaged buildings except for temporary emergency protective measures necessary to secure a property or stabilize a building or structure to prevent additional damage.
- undertake, as determined appropriate by the Floodplain Administrator due to the circumstances, other actions which may include but are not limited to: issuing press releases, public service announcements, and other public information materials providing information related to permit requests and repair of damaged structures; coordinating with other Federal, State, and local agencies to assist with substantial damage determinations; providing owners of damaged structures information related to the proper repair of damaged structures in special flood hazard areas; and assisting property owners with documentation necessary to file claims for Increased Cost of Compliance (ICC) coverage under NFIP flood insurance policies.
- Upon the request of FEMA, complete and submit a report concerning participation in the NFIP
 which may request information regarding the number of buildings in the SFHA and number of
 permits issued for development in the SFHA.
- p. Notify the Federal Emergency Management Agency when the corporate boundaries of St. Mary's County have been modified and:
 - Provide a map that clearly delineates the new corporate boundaries or the new area for which the authority to regulate pursuant to these regulations has either been assumed or relinquished through annexation; and
 - 2. If the FIRM for any annexed area includes special flood hazard areas that have flood zones that have regulatory requirements that are not set forth in these regulations, prepare amendments to these regulations to adopt the FIRM and appropriate requirements, and submit the amendments to the governing body for adoption; such adoption shall take place within six months of the date of annexation and a copy of the amended regulations shall be provided to MDE (NFIP State Coordinator) and FEMA.

3. Use and Interpretation of FIRMs

The Floodplain Administrator shall make interpretations, where needed, as to the exact location of special flood hazard areas, floodplain boundaries, and floodway boundaries. The following shall apply to the use and interpretation of FIRMs and data:

a. Where field surveyed topography indicates that ground elevations:

- (1) Are below the base flood elevation, even in areas not delineated as a special flood hazard area on a FIRM, the area shall be considered as special flood hazard area and subject to the requirements of these regulations;
- (2) Are above the base flood elevation, the area shall be regulated as special flood hazard area unless the applicant obtains a Letter of Map Change that removes the area from the special flood hazard area.
- b. In FEMA-identified special flood hazard areas where base flood elevation and floodway data have not been identified and in areas where FEMA has not identified special flood hazard areas, any other flood hazard data available from a Federal, State, or other source shall be reviewed and reasonably used.
- c. Base flood elevations and designated floodway boundaries on FIRMs and in FISs shall take precedence over base flood elevations and floodway boundaries by any other sources if such sources show reduced floodway widths and/or lower base flood elevations.
- d. Other sources of data shall be reasonably used if such sources show increased base flood elevations and/or larger floodway areas than are shown on FIRMs and in FISs.
- e. <u>If a Preliminary Flood Insurance Rate Map and/or a Preliminary Flood Insurance Study has been provided by FEMA:</u>
 - (1) Upon the issuance of a Letter of Final Determination by FEMA, the preliminary flood hazard data shall be used and shall replace the flood hazard data previously provided from FEMA 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 Section 76.1.5 and used where no base flood elevations and/or floodway areas are provided on the effective FIRM.
 - (3) Prior to issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data is permitted where the preliminary base flood elevations, floodplain or floodway boundaries exceed the base flood elevations and/or designated floodway widths in existing flood hazard data provided by FEMA. Such preliminary data may be subject to change and/or appeal to FEMA.

4. Permits Required and Expiration

- a. It shall be unlawful for any person to begin any development or construction which is wholly within, partially within, or in contact with any flood hazard area established in Section 76.1.5, including but not limited to: filling; grading; construction of new structures; the substantial improvement of buildings or structures, including repair of substantial damage; placement or replacement of manufactured homes, including substantial improvement or repair of substantial damage of manufactured homes; erecting or installing a temporary structure, or alteration of a watercourse, until a permit is obtained from St. Mary's County. No such permit shall be issued until the requirements of these regulations have been met.
- b. In by variance addition to the permits required in paragraph (A), applicants for permits in nontidal waters of the State are advised to contact MDE. Unless waived by MDE, pursuant to Code of Maryland Regulations 26.17.04, Construction on Nontidal Waters and Floodplains, MDE regulates the "100-year frequency floodplain of free-flowing waters," also referred to as nontidal waters of the State. To receive a variance, an applicant must determine the 100-year frequency floodplain, hydrologic calculations are based on the ultimate development of the watershed, assuming existing zoning. The resulting flood hazard areas delineated using the results of such calculations may be

different than the special flood hazard areas established in Section 76.1.5 of these regulations. Issuance of permit by the State does not authorize any person to begin any development or construction. A permit from St. Mary's County is required in addition to any State permit. A County permit may include requirements in addition to those in the State permit.

c. A permit is valid provided it is issued by the actual start of work. This permit shall become invalid if the authorized use or construction for which the permit was issued is not commenced within 180 days of the date of permit issuance. Prior to the expiration of the permit, the Floodplain Administrator may grant, in writing, one or more extensions of time, for additional periods not exceeding 90 days each, upon good cause shown and provided there has been no amendment or revision to the basis for establishing special flood hazard areas and BFEs set forth in Section 76.1.5.

5. Application Required and Information Necessary for Application

Application for a permit within the special flood hazard area shall be made by the owner of the property or the owner's authorized agent (herein referred to as the applicant) prior to the start of any work. The application shall be on a form furnished for that purpose.

- a. Floodplain applications shall at a minimum include:
 - (1) Site plans drawn to scale showing the nature, location, dimensions, and existing and proposed topography of the area in question, and the location of existing and proposed structures, excavation, filling, storage of materials, drainage facilities, and other proposed activities.
 - (2) Elevation of the existing natural ground where buildings or structures are proposed, referenced to the datum on the FIRM.
 - (3) Delineation of special flood hazard areas, designated floodway boundaries, flood zones, base flood elevations, and flood protection setbacks. Base flood elevations shall be used to delineate the boundary of flood hazard areas and such delineations shall prevail over the boundary of SFHAs shown on FIRMs.
 - (4) Where floodways are not delineated or base flood elevations are not shown on the FIRMs, the Floodplain Administrator has the authority to require the applicant to use information provided by the Floodplain Administrator, information that is available from Federal, State, or other sources, or to determine such information using accepted engineering practices or methods approved by the Floodplain Administrator.
 - (5) Determination of the base flood elevations, for development proposals and subdivision proposals, each with at least 5 lots or at least 5 acres, whichever is the lesser, in special flood hazard areas where base flood elevations are not shown on the FIRM; if hydrologic and hydraulic engineering analyses are submitted, such analyses shall be performed in accordance with the requirements and specifications of MDE and FEMA.
 - (6) Hydrologic and hydraulic engineering analyses for proposals in special flood hazard areas where FEMA has provided base flood elevations but has not delineated a floodway; such analyses shall demonstrate that fill is the only the cumulative effect of proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood by more than one foot, or a lower increase if required by MDE.
 - (7) For encroachments in floodways, an evaluation of alternatives to such encroachments, including different uses of the site or portion of the site within the floodway, and minimization of such encroachment.

- (8) If fill is proposed to be placed for a purpose other than to elevate structures, the applicant shall indicate the intended purpose for the fill.
- (9) For proposed buildings and structures, including substantial improvement and any repair of a substantially damaged structure, and placement and replacement of manufactured homes, including substantial improvement and repair of substantial damage:
 - (a) The proposed elevation of the lowest floor, including basement, referenced to the datum on the FIRM and a signed Agreement to Submit an Elevation Certificate.
 - (b) The signed Declaration of Land Restriction (Non-Conversion Agreement) that shall be recorded on the property deed prior to issuance of the building permit if the application includes an enclosure below the lowest floor or a crawl/underfloor space that is more than four (4) feet in height.
 - (c) A written evaluation of alternative methods considered to elevate structures and manufactured homes, if the location is in nontidal waters of the State and fill is proposed to achieve the elevation required in Section 76.5.4.a. or Section 76.5.5.a.
- (10) For temporary structures and temporary storage, specification of the duration of the temporary use.
- (11) For proposed work on existing buildings, structure, and manufactured homes, including any improvement, addition, repairs, alterations, rehabilitation, or reconstruction, sufficient information to determine if the work constitutes substantial improvement or repair of substantial damage, including but not limited to:
 - (a) If to raising the building to at least the flood protection elevation, and that the the existing building or structure was constructed after February 19, 1987, evidence that the work will not alter any aspect of the building or structure that was required for compliance with the floodplain management requirements in effect at the time the building or structure was permitted.
 - (b) If the proposed work is a horizontal addition, a description of the addition and whether it will be independently supported or structurally connected to the base building and the nature of all other modifications to the base building, if any.
 - (c) Documentation of the market value of the building or structure before the improvement or, if the work is repair of damage, before the damage occurred.
 - (a)(d) Documentation of the actual cash value of all proposed work, including the actual cash value of all work necessary to repair and restore damage to the before-damaged condition, regardless of the amount of fill used will not affect the flood storage capacity or increase flooding onto neighboring properties work that will be performed. The value of work performed by the owner or volunteers shall be valued at market labor rates; the value of donated or discounted materials shall be valued at market rates.
- (12) Certifications and/or technical analyses prepared or conducted by a licensed professional engineer or licensed architect, as appropriate, including:
 - (a) The determination of the base flood elevations or hydrologic and hydraulic engineering analyses prepared by a licensed professional engineer that are required by the Floodplain Administrator or are required by these regulations in:

Section 76.4.2 for certain subdivisions and development; Section 76.5.3.c and Section 76.5.3.d for development in designated floodways; Section 76.5.3.f for development in flood hazard areas with base flood elevations but no designated floodways; and Section 76.5.3.h for deliberate alteration or relocation of watercourses.

- (b) The Floodproofing Certificate for nonresidential structures that are floodproofed as required in Section 76.5.5.b.
- (c) Certification that engineered flood openings are designed to meet the minimum requirements of Section 76.5.4.c.3 to automatically equalize hydrostatic flood forces.
- (d) Certification that the proposed elevation, structural design, specifications and plans, and the methods of construction to be used for structures in coastal high hazard areas (V Zones) and Coastal A Zones, are in accordance with accepted standards of practice and meet the requirements of Section 76.5.5.b.3.
- (13) For nonresidential structures that are proposed with floodproofing, an operations and maintenance plan as specified in Section 76.5.5.b.3.
- (14) Such other material and information as may be requested by the Floodplain Administrator and necessary to determine conformance with these regulations.
- New In the event buildings on adjacent properties are known or determined to be subject to flooding under current conditions, the local permitting official may require submission of hydrologic and hydraulic analyses to adequately demonstrate the effects of the proposed fill. The specific requirements described in Section 76.6.7.b.5 must be met whenever fill is used.
- b. **Subdivision** Technical Data
 - (1) The applicant may seek a Letter of Map Change by submitting new technical data to FEMA, such as base maps, topography, and engineering analyses to support revision of floodplain and floodway boundaries and/or base flood elevations. Such submissions shall be prepared in a format acceptable to FEMA and any fees shall be the sole responsibility of the applicant. A copy of the submittal shall be attached to the application for a permit. A County permit requested on the basis of receiving a LOMC shall not be issued for development prior to receipt by the Floodplain Administrator of the approved Letter of Map Change issued by FEMA.
 - (2) If the applicant submits new technical data to support any change in floodplain and designated floodway boundaries and/or base flood elevations but has not sought a Letter of Map Change from FEMA, the applicant shall submit such data to FEMA as soon as practicable, but not later than six months after the date such information becomes available. Such submissions shall be prepared in a format acceptable to FEMA and any fees shall be the sole responsibility of the applicant.

6. Review of Application

The Floodplain Administrator shall:

a. Review applications for development in special flood hazard areas to determine the completeness
 of information submitted. The applicant shall be notified of incompleteness or additional
 information that is required to support the application.

- b. Notify applicants that permits from MDE and the U.S. Army Corps of Engineers, and other State and Federal authorities may be required.
- Review all permit applications to assure that all necessary permits have been received from the
 Federal, State or local governmental agencies from which prior approval is required. The applicant shall be responsible for obtaining such permits, including permits issued by:
 - (1) The U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act;
 - (2) MDE pursuant to COMAR 26.23 (Nontidal Wetlands) and Section 401 of the Clean Water Act;
 - (3) MDE for construction on nontidal waters of the State pursuant to COMAR 26.17.04; and
 - (4) MDE pursuant to COMAR 26.24 (Tidal Wetlands).
- d. Review applications for compliance with these regulations after all information required in Section
 76.3.5 of these regulations or identified and required by the Floodplain Administrator has been received.

7. Inspections

The Floodplain Administrator shall make periodic inspections of development permitted in special flood hazard areas, at appropriate times throughout the period of construction in order to monitor compliance. Such inspections may include:

- a. Stake-out inspection, to determine location on the site relative to the flood hazard area and designated floodway.
- Foundation inspection, upon placement of the lowest floor and prior to further vertical construction, to collect information or certification of the elevation of the lowest floor. A "Building under Construction" Elevation Certificate shall be submitted for review prior to scheduling the foundation inspection.
- c. Inspection of enclosures below the lowest floor, including crawl/underfloor spaces, to determine compliance with applicable provisions.
- d. Utility inspection, upon installation of specified equipment and appliances, to determine appropriate location with respect to the base flood elevation.
- e. Final inspection prior to issuance of the Certificate of Occupancy.

8. Submissions Required Prior to Final Inspection

Pursuant to the Agreement to Submit an Elevation Certificate submitted with the application as required in Section Chapter 7614.a(a).3.5.a.9, the permittee shall have an Elevation Certificate prepared and submitted prior to final inspection and issuance of a Certificate of Occupancy for elevated structures and manufactured homes, including new structures and manufactured homes, substantially-improved structures and manufactured homes, and additions to structures and manufactured homes.

76.4 REQUIREMENTS IN ALL FLOOD HAZARD AREAS

1. Application of Requirements-

The general requirements of this section apply to all development proposed within all special flood hazard areas identified in Section 76.1.5.

2. Subdivision Proposals and Development Proposals

To achieve long -term flood damage avoidance and protection of the natural and beneficial floodplain functions, creation of any new flood-prone building sites shall not be permitted is prohibited in any subdivisions governed by this Ordinance regardless of size, number of lots, and or location, except in tidal floodplains.

a. In all flood zones:

- (1) Subdivision proposals and development proposals shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations.
 - (1) Location of the buildable areas on new subdivision lots within the *special flood*hazard areas is prohibited. The building restriction line for new subdivision lots

 shall be established at the more restrictive of 25' from the site contour equal to the

 BFE or the flood protection setback.
 - Within proposed subdivisions, the floodplain areasmapped special flood hazard area and theirthe natural vegetation waterward of the site contour equal to the BFE shall be preserved as natural buffer areas, or open space, recreation, and similar compatible uses by deed restriction, restrictive covenants, or other or similar instrument or donation to.
 - (3) Any portion of a platted lot that includes land trust. At a minimum, areas that are below the area preserved base flood elevation shall be deed restricted, or otherwise protected to preserve it as open space.
- (2) Subdivision proposals and development proposals shall have utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- (3) Subdivision proposals and development proposals shall have adequate drainage paths provided to reduce exposure to flood hazards and to guide floodwaters around and away from proposed structures.
- (4) Subdivision proposals and development proposals containing at least 5 lots or at least 5 acres, whichever is the lesser, that are wholly or partially in flood hazard areas where base flood elevation data are not provided by the Floodplain Administrator or available from other sources, shall be supported by determinations of base flood elevations as required in Section 0 of these regulations.
- (5) Subdivision access roads shall have the driving surface at or above the base flood elevation.
- (6) In special flood hazard areas of nontidal waters of the State:
 - (a) Subdivision proposals shall be laid out such that proposed building pads are located outside of the special flood hazard area and any portion of platted lots that include land areas that are below the base flood elevation shall be used for other purposes, deed restricted, or otherwise protected to preserve it as open space.
 - (b) Subdivision access roads shall have the driving surface at or above the base flood elevation.

3. Protection of Water Supply and Sanitary Sewage Systems

a. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems.

- New include the drainageway and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into systems and discharges from systems into floodwaters.
- c. On-site waste disposal systems shall be located to avoid impairment to or contamination from them during conditions of flooding.

4. Buildings and Structures

- a. New buildings and structures (including the placement and replacement of manufactured homes)
 and substantial improvement of existing structures (including manufactured homes) that are
 located, in whole or in part, in any special flood hazard area shall:
 - (1) Be designed (or modified) and constructed to safely support flood loads. The construction shall provide a complete load path capable of transferring all loads from their point of origin through the load-resisting elements to the foundation. Structures shall be designed, connected and anchored to resist flotation, collapse or permanent lateral movement due to structural loads and stresses, including hydrodynamic and hydrostatic loads and the effects of buoyancy, from flooding equal to the flood protection elevation or the elevation required by these regulations or the building code, whichever is higher.
 - (2) Be constructed by methods and practices that minimize flood damage.
 - (3) Use flood damage-resistant materials below the elevation of the lowest floor required in Section 76.5.4.a or Section 76.5.5.a (for A Zones) or Section 76.6.3.b (for V Zones and Coastal A Zones).
 - (4) Have electrical systems, equipment and components, and mechanical, heating, ventilating, air conditioning, and plumbing appliances, plumbing fixtures, duct systems, and other service equipment located at or above the elevation of the lowest floor required in Section 76.5.4.a or Section 76.5.5.a (A Zones) or Section 76.6.3.b (V Zones and Coastal A Zones). Electrical wiring systems are permitted to be located below elevation of the lowest floor provided they conform to the provisions of the electrical part of the building code for wet locations. If replaced as part of a substantial improvement, electrical systems, equipment and components, and heating, ventilation, air conditioning, and plumbing appliances, plumbing fixtures, duct systems, and other service equipment shall meet the requirements of this section.
 - (5) As an alternative to paragraph (4) above, electrical systems, equipment and components, and heating, ventilating, air conditioning, and plumbing appliances, plumbing fixtures, duct systems, and other service equipment are permitted to be located below the elevation of the lowest floor provided they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to that elevation.
 - (6) Have the electric panelboard elevated at least three (3) feet above the BFE.
 - (7)If located in flood hazard areas (A Zones) that are not identified as Coastal A Zones or coastal high hazard areas (V Zones), comply with the specific requirements of Section 76.5.
- (8) If located in Coastal A Zone, comply with the specific requirements of:
 - (1) Section 76.6 (new construction and placement of new manufactured homes); or
 - (2) Section 76.5 (substantial improvements (including repair of substantial damage) and replacement manufactured homes).

- (3) If located in coastal high hazard areas (V Zones), comply with the specific requirements of Section 76.6.
- d. Comply with the requirements of the most restrictive designation if located on a site that has more than one flood zone designation (Zone X (shaded), A Zone, designated floodway, Coastal A Zone, V Zone).

5. Placement of Fill

- a. Disposal of fill, including but not limited to earthen soils, rock, rubble, construction debris, woody debris, and trash, shall not be permitted in special flood hazard areas.
- 5. Fill shall not be placed in Coastal A Zones or coastal high hazard areas (V Zones) except as provided in Section 76.6.2.
- Fill proposed to be placed to elevate structures in flood hazard areas (A Zones) that are not Coastal A Zones or coastal high hazard areas (V Zones) shall comply with the floodways requirements in Section 76.5.3.c, Section 76.5.3.d, Section Chapter 7614.d, and Section Chapter 7614.e and the limitations of Section 76.5.3.e.

6. Historic Structures

Repair, alteration, addition, rehabilitation, or other improvement of historic structures shall be subject to the requirements of these regulations if the proposed work is determined to be a substantial improvement, unless a determination is made that the proposed work will preclude the structure's continued designation as a historic structure. The Floodplain Administrator may require documentation of a structure's continued eligibility and designation as a historic structure.

7. Manufactured Homes

- a. New manufactured homes shall not be placed or installed in floodways or coastal high hazard areas (V Zones).
- b. In Coastal A zones, new and substantially improved manufactured homes shall comply with V-zone construction criteria for foundation design and elevation.
- c. For the purpose of these regulations, the lowest floor of a manufactured home is the bottom of the lowest horizontal supporting member (longitudinal chassis frame beam).
- New manufactured homes located outside of floodways and coastal high hazard areas (V Zones),
 replacement manufactured homes in any flood hazard areas, and substantial improvement
 (including repair of substantial damage) of existing manufactured homes in all flood hazard area,
 shall:
 - (1) Be elevated on a permanent, reinforced foundation in accordance with Section 76.5 or Section 76.6, as applicable to the flood zone;
 - (2) Be installed in accordance with the anchor and tie-down requirements of the building code or the manufacturer's written installation instructions and specifications; and
 - (3) Have enclosures below the lowest floor of the elevated manufactured home, if any, including enclosures that are surrounded by rigid skirting or other material that is attached to the frame or foundation, that comply with the requirements of Section 76.5 or Section 76.6, as applicable to the flood zone.

8. Recreational Vehicles buffer area and, to the greatest

Recreational vehicles shall:

- a. Meet the requirements for manufactured homes in Section 76.47; or
- b. Be fully licensed and ready for highway use; or
- c. Be on a site for less than 180 consecutive days.

9. Critical and Essential Facilities

<u>Critical and essential facilities shall not be located in coastal high hazard areas (V Zones), Coastal A Zones or floodways. If located in flood hazard areas other than coastal high hazard areas, Coastal A Zones and floodways, be elevated to the higher of:</u>

- a. The elevation required by these regulations plus one (1) foot,
- b. The elevation required by the building code, or
- c. The elevation of the 0.2 percent chance (500-year) flood.

10. Temporary Structures and Temporary Storage

- a. In addition to the application requirements of Section 76.3.5, applications for the placement or erection of temporary structures and the temporary storage of any goods, materials, and equipment, shall specify the duration of the temporary use. Temporary structures and temporary storage in floodways shall meet the limitations of Section 76.5.3.c and Section 76.5.3.d of these regulations. In addition:
- b. Temporary structures shall:
 - (1) Be designed and constructed to prevent flotation, collapse or lateral movement resulting from hydrodynamic loads and hydrostatic loads during conditions of the base flood;
 - (2) Have electric service installed in compliance with the electric code; and
 - (3) Comply with all other requirements of the applicable State and local permit authorities.
- c. Temporary storage shall not include hazardous materials.

11. Gas or Liquid Storage Tanks

- a. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.
- b. Above-ground tanks in flood hazard areas shall be anchored to a supporting structure and elevated
 to or above the base flood elevation, or shall be anchored or otherwise designed and constructed to
 prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads,
 including the effects of buoyancy, during conditions of the base flood.
- c. In flood hazard areas, tank inlets, fill openings, outlets and vents shall be:
 - (1) One (1) foot above the flood protection elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the base flood; and

(2) Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.

12. Functionally Dependent Uses

Applications for functionally dependent uses that do not conform to the requirements of these regulations are prohibited. If approved, functionally dependent uses shall be protected by methods that minimize flood damage during the base flood, including measures to allow floodwaters to enter and exit, use of flood damage-resistant materials, and elevation of electric service and equipment to the extent practicable, other floodplain areas. Steep slopes and forested areas adjacent to watercourses shall also be given high priority for preservation practical given the use of the building.

- For new subdivisions proposed in areas of nontidal floodplains, each lot platted must have a suitable building site outside the floodplain. An access road at or above the elevation of the 100-yearflood shall be provided.
- d. For new subdivisions proposed in areas of tidal floodplains, high priority should be given to clustering development out of the tidal floodplain while preserving the low-lying land and forested areas in natural vegetation. Unless the applicant can demonstrate that developing in the tidal floodplain will result in less environmental impact, new subdivisions in tidal floodplains shall be designed to develop the highest natural land available before floodplain lots are platted.

2. Floodways

a. General. Floodways present increased risks to human life and property than floodplains because of the relatively faster and deeper flowing waters of floodways. Floodways shall, therefore, be preserved to carry the discharge of the 100 year flood. Variances from the provisions of this subsection shall not be permitted if it would result in any increase in water surface elevations of the 100 year flood.

76.5 REQUIREMENTS IN FLOOD HAZARD AREAS (A ZONES) THAT ARE NOT COASTAL HIGH HAZARD AREAS (V ZONES) OR COASTAL A ZONES

1. General Requirements

In addition to the general requirements of Section 0, the requirements of this section shall:

- a. Apply in flood hazard areas that are not identified as coastal high hazard areas (V Zones) and
 Coastal A Zones. These flood hazard areas, referred to collectively as "A Zones," include special flood hazard areas along nontidal waters of the State, landward of coastal high hazard areas (V Zones), and landward of Coastal A Zones (if delineated).
- b. Apply to all development, new construction, substantial improvements (including repair of substantial damage), and placement, replacement, and substantial improvement (including repair of substantial damage) of manufactured homes.

2. Flood Protection Setbacks

Within areas defined by flood protection setbacks along nontidal waters of the State:

- a. No new buildings, structures, or other development shall be permitted unless the applicant demonstrates that the site cannot be developed without such encroachment into the flood protection setback and the encroachment is the minimum necessary after consideration of varying other siting standards such as side, front, and rear setbacks from lot lines.
- b. Disturbance of natural vegetation shall be minimized and any disturbance allowed shall be stabilized with vegetative cover.

Public works and temporary construction may be permitted. 3. Development that Affects Flood-Carrying Capacity of Nontidal Waters of the State New structures and fillcritical and essential facilities shall not be permitted in floodways. (1) <u>b. Replacement structures shall be located to minimize encroachment into</u> the New development and shall not be permitted in thea floodway where alternatives when alternative locations exist outside the floodway. Before a permit may be issued for new Development in Designated Floodways: (1) For proposed development in the that will encroach into a designated floodway, an Section 76.3.5.a.7 requires the applicant shall to submit an evaluation of alternatives analysis to such encroachment, including different uses of the site or the portion of the site within the floodway, and minimization of such encroachment. This requirement does not apply to fences that do not block the flow of floodwaters or trap debris. (2) Proposed development in a designated floodway may be permitted only if: (a) The applicant has been issued a permit by MDE; and (b) The applicant has developed hydrologic and hydraulic engineering analyses and technical data prepared by a licensed professional engineer reflecting such changes, and the analyses, which demonstrates that: shall be submitted to the Floodplain Administrator, demonstrate that the proposed activity will not result in any increase in the base flood elevation; or No reasonable alternatives exist outside 1 (c) <u>If</u> the floodway; Encroachment in analyses demonstrate that the floodway is the minimum necessary; The development will withstand the 100 year flood without significant damage; and

The development will not increase downstream or upstream flooding or erosion.proposed

Where alternatives are demonstrated to be unavailable, development activities in the floodway that may will result in anyan increase in water surface elevations or change to the floodway must be submitted to FEMA forbase flood elevation, the applicant has obtained a conditional Conditional Letter of Map Revision—and a Letter of Map Revision from FEMA upon completion of the project. Submittal requirements and fees shall be the responsibility of the applicant.

- d. Development that Includes the Placement of Fill in Nontidal Waters of the State:

 For proposed development that includes the placement of fill in nontidal waters of the State, other than development that is subject to paragraph e., a hydraulically-equivalent volume of excavation is required. Such excavations shall be designed to drain freely.
- e. Development in Areas with Base Flood Elevations but No Designated Floodways

 For development in special flood hazard areas of nontidal waters of the State with base flood elevations but no designated floodways:
 - (1) The applicant shall develop hydrologic and hydraulic analyses based on existing floodway models and performed in accordance with standard engineering practices analyses and

eertified technical data reflecting the proposed activity and shall submit such technical data to the Floodplain Administrator as required in Section 76.3.5.a (6). The analyses shall be prepared by a registered professional licensed professional engineer must be submitted. Failure to receive this letter in a format required by FEMA for a Conditional Letter of Map Revision and a Letter of Map Revision upon completion of the project. Submittal requirements and fees shall be grounds for denial the responsibility of the applicant.

(2) The proposed development may be permitted if the applicant has received a permit-by MDE and if the analyses demonstrate that the cumulative effect of the proposed development, when combined with all other existing and potential flood hazard area encroachments will not increase the base flood elevation more than 1.0 foot at any point.

Existing

- Construction of roads, bridges, culverts, dams, and in-stream ponds in nontidal waters of the State shall not be approved unless they comply with this section and the applicant has received a permit from MDE.
- For any proposed development that involves alteration of a watercourse not subject to paragraph
 e., unless waived by MDE, the applicant shall develop hydrologic and hydraulic engineering
 analyses and technical data reflecting such changes, including the floodway analysis required in
 Section 76.3.5.a, and submit such technical data to the Floodplain Administrator and to FEMA.
 The analyses shall be prepared by a licensed professional engineer in a format required by MDE
 and by FEMA for a Conditional Letter of Map Revision or Letter of Map Revision. Submittal
 requirements and fees shall be the responsibility of the applicant.
 - (1) Alteration of a watercourse may be permitted only upon submission, by the applicant, of the following:
 - (2) A description of the extent to which the watercourse will be altered or relocated;
 - (3) A certification by a licensed professional engineer that the flood-carrying capacity of the watercourse will not be diminished;
 - (4) Evidence that adjacent communities, the U.S. Army Corps of Engineers, and MDE have been notified of the proposal, and evidence that such notifications have been submitted to FEMA; and
 - (5) Evidence that the applicant shall be responsible for providing the necessary maintenance for the altered or relocated portion of the watercourse so that the flood carrying capacity will not be diminished. The Floodplain Administrator may require the applicant to enter into an agreement with St. Mary's County specifying the maintenance responsibilities; if an agreement is required, the permit shall be conditioned to require that the agreement be recorded on the deed of the property which shall be binding on future owners.

4. Residential Structures- and Residential Portions of Mixed Use Structures

Existing

New residential structures in the floodway may be substantially improved only by variance and only if the structure can be brought into conformance with this Ordinance without increasing its footprint.and residential portions of mixed use structures, and

- (2) Minor additions constituting less than a substantial improvement must be elevated to the flood protection elevation on pilings or columns.
- (3) In the event(including repair of substantial damage or replacement, the applicant shall submit an alternative analysis to determine if the structure can be relocated to a less hazardous site.
- (4) Where replacement) of existing residential structures cannot be relocated, they shall be limited to the footprint of the previous structure and must residential portions of

b. Limitations on Use of Fill to Elevate Structures

<u>Unless otherwise restricted by these regulations, especially by the limitations in Section 0c.</u> Section 76.5.3.c, Section 76.5.3.d, and Section 76.5.3.e, fill placed for the purpose of raising the ground level to support a building or structure shall:

- (1) Consist of earthen soil or rock materials only.
- (2) Extend laterally from the building footprint to provide for adequate access as a function of use; the Floodplain Administrator may seek advice from the State Fire Marshal's Office and/or the local fire services agency;
- (3) Comply with the requirements of the building code and be placed and compacted to provide for stability under a wind or water load less conditions of rising and falling floodwaters and resistance to erosion, scour, and settling;
- (4) Be sloped no steeper than would occurone (1) vertical to two (2) horizontal, unless approved by the Floodplain Administrator;
- (5) Be protected from erosion associated with expected velocities during the 100-year flood, and have a designed safe loading resistance of not occurrence of the base flood; unless approved by the Floodplain Administrator, fill slopes shall be protected by vegetation if the expected velocity is less than 10 pounds and no more than 20 pounds per square foot. five feet per second, and by other means if the expected velocity is five feet per second or more; and
 - (a) Glass walls are not to be considered breakaway walls.

Areas

- (6) Be designed with provisions for adequate drainage and no adverse effect on adjacent properties.
- c. Enclosures Below the Lowest Floor
 - (1) Enclosures below the flood protection elevation lowest floor shall be used solely for parking of vehicles, building access, crawl/underfloor spaces, or limited storage, and building access. If such areas are.
 - (2) Enclosures below the lowest floor shall be constructed using flood damage-resistant materials.
 - (3) Enclosures below the lowest floor shall be provided with flood openings which shall meet the following criteria:
 - (b)(a) There shall be a minimum of two flood openings on different sides of each enclosed as permitted herein, a non-conversion agreement, described in Section 76.4.4.b must be signed by the applicantarea; if a building has more than one enclosure below the lowest floor, each such enclosure shall have flood openings on exterior walls.
- f. Fill and Excavation.
 - (1) The use of fill for the structural support of buildings is prohibited.
 - (2) Earth or sand removed for the proper placement of pilings or columns shall be replaced.
 - (3) Excavation under existing structures or excavation within any enclosed space is prohibited.
 - (4) Excavation to create a basement is prohibited.

Location of Structures.

- (a) New mobile homes and mobile home parks are not permitted in the coastal high hazard area or the floodway.
- (b) Where mobile homes and mobile home parks already exist in the coastal high hazard area or the floodway, no new, replacement, or substantially improved mobile homes shall be permitted, whether in a mobile home park or not. Existing mobile homes if not shall comply with the following:
 - 1. Methods of anchoring shall include use of over the top and frame ties to ground anchors. Pilings or column foundations shall be used. Concrete block support pilings must be reinforced by placing reinforcing bars inside and extending them into the footing, filling the hollows with cement, and using mortar to cement the blocks together. FEMA Publication 85, "Manufactured Home Installation in Flood Hazard Areas", should be consulted for specific recommendation.
 - 2. Mobile homes repaired or replace because of substantial damage due to flooding or other causes must fully comply with Section 76.6.6.b.
 - 3. Owners of mobile home parks or subdivisions that are partially or fully within the floodplain must file an evacuation plan with the local emergency management agency. In nontidal floodplains, a flood free access road shall be provided in all new manufactured home parks and subdivisions.
- (6) Anchoring. All structures shall be firmly anchored in accordance with acceptable engineering practices to prevent flotation, collapse, and lateral movement during flooding. All air ducts, large pipes, and storage tanks located below the flood protection elevation shall be firmly anchored to resist flotation.
- (7) Utilities.
 - (a) Electric. All electric utilities to the building side of the meter, both inside and outside the building, are regulated by this Ordinance. Distribution panel boxes must be at least two feet above the flood protection elevation. All outlets and electrical installations, such as heat pumps, air conditioners, water heater, furnaces, generators, and distribution systems, must be installed at or above the flood protection elevation.
 - (b) Plumbing. Toilets, sinks, showers, water heaters, pressure tanks, furnaces, and other permanent plumbing installations must be installed at or above the flood protection elevation.
 - (c) Gas. Gas meters, distribution lines, and gas appliances must be installed at or above the flood protection elevation.
 - (d) Water Supply and Sanitary Facilities. Water supply distribution and sanitary disposal collection systems must be designed to minimize or eliminate the infiltration of flood waters into the systems or discharges from the systems into flood waters and shall be located and constructed so as to minimize or eliminate flood damage. On site sewage disposal systems shall meet these same standards.

2	(c) The bottom of each flood opening shall be 1 foot or less above the higher of the interior floor or grade, or the exterior grade, immediately below the opening.
3	interior floor or grade, or the exterior grade, infinediately below the opening.
4	(d) Any louvers, screens or other covers for the flood openings shall allow the
5	automatic flow of floodwaters into and out of the enclosed area.
6 7	(a) If installed in dears, fleed enough that most requirements of paragraphs (a)
8	(e) If installed in doors, flood openings that meet requirements of paragraphs (a) through (d), are acceptable; however, doors without installed flood openings do
9	not meet the requirements of this section.
10	
11	b. <u>d. Accessory Structures and Garages.</u>
12	(1) Where feasible, accessory structures and garages shall be located out of the regulated
13	floodplain or elevated to or above the flood protection elevation. When these
14	measures are not feasible the following standards apply:
15	(a) The floor of the structure must be at or above grade; and
16	(b) The structure must be located, oriented, and constructed so as to minimize flood
17	damage; and
18	(c) The structure must be firmly anchored to prevent flotation.
19	(2)——Attached Garages-
20	: A garage that is attached to or within the main exterior walls of a residential structure shall be elevated to
21	the greatest extent possible, but may be permitted as an exemption to the strict elevation
22	requirement if:
23	It is used solely for parking of vehicles, storage, or building access and
24 25	(1) The garage complies with Section 76.5.4.d for enclosures below the lowest floor,
21 22 23 24 25 26	The maximum area is
27	(3)(2) Is-no more than 600 square feet in area.
28	(*) <u>-/</u> * * * * * * * * * * * * * * * * * *
29	(4)(3) Attached garages must meet the venting requirements of Section 76.6.7 have All
30	interior walls, ceilings, and floors below the flood protection elevation unfinished are
31	made of flood resistant materials, and
32	(5)(1) have Normalization and their decimal and leasted and installed and and
33 34	(5)(4) have No machinery or electric devices or appliances located are installed or stored below the flood protection elevation.
35	·
36	(a) A non-conversion agreement, as described in Section 76.4.4 must be signed by the property owner stating that the garage may never be used for human
37	habitation without first becoming fully compliant with this Ordinance.
38	Detached Garages and Accessory
39	(6)5. Nonresidential Structures-
40	(a) An accessory structure or detached garage may be permitted below the flood
41	protection elevation if:
42	1. It is less than 300 square feet; and
43	It is used solely for parkingNonresidential Portions of vehicles and limited storage; andMixed Use
44	Structures
45	It meets the venting requirements of Section 76.6.7;
46	2.——New nonresidential structures and
47	3. All interior wall, ceilingnonresidential portions of mixed use structures,
48	and floor elements below the flood protection elevation unfinished; and
49	4. The structure or garage has no machinery, electric devices, or
50	appliances located below the flood protection elevation; and
51	5. A non conversion agreement is executed by the property owner.

- (b) An accessory structure or a detached garage between 300 square feet and 600 square feet may be permitted below the flood protection elevation only by a conditioned permit described in Section 76.4.4.
- An accessory structure or garage larger than 600 square feet in area must be elevated properly or be able to meet all substantial improvement (including repair of substantial damage) of existing nonresidential structures and nonresidential portions of mixed use structures shall comply with the applicable requirements under the variance procedure in Section 24 of Section 76.4 and the requirements of this section. See Section 76.5 of this Ordinance.

(7) <u>.6 for Recreational Vehicles.</u>

- (a) Recreational vehicles located within the floodplain may be exempted from the elevation and anchoring-requirements provided they are:
 - 1. Located on the site less than 180 consecutive days per year; or
 - 2. Conform to the use provisions of Section 51.3.118; and
 - 3. Fully licensed and ready for highway use; and
 - 4. Properly permitted.
- (b) A recreational vehicle is ready for highway use if it is on its wheels and jacking system, is attached to the site only by quick disconnect type utilities and securing devices, and has no permanently attached additions. If it cannot meet all of these criteria, the recreational vehicle must be considered a mobile home for purposes of this chapter, and is subject to the elevation and construction standards of Section 76.6.7.

(8) Fill.

- (a) Fill within the regulated floodplain is discouraged because it diminishes the natural storage capacity of the floodplain. Other methods of elevating structures should be considered first, and fill used only if other methods are not feasible. Fill may not be placed in the floodway. Fill may not be used for structural support in coastal high hazard areas. Fill may not be placed in tidal or nontidal wetlands without the required state and federal permits.
- (b) Fill must consist of soil and rock materials only. Dredged material may be used as fill only upon certification of suitability by a registered professional geotechnical engineer. Landfills, rubble fills, dumps and sanitary fills are not permitted in the floodplain.

Fill used to support structures must be compacted to 95 percent of the maximum density obtainable by the American Society for Testing and Materials (ASTM Standard D-698, and its suitability to support structures certified by a registered professional engineer. Fill slopes shall be no greater than two-horizontal to one vertical. Flatter slopes may be required where flood velocities may result in erosion to proposed slopes additions.

The use of fill

a. Elevation Requirements

Elevated structures shall not increase:

- (1) Have the lowest floor (including basement) elevated to or above the flood protection elevation; or
- (2) In areas of shallow flooding (Zone AO), have the lowest floor (including basement) elevated at least as high above the highest adjacent grade as the depth number specified in feet on the FIRM plus two (2) feet, or at least four (4) feet if a depth number is not specified; and
- (3) Have enclosures below the lowest floor, if any, that comply with the requirements of Section 76.5.4.c; or

- (4) If proposed to be elevated on fill, meet the limitations on fill in Section 76.5.4.b.
- b. Floodproofing Requirements
 - (1) Floodproofing of new nonresidential buildings:
 - (a) <u>Is not allowed in nontidal waters of the State (COMAR 26.17.04.11(B)(7)).</u>
 - (b) Is not allowed in Coastal A Zones.
 - (2) Floodproofing for substantial improvement of nonresidential buildings:
 - (a) Is allowed in nontidal waters of the State.
 - (b) Is allowed in Coastal A Zones.
 - (3) If floodproofing is proposed, structures shall:
 - (a) Be designed to be dry floodproofed such that the building or structure is watertight with walls and floors substantially impermeable to the passage of water to the level of the flood protection elevation plus 1.0 foot, or
 - (b) If located in an area of shallow flooding (Zone AO), be dry floodproofed at least as high above the highest adjacent grade as the depth number specified on the FIRM plus three (3) feet, or at least five (5) feet if a depth number is not specified; and
 - (c) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
 - (d) Have floodproofing measures that are designed taking into consideration the nature of flood-related hazards; frequency, depth and duration of flooding; rate of rise and fall of floodwater; soil characteristics; flood-borne debris; at least 12 hours of flood warning time from a credible source; and time necessary to implement any measures that require human intervention;
 - (e) Have at least one door above the applicable flood elevation that allows human ingress and egress during conditions of flooding:
 - (f) Have an operations and maintenance plan that is filed with local emergency management officials and that specifies the owner/occupant's responsibilities to monitor flood potential; the location of any shields, doors, closures, tools, or other goods that are required for implementation; maintenance of such goods; methods of installation; and periodic inspection; and
 - (g) Be certified by a licensed professional engineer or licensed architect, through execution of a Floodproofing Certificate that states that the design and methods of construction meet the requirements of this section. The Floodproofing Certificate shall be submitted with the construction drawings as required in Section 76.3.5a(13).

6. Horizontal Additions

a. A horizontal addition proposed for a building or structure that was constructed after February 19,
 1987 shall comply with the applicable requirements of Section 76.4 and this section.

- b. In nontidal waters of the State that are subject to the regulatory authority of MDE, all horizontal additions shall comply with the applicable requirements of Section 76.4 and this section and:
 - (1) If the addition is structurally connected to the base building, the requirements of paragraph c. below.
 - (2) If the addition has an independent foundation and is not structurally connected to the base building and the common wall with the base building is modified by no more than a doorway, the base building is not required to be brought into compliance.
- c. For horizontal additions that are structurally connected to the base building:
 - (1) If the addition combined with other proposed repairs, alterations, or modifications of the base building constitutes substantial improvement, the base building and the addition shall comply with the applicable requirements of Section 76.4 and this section.
 - (2) If the addition constitutes substantial improvement, the base building and the addition shall comply with all of the applicable requirements of Section 76.4 and this section.
- d. For horizontal additions with independent foundations that are not structurally connected to the base building and the common wall with the base building is modified by no more than a doorway, the base building is not required to be brought into compliance.
- e. A horizontal addition to a building or structure that is not substantial improvement, and is not located in nontidal waters of the State, is not required to comply with this section.

7. Accessory Structures

- a. Accessory structures, including detached garages, shall be limited to not more than 300 square feet in total floor area.
- b. Accessory structures shall comply with the elevation requirements and other requirements of Section 76.4, the floodproofing requirements of Section 76.5.5.b, or shall:
 - (1) Be useable only for parking of vehicles or limited storage;
 - (2) Be constructed with flood damage-resistant materials below the base flood elevation;
 - (3) Be constructed and placed to offer the minimum resistance to the flow of floodwaters;
 - (4) Be anchored to prevent flotation:
 - (5) Have electrical service and mechanical equipment elevated to or above the base flood elevation; and
 - (6) Have flood openings that meet the requirements of Section 76.5.4.c.
- c. A conditional permit, for up to a total size of 600 square feet may be issued at the discretion of the Floodplain Administrator when the 300 square foot exemption is exceeded for accessory structures. In order to qualify, the structure's use must be incidental to the primary structure, and it can only be used for limited storage and parking of vehicles. This conditional permit is subject to the completion of a Declaration of Land Restriction (Non-Conversion Agreement).

- d. A permit issued for any accessory structure that does not comply with the elevation requirements and other requirements of Section 76.5.4, or the floodproofing requirements of Section 76.5.5.b shall require:
 - (1) The recording of a Declaration of Land Restriction (Non-Conversion Agreement) on a form approved by the Floodplain Administrator that states that the use of the accessory structure may not change from that permitted and that the permitted structure may not be used for human habitation without first complying with the requirements of this Ordinance.
 - (2) Have a statement of the greater flood risk and potential for higher flood insurance premiums printed on the permit.

76.6 REQUIREMENTS IN COASTAL HIGH HAZARD AREAS (V ZONES) AND COASTAL A ZONES

1. General Requirements

In addition to the general requirements of Section 76.4, the requirements of this section shall:

- a. Apply in flood hazard areas that are identified as coastal high hazard areas (V Zones) and Coastal A
 Zones.
- b. Apply to all development, new construction, substantial improvements (including repair of substantial damage), and placement, replacement, and substantial improvement (including repair of substantial damage) of manufactured homes in the V Zone.
- c. In Coastal A Zones, apply to new and replacement structures. The requirements of Section 76.5
 shall apply to substantial improvements (including any repair of a substantially damaged structure), and substantial improvement of manufactured homes (including any repair of substantial damage).

2. Location and Site Preparation

- a. The placement of structural fill for the purpose of elevating buildings is prohibited.
- b. Buildings shall be located landward of the reach of mean high tide.
- <u>Minor or cause grading</u>, and the placement of minor quantities of fill, shall be permitted for
 <u>landscaping and for drainage problems on neighboring purposes under and around buildings and for support of parking slabs, pool decks, patios and walkways.</u>
- d. Site preparations shall not alter sand dunes unless an engineering analysis demonstrates that the potential for flood damage is not increased.

3. Residential and Nonresidential Structures

New structures and substantial improvement (including repair of substantial damage) of existing structures shall comply with the applicable requirements of Section 76.4 and the requirements of this section.

a. Foundations

(1) Structures shall be supported on pilings or columns and shall be adequately anchored to such pilings or columns. Pilings shall have adequate soil penetrations to resist the combined wave and wind loads (lateral and uplift). Water loading values used shall be those associated with the base flood. Wind loading values shall be those required by applicable building codes. Pile embedment shall include consideration of decreased resistance capacity caused by scour of soil strata surrounding the piling.

(2) Slabs, pools, pool decks and walkways shall be located and constructed to be structurally independent of structures and their foundations to prevent transfer of flood loads to the structures during conditions of flooding, scour, or erosion from wave-velocity flow conditions, and shall be designed to minimize debris impacts to adjacent properties—and public infrastructure.

b. Elevation Requirements

- (1) The bottom of the lowest horizontal structural member that supports the lowest floor shall be located at or above the flood protection elevation.
- (2) Basement floors that are below grade on all sides are prohibited.
- (3) The space below an elevated building shall either be free-of-obstruction or, if enclosed by walls, shall meet the requirements of paragraph d, below.

c. Certification of Design

As required in Section 76.3.5.a.(13), the applicant shall include in the application a certification prepared by a licensed professional engineer or a licensed architect that the design and methods of construction to be used meet the requirements of paragraph a, and paragraph b, above, paragraph d below, and the building code.

d. Enclosures Below the Lowest Floor

- (1) Enclosures below the lowest floor shall be used solely for parking of vehicles, building access or limited storage. Installation of utility stub outs is prohibited within enclosures below the lowest floor.
- (2) Enclosures below the lowest floor shall be less than 299 square feet in area (exterior measurements).
- (3) Walls and partitions are permitted below the elevated floor, provided that such walls and partitions shall be designed to break away under flood loads and shall not be part of the structural support of the building or structure
- (4) Electrical, mechanical, and plumbing system components shall not be mounted on, attached to, or penetrate through walls that are designed to break away under flood loads.
- (5) Walls intended to break away under flood loads shall be constructed with insect screening or open lattice, or shall be designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a design safe loading resistance of not less than 10 pounds per square foot and no more than 20 pounds per square foot; or
- (6) Where wind loading values of the building code exceed 20 pounds per square foot, the applicant shall submit a certification prepared and sealed by a licensed professional engineer or licensed architect that:
 - a. The walls and partitions below the lowest floor have been designed to collapse from a water load less than that which would occur during the base flood.
 - b. The elevated portion of the building and supporting foundation system have been designed to withstand the effects of wind and flood loads acting

simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the base flood; wind loading values used shall be those required by the building code.

c. In Coastal A Zones, in addition to the requirements of this section, walls below the lowest floor shall have flood openings that meet the requirements of Section.76.5.4.c.3.

4. Horizontal Additions to Structures

- a. A horizontal addition proposed for a building or structure that was constructed after February 19,
 1987 shall comply with the applicable requirements of Section 76.4 and this section.
- For horizontal additions, whether structurally connected or not structurally connected, to the base building:
 - (1) If the addition combined with other proposed repairs, alterations, or modifications of the base building constitutes substantial improvement, the base building and the addition shall comply with the applicable requirements of Section 76.4 and this section.
 - (2) If the addition constitutes substantial improvement, the base building and the addition shall comply with all of the applicable requirements of Section 76.4 and this section. The base building is required to comply otherwise it is an obstruction that does not comply with the free-of-obstruction requirement that applies to the elevated addition.
- c. A horizontal addition to a building or structure that is not substantial improvement is not required to comply with this section.

5. Accessory Structures

- a. Accessory structures shall be limited to not more than 300 square feet in total floor area.
- b. Accessory structures shall comply with the elevation requirements and other requirements of Section 76.6.3 or, if not elevated, shall:
 - (1) Be useable only for parking of vehicles or limited storage;
 - (2) Be constructed with flood damage-resistant materials below the base flood elevation;
 - (3) Be constructed and placed to offer the minimum resistance to the flow of floodwaters;
 - (4) Be anchored to prevent flotation;
 - (5) Have electrical service and mechanical equipment elevated to or above the base flood elevation; and
 - (6) If larger than 100 square feet in size, have walls that meet the requirements of Section 76.6.3.d.3 through 6, as applicable for the flood zone; and have flood openings that meet the requirements of Section 76.5.4.c.3.
- c. A permit issued for any accessory structure that does not comply with the elevation and other requirements shall require:
 - (1) The recording of a Declaration of Land Restriction (Non-Conversion Agreement) on a form approved by the Floodplain Administrator that states that the use of the accessory structure

may not change from that permitted and that the permitted structure may not be used for human habitation without first complying with the requirements of this Ordinance.

(2) Have a statement of the greater flood risk and potential for higher flood insurance premiums printed on the permit.

6. Other Structures and Development

a. Decks and Patios

In addition to the requirements of the building code or the residential code, decks and patios shall be located, designed, and constructed in compliance with the following:

- (1) A deck that is structurally attached to a building or structure shall have the bottom of the lowest horizontal structural member at or above the flood protection elevation and any supporting members that extend below the design flood elevation shall comply with the foundation requirements that apply to the building or structure, which shall be designed to accommodate any increased loads resulting from the attached deck.
- (2) A deck or patio that is located below the flood protection elevation shall be structurally independent from structures and their foundation systems, and shall be designed and constructed either to remain intact and in place during base flood conditions or to break apart into small pieces that will not cause structural damage to adjacent elevated structures.
- (3) A deck or patio that has a vertical thickness of more than 12 inches or that is constructed with more than the minimum amount of fill that is necessary for site drainage shall not be approved unless an analysis demonstrates no harmful diversion of floodwaters or wave runup and wave reflection that would increase damage to adjacent elevated structures.
- (4) A deck or patio that has a vertical thickness of 12 inches or less and that is at natural grade or on fill material that is similar to and compatible with local soils and is the minimum amount necessary for site drainage may be approved without requiring analysis of the impact on diversion of floodwaters or wave runup and wave reflection.

b. Other Development

Other development activities shall be permitted only if located outside the footprint of, and not structurally attached to, structures, and only if an analysis demonstrates no harmful diversion of floodwaters or wave runup and wave reflection onto adjacent elevated structures. Other development includes but is not limited to:

- (1) Bulkheads, seawalls, retaining walls, revetments, and similar erosion control structures;
- (2) Solid fences, privacy walls, and fences prone to trapping debris, unless designed and constructed to fail under base flood conditions; and
- (3) Mounded septic systems.

76.7 VARIANCES

The Floodplain Administrator shall request comments on *variance* applications from MDE (NFIP State Coordinator) and shall provide such comments to the Board of Appeals.

1	1. In considering variance applications, the Board of Appeals shall consider and make findings of fact on
2	all evaluations, all relevant factors, requirements specified in other sections of these regulations, and
3	the following factors:
4	(A) The danger that materials may be swept onto other lands to the injury of others.
5	(B) The danger to life and property due to <i>flooding</i> or erosion damage.
6	(C) The susceptibility of the proposed <i>development</i> and its contents (if applicable) to flood damage
7	and the effect of such damage on the individual owner.
8	(D) The importance of the services to the <i>community</i> provided by the proposed <i>development</i> .
9	(E) The availability of alternative locations for the proposed use which are not subject to, or are
10	subject to less, flooding or erosion damage.
11	(F) The necessity to the facility of a waterfront location, where applicable, or if the facility is a
12	functionally dependent use.
13	(G) The compatibility of the proposed use with existing and anticipated <i>development</i> .
14	(H) The relationship of the proposed use to the comprehensive plan and hazard mitigation plan for that area.
15	(I) The safety of access to the property in times of flood for passenger vehicles and emergency vehicles.
16	(J) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the
17	effects of wave action, if applicable, expected at the site.
18	(K) The costs of providing government services during and after flood conditions, including maintenance
19	and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets
20	and bridges.
21	(L) The comments provided by MDE (NFIP State Coordinator).
22	2. Limitations for Granting Variances
23	The Board of Appeals shall make an affirmative decision on a variance request only upon:
24	(A) A showing of good and sufficient cause. Good and sufficient cause deals solely with the physical
25	characteristics of the property and cannot be based on the character of the improvement, the personal
26	characteristics of the owner/inhabitants, or local provision that regulate standards other than health and
27	public safety.
28	(B) A determination that failure to grant the <i>variance</i> would result in exceptional hardship due to the
29	physical characteristics of the property. Increased cost or inconvenience of meeting the requirements of
30	these regulations does not constitute an exceptional hardship to the applicant.

- (C) A determination that the granting of a *variance* for *development* within any designated *floodway*, or flood hazard area with *base flood elevations* but no designated *floodway*, will not result in increased flood heights beyond that which is allowed in these regulations.
- (D) A determination that the granting of a *variance* will not result in additional threats to public safety; extraordinary public expense, nuisances, fraud or victimization of the public, or conflict with existing local laws.
- (E) A determination that the building, *structure* or other *development* is protected by methods to minimize flood damages.
- (F) A determination that the *variance* is the minimum necessary to afford relief, considering the flood hazard.

76.8 ENFORCEMENT

1. Compliance Required

- No building, structure or development shall hereafter be located, erected, constructed,
 reconstructed, improved, repaired, extended, converted, enlarged or altered without full compliance with these regulations and all other applicable regulations.
- b. Failure to obtain a permit shall be a violation of these regulations and shall be subject to penalties in accordance with Section 76.8.3
- <u>c.</u> Permits issued on the basis of plans and applications approved by the Floodplain Administrator
 authorize only the specific activities set forth in such approved plans and applications or
 amendments thereto. Use, arrangement, or construction of such specific activities that are contrary
 to that authorization shall be deemed a violation of these regulations.

2. Notice of Violation and Stop Work Order

If the Floodplain Administrator determines that there has been a violation of any provision of these regulations, the Floodplain Administrator shall give notice of such violation to the owner, the owner's authorized agent, and the person responsible for such violation, and may issue a stop work order. The notice of violation or stop work order shall be in writing and shall:

- a. Include a list of violations, referring to the section or sections of these regulations that have been violated;
- b. Order remedial action which, if taken, will effect compliance with the provisions of these regulations;
- c. Specify a reasonable period of time to correct the violation;
- d. Advise the recipients of the right to appeal; and
- e. Be served in person; or
- f. Be posted in a conspicuous place in or on the property and sent by registered or certified mail to the last known mailing address, residence, or place of business of the recipients.

3. Violations and Penalties

Any person responsible for a violation shall comply with the notice of violation or stop work order. Failure to comply shall be a fine not less than One Thousand Dollars (\$1,000.00) per day. Each day a violation continues shall be considered a separate offense. Nothing herein contained shall prevent St. Mary's County from taking such other lawful action as is necessary to prevent or remedy any violation.

- a. No citation for a civil infraction shall be issued until the expiration of thirty (30) days after the issuance of a Notice of Violation.
- b. After the expiration of thirty (30) days after the issuance of a Notice of Violation, the Department shall issue a citation for a municipal infraction equal to the per day fine unless remediation has been commenced and is diligently pursued. The citation for a civil infraction shall be prosecuted in the same manner and to the same extent as set forth in the Local Government Article of the Annotated Code of Maryland.

4. Good Faith Effort

A good faith effort, in the opinion of the Floodplain Administrator, at compliance with the provisions herein regarding correcting the conditions identified in the Notice of Violation shall be sufficient to halt the penalties proscribed in these regulations.