

CHAPTER THREE – POLICIES

1. FLOOD PLAIN MANAGEMENT CRITERIA FOR FLOOD-PRONE AREAS:

- 1.1. Requirements:** All proposed project sites (including new construction, major improvements, and site work projects) shall be reviewed to ascertain that a one hundred (100) year floodplain determination has been made and that the source and map used for that determination are cited and attached to the program.
- 1.2. Standards:** All activities proposed within tidal and nontidal floodplains, including construction of buildings, grading, or utility work, shall be designed to meet or exceed the standard set forth below.
- a. Determination:** The Department of Natural Resources, Water Resources Administration (DNR-WRA) may provide assistance in determining the tidal/nontidal nature of the floodplain. Proposed activities located within nontidal floodplains are also subject to the provisions of Natural Resources Article, Section 8-803, Annotated Code of Maryland, and COMAR 26.17.04 & 26.23.
 - b. Permits:** For tidal and nontidal floodplains, permits shall be obtained from DNR-WRA, the Maryland Department of the Environment, and the Army Corps of Engineers (if applicable).
- 1.3. Building Site:** If a proposed building site is in a tidal or nontidal floodplain, all new construction, manufactured buildings, and substantial improvements shall be:
- a. Anchored:** Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - b. Materials:** Constructed with materials resistant to flood damage;
 - c. Methods:** Constructed with methods and practices that minimize flood damage;
 - d. Service Equipment:** Constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and
 - e. Review:** Reviewed by DNR-WRA for consistency with flood damage reduction objectives.
- 1.4. Building Site:** If a proposed building site is in a tidal or nontidal flood plain:
- a. Sewage Systems:** New and replacement sanitary sewage systems are to be designed to minimize and eliminate infiltration of flood waters into the systems and discharges the flood waters; and
 - b. Onsite Waste Disposal:** Onsite waste disposal systems are to be located to avoid impairment to them or contamination from them during flooding.
- 1.5. New Construction:** All new construction and substantial improvements (exceeding 50% of market value of structure) of non-residential structures within tidal or nontidal floodplains shall:
- a. Floor Elevation:** Have the lowest floor (including basement) elevated at least one (1) foot above the one hundred (100) year flood level; or
 - b. Watertight:** Shall be designed to be watertight to at least two (2) feet above the one hundred (100) year flood level, with walls substantially impermeable to the passage of water and the structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.

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- (1) A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice; and
 - (2) A record of such certificate which includes the specific elevation to which such structures are flood proofed shall be provided to DNR-WRA and indicated on design drawings.
 - c. **Fully Enclosed Areas:** Areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters shall:
 - (1) Be certified by a registered professional engineer or architect: or
 - (2) Meet or exceed the requirement for a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- 1.6. **Zones VI-30, VE, V:** All new construction within zones VI-30, VE, and V as delineated on the Flood Insurance Rate Map prepared by FEMA must be:
 - a. **Location:** Located landward of the reach of mean high tide;
 - b. **Elevation:** Have the bottom of the lowest structural member of the lowest floor two (2) feet above the one hundred (100) year flood level;
 - c. **Foundation:** Have a pile or column foundation and structure attached thereto anchored to resist floatation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously;
 - d. **Support:** Shall not use fill of structural support of buildings; and
 - e. **Open Space:** Shall have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or the supporting foundation system.

2. STANDARDS OF ETHICAL CONDUCT:

- 2.1. **Code:** Article III of the Code of Ethics for Executive Branch Officers and employees as promulgated by Executive Order of the Governor dated September 4, 1969 states in part that "It shall be considered unethical for any State officer or employee...to engage in outside employment which may frequently result in conflicts between the private interests of the officer or employee and his official State duties and responsibilities or which impairs or could reasonably be expected to impair his independent judgment in the exercise of his official duties... Failure to conform to the standards of ethical conduct so prescribed may lead to removal from office, termination of employment, or other action as the particular case may require."
- 2.2. **Conflict:** A/E's providing professional services to the State should carefully note the foregoing standards and avoid any action in conflict therewith. Failure to comply with these standards may lead to termination and loss of contract for professional services.

3. REFORESTATION PROCEDURES:

- 3.1. Requirements:** In accordance with Natural Resources Article, Section 5-103, all construction activities, let for bid involving land clearing of one acre or more by a unit of State government or any person using State funding for a construction project, shall clear only a minimum number of trees and other woody plants that are necessary and consistent with sound design practices. When clearing is conducted an area equivalent to that cleared is to be reforested.
- 3.2. Site:** Reforestation is to take place on the construction site or in the project right-of-way being used for construction if a suitable planting site is available. If not, then the constructing Agency or person may locate a suitable planting site on State owned or other publicly owned land in the county in which the construction activity is located. Reforestation may occur on these lands only when the Agency owning the land agrees to the proposed reforestation.
- 3.3. State Funds:** Constructing agencies or other persons using State funds for construction activities are required to consult with the Department of Natural Resources prior to cutting in or clearing forest land and prior to the selection of an area of reforestation.
- 3.4. Unavailable Site:** If a suitable planting site cannot be located the construction Agency or person using State funds shall deposit five hundred dollars and no cents (\$500.00), for each acre cleared, into the Reforestation Fund of the Department of Natural Resources to be used for reforestation of suitable sites as they become available.
- 3.5. Construction Site:** An Agency or person using State funds for construction projects shall request a review of the proposed construction site no less than two (2) months prior to clearing. The Request should be in writing to a designated representative of the State forester with a copy of the transmittal letter and review request form to the State forester.

4. EARTHQUAKE CONSTRUCTION: Where required, facilities should be designed for earthquake loads per applicable provisions of IBC or the Building Seismic Safety Council (BSSC) whichever is more stringent. Of particular concern should be "provisions of adequate ductility to structural components, especially connections, consistent with the design levels assumed, and adequate anchorage of nonstructural components such as parapets."

5. CHESAPEAKE BAY POLICY:

- 5.1. Requirements:** A/E's are required to incorporate the Chesapeake Critical Area and Wetlands Regulations administered by the Chesapeake Bay Critical Areas Commission, Department of Natural Resources, into the design of construction projects.
- 5.2. Critical Area Commission Approval:** For projects which have received general approval from the Critical Area Commission (CAC), the A/E will be responsible for submitting Schematics, 50% and 95% Construction Documents (CD) to the CAC. In all instances, one copy of the transmittal letter acknowledging receipt by the CAC shall be submitted to the UMB Project Manager. The A/E shall provide two copies of CAC's letter, which indicates their approval of each phase of the proposed design, to the University.

- 5.3. Formal Presentation:** The A/E may be required to make formal presentations to the CAC.

END OF CHAPTER 3