CHAPTER THREE

ADOPTION OF A FLOODPLAIN MANAGEMENT ORDINANCE

A. Introduction
B. Maryland Model Floodplain Management Ordinance
  1. More Restrictive Provisions
  2. Revisions to the Model Ordinance
C. Adopting Compliant Floodplain Management Ordinances
D. Floodplain Management Ordinance Administration & Enforcement

A. Introduction

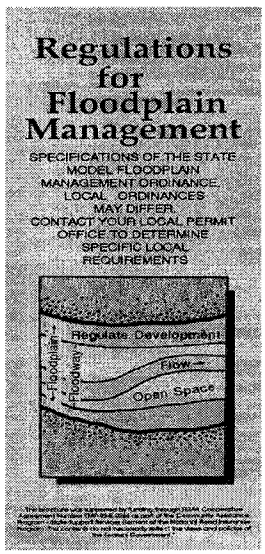
Any community identified as containing a Special Flood Hazard Area (SFHA) by the National Flood Insurance Program (NFIP) must adopt an ordinance approved by both the State NFIP Coordinating Office and the Federal Emergency Management Agency (FEMA) in order to participate in the NFIP and make flood insurance available in the community. The purchase of flood insurance for flood-prone structures is a necessary condition for receiving any form of federal or federally insured loans or assistance. Many forms of federal disaster assistance available to communities after a disaster declaration (not only floods) depend on the adoption of minimum standards for the management of flood-prone areas (44 Code of Federal Regulations Ch. 1, Sections 60.2(h), 60.3, and 60.6(a)).

Once a Flood Insurance Study (FIS) has been completed, a community must adopt a compliant floodplain management ordinance to enter the Regular Program of the NFIP. All participating Maryland communities are now in the Regular Program and must periodically upgrade ordinances as required by FEMA. A few Special Conversion communities were converted into the Regular Program without an FIS, especially where flooding potential was less severe or development pressure low.

The minimum provisions that a community must adopt in its ordinance are outlined in 44 CFR Ch. 1, Sect. 60.3. A community with only tidal flooding or riverine flooding without a floodway identified must adopt, as a minimum, the "c" level requirements. Once a floodway is identified in the FIS, the community must add the "d" level provisions to its ordinance. A community which has a Coastal High Hazard Area, or V-zone, identified in its FIS must incorporate the "e" level provisions in its ordinance. In addition, all local ordinances must be consistent with State regulations. A community may always adopt more restrictive provisions to further regulate, or even prohibit, floodplain development.

B. Maryland Model Floodplain Management Ordinance

The State NFIP Cooordinating Office produced the Maryland Model Floodplain Management Ordinance which contains all federally mandated provisions and is consistent with State regulations. This ordinance was approved by FEMA, so that if a community adopts the Model Ordinance, it is assured FEMA acceptance. The Model Ordinance was designed to be modified easily by dropping the "e" provisions to produce a Nontidal Version, and dropping the "d" provisions to produce a Tidal Only Version. Assistance is provided in adapting the Model Ordinance to meet the specific situation of the community.



1. More Restrictive Provisions

Through adoption of the Maryland Model Ordinance, Maryland communities adopt floodplain management provisions which exceed the federal mandate minmums. State requirements from Critical Areas, Growth Management, and other State laws are incorporated into the Model. Requirements in tidal and nontidal floodplains are differentiated to clarify State and local permitting responsibilities. Pursuant to COMAR 26.17.04, MDE regulates the channel and floodplain of nontidal waterways. Sections below refer to sections of the Maryland Model Floodplain Management Ordinance that are more restrictive than the NFIP minimum requirements.

SECTION 3.3 - SUBDIVISION PROPOSALS: "Subdivision review shall assure that a building pad outside the 100-year floodplain is provided for each lot subdivided in nontidal floodplains. A plan for the perpetual protection of floodplain areas in their natural state shall also be provided."

Significant long-term floodplain management objectives are achieved when floodplain areas are delineated and preserved as open space during the subdivision process. This provision may satisfy the 100-year protection objective in the Growth Management Act. Permanent open space is often considered an amenity in new communities. Allowing buildings reduces floodplain storage capacity, and residents still have to be evacuated during pending emergencies. Flood insurance may be required, as well.

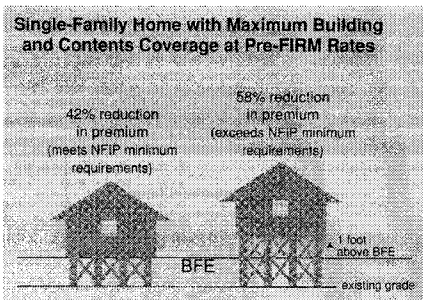
SECTION 3.4 - ISSUANCE OF PERMIT (Dam Safety): "Caution shall be exercised in consideration of development downstream of existing or proposed dams. Downstream development within the dam break flood wave shall be denied unless the dam meets the design standards for a high hazard dam."

This initiative is suggested for areas of waterways below dams within the dam break flood wave where lives and property may be lost due to dam failure. The Dam Safety Division may be consulted for additional information.

SECTION 3.5 - CONDITIONED PERMITS: "A conditioned permit may be issued for non-elevated accessory structures when the structure is accessory to the primary structure, not used for business, and is used only for parking of vehicles or limited storage. Accessory structures 300 square feet or less must be anchored, vented, and have a Nonconversion Agreement completed. Those 300 - 600 square feet must also have a Declaration of Land Restriction or similar deed restriction recorded. If the accessory structure will exceed 600 square feet, all preceding conditions apply, and a variance must be issued which may cite additional conditions."

The Conditioned Permit has received special approval from FEMA. Without it, accessory structures and garages must be either elevated or a variance issued. The Nonconversion Agreement is a condition of permits for enclosures below flood level, including sheds, garages, and crawl spaces, where elevation is not feasible. The document is a binding agreement signed by the property owner to prohibit future conversion of floodable space for prohibited uses. Larger structures require a Declaration of Land Restriction that runs with the land to notify future owners of the requirement.

SECTION 5.2 - FLOOD PROTECTION ELEVATION (FREEBOARD): "All new or substantially improved residential and nonresidential structures shall have the lowest floor elevated to or above the Flood Protection Elevation. Horizontal expansions which increase the footprint and are less than substantial shall have the lowest floor elevated to or above the Flood Protection Elevation. Nonresidential structures in tidal floodplains may floodproof to the Flood Protection Elevation in lieu of elevating the structure."

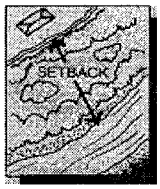


State regulations require one foot of freeboard above the 100-year flood elevation in nontidal floodplains as a measure of safety and do not allow the floodproofing option. For consistency and to provide the same level of safety throughout all floodplains (tidal and nontidal), the additional foot of freeboard is encouraged for development in the tidally influenced floodplain. Flood insurance for new buildings is rated based on elevation above the BFE; therefore, one foot of freeboard results in lower flood insurance premiums and two feet of freeboard results in the maximum savings on premiums.

SECTION 5.3 - FILL: "Fill up to 600 cubic yards per lot or parcel may be permitted. Fill in excess of 600 cubic yards must be granted a variance, and the applicant must demonstrate that fill is the only alternative to elevating the structure to the Flood Protection Elevation, and that the fill will not affect flood storage capacity or increase flooding onto neighboring properties."

Fill in excess of 600 cubic yards should be approved only through variance and considered carefully because of the effect of fill on flood storage and the possible liability of increased flooding onto neighboring property. Elevation on perimeter foundations, pilings, columns, etc., should be considered first, and used when feasible. Fill should be permitted only as a last resort and with good cause. In Maryland, use of fill in the floodplain is strongly discouraged because of the possible problems it may cause. The 100-year floodplain

protection objective of the growth management bill may be partially achieved by discouraging fill.



SECTION 5.4 - FLOOD PROTECTION SETBACK: "A minimum 100-foot flood protection setback shall be maintained from the top of the bank of any watercourse delineated on the FIRM or floodway map, except where it extends beyond the floodplain boundary. A minimum 50-foot flood protection setback shall be maintained from the top of bank of any stream which has no designated floodplain. Within the setback, natural vegetation shall be maintained."

This initiative is considered an important element in preventing future flood damage. Areas immediately adjacent to nontidal waterways are where the likelihood of flood damage is greatest due to depth and velocity. In tidal areas, the setback is consistent with the 100-foot buffer requirement of the Chesapeake Bay Critical Areas. Setbacks can also provide a measure of safety along eroding shorelines; however in areas with severe erosion, additional setbacks based on average annual rates of erosion may be appropriate.

The flood protection setback may meet local buffer protection objectives under the Growth Management Act since this area along waterways also provides water quality and wildlife habitat functions.

SECTION 5.5 - SUBDIVISION REQUIREMENTS: "Floodplains must be delineated on all subdivision plans, and a preservation plan to maintain the floodplain in its natural state as open space must be submitted. All lots subdivided in nontidal floodplain areas must have a building site that is flood-free. New subdivisions in tidal areas shall develop the highest natural land available before floodplain lots may be considered. High priority shall be given to clustering development out of the floodplain."

A detailed study of the watercourse and any unnumbered A-zones on subdivisions of five acres or five lots or more is required. The floodplain delinations must be shown on the subdivision plan and floodplain development avoided. Preserving floodplains as natural areas preserves the natural beneficial functions they provide and has high amenity value to the community. This can be used toward open space requirements, forest conservation regulations, and buffer requirements of the Growth management Act.

To allow safe evacuation during floods, an access road to new subdivisions shall be at or above the elevation of the 100-year flood. Although this standard is not included in State regulations, it is strongly encouraged in local ordinances to protect public safety.

SECTION 5.7 - FLOODWAYS - ALTERNATIVE ANALYSIS REQUIREMENT: "Any floodway development must receive a Conditional Letter of Map Revision (CLOMR) from FEMA prior to a permit being issued. In addition, it must meet the following conditions: (1) no reasonable alternative exists outside the floodway, (2) encroachment in the floodway is the minimum necessary, (3) the development will withstand the 100-year flood with minimal damage, and (4) the development will not increase downstream or upstream flooding or erosion."

This procedure assures that the applicant meets all conditions required by FEMA for floodway encroachment and has fully considered alternatives to any activity proposed within the floodway. It does not prohibit such activities, but requires additional scrutiny and gives the community additional control over changes that may cause flooding elsewhere.

SECTION 5.8 - FLOODWAYS - EXISTING STRUCTURES: "Existing structures shall be substantially improved only by variance and if they can be brought into conformance with this ordinance without increasing the footprint. An alternatives analysis must be performed. Additions which are less than substantial may be considered only if they are elevated to the flood protection elevation on adequately supported pilings or columns. Permits for incremental improvements and additions shall be tracked, and if cumulative improvements constitute substantial improvement, no further permits shall be issued unless the structure conforms to the provisions of this ordinance."

Since the State model prohibits new buildings in the floodway, existing ones are nonconforming. Tracking incremental improvements and determining if they cumulatively constitute substantial improvement (in excess of 50% of the value of the existing structure, before improvement) exceeds federal minimums. Minor additions are permitted provided that they can be fully elevated on pilings or columns so as not to reduce flood carrying capacity.

SECTION 5.11 - V-ZONES - GENERAL (Alternative Analysis Requirement): "Prior to issuance of a permit, the applicant must demonstrate: (1) no reasonable alternative exists outside the coastal high hazard area, (2) the encroachment on the coastal high hazard area is the minimum necessary, (3) the development will withstand the 100-year wind and water loads without damage, (4) the development will not create an additional hazard to existing structures, and (5) any natural dune system will not be disturbed."

This procedure assures that the applicant has fully considered alternatives to any activity proposed within the Coastal High Hazard Area (V-zone). It does not prohibit activities in these areas, but requires additional scrutiny and gives the community additional control over areas where flood damage potential is very high.

SECTION 5.16 - V-ZONES (Existing Structures): "Existing structures located in the V-zone shall not be substantially improved or expanded vertically or horizontally unless the entire foundation system is certified by a professional engineer or architect as capable of supporting the existing building and the proposed improvement during the 100-year storm. Permits for incremental improvements shall be tracked, and when cumulative improvements constitute substantial improvement, the entire structure must comply with this ordinance."

V-zones are areas susceptible to wave action as well as flooding. In V-zones, the potential for erosion is significant. Therefore, if additional weight is to be added to an existing building, certification by an appropriate professional to assure that the foundation meets design and construction standards to support that load under the wind and wave forces during the 100-year storm is needed. To achieve a long-term objective of minimizing risks in coastal high hazard areas, local jurisdictions must track improvements to buildings within V-zones, and require full compliance with the ordinance when cumulative improvements reach 50% of the market value of the structure.

SECTION 7.2 - VARIANCES - CONDITIONS: "Upon the granting of a variance, the applicant shall be notified in writing of the requirement for recordation of variance conditions on the deed or Memorandum of Land Restriction prior to obtaining a permit."

Requiring recordation of variance conditions against deeds, or preparation of a Declaration of Land Restriction, assures that all future owners are aware that a structure was allowed a variance to the ordinance, may have certain restrictions placed against its use and improvement, and may have increased risk of flood damage and higher flood insurance premiums.

2. Revisions to the Model Ordinance

Periodically, changes in federal and State regulations require that floodplain management ordinances be revised. At such time, MDE will revise the State model and notify communities to make the required changes or adopt a version of the new State model. Sometimes, issuance of a revised Flood Insurance Study may require that a community's ordinance be revised. For example, if a floodway is delineated where none existed before, the community would be required to add the "d" level provisions to its ordinance. Of course, the community may decide on its own to revise its ordinance, and WRA will provide assistance to assure that all requirements are met and that FEMA receives a copy of the revised ordinance.

C. Adopting Compliant Floodplain Management Ordinances

Once revisions to a floodplain management ordinance have been completed, the community must formally adopt the ordinance, using the procedures outlined in its Charter. This includes proper public notice and provision for the public to review and comment on proposed changes. To be legally enforceable, the ordinance must specifically adopt the FIS and flood maps which apply within the community. The elected council or commissioners must vote upon passage. When passed, a signed copy of the ordinance must be provided as soon as possible to MDE for review and forwarding to FEMA. MDE will notify the community that the ordinance has been forwarded to FEMA with a recommendation for acceptance. When FEMA has completed its review, it will notify the community of its acceptance directly.

For cases in which certain enforcement authority will be delegated, see Section D for special arrangements for adoption.

D. Floodplain Management Ordinance Administration & Enforcement

Upon adoption of a compliant floodplain management ordinance, a community is charged with the responsibility of proper administration and enforcement. Some communities may wish to delegate some or all of the administration and/or enforcement responsibilities. This is most common in small towns which do not have the expertise or personnel to enforce their ordinances. If the county is willing to accept delegation, the town may wish to transfer some responsibilities to the county. A legal document, a Resolution of Delegation, must be signed by the Town's Mayor and Council to delegate specific responsibilities to the county, and signed by the county commissioners to accept the delegation. Town officials must be careful to ensure that all aspects of ordinance administration are covered in the document, and that the delegation arrangement is enforceable in court. It is important to note that, in FEMA's eyes, the community adopting the ordinance is ultimately responsible for its proper enforcement. Any sanctions taken will be against that community, not its enforcement agent.

Some counties and towns have agreements with private inspection agencies to perform building inspections. These agencies may also perform floodplain inspections, provided the contract clearly delegates that responsibility, and the agency is knowledgeable of the floodplain ordinance and its responsibilities to assure compliance. Vague agreements are not acceptable. A copy of the agreement must be approved and on file with the State Coordinating Office. The county or town will be held accountable for the sufficiency of the floodplain inspections and any violations that may occur because of deficiencies.

FEMA has outlined specific means of ordinance adoption and delegation of floodplain management responsibilities:

1. A town may adopt a floodplain management ordinance and delegate some aspect(s) of its administration to the county. The town must supply FEMA with an adopted resolution, cosigned by the county commissioners or executive, that defines the division of responsibilities. For example, if a town wishes to delegate only its floodplain inspections, a completed resolution stating this must be on file with FEMA.

2. A town may adopt the county's floodplain management ordinance, replacing the county's FIS and flood maps with its own, and sign a Resolution of Delegation agreement that the county will enforce the ordinance within the town's jurisdiction.

3. A town may pass an ordinance that recognizes the county's authority to enforce the county floodplain management ordinance within the town. The County's ordinance must cite the town's FIS and flood maps for this arrangement to be enforceable. A Resolution of Delegation is not necessary, since enforcement is implicit in the arrangement.

A sample Resolution of Delegation form is found in the appendix. During the town's Community Assistance Visit, State NFIP staff review the permitting process and conduct a field visit to ensure that floodplain inspections are being performed to preclude violations of the ordinance. Problems encountered are referred to the town for rectification, not the county and FEMA will hold the town responsible for any problems, regardless of who is administrating the ordinance.