

Disclaimer: The information presented in the following slides is for informational and educational purposes only. It does not in any way serve as a legal document or legal guidance. For such information, please refer to the Calvert County Flood Plain Management Ordinance.

Flood Plain Management Ordinance

Rules for Building in the Flood Plain

Copies of the *Calvert County Flood Plain Management Ordinance* available at
Department of Planning and Zoning

Purpose

- Protect human life and health
- Minimize property damage, encourage appropriate construction practices to minimize future damage
- Protect individuals from unwittingly buying land subject to flood hazards
- Reduce financial burdens to the community and State
- Prevent displacement and suffering of residents



Purpose

- Establishes floodplain zones
- Requires a permit for all development within a designated floodplain zone
- Provides certain minimum standards for construction
- Sets standards and procedures for submission and approval of plans
- Establishes penalties

Local Permitting Official

- Department of Planning and Zoning
- Department of Public Works
- Division of Inspections and Permits



Applicability

- Any person or entity proposing to do any development within the floodplain zone must first obtain a permit and must comply with all provisions of this ordinance.



Permit Procedures

- Same required information as the Calvert County Building Permit, & in addition:
 - Estimated cost of the construction
 - Site characteristics and improvements
 - Other information deemed appropriate by the County
- Site plan
 - Drawn to scale
 - Dimensions of site
 - Size and location of existing and proposed structures and alterations
 - Setbacks
 - Elevation contours
 - Delineation of the 100-year flood elevation and boundary
 - Proposed elevation of the lowest floor and method of elevation

Permit Procedures

- The County may require plans for tree maintenance, stormwater management, revegetation, establishment of vegetated buffers, and final grading
- All applicants must provide Agreement to provide Elevation Certificate completed by a registered professional engineer or surveyor to certify the as-built lowest floor
- Enclosed areas below the Flood Protection elevation may require a Nonconversion Agreement, Memorandum of Land Restriction & an agreement to install water equalizing vents

Copies of the Nonconversion Agreement & Agreement to Supply Elevation Certificate forms available at Department of Planning and Zoning.

Permit Procedures



- Information on the cost of the improvement and the market value of the structure before the improvement is required
 - This allows the County to determine if a “substantial improvement” is being proposed
 - The County may use tax assessment records to determine substantial improvement
 - Cumulative value of improvements constitutes substantial improvement of a structure

Subdivision Proposals

- Subdivision applicants must submit a plan that demonstrates that every new building site for each lot is outside of the 100-year floodplain



Permit Issuance

- The County confirms the proper elevation to which the lowest floor of proposed structures must be elevated
- Where an elevation is not available, the applicant is required to obtain one
- The applicant must also obtain:
 - All other required permits
 - Elevation Certificate
 - Engineering analysis
 - Other required verifications deemed appropriate by the County

After Permit Issuance



- No changes of any kind can be made to the application, permit, plans, specifications, or other documents without written approval from the County.
- A copy of the permit must be displayed at the construction site
- Work must begin within 180 days of permit issuance or the permit will expire
- Work must be completed within 18 months
- Record of all floodplain permits and relevant certificates and documents are maintained by the County and made available to FEMA or the Water Resources Administration

Floodplain Zones

- Based on FEMAs 100-year flood as delineated on the most recent revision of the Flood Insurance Rate Maps (FIRM) and as described in the Flood Insurance Study (FIS)
- Nontidal Floodplains
 - Consist of the Floodway and Floodway fringe
 - Detailed engineering study data, profiles and water surface elevations
 - Or may be based on approximate delineations
- Tidal Floodplains
 - Areas subject to coastal or tidal flooding by the 100-year flood
 - Flooded due to high tides, hurricanes, tropical storms and steady on-shore winds.
- Coastal High Hazard Areas
 - Areas subject to coastal or tidal flooding with the addition of high velocity water and wind action
 - Designated as V-Zones on the FIRM maps

Floodplain Boundaries



- County makes the final determination using
 - FIS and FIRMs
 - Location of mixed alluvial soils as shown on the USDA soils maps
 - Elevation
- Where map boundaries and elevations disagree, elevations prevail, with no approval from FEMA required
- Where no water surface elevations are provided, the applicant must:
 - Use the best available information to determine 100-year floodplain elevation
 - Delineate the elevation & boundary on the site plan
 - For new subdivisions, the elevation must be certified by a registered professional engineer based on hydrologic and hydraulic analyses
 - For individual lots, point-on-the-boundary method may be used

Criteria



- Nontidal & Tidal Floodplain Zones:
 - Placement of more than 600 cubic yards of fill per parcel/lot is prohibited (except by variance)
 - Must elevate building by other methods
 - Use of fill only when other methods will not work
 - Must be verified by registered professional engineer that the amount of fill used will not affect the flood storage capacity or increase flooding onto neighboring properties
 - For new subdivisions, no structures allowed in the floodplain, and access road must be provided at or above the flood elevation

Criteria

- Nontidal & Tidal Floodplain Zones (cont.):
 - Development may not occur in the floodplain where alternative locations exist
 - All new or substantially improved residential and nonresidential structures must have the top of the lowest floor elevated to or above the Flood Protection Elevation – recommend 2 to 3 feet
 - Floodplain elevation is 1 foot above the 100-year floodplain elevation
 - Basements are not permitted
 - Horizontal expansion (increased footprint) must also be elevated to or above the Flood Protection Elevation
 - Elevation of the as built lowest floor shall be certified by a registered surveyor or professional engineer on the Elevation Certificate
 - Enclosures below the Flood Protection Elevation must be constructed with water equalizing vents



Criteria

■ Coastal High Hazard Area (V-Zone)

□ No new development or substantial improvements allowed unless:

- Pilings and columns are anchored to resist flotation, collapse or lateral movement
- Bottom of the lowest horizontal structural member supporting the lowest floor must be elevated to or above the 100-year floodplain elevation – recommend 2 to 3 feet above
- Building designs and elevations must be certified by a professional engineer or architect knowledgeable in such designs
- Slabs or other at grade foundations are prohibited
- All space below the Flood Protection Elevation must be:
 - Free of obstruction
 - May be enclosed with open wood lattice, or insect screening, or breakaway walls
 - Used solely for parking of vehicles, limited storage, & building access
 - A nonconversion Agreement is required



Criteria

- Coastal High Hazard Area (V-Zone)
 - Manufactured homes are not permitted
 - Recreational vehicles must meet certain standard
 - Fill and excavation is prohibited
 - No new construction within the reach of mean high tide (except for shore erosion control projects and piers)
 - Existing structures may not be substantially improved or expand vertically or horizontally



Specific Requirements (Article VI Sections 1-8)

- Buildings
- Enclosures Below Lowest Floor
- Manufactured Homes & Home Parks
- Anchoring
- Utilities (electric, gas, plumbing, water/sanitary)
 - Floodplain certification must be provided prior to “rough” inspection*
- Accessory Structures & Garages
- Recreational Vehicles
- Fill

Contact Inspections and Permits for more information (410) 535-1600 ext. 2552



**For More Information,
Please Contact
John Swartz at
410-535-1600 x 2238 or
swartjd@co.cal.md.us**