

HISTORIC STRUCTURES AND FLOOD MITIGATION

A photograph showing several historic houses, including a prominent two-story light blue house with a porch, partially submerged in floodwater. The water is murky brown and reflects the sky. Large trees frame the scene on both sides, and a grassy area is visible in the foreground.

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TOPICS



Regulatory requirements

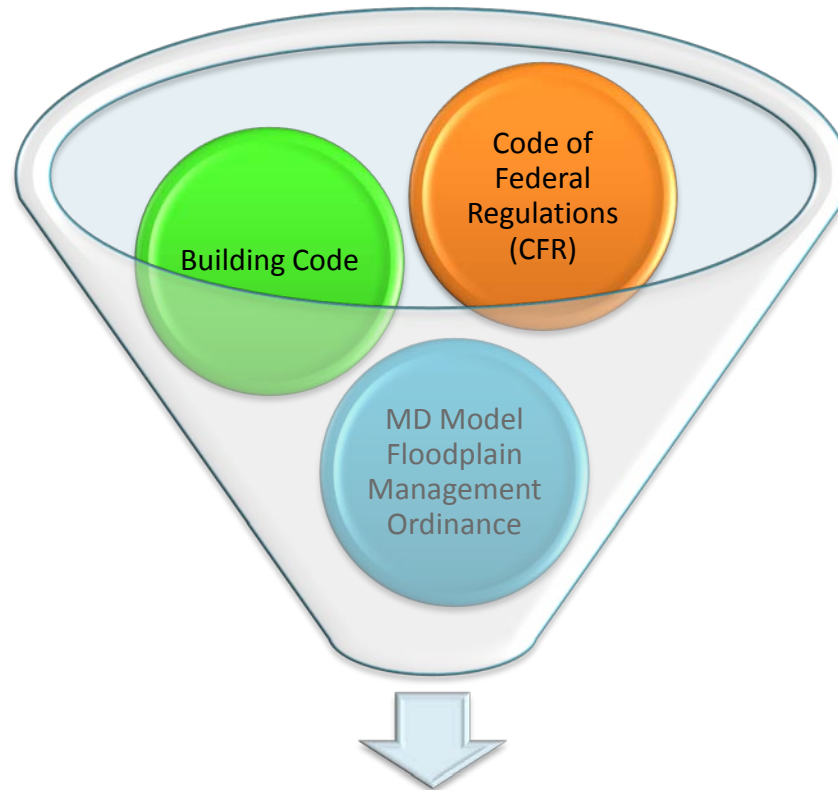


Flood insurance



Mitigation opportunities

THE REGULATORY HOPPER



**Community Floodplain
Management Requirements**

REGULATORY PROTECTIONS

- May be exempt from most floodplain management requirements
 - **Flood Insurance may be higher**
- Community can adopt one of two options:
 - Substantial improvement definition, or
 - Variance provision
 - **Not recommended to adopt both**

KEY DEFINITIONS

- Historic structure
- Substantial improvement
 - Also includes substantial damage
 - Sometimes referred to as the “50% Rule”



HISTORIC STRUCTURE

Historic Structure means any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing 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 a **state inventory of historic places** in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- (d) **Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified** either:
 - (1) By an approved state program as determined by the Secretary of the Interior or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

Source: Title 44, § 59.1, Code of Federal Regulations



SUBSTANTIAL IMPROVEMENT

Substantial improvement means:

Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. **The term does not, however, include either:**

- (1) Any project for improvement of a 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 and which are the minimum necessary to assure safe living conditions or
- (2) **Any alteration of a “historic structure”, provided that the alteration will not preclude the structure's continued designation as a “historic structure”.**



Source: Title 44, § 59.1, Code of Federal Regulations

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Source: Title 44, § 59.1, Code of Federal Regulations



MARYLAND'S HISTORIC DESIGNATION PROGRAMS

- National Register of Historic Places
- Maryland Register of Historic Properties
- **Maryland Inventory of Historic Properties**
- Determination of Eligibility
- Local Historic Designation

Source: “A Brief Look at Maryland’s Historic Designation Programs,” MHT



MARYLAND INVENTORY OF HISTORIC PROPERTIES

- A broad-based catalog of information on districts, sites, buildings, structures, and objects of known or potential value to the prehistory, history, terrestrial and underwater archaeology, architecture, engineering, and culture of the State of Maryland.
- Divided into two sections:
 - standing structures/non-archaeological sites, and
 - archaeological sites
- The information in the Maryland Inventory varies from minimal to extensively researched reports.
- The Maryland Inventory is often used as the basis for making decisions about eligibility determinations, establishing contexts for nomination, and significance of a resource.
- **Inclusion in the inventory carries no regulatory protections or financial benefits.**



Source: "A Brief Look at Maryland's Historic Designation Programs,"
MHT

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Source: “A Brief Look at Maryland’s Historic Designation Programs,” MHT



MARYLAND REGISTER OF HISTORIC PROPERTIES

- Established by the Maryland legislature in 1985.
- A list of properties considered worthy of preservation for significance in American history and culture.
- Maintained by the Maryland Historical Trust, the Inventory includes districts, buildings, sites, and objects.
- Inclusion in the Inventory requires that the resource be listed in or determined eligible by the Director of the Maryland Historical Trust for listing in the National Register of Historic Places.
- **Certain state regulatory protections and grant and loan programs are available for resources included in the Maryland Inventory of Historic Properties.**



Source: "A Brief Look at Maryland's Historic Designation Programs,"
MHT

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Source: Title 44, § 59.1, Code of Federal Regulations



MARYLAND CERTIFIED LOCAL GOVERNMENTS

Maryland Historical Trust: http://mht.maryland.gov/grants_clg.shtml

Cities

- Annapolis
- Baltimore
- Bel Air
- Cambridge
- Chestertown
- Cumberland
- Frederick
- Gaithersburg
- Hagerstown
- Rockville
- Salisbury

Counties

- Baltimore
- Calvert
- Charles
- Frederick
- Montgomery
- Prince George's
- St. Mary's
- Talbot
- Washington
- Wicomico



The screenshot shows the Maryland Historical Trust website. The header includes the Maryland.gov logo, the Department of Planning, and the Maryland Historical Trust name. A search bar and social media links are also present. The main navigation bar includes links for HOME, FUNDING, RESEARCH AND SURVEY, PROJECT REVIEW, ARCHEOLOGY, and GET INVOLVED. The left sidebar contains a 'My Grant Applications' button and a 'Resources' section with links to 'Become a CLG', 'Current Funding Opportunities', and 'FY 2015 CLG Grant Guidelines'. Below this is a 'Training' section with links to 'MAHDC' and 'NAPC'. The main content area is titled 'Certified Local Governments' and contains text explaining the program, a photo of a historic building, and information about the funding process and training opportunities. At the bottom, there is a section for 'Maryland's Certified Local Governments' with a link to their website.

My Grant Applications

Resources

- > [Become a CLG](#)
- > [Current Funding Opportunities](#)
- > [FY 2015 CLG Grant Guidelines](#)

Training

- > [MAHDC](#)
- > [NAPC](#)

Certified Local Governments

Most preservation activity takes place at the local level—for example, when a neighborhood seeks local designation to protect community character, or when a local advocacy group works with a city government and private developers to find the best solution for a beloved landmark building. The Certified Local Government program recognizes counties and municipalities that have made a special commitment to preservation. This commitment includes, but is not limited to, establishing a qualified historic preservation commission to designate and review historic properties.

Maryland's CLG program is administered by the [National Park Service](#) and the Maryland Historical Trust. CLG programs exist in every state and are supported through the federal Historic Preservation Fund. MHT awards 10% of its annual allocation from the Historic Preservation Fund to CLG projects and educational opportunities each year, with applications available in January or February. Please visit our [Grants page](#) for up-to-date information on current funding rounds.

MHT also partners with the Maryland Association of Historic District Commissions (MAHDC) to provide training programs for CLGs and other local governments.

Maryland's Certified Local Governments

(Click on link below to go to their web site)

HISTORIC STRUCTURE

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- (2) 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;
- (3) Individually listed on the **Maryland Register of Historic Properties**; or
If [COMMUNITY NAME] is a Certified Local Government with the National Park Service;
- (4) Individually listed on the inventory of historic places maintained by [COMMUNITY NAME] whose historic preservation program has been certified by the Maryland Historical Trust or the Secretary of the Interior.

Source: Maryland Model Floodplain Management Ordinance



SECOND OPTION: VARIANCE PROVISION

- Historic structures can only be substantially improved by variance
- Gives the community the ability to require additional conditions
- Should be applied consistently throughout the community

FLOOD INSURANCE

- National Flood Insurance Program (NFIP)
www.FloodSmart.gov
- Recent Legislation:
 - Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12)
 - Grandfathering eliminated
 - Homeowner Flood Insurance Affordability Act of 2014 (HFIAA)
 - Grandfathering reinstated
- **Only long-term solution is mitigation**

FLOOD INSURANCE RATING

- Higher rates for:
 - Subgrade crawlspaces
 - HVAC not elevated
 - Lack of flood openings
- Elevation Certificate may improve rate
- Agent to use whatever rating method yields cheaper rate



MITIGATION OPPORTUNITIES

- Install flood openings
- Elevate HVAC equipment
- Anchor fuel tanks
- Use flood-resistant materials



FEMA Hazard Mitigation Assistance grants:

Floodproofing (dry, nonresidential only)

Relocation (not preferred for historic buildings)

Elevation (at least 2' above BFE)

Demolition (definitely not preferred for historic buildings)

Purchase flood insurance!

FLOOD OPENINGS

- Bottom of opening within 12" of grade
- Prescriptive: 1 sq. in. of net open area for every sq. ft. of enclosed area (also engineered option)



ELEVATION CERTIFICATE

U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY Natural Flood Insurance Program		ELEVATION CERTIFICATE IMPORTANT: Follow the instructions on pages 1-9.		OMB No. 1660-0008 Expiration Date: July 31, 2015	
SECTION A - PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name _____				Policy Number: _____	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or R.O. Route and Box No. _____				Company NAIC Number: _____	
City _____		State _____		ZIP Code _____	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) _____					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____					
A5. Latitude/Longitude: Lat. _____ Long. _____				Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number _____					
A8. For a building with a crawlspace or enclosure(s):				A9. For a building with an attached garage:	
a) Square footage of crawlspace or enclosure(s) _____ sq ft		b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____		a) Square footage of attached garage _____ sq ft	
c) Total net area of flood openings in A8.b _____ sq in		d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____	
				c) Total net area of flood openings in A9.b _____ sq in	
				d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No	
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NIP Community Name & Community Number _____		B2. County Name _____		B3. State _____	
B4. Map/Panel Number _____	B5. Suffix _____	B6. FIRM Index Date _____	B7. FIRM Panel Effective/Revised Date _____	B8. Flood Zone(s) _____	B9. Base Flood Elevation(s) (Zone A0, use base flood depth) _____
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in item B9: <input type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in item B9: <input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input type="checkbox"/> No Designation Date: _____ / _____ / _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input type="checkbox"/> Finished Construction					
*A new Elevation Certificate will be required when construction of the building is complete.					
C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/AH, AR/AO. Complete items C2.a-h below according to the building diagram specified in item A7. In Puerto Rico only, enter meters.					
Benchmark Utilized: _____ Vertical Datum: _____					
Indicate elevation datum used for the elevations in items a) through h) below. <input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
Datum used for building elevations must be the same as that used for the BFE.					
Check the measurement used.					
a) Top of bottom floor (including basement, crawlspace, or enclosure floor) _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
b) Top of the next higher floor _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
c) Bottom of the lowest horizontal structural member (V Zones only) _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
d) Attached garage (top of slab) _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
f) Lowest adjacent (finished) grade next to building (LAG) _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
g) Highest adjacent (finished) grade next to building (HAG) _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support _____		_____		<input type="checkbox"/> feet <input type="checkbox"/> meters	
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION					
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.					
<input type="checkbox"/> Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Certifier's Name _____		License Number _____		PLACE SEAL HERE	
Title _____		Company Name _____			
Address _____		City _____ State _____ ZIP Code _____			
Signature _____		Date _____ Telephone _____			
FEMA Form 086-033 (7/12) See reverse side for continuation. Replaces all previous editions.					

1. Ensure compliance with community's regulations
 - Properly elevated
 - Adequate flood openings
2. Flood insurance rating
 - Proper documentation required
3. Support Letter Of Map Change (LOMC) request

FEMA PUBLICATIONS

- FEMA Technical Bulletins:
 - TB1, Openings in Foundation Walls and Walls of Enclosures
 - TB 2, Flood Damage-Resistant Materials Requirements
 - TB 3, Non-Residential Floodproofing - Requirements and Certification
 - TB 7, Wet Floodproofing Requirements
- Substantial Improvement/Substantial Damage Desk Reference (FEMA P-758)
- Floodplain Management Bulletin on Historic Structures (FEMA P-467-2)
- Protecting Building Utilities From Flood Damage (FEMA 348)
- Floodproofing Non-Residential Buildings (FEMA P-936)



STATE PARTNERS - LOCAL GOVERNMENT

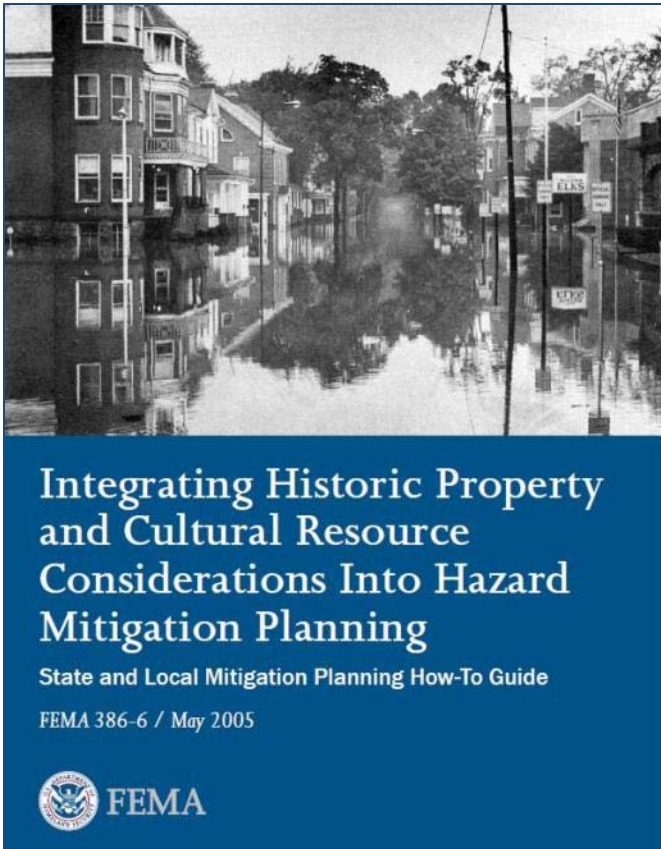
Don't omit historic structures from:

- CRS activities
- Local hazard mitigation plan
- Hazard mitigation actions





STATE PARTNERS - MHT

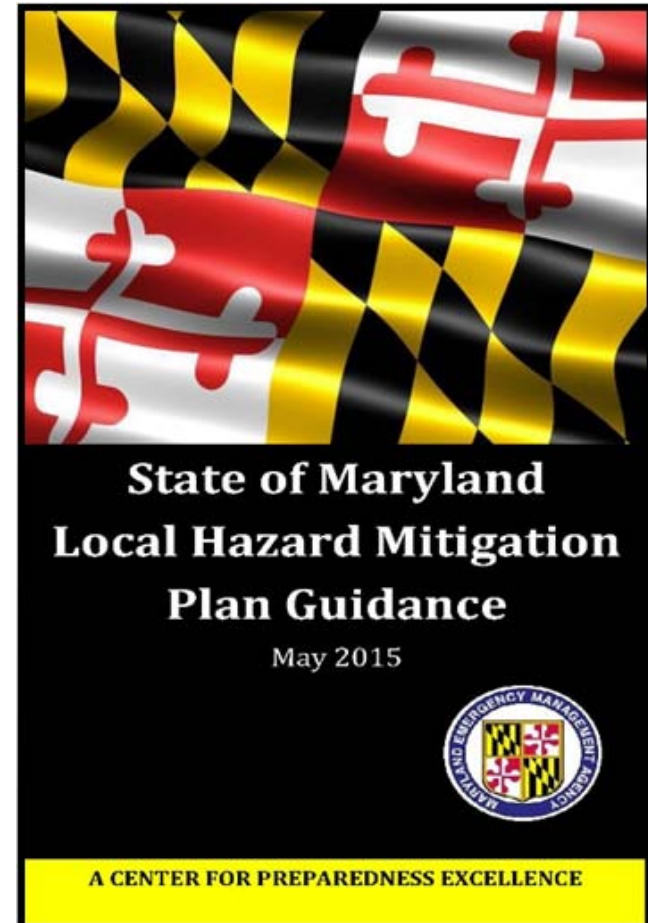


- Cultural Resources Hazard Mitigation Planning Program
- Supported by a grant
- Develop guidance for hazard mitigation actions
- Working collaboratively with state mitigation partners



STATE PARTNERS - MEMA

- Inclusion of cultural resources for local enhanced plans
- Hazus with historic properties
- State historic properties included in state hazard mitigation plan





STATE PARTNERS - MDE

- Flood insurance outreach to historic property owners
- Technical assistance understanding floodplain regulations
- Collaboration on outreach activities and mitigation planning projects





STATE PARTNERS - DNR

- Coast Smart Communities Grant
- Architectural Survey & Risk Assessment for 8 Parks
- Janes Island State Park Archeological Survey



STATE PARTNERS & USACE

Baltimore City Nonstructural Analysis Interagency Project

- How to protect historic structure in the floodplain
- Fells Point and along the Jones Falls
- Evaluate floodproofing measures
- Maryland Silver Jackets Members (USACE, MHT, MDE, MEMA, NWS) and the City of Baltimore

WORKING TOGETHER



QUESTIONS?

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Maryland Department of the Environment

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