

This is a set of slides from a presentation given at

R I S I N G W A T E R S
Maryland Prepares for Floods & Sea Level Rise

2011 Water Resources Symposium

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Department of the Environment

FEMA Regulations

University of Maryland

Dave Guignet, State NFIP
Coordinator November 15, 2011

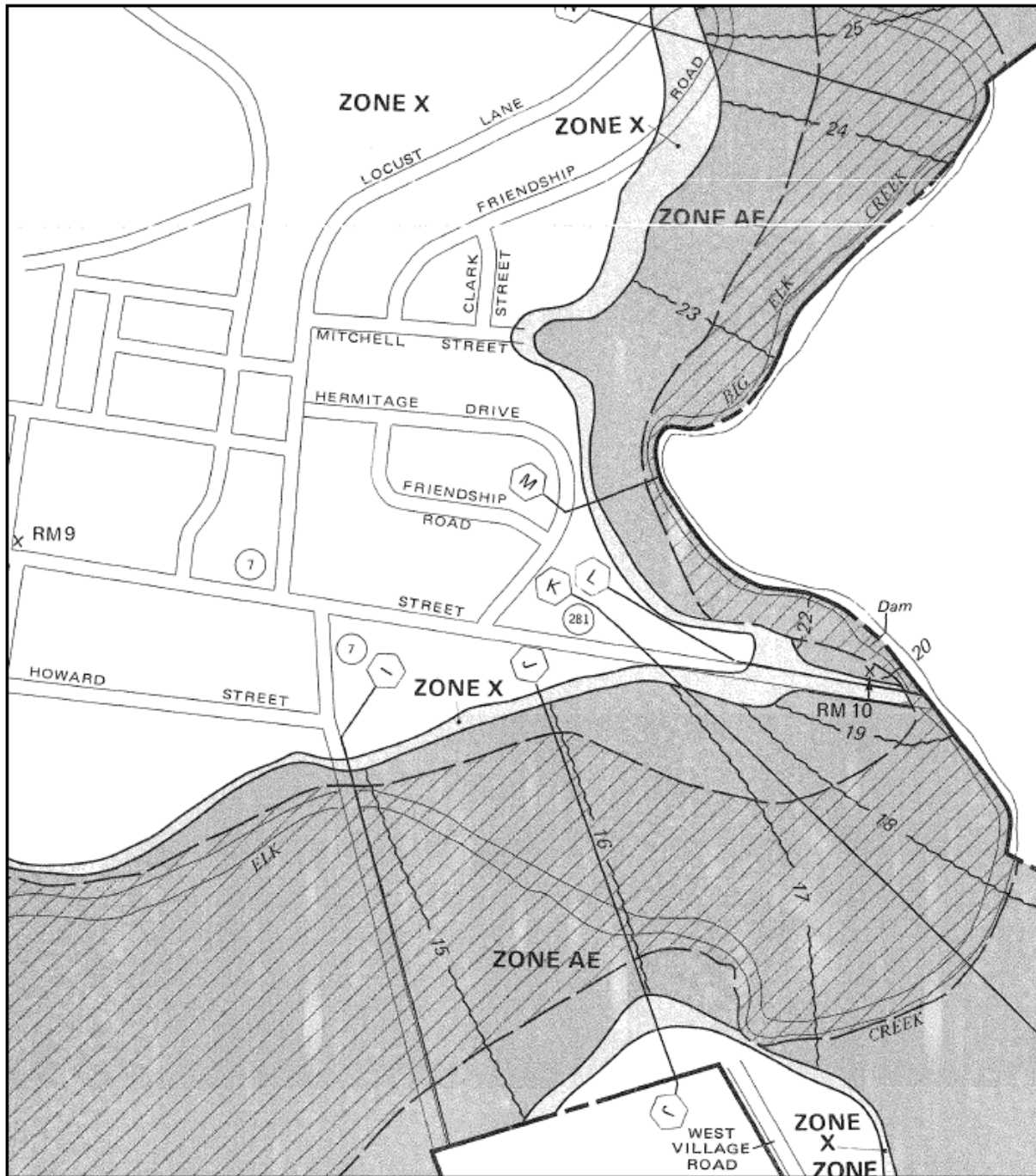




OUTLINE

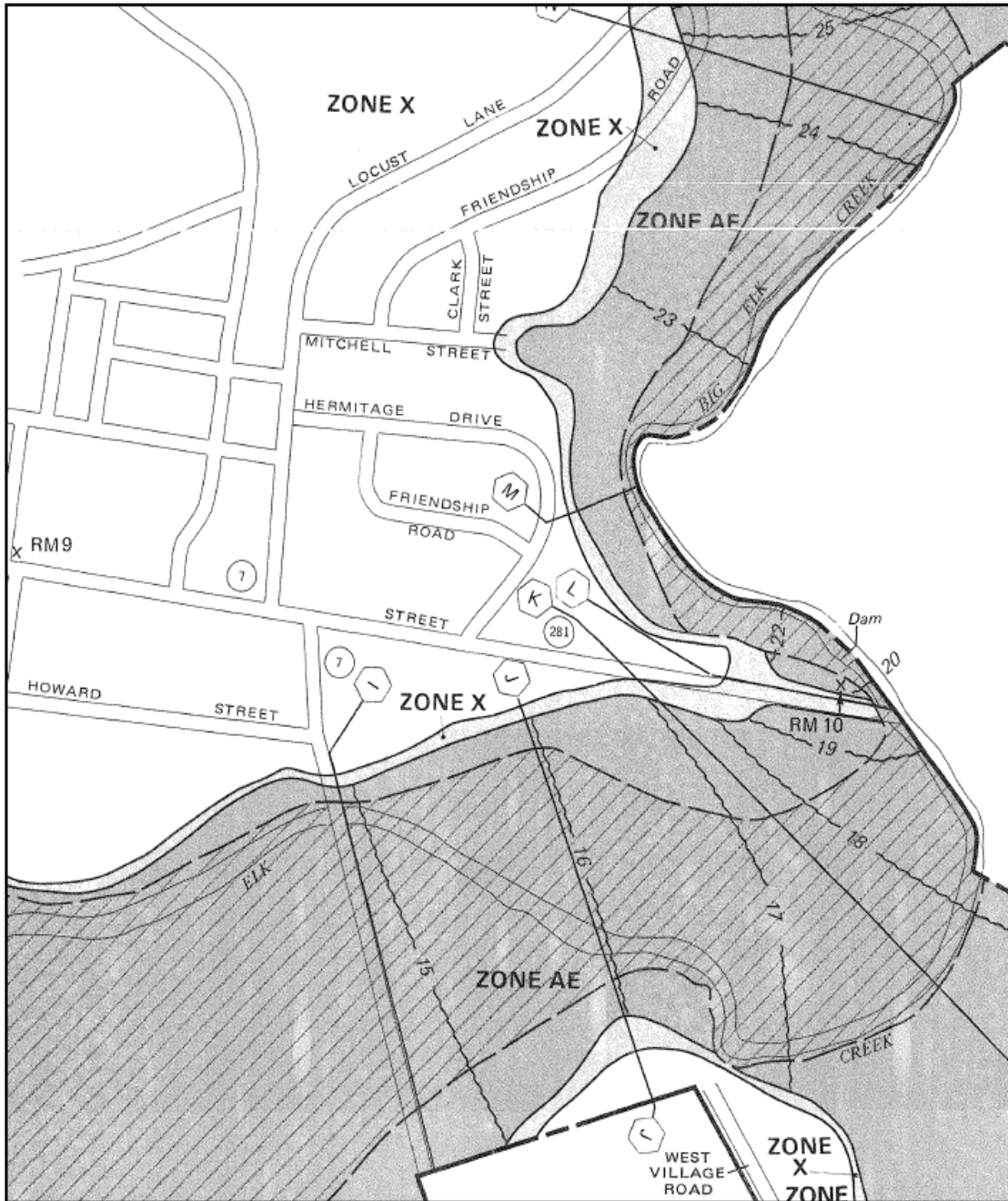
- Why Do We have Regulations
 - Floods Do Occur (Pictures)
- Flood Insurance
 - 1968, 73, 77, 94, 04 Acts
- Community Process
 - Reduce Losses
- Minimum Standards
 - Definition and examples
- Higher Standards
 - Benefits and Why Some Communities Have Them
- Mapping and Regulations
 - State Role and Model Ordinance





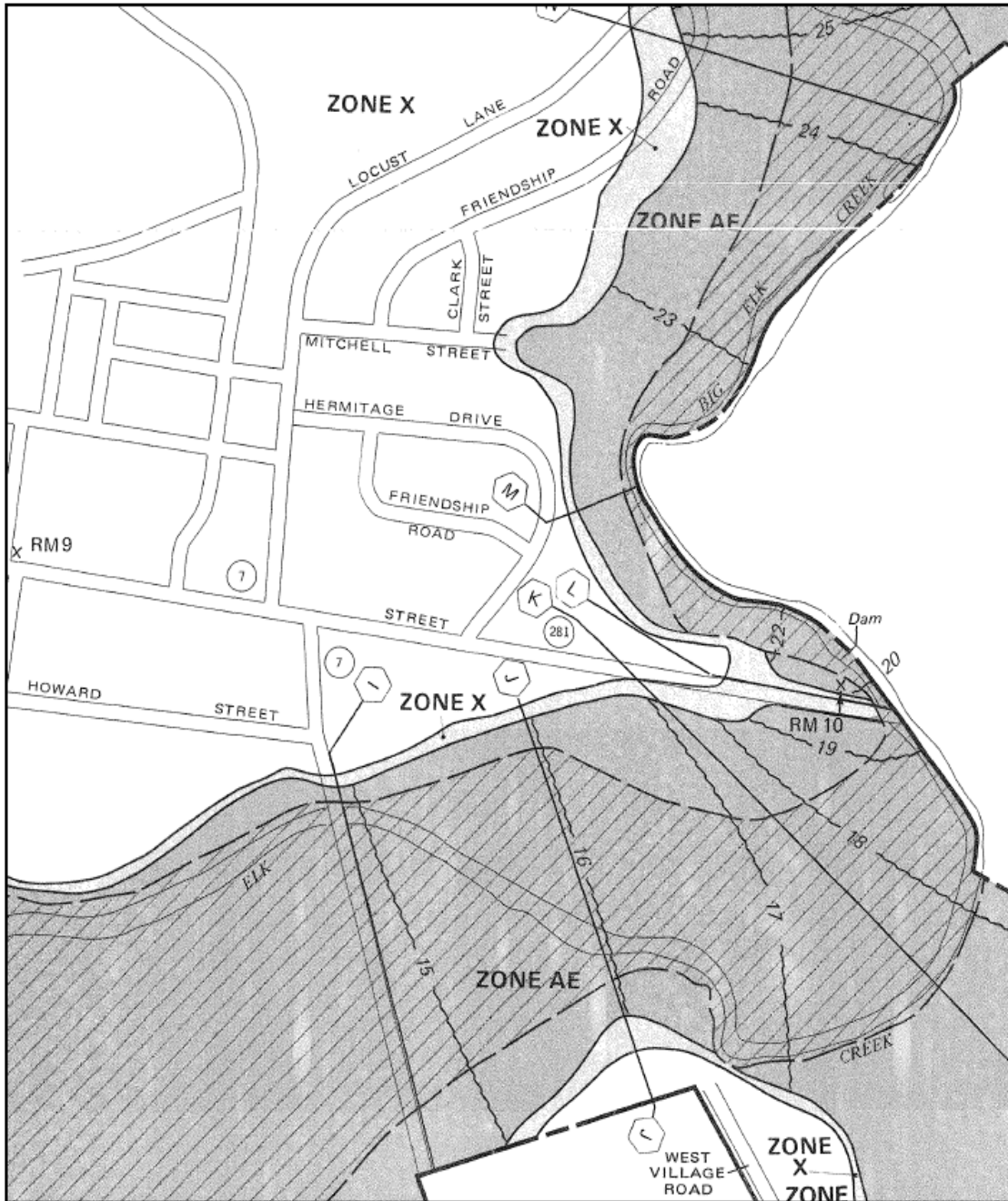
After 25+ years:

This map is one of the most misused or misunderstood documents ever



“My property won’t flood because I am outside the 100-yr flood plain (grey) areas.”

About 25 % of claims paid by the NFIP are outside the SFHA



**“Your Map
Must Be
Wrong
Because I’m In
the Grey Area
and it has
Never
Flooded”**

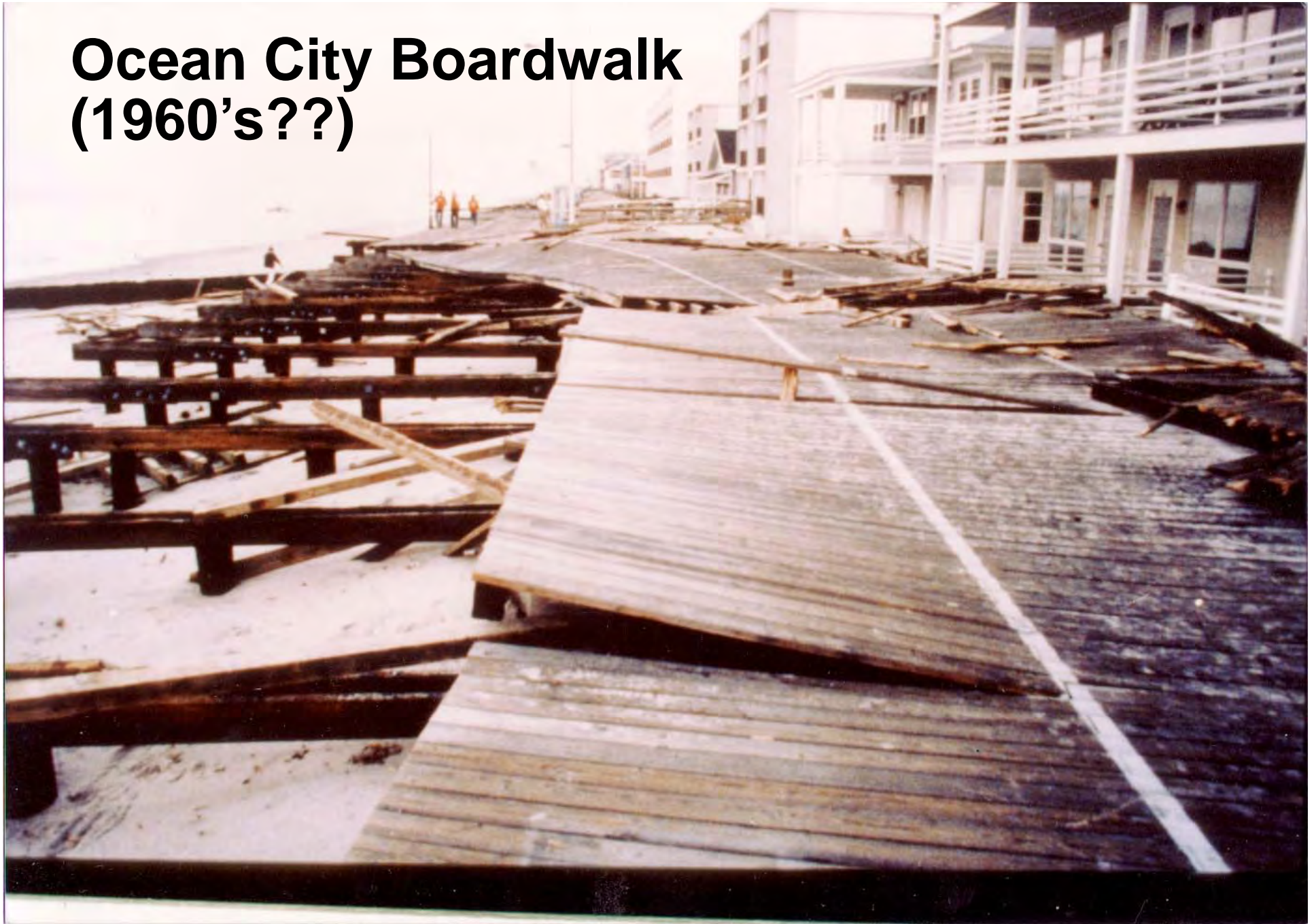


Confusing Floodplain Terms

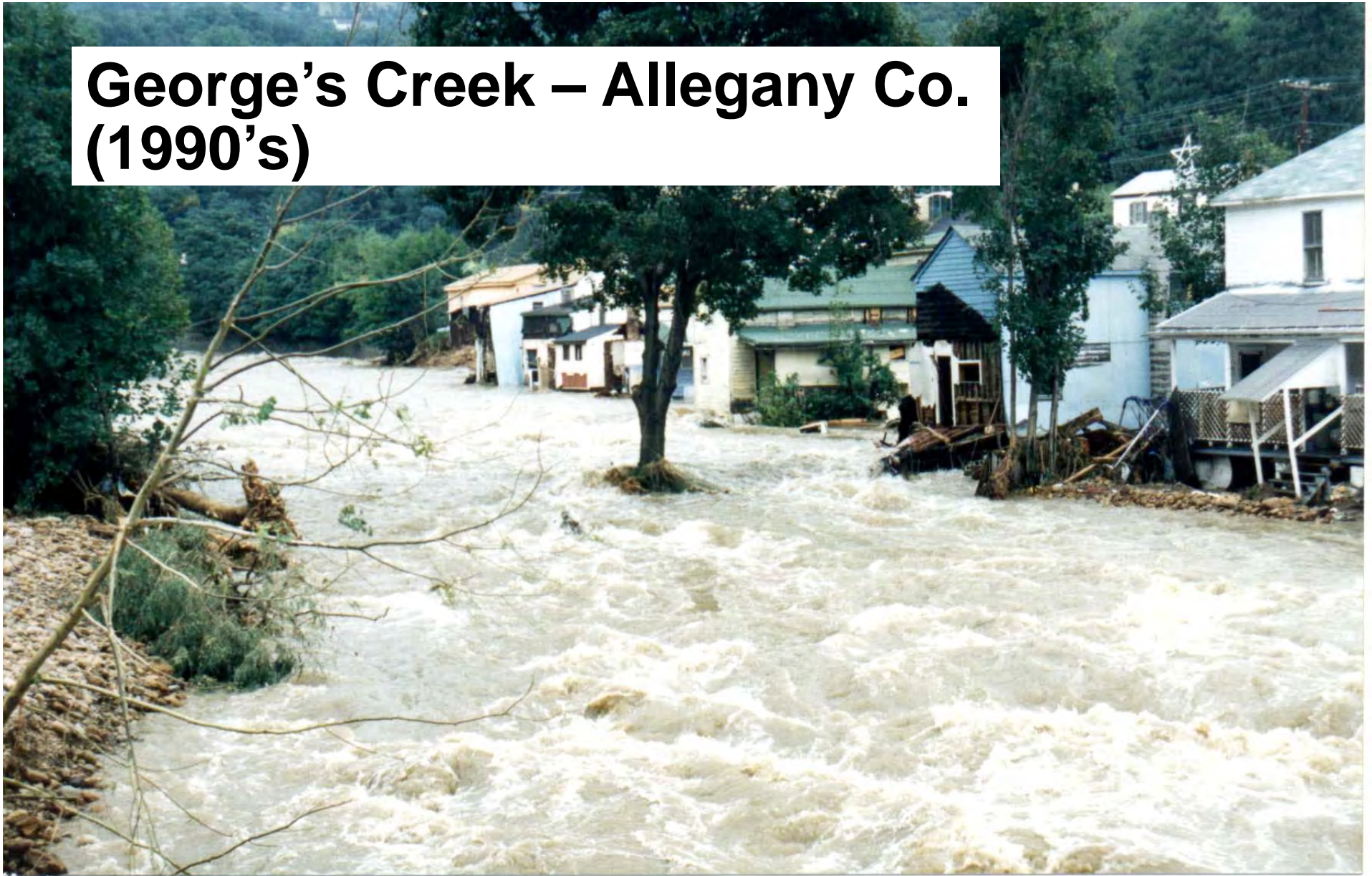
- The term “100-year flood” is misleading:
 - 1% chance of being equaled or exceeded each year
- Regulatory floodplain
- Base Flood / Base Flood Elevation
- Special Flood Hazard Area (SFHA)



Ocean City Boardwalk (1960's??)



George's Creek – Allegany Co. (1990's)



Isabel (September 2003)



Isabel (September 2003)





Man vs Nature ?

Mother
Nature
Usually
Wins !

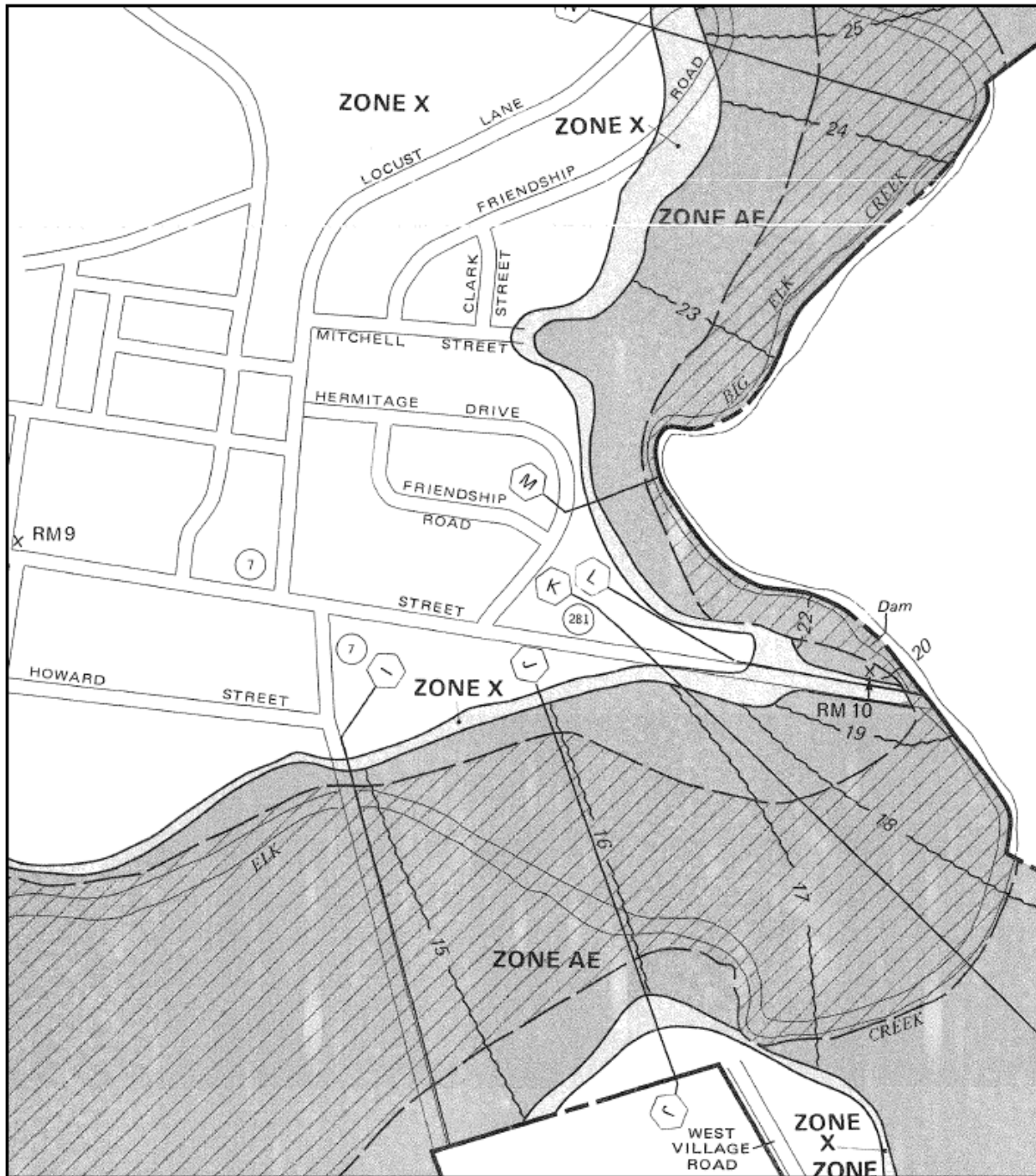


George's Creek – Allegany Co. (1990's)









Communities
Use NFIP
Maps to
Define
Floodplain
Hazards for
Building
Requirements
and
Management
Needs



V-Zone: Lowest Horizontal Member



Define Floodplain Management 

V-Zones: Wave Heights



Define Floodplain Management  MARYLAND



Breakaway Walls: 60.3(e)(5)





Breakaway Walls Do Work





Elevation Requirements / Venting / Electrical



Define Floodplain Management ?





Venting: Enclosure Openings





Flood Openings: Crawl Space





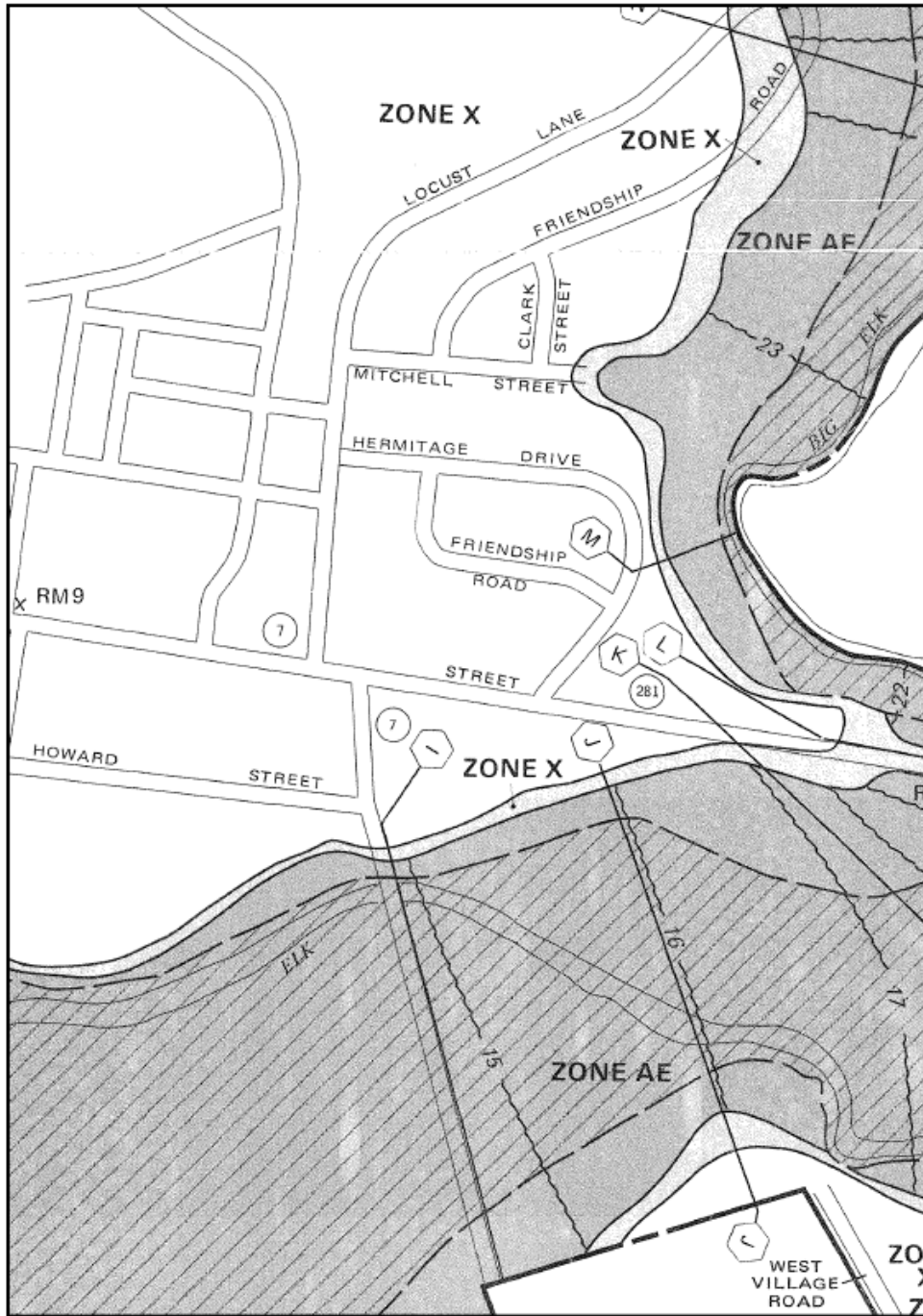
Floodways: No New Development



Define Floodplain Management ?



MARYLAND





Identify Critical Infrastructure: Planning



Define Floodplain Management ?





Freeboard and Open Space for Storage



Define Floodplain Management ? 



Hazard Warnings: Turn Around Don't Drown



Define Floodplain Management ?



MARYLAND



Rebuilding / Disaster Assistance



Define Floodplain Management





Safety and Response

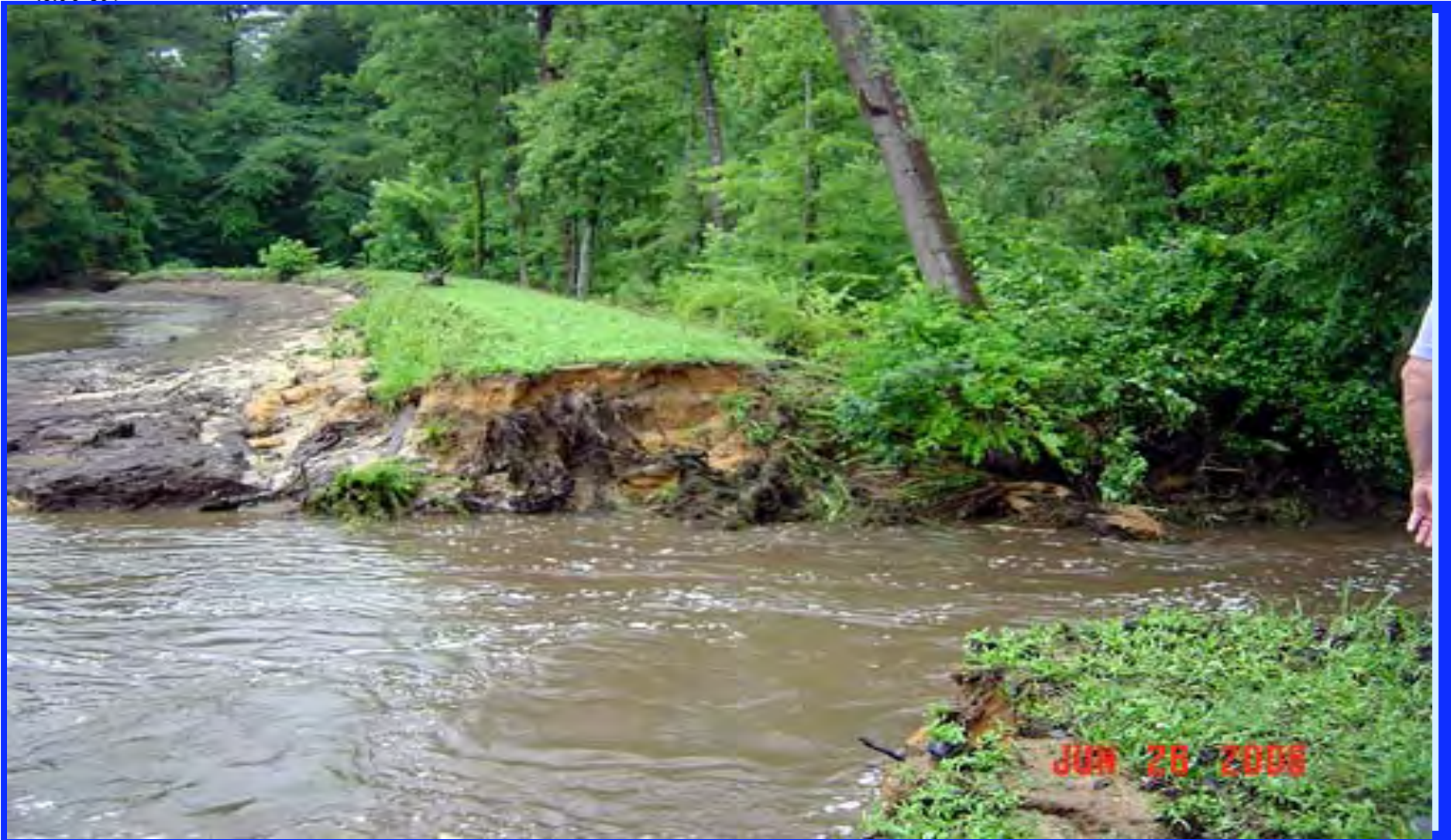


Define Floodplain Management ?





Dam Safety / Spillways / Constr. Methods



Define Floodplain Management ? 



Anchor Sheds and Fuel Tanks



Define Floodplain Management ?





Debris Removal & Public Safety





Key Legislation of NFIP

- 1968: National Flood Insurance Act
 - Established the NFIP
- 1973: Flood Disaster Protection Act
 - Enhanced floodplain management
 - Established requirements for mandatory purchase of flood insurance for federally backed mortgage loans
 - Required NFIP participation to receive some types of disaster assistance





Key Legislation of NFIP (Cont.)

- 1977: Executive Order 11988 – Floodplain Management
 - Required Federal agencies to avoid impact to floodplains, and follow NFIP standards
- 1994: National Flood Insurance Reform Act
 - Increased the responsibility on lenders
- 2004: Flood Insurance Reform Act
 - Focused on Repetitive Loss Structures





NFIP Basics

1. **Regulations**
 - **Local Floodplain Management Ordinance**
 - **(Building Codes within Floodplain)**
2. **Mapping**
 - **Flood Insurance Rate Map (FIRM)/Flood Insurance Study (FIS)**
3. **Insurance**
 - **Community must Participate (Join / Enroll) in order for flood insurance to be available within their community.**





NFIP Community is (Key)

- County or incorporated municipality
- Must adopt and enforce a floodplain management ordinance
 - Based on flood hazard on maps (44 CFR 60.3)
 - Higher regulatory standards OK (Freeboard)

Note: 133 participating communities in MD





Community Must Enroll in NFIP (Voluntary Program)

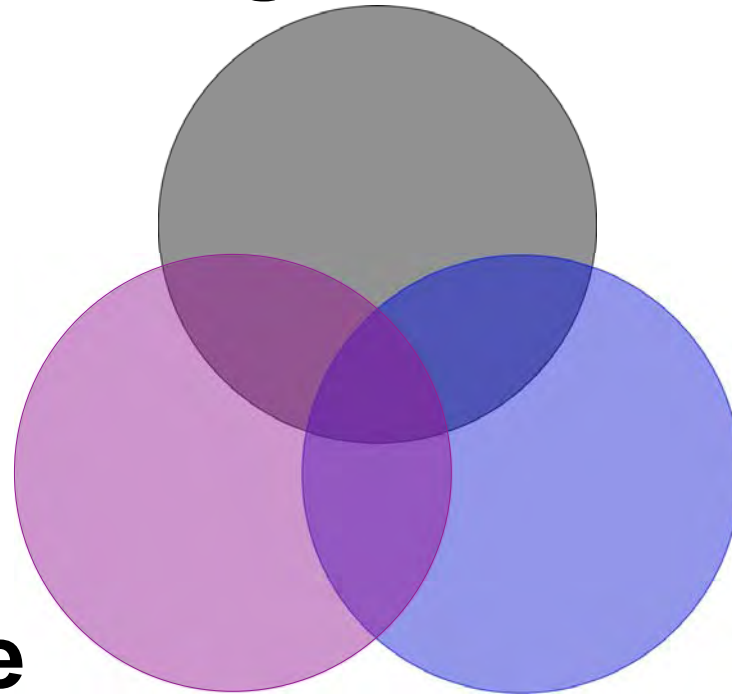
- Citizens Can Purchase Flood Insurance
- Community is Also Eligible for Disaster Assistance





Three Main Parts of the NFIP

Floodplain Management/ Regulations



Insurance

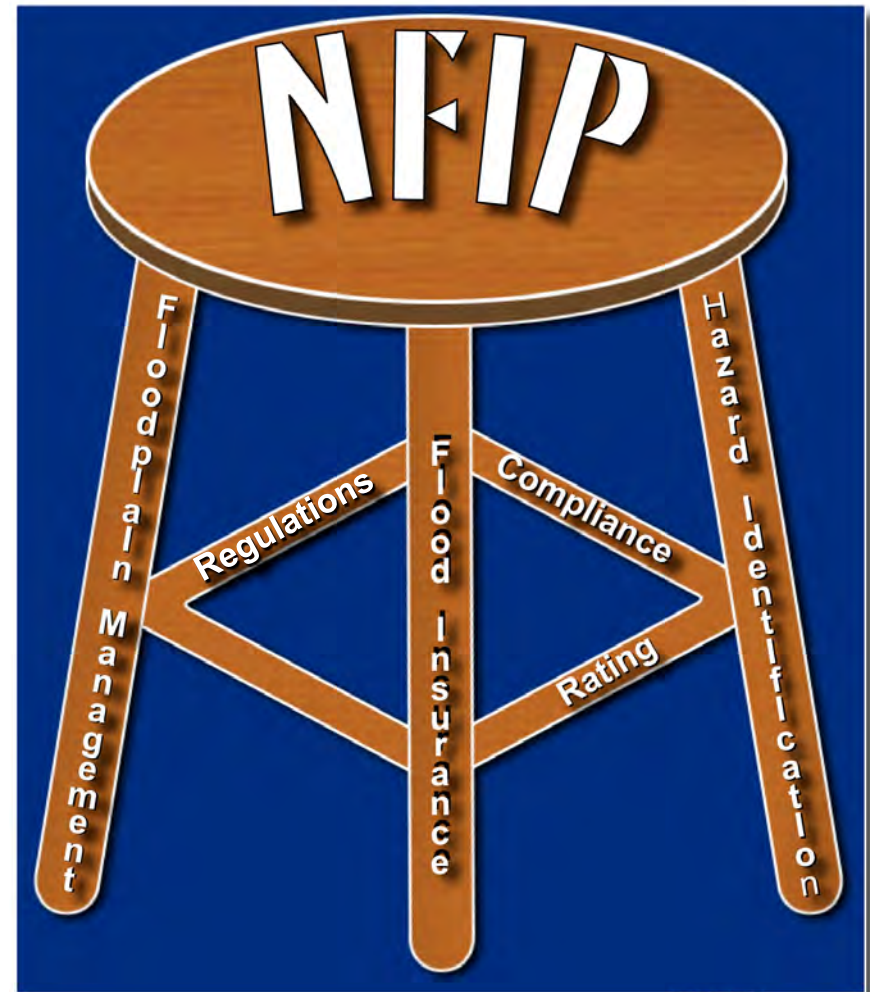
Mapping





“The Three-Legged Stool”

- Three related program areas support the NFIP:
 - Flood Hazard Identification (mapping)
 - Floodplain Management (regulations such as building codes and zoning)
 - Flood Insurance (provision of reasonably priced insurance for property owners in participating communities)



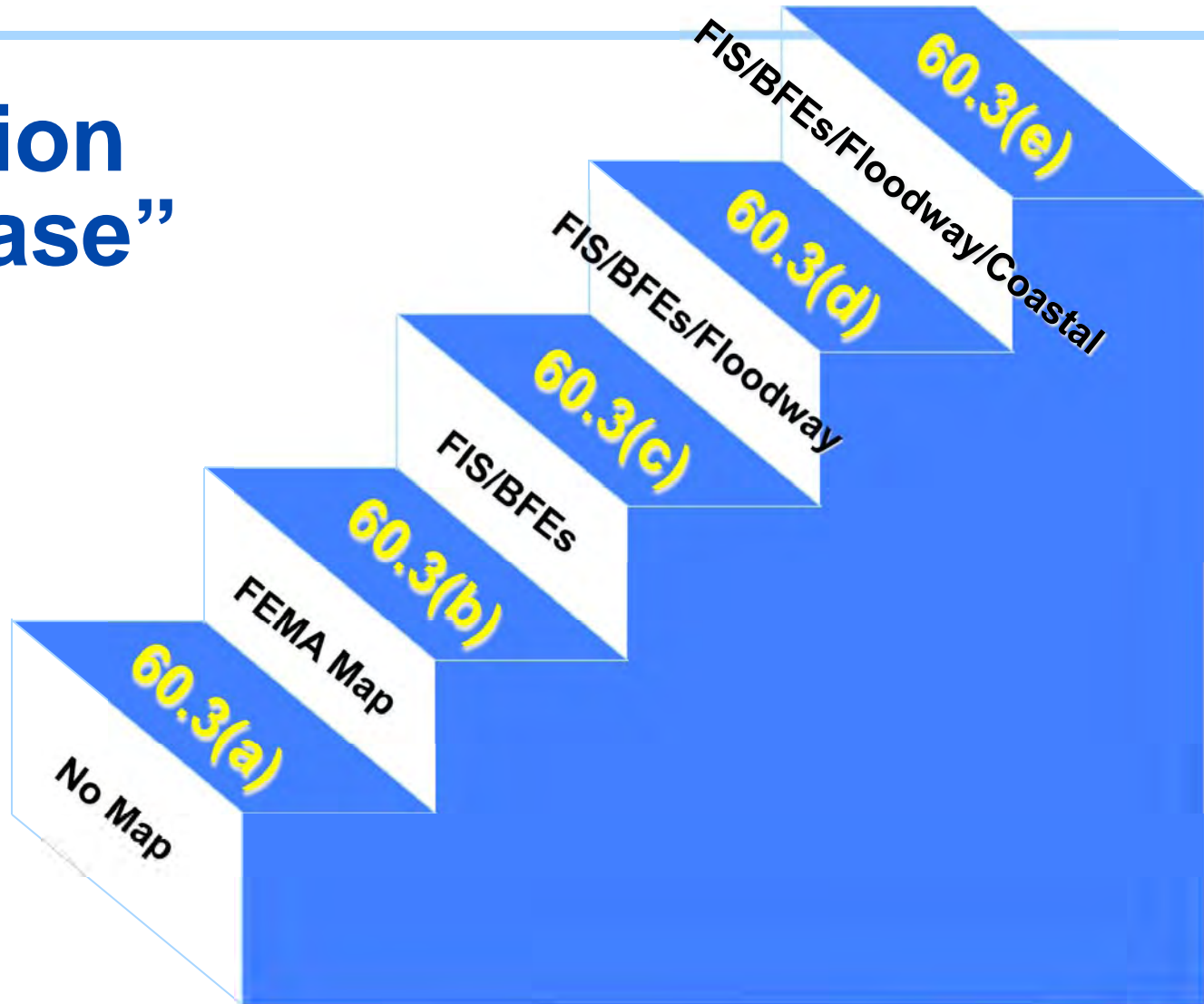


NFIP: Regulations

- Code of Federal Regulations (44 CFR 60.3)
 - Stair steps
- Ordinance
 - Based on map
 - Higher regulatory standards?



Regulation “Staircase”





NFIP Roles: Federal and State

- Federal:
 - National program oversight.
 - Risk identification (mapping).
 - Establish development/building standards.
 - Provide affordable insurance coverage.
- State:
 - State program oversight.
 - Establish development/building standards.
 - Provide technical assistance to local communities/agencies.
 - Evaluate and document floodplain management activities.





NFIP Role: Local

- Adopt/enforce local floodplain management ordinances that comply with Federal/State laws.
- Issue or deny development/building permits.
- Inspect development and maintain records.
- Development oversight is local.





NFIP: Insurance

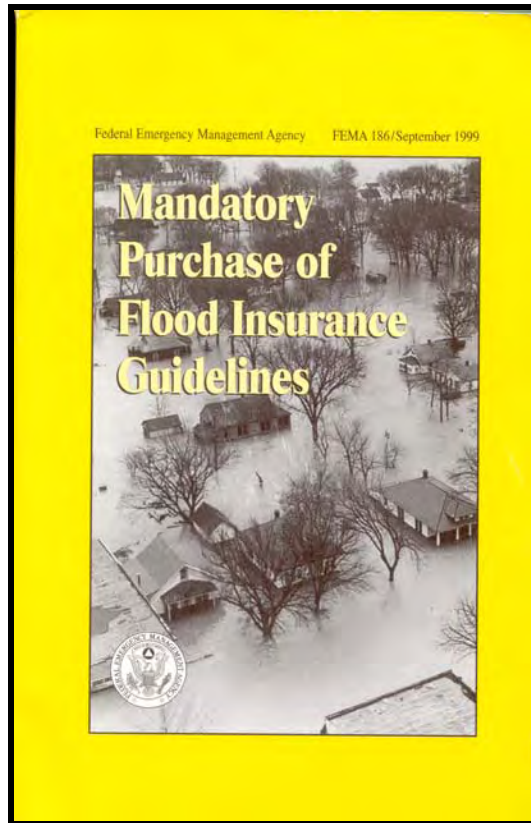
- Foundation of program
- Provide flood insurance to home and business owners
- What is the insurance ramification?
- Policies written by Write Your Own (WYO) companies
- NFIP website: www.floodsmart.gov





FEMA Publication 186

September 1999



- Mandatory Purchase of Flood Insurance Guidelines
- **(Flood Protection Act of 1973)**





Insurable by the NFIP

- **Walled and roofed structures principally above ground**
- **Manufactured homes or travel trailers, if anchored to a permanent foundation**
- **Contents of structure (available to owners and renters)**
- **Building in the course of construction**





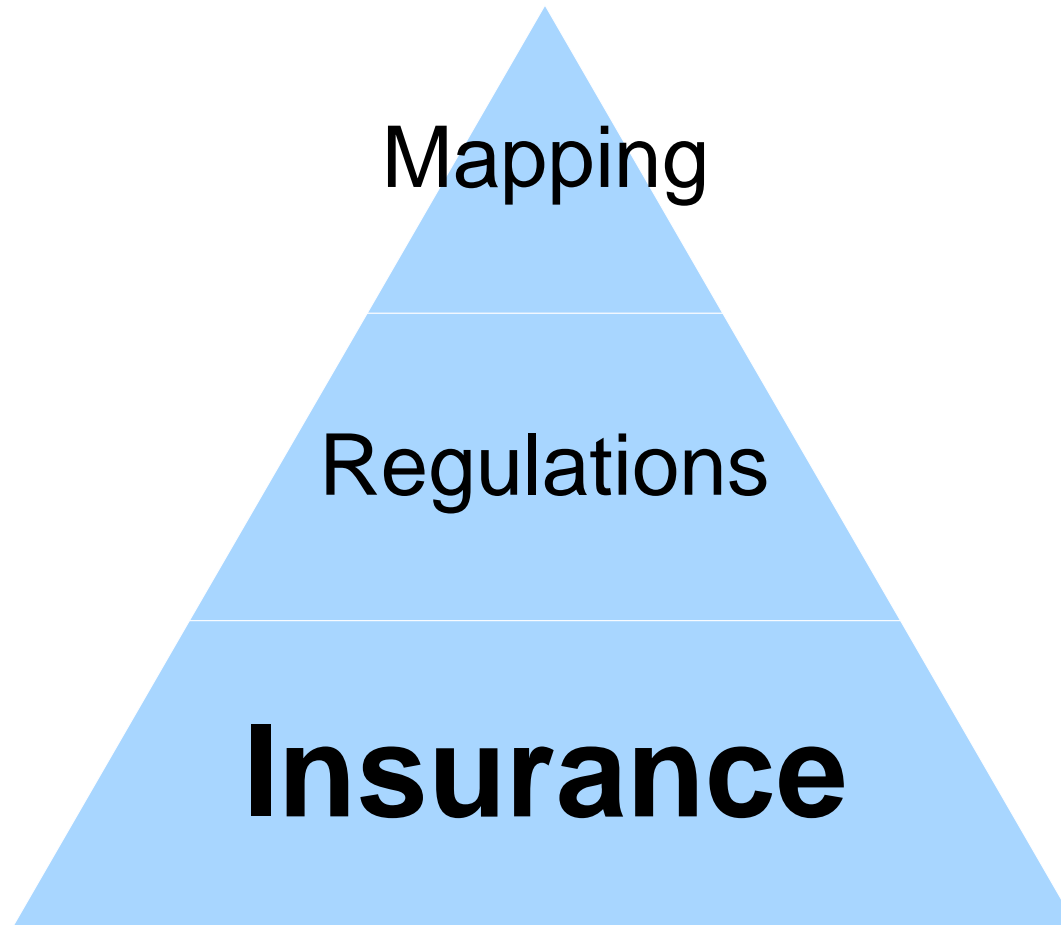
Not Insurable by the NFIP

- **Buildings completely over water**
- **Unanchored manufactured homes**
- **Motorized vehicles**
- **Gas and liquid storage tanks outside buildings**
- **Buildings principally below ground**
- **Machinery and equipment in the open**
- **Swimming pools, hot tubs, etc.**





Three Main Parts of the NFIP





Three Main Parts of the NFIP

Credit for
Higher
Standards

Mapping

Regulations

Minimum
Standard

Insurance

Lower
Premiums





CRS Credit

CREDIT POINTS EARNED, CLASSIFICATION AWARDED, AND PREMIUM REDUCTIONS GIVEN FOR COMMUNITIES IN THE NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM.

		PREMIUM REDUCTION	
CREDIT POINTS	CLASS	SFHA*	NON-SFHA**
4,500+	1	45%	10%
4,000 – 4,499	2	40%	10%
3,500 – 3,999	3	35%	10%
3,000 – 3,499	4	30%	10%
2,500 – 2,999	5	25%	10%
2,000 – 2,499	6	20%	10%
1,500 – 1,999	7	15%	5%
1,000 – 1,499	8	10%	5%
500 – 999	9	5%	5%
0 – 499	10	0	0

Define Floodplain Management ?  MARYLAND



NFIP: Mapping

- **What flood risks have been mapped in the community?**
- **Ordinance/regulations based on mapping of Flood Hazards**





NFIP Stats in Maryland ?

- 138 Communities
- 69,655 Policies
- \$ 14,814,931,100 Coverage
- \$ 38,923,733 Premiums
- 14,814 Claims Since 1978
- \$ 240,719,904 Paid Since 1978





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State Floodplain Regulations



DFIRM OUTREACH PROGRAM

DIGITAL FLOOD INSURANCE RATE MAPS

Email Friend print page

HOME

HOMEOWNERS/TENANTS

COMMUNITIES

MORE INFORMATION

State Model Ordinance Versions

- Full State Model with FEMA Resource

Companion Documents

- Ordinance Notes
- Tidal and Riverine Flowchart
- Elevation Certificate Agreement
- Land Restriction Agreement
- V Zone Design Certificate

Participants

- FEMA
- MDE

National Flood



Governor Martin O'Malley
Lt. Governor Anthony G. Brown



Flood Risk Application

[View Maryland Flood Maps Here](#)

Community Information

The key steps in the mapping process are outlined below. Additionally, the points at which community officials and property owners may provide comments and express concerns with the information in the FIS report and FIRM are highlighted below.



Preliminary Schedule

- Talbot - June 2011
- Charles - September 2011
- Garrett - September 2011
- Worcester - April 2013
- Kent - May 2013
- Queen Anne's - June 2013
- Caroline - August 2013

Effective Schedule

- Calvert - December 2011
- Cecil - December 2012



DFIRM OUTREACH - FLOOD RISK APPLICATION

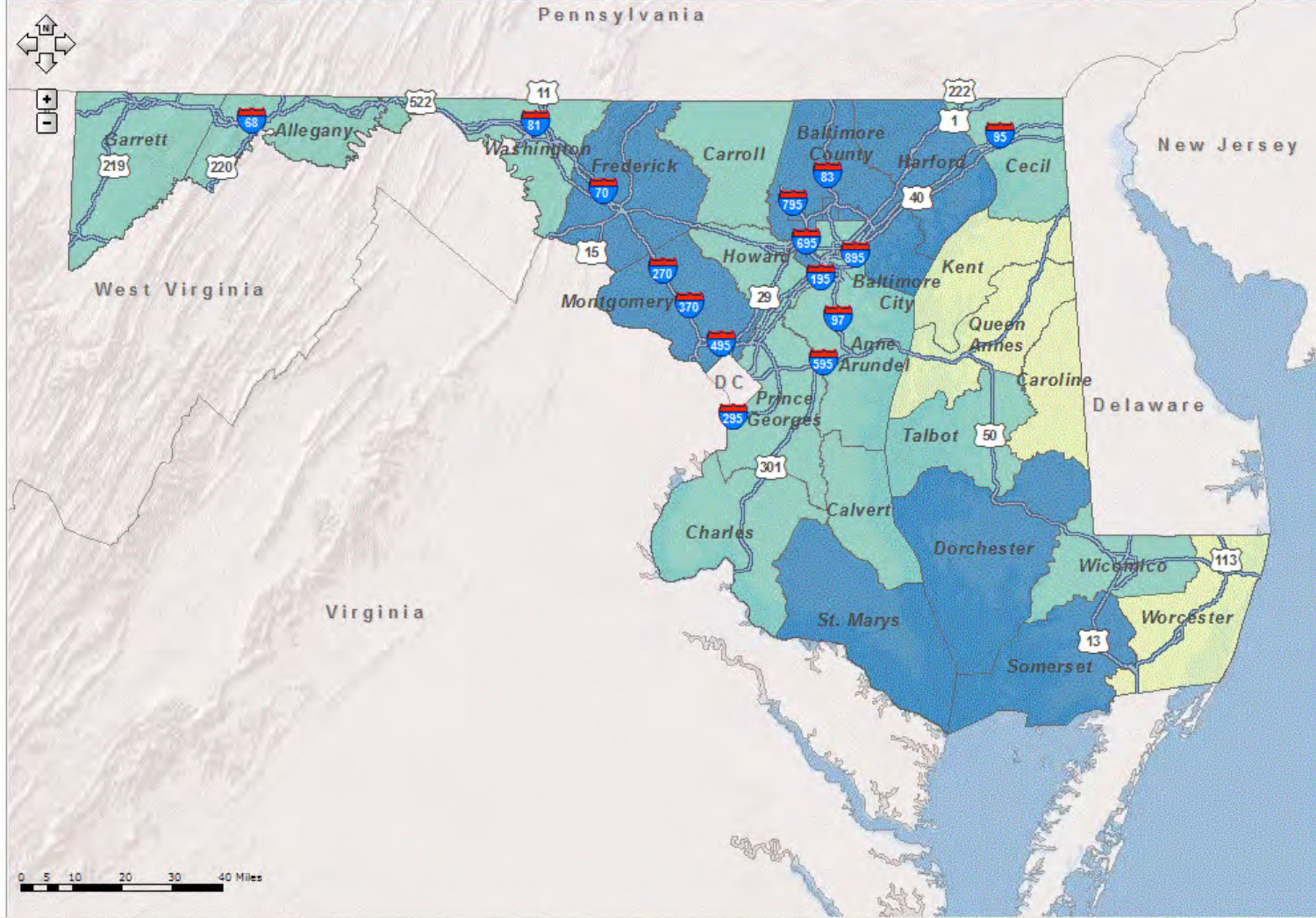
Determine Flood Status | Zoom to County | Zoom to X/Y | Print Map

Getting Started

This application is designed to aid you in researching your flood risk. To get started please locate your property by searching below [\(help\)](#):

Street or Intersection

Zip Code

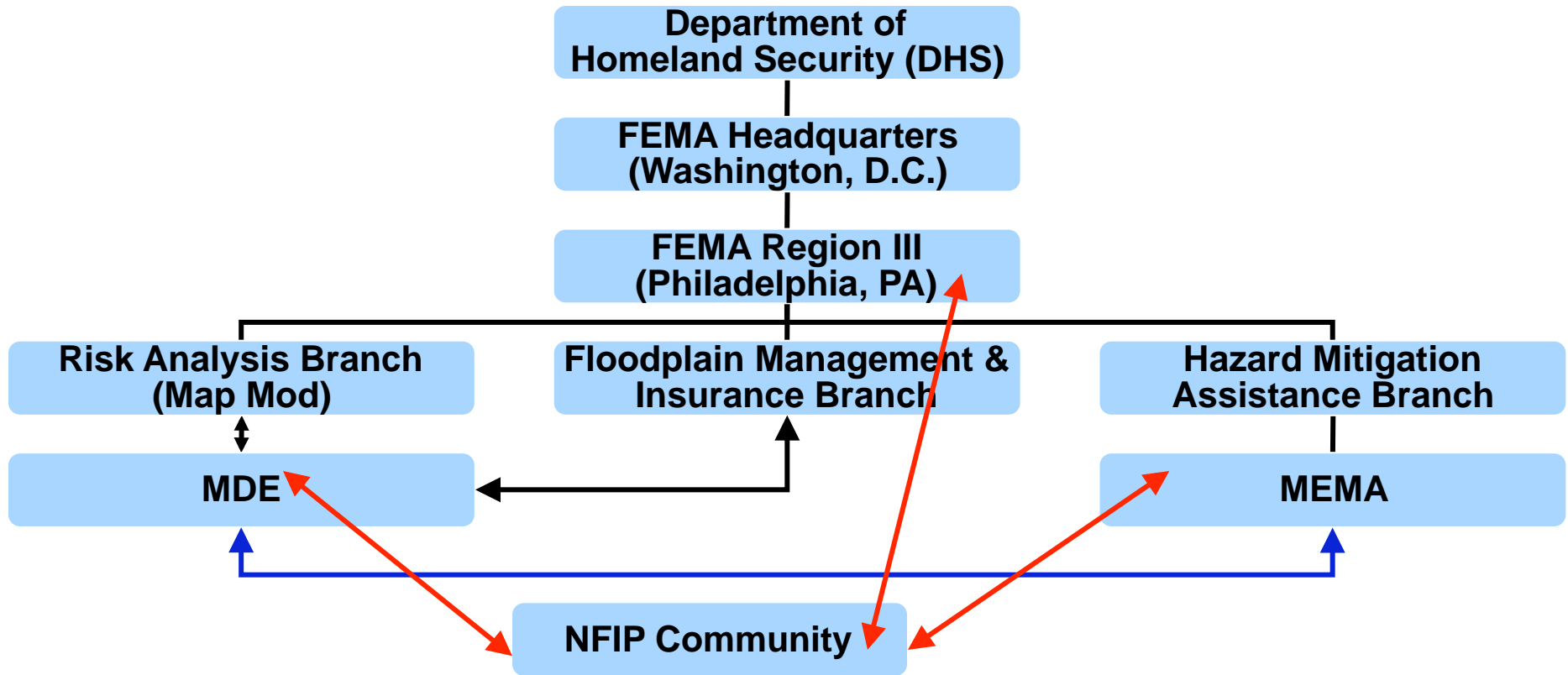


Flood Determination Results

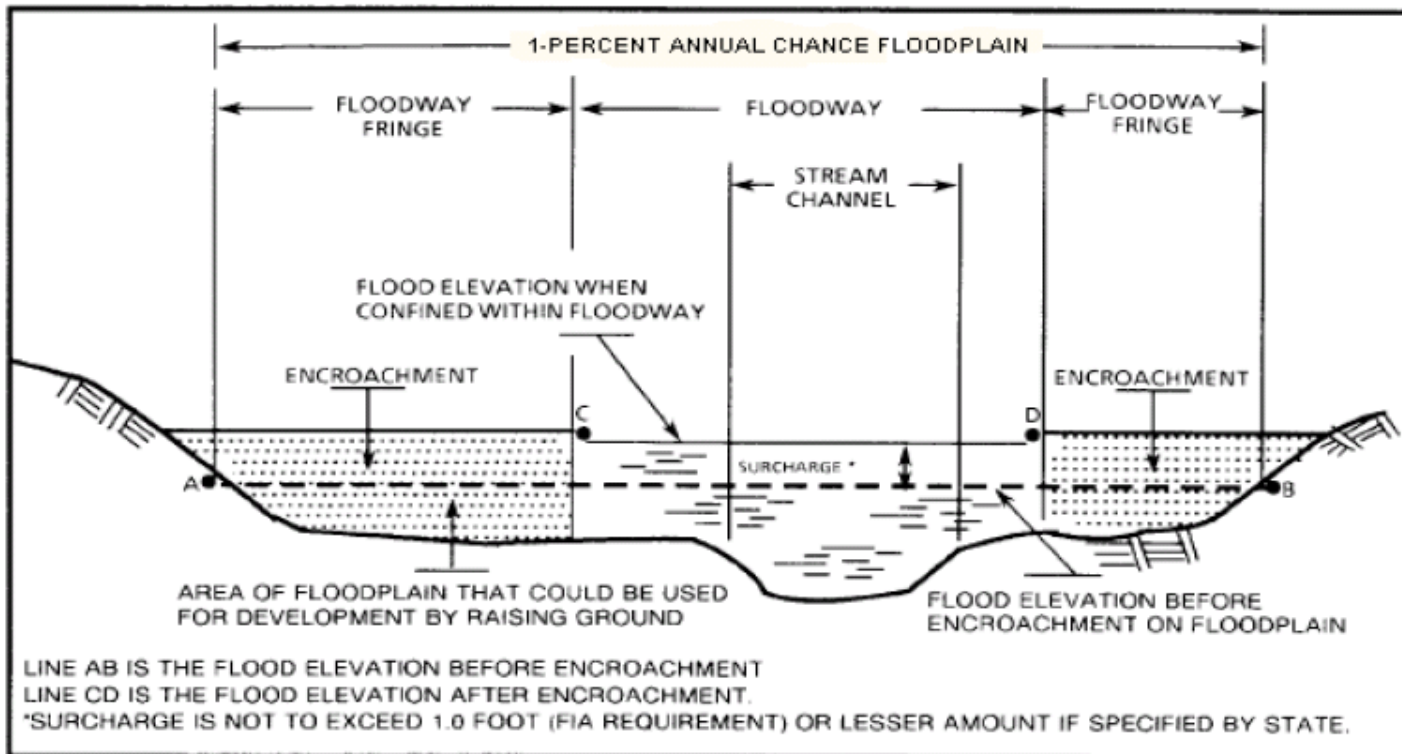
Map Contents



NFIP Coordination



Floodplain/Floodway Schematic





MDE - Bridge Inspection

General Info | Structure Information

NAVIGATION

Navigation Control:

Navigation Vertical Clearance (ft):

Navigation Horizontal Clearance (ft):

Minimum Navigation Vertical Clearance Vertical Lift Bridge (XXX ft):

Pier or Abutment Protection for Navigation:

UTILITIES:

Utilities Under Structure:

Utilities Under Structure:

Utilities Under Structure:

Utilities Under Structure:

Utilities Under Structure:

Optional Photos:

Photo 1:

Reason:

Photo 2:

Reason:



MDE - Bridge Inspection

Attributes | Geography

Bridge #: **FQ012606B**

ft:

ght:

Reference Feature (X code): N

e (XX ft - XX in): A

e on Right, Ref. Feature (X code): N

e on Right (XX ft - XX in): 999

e on Left (XX ft - XX in): 000

pes): 010 Skew: 41

0300 Earth Fill: 03

e): 0300

d Pipes: 215

MDE - Bridge Inspection

General Info | Structure Information

Bridge Number: 130138X01

Inspection Date: 0201

LOCATION

Mile Point: 17.23 Route Number:

Owner: 01

Latitude: 000000

Longitude: 0000000

Year Reconstructed: 0000

Attributes | Geography

RAILING/FENCING:

Railing Material:

Railing Type:

Railing Material:

Railing Type:

Fencing Material:

Fencing Type:

SUBSTRUCTURE:

Abutment - Material:

Abutment - Type:

Abutment - Code:

Pier - Material:

Pier Type:

Pier Code:

Supplemental Structure Type - Main: Not Applicable

Parcel: