The NFIP – An Overview

CFM Exam Preparation Session

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West Virginia Floodplain Management Association

And

West Virginia Department of Homeland Security
And Emergency Management Staff
Course Outline

• Part I
  – Background of the NFIP
  – Zone designations
  – Part 60 — Criteria for Land Management and use
  – Letters of map change
Course Outline

- Part II
  - Community Participation (or lack thereof)
  - The Ordinance
  - The Permitting Process
  - Additional Regulatory Permits
  - Recourses for Non-Compliant Homeowners
  - Variances
Course Outline

• Part III
  – Substantial Damage/Improvement
  – Insurance at a Glance
  – The Community Rating System
  – Going Above and Beyond
  – Mitigation
  – Cooperating Technical Partners/Map Mod/The Future of the NFIP
The NFIP – An Overview
Part I
Part I Objectives

• You will:
  – Gain an understanding of the history of the NFIP
  – Be comfortable with the commonly used terminology
  – Gain an in-depth understanding of the NFIP regulations
Course Outline

• Part I
  – Background of the NFIP
  – Zone Designations
  – Part 60 — Criteria for Land Management and Use
  – Letters of Map Change
Background of the NFIP

• Flooding and Types of Floods
• Legislative Cornerstones and the Unified National Program for Floodplain Management
• Changing Perspectives
• How it Works
Background of the NFIP

- Flooding and Types of Floods
- Legislative Cornerstones and the Unified National Program for Floodplain Management
- Changing Perspectives
- How it Works
Flooding and Types of Floods

- Riverine
- Coastal
- Shallow
- Special Hazards
Coastal Flooding

- Coastal Storms
- Tsunamis
- Lake Flooding
Coastal Flooding

- Coastal Storms
- Tsunamis
- Lake Flooding
Shallow Flooding

- Shallow Flooding Types
  - Sheet Flow
  - Ponding
  - Urban Drainage
    - Urban drainage systems
    - Areas protected by levees
Damage From Flooding

- Hydrodynamic forces
- Hydrostatic forces
- Debris impact
- Soaking
- Sediment and contaminants
Damage From Flooding

- Hydrodynamic Forces

Picture from FEMA's IS-9
Damage From Flooding

- Hydrostatic Forces

Picture from FEMA IS-9
Damage From Flooding

- Debris Impact

Picture from FEMA IS-9
Damage From Flooding

- Soaking

Picture from FEMA IS-9
Damage From Flooding

- Sediment and Contaminants

www.fema.gov
• Safety and Health Hazards
  – Electrocution
  – Contaminated Water
  – Fire
  – Contaminants, Mold, Mildew
  – Mental Health Concerns
Part I – Background of the NFIP

- Flooding and Types of Floods
- Legislative Cornerstones and the Unified National Program for Floodplain Management
- Changing Perspectives
- How it Works
Legislative Cornerstones

Assessing the situation
Pre-1968

The National Flood Insurance Act of 1968
Unified National Program for Floodplain Management

- An interagency task force formed to identify strategies for floodplain management
- Strategies
  - Human Susceptibility
  - Impacts
  - Flooding Itself
  - Preserve and Restore
- Report turned in in 1979
Legislative Cornerstones continued

- Flood Disaster Protection Act of 1973
- National Flood Insurance Reform Act of 1994
- Disaster Mitigation Act of 2000
- Flood Insurance Reform Act of 2004
Part I - Background of the NFIP

- Flooding and Types of Floods
- Legislative Cornerstones and the Unified National Program for Floodplain Management
- Changing Perspectives
- How it Works
Changing Perspectives

- Structural Flood Control

Å Preventative Measures
Changing Perspectives

- Taxpayer-Based

- Insurance Premium-Based
Part I - Background of the NFIP

- Flooding and Types of Floods
- Legislative Cornerstones and the Unified National Program for Floodplain Management
- Changing Perspectives
- How it Works
The NFIP - How it Works

NFIP

Mapping  Regulations  Insurance

Image by Al Goff
Regulations

- 44 CFR Sections 59 through 77
- Copies available online (for download)
  http://www.access.gpo.gov/nara/cfr/waisidx_00/44cfr59_00.html
Importance of Regulations

- Program Fundamental Principle
- Definition of Terms
- Provide minimum floodplain management criteria for communities to adopt and enforce
Insurance

- Availability
- Mandatory Purchase Requirement
- Lender’s Prerogative
- Special Situations – (more details later)
  - CoBRA Zones (Coastal Barrier Resources Act)
  - Section 1316
  - Floodproofed buildings
Flood Risk

• How likely is flooding of structure and contents?
• Answer:
  – Need to know the elevation (or height) of probable flood
  – Need to know the elevation (or height of structure)
  – Analyze the Difference
Flood Risk – Elevation of Flood

- Elevation (or height) of probable flood
  - Jurisdiction – wide engineering studies
  - Approximated
  - Site – specific engineering studies
Flood Risk – Elevation of Structure

- Elevation (or height of structure)
  - Determined by registered surveyor, engineer, or architect
  - Recorded on FEMA form in detail
Mapping

- Flood Insurance Rate Map
  - Definition – SFHAs, BFE, Floodways
  - Old Format
  - New Format
- Digital FIRM – GIS layers
- Flood Insurance Study (FIS) Text
- Base Flood Elevation (BFE) exercise
<table>
<thead>
<tr>
<th>ZONE</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Areas of 100-year flood; base flood elevations and flood hazard factors not determined.</td>
</tr>
<tr>
<td>A0</td>
<td>Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.</td>
</tr>
<tr>
<td>AH</td>
<td>Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.</td>
</tr>
<tr>
<td>A1-A30</td>
<td>Areas of 100-year flood; base flood elevations and flood hazard factors determined.</td>
</tr>
<tr>
<td>A99</td>
<td>Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.</td>
</tr>
<tr>
<td>B</td>
<td>Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flood with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)</td>
</tr>
<tr>
<td>C</td>
<td>Areas of minimal flooding. (No shading)</td>
</tr>
<tr>
<td>D</td>
<td>Areas of undetermined, but possible, flood hazards.</td>
</tr>
<tr>
<td>V</td>
<td>Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.</td>
</tr>
<tr>
<td>V1-V30</td>
<td>Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.</td>
</tr>
</tbody>
</table>
## Obtaining Flood Discharge Data

TABLE 3 - SUMMARY OF DISCHARGES

<table>
<thead>
<tr>
<th>FLOODING SOURCE AND LOCATION</th>
<th>DRAINAGE AREA (sq. miles)</th>
<th>PEAK DISCHARGES (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COBB BROOK</td>
<td>4.2</td>
<td>560</td>
</tr>
<tr>
<td></td>
<td></td>
<td>910</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,080</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,550</td>
</tr>
</tbody>
</table>
Coastal Stillwater Elevation

- Most coastal floods are caused by coastal storms, usually hurricanes and northeasters. Such storms bring air pressure changes and strong winds that pile water up against the shore in what is called a storm surge.
- Based on data from past storms, a computer simulates a coastal storm to determine the Stillwater Elevation -- the elevation of various coastal floods without waves.
- Stillwater Elevations are found in the Summary of Stillwater Elevations table in a FIS, typically in Section 3.
# Coastal Stillwater Elevations

<table>
<thead>
<tr>
<th>Flooding Source and Location</th>
<th>Elevation (feet NGVD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-Year</td>
</tr>
<tr>
<td><strong>Atlantic Ocean</strong></td>
<td></td>
</tr>
<tr>
<td>Entire open coast shoreline within Flood County</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Jesco Lake</strong></td>
<td></td>
</tr>
<tr>
<td>Entire shoreline within Flood County</td>
<td>6.9</td>
</tr>
</tbody>
</table>
As with riverine studies, a hydraulic analysis determines where moving water goes. The coastal flood engineering survey uses techniques similar to those used in a riverine study, but it uses transects instead of cross sections.
In addition to storm surge, wave action is an important aspect of coastal storms. Wind-driven waves produce water velocities and impacts that may cause significant structural damage.

When waves hit the shore, water moves with such force that it keeps traveling inland, called wave runup.

The official BFE of coastal areas is the Stillwater Elevation plus wave runup, or the wave crest elevation, whichever is greater. The resulting BFE can be many feet higher than the Stillwater Elevation.
Coastal High Hazard Area

Coastal High Hazard Areas are the most hazardous part of the coastal floodplain due to their exposure to wave effects. These areas are designated as V Zones where the "V" stands for "velocity wave action," and includes an increased degree of risk. Coastal flood areas not within the coastal high hazard area are mapped as A Zones.
Figure 2-1.
Floodplain along an open coast. (Flood zones identified in this figure are discussed in Subsection 2.1.4.3 of this guide.)
Elevation Certificates

- Review Form in PDF
- Pass Around Samples
The NFIP - How it Works

- Roles and Responsibilities
  - Federal and State
Course Outline

- Part I
  - Background of the NFIP
  - Zone Designations
  - Part 60 — Criteria for Land Management and Use
  - Letters of Map Change
Different Zone Designations

- **Unnumbered Zone A:**
  - SFHAs where BFEs are not determined

- **Zones AE, A1 - A30:**
  - SFHAs where BFEs are shown
Different Zone Designations

• **Zone AO:**
  - Shallow flooding where average water depths are between 1 and 3 feet (average depths of inundation are shown)

• **Zone AH:**
  - Shallow flooding where average water depths are between 1 and 3 feet (BFEs are shown)
Zone AO Visual (Sheet Flow)

Zone AO (2’)

Use the Rhyme “Sheet Flow = AO”
Zone AH Visual (Ponding)

Zone AH (227')

227 feet

225 feet
Different Zone Designations

- **Shaded Zone X (Zone X500 or Zone B):**
  - Areas between limits of 100-year flood and 500-year flood
  - Areas protected by levees
  - 100-year floodplain where water depths are less than 1 foot
  - Areas with drainage areas less than 1 square mile
Different Zone Designations

• **Zone A99:**
  - Areas of 100-year flood to be protected by flood protection system under construction (BFEs not determined)

• **Zone AR:**
  - SFHAs that result from the decertification of previously accredited flood protection system that is being restored to provide a 100-year or greater level of protection
Different Zone Designations

- **Zone V:**
  - Areas of 100-year coastal flood with wave action (BFEs not determined)

- **Zones VE, V1-V30:**
  - Areas of 100-year coastal flood with wave action (BFEs determined)
Different Zone Designations

• **Unshaded Zone X (Zones C):**
  - Areas of minimal flooding risk; outside 500 year floodplain

• **Zone D:**
  - Areas of undetermined, but possible flood hazards
  - Federal lands such as parks
Course Outline

• Part I
  – Background of the NFIP
  – Zone Designations
  – Part 60 — Criteria for Land Management and Use
  – Break
  – Letters of Map Change
Section 60.3 — Floodplain Management Criteria

- Contains minimum floodplain management criteria
- Requirements are cumulative
### Section 60.3 — Floodplain Management Criteria

<table>
<thead>
<tr>
<th>Map</th>
<th>BFES</th>
<th>Floodways</th>
<th>V Zones</th>
<th>Land Use Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>60.3a</td>
</tr>
<tr>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>60.3b</td>
</tr>
<tr>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>60.3c</td>
</tr>
<tr>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>60.3d</td>
</tr>
<tr>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>60.3e</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60.3d &amp; 60.3e</td>
</tr>
</tbody>
</table>
Section 60.3 — Floodplain Management Criteria

- Each Paragraph of 60.3 “builds” on preceding paragraph.
  - **Example**: 60.3(d) contains requirements of 60.3(c) by definition
  - **Example**: In community with BFEs and a floodway, they have 60.3(d) ordinances, but only have to enforce requirements of 60.3(b) in A Zones
Paragraph 60.3(a)

No Map

- Permits are required for proposed development
- All necessary higher permits are obtained
- Permit applications are to be reviewed by community official ("reasonably safe")
- Water/Sewage sites designed to prevent flood inundation
Approximate Zone A only

- Permits required in Zone A
- Obtain, review, and reasonably utilize BFE and floodway data
  - If you get BFEs or floodways, follow the appropriate regs
- BFE data required for developments greater than 50 lots or 5 acres, whichever is less
- Obtain and keep record of low floor elevations in A Zones with BFEs
- Watercourse alteration rules
- Manufactured homes – anchored and elevated (if you have a BFE)
 BFES but no Floodways or V Zones

- Non-residential - low floor OR floodproof to BFE
- Residential - low floor to BFE
  - Special mobile home rules
- Areas beneath the lowest floor and openings
- When you don’t have a floodway
- CLOMR for increases in BFEs of more than 1 foot
- Recreational Vehicles
- AO Zone Rules
- Drainage paths in AO and AH
- A99 = A
Paragraph 60.3(d)

- Select and adopt a regulatory floodway
- Prohibit encroachments in the floodway
- Permit encroachments if a CLOMR is approved and 65.12 is met
Paragraph 60.3(e)

**V Zones**

- Get “low floor” elevations
- “Low floors” = BFE
- Mobile homes
- Recreational vehicles
- V Zone Certification
  - Breakaway Walls and area beneath the lowest floor
- No fill for structural support
- All new construction is landward of mean high tide
- Mangroves and sand dunes
• Observe all new development in the community to estimate where your flood hazards are
Overview – Approximate A Zones

- Require permits in A Zones
- 50 Lots or 5 Acres
- If you get a BFE, then follow 60.3(c)
  - Residuals elevated
  - Non Residuals floodproofed OR elevated
  - Mobile homes elevated & anchored
  - Keep records of elevations
- Watercourse alterations
  - Alert FEMA, State Coordinator, Adjacent communities
  - Maintain Flood carrying capacity
Overview – BFEs but no Floodways

- Elevation of res., non-res., and mobile homes
- Keep records of low floor elevations
- Areas beneath the lowest floor and openings
- When you don’t have a floodway
- CLOMR for increases in BFEs of more than 1 foot
- Recreational Vehicles
- AO Zone Rules
- Drainage paths in AO and AH
- A99 = A
Overview – Floodways

- No rise in BFEs
- Allow a rise in BFEs if a CLOMR is applied for and 65.12 is met
  - 65.12 says that to apply for a CLOMR you should submit:
    - the fee;
    - evaluation of alternatives;
    - documentation of legal notice to all impacted property owners;
    - concurrence of the CEO (s);
    - certification that no structures are in the area impacted by increased BFEs;
    - and a formal request for BFE and/or floodway revisions.
Overview – Other Zones

- **Low floor** in V Zones
  - No enclosures
  - No fill for structural support
- AO – elevate or floodproof to the depth shown on the FIRM, 2 feet if no depth
- AO and AH – drainage paths for structures on slopes in these Zones
- A99 (behind an uncertified or decertified levee) is like a Zone A
Break
Quiz

Tell me something about . . .

- Recreational Vehicles
- Low floor in V Zones vs. Low floor in A Zones
- AO with no depth shown
- Pre-FIRM Mobile Home Parks
- Riverine with no floodway
- Crawl space openings
- Development in A Zones
Course Outline

• Part I
  – Background of the NFIP
  – Zone Designations
  – Part 60 — Criteria for Land Management and Use
  – Letters of Map Change
Letters of Map Change (LOMCs)

- MT-1s
  - Letter of Map Amendment - LOMA
  - Letter of Map Revision based on Fill -LOMR-F
- MT-2s
  - Conditional Letter of Map Revision - CLOMR
  - Letter of Map Revision - LOMR
* The NFIP Regulations require that the lowest ground touching the structure be **equal to or higher than the BFE for a LOMA removal**
• NFIP Regulations require that the lowest ground touching the structure is equal to or higher than the BFE and that the structure is “reasonably safe from flooding” for a LOMR-F removal
LOMR-F

- “New” issues in the world of LOMR-Fs
- Getting the land removed prior to building the structure
Cross-Sectional View of a LOMA Removal
Conditional Letter of Map Revision - CLOMR

• If a community proposes to permit encroachments which will cause BFE increases in excess of:
  – 1 foot in the SFHA, and
  – 0 feet in the regulatory floodway,
• They must apply for a CLOMR
CLOMR Submittal

- Concurrence of CEO of any other impacted communities
- Certification that no structures are located in areas which would will be impacted by increased BFEs
CLOMR Submittal

- Community must update floodplain management ordinances
- Community shall provide as-built certifications of encroachments so that the map can legally be revised through the LOMR process
Letter of Map Revision (LOMR):

- FEMA’s modification to an effective FIRM or FBFM, or both, based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source
- LOMRs can also be done for other reasons
Course Outline

- Part I
  - Background of the NFIP
  - Zone Designations
  - Part 60 — Criteria for Land Management and Use
  - Letters of Map Change
Part I Conclusion

- Have you:
  - Gained an understanding of the history of the NFIP
  - Become comfortable with the commonly used terminology
  - Gained an in-depth understanding of the NFIP regulations
The NFIP – An Overview
Part II
Part II Objectives

• You will:
  – Gain a better understanding of the Floodplain Administrator’s duties on the local level
  – Be comfortable with commonly used legal terminology
  – Look at the regulations from a different perspective
Course Outline

• Part II
  – Community Participation (or lack thereof)
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  – Variances
Community Participation

- There more than 20,000 communities participating in the NFIP today

- Flood Disaster Protection Act of 1973
Community Participation

- What does a community commit itself to when it joins the NFIP?
- Three recourses for non-compliance
Lack Thereof

- Not Joining the NFIP
  - No NFIP flood insurance available
  - No federal grants/loans available in identified flood hazard areas
  - No disaster assistance
  - No Federal mortgage or loan guarantees in identified flood hazard areas
  - Banks and lenders must notify applicants of flood hazard and that there is no NFIP insurance or disaster relief available
Course Outline

• Part II
  – Community Participation (or lack thereof)
  – The Ordinance
  – The Permitting Process
  – Additional Regulatory Permits
  – Recourses for Non-Compliant Homeowners
  – Variances
Ordinance Administration

• The Administrator
  – Understanding the Regs
  – Ensure that Permits are applied for
  – Coordination with Other Offices, Departments, and Programs
  – Inspections
  – Correct any Violation & Enforcement Actions
  – Updating the Ordinance & Record Keeping
Ordinance Administration

• The Administrator
  – Qualifications
    • CFM?
  – Training
    • Knowing data sources
    • EMI, Regional Office…
  – Liability
    • Protecting yourself from lawsuits
Ordinance Administration

- Taking
- Inverse Condemnation
  - Limits use of the land
- Eminent Domain
  - Legal Taking
Taking Continued

- Performance-oriented standards of the NFIP have never been ruled as a taking
  - Due to the public purpose involved
- Regulatory standards should be:
  - Reasonable;
  - Tied to the flood hazard; and should
  - Support public objectives.
Ordinance Administration

• Ordinance must be:
  • Legally enforceable
  • Applied uniformly throughout community
  • Take precedence over less strict requirements
Course Outline

• Part II
  – Community Participation (or lack thereof)
  – The Ordinance
  – The Permitting Process
  – Additional Regulatory Permits
  – Recourses for Non-Compliant Homeowners
  – Variances
Development Permits

- Development
  - When a permit is needed
- Exemptions
  - When it is not
Development Permits

- Permit File
  - NFIP Requirement
  - Elevation Certificates (?)
  - Annexations
  - Floodproofing Certificates
  - V Zone Certification
  - No-Rise
Ordinance Administration

- Keeping good records can help with the Biennial Report
  - Annexations
  - Physical flooding changes
  - Amendments to the ordinance
  - Number of building permits/Variances
  - Number of people/buildings in the floodplain
  - Whether you are in need of assistance
Course Outline

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  – Variances
Additional Permits

- Other Agency’s Requirements
  60.3(a)(2)
Additional Permits

• Environmental Protection Measures
• Federal Regulations
  • NEPA
  • EO 11988
  • Clean Water Act
  • Endangered Species Act
  • Sewage disposal system regulations
Course Outline

• Part II
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  – Recourses for Non-Compliant Homeowners
  – Variances
Recourses for Non-Compliant Homeowners

- Enforcement
  - Voluntary Compliance
  - Administrative Steps
Recourses for Non-Compliant Homeowners

- Enforcement
  - Legal Recourses
  - Section 1316
Course Outline

- Part II
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  - Variances
Appeals, Special Uses, and Variances

- What is a Variance?
- Variance Requirements
  - 60.6
Appeals, Special Uses, and Variances

- Legal Variances
  - Historic Buildings
  - Functionally Dependent Use
- Records of Variances
Part II Conclusion

• Have you:
  – Gained a better understanding of the Floodplain Administrator’s duties on the local level?
  – Become comfortable with commonly used legal terminology?
  – Looked at the regulations from a different perspective?
The NFIP – An Overview
Part III
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Substantial Improvement and Substantial Damage

• Background
• Projects Affected, The Formula
  – All projects worthy of a permit
  – One year = One project?
  – The Formula:

\[
\frac{\text{Cost of Improvement}}{\text{Market Value of Building}} \geq 50\%
\]
Substantial Improvement and Substantial Damage

- **Cost, Market Value**
  - Costs Include all Structural Costs
  - Market Value
  - Estimates
Items to Include in Calculation

- Structural Elements
- Interior Finishing Elements
- Utility Service Equipment
- Demolition
- Labor
- Overhead and Profits
Items to Exclude from Calculation

- Plans/Survey Costs
- Permit Fees
- Post - Storm Cleanup
- Outside Improvements
Substantial Improvement and Substantial Damage

• Examples
  – Minor Rehabilitation
    • Installing air conditioning
    • Below 50%
  – Substantial Rehabilitation
    • Air conditioning AND a new kitchen
    • Above 50%
Substantial Improvement and Substantial Damage

- **Cost**
  - Damage can be from any cause
  - Applies to all buildings in SFHA, whether insured or not
  - Cost to repair
  - Be objective
Increased Cost of Compliance (ICC)
- Up to $30,000 to cover costs
- Not dependant on the community receiving a disaster declaration
- Limitations
Substantial Improvement and Substantial Damage

- Exempt Activities
  - Plans and Specs; surveying; permit fees; emergency repairs; improvements to land or unattached structures

- Historic Structures

- Code Violations
  - To correct an identified violation using the minimum to correct it
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Flood Insurance and Floodplain Management

- Who’s Involved, Coverage
  - Write Your Own (WYO) Policies
  - Coverage
    - Building coverage
      - Exceptions
    - Contents coverage
  - Basements
Flood Insurance and Floodplain Management

- Coverage
  - Enclosures
    - Limited coverage
  - Amount of Coverage
    - Building Coverage ($50K to $250K; $150K to $500K)
    - Contents Coverage ($20K to $100K; $130K to $500K)
Flood Insurance and Floodplain Management

- Waiting Period
- Mandatory Purchase Requirement
Flood Insurance and Floodplain Management

Flood Insurance Policies

- How it Works
  - Lender’s determination, Lender’s prerogative
  - Ratings
    - Pre and Post-FIRM
    - Submit to Rate
    - Non residential
    - A Zones based on HAG
    - D Zones, A99 Zones, AR Zones, and V Zones
Flood Insurance and Floodplain Management

Insurance Exceptions

- Coastal Barrier Resource Act
- CoBRA Zones
  - No new policies in CoBRA Zones
  - Even if mistake is found after a claim is made, policy is cancelled
Flood Insurance and Floodplain Management

Insurance Exceptions

- Section 1316
- Floodproofing to above the BFE
Course Outline

• Part III
  – Substantial Damage/Improvement
  – Insurance at a Glance
  – The Community Rating System
  – Going Above and Beyond
  – Mitigation
  – Cooperating Technical Partners/Map Mod/The Future of the NFIP
Flood Insurance and Floodplain Management

• The Community Rating System
  • Benefits of CRS
    – Recognition
    – Assistance
    – Better Floodplain Management
    – Lower insurance premiums

• Activities
  – Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness
Course Outline

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Higher Regulatory Standards

• 60.22
  – Planning Considerations for Floodprone Areas
Higher Regulatory Standards

- Location Restrictions
  - Floodway restrictions
  - Hazardous areas
  - Subdivision design
    - No structures isolated by floodwaters
    - Open space and cluster design, Planned Unit Developments
Higher Regulatory Standards

- Location Restrictions
  - Setbacks
    - Vertical heights OR horizontal differences
  - Natural Areas Preservation
  - Low Density Zoning
Building Requirements

- Freeboard
  - Encouraged to adopt at least 1 foot of freeboard
  - What are some benefits of requiring freeboard?

Foundation Standards

- Have the adequacy to withstand flooding certified
- Construction Standards in flood zones (V standards in A Zones)
Higher Regulatory Standards

• Safety Requirements
  Critical Facilities
  • Four kinds of Critical Facilities

• Dry Land Access
  • Roads surrounding critical facilities be at or above BFE
Higher Regulatory Standards

- Encroachment Standards, Compensatory Storage, and Stormwater Management
- Requiring Smaller Floodway Surcharges
- Compensatory Storage
- Stormwater Management
- Temporary Moratoriums
Course Outline

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Disaster Operations and Hazard Mitigation

• Disaster/Emergency Operations
  – Assessing the situation
  – Emergency Manager’s Responsibilities
  – Your role
Disaster Operations and Hazard Mitigation

- Permit Requirements and Enforcement
  - Permits Required When...
  - Emergency Repairs
  - Enforcement
    - Inspections
    - Posting
    - Follow up
Disaster Operations and Hazard Mitigation

• Flood Hazard Mitigation
  • “All actions that can be taken to reduce property damage and the threat to life and public health from flooding”

• Mitigation Measures
  • Prevention
  • Property Protection
  • Protection of Natural Resources
Disaster Operations and Hazard Mitigation

• Mitigation Measures Continued
  – Emergency Services
  – Structural Projects
  – Public Education Campaigns
Disaster Operations and Hazard Mitigation

• Mitigation Planning
  – Benefits of Planning
  – Planning Process

• Most important thing in this section is to get everyone involved!
Disaster Operations and Hazard Mitigation

Mitigation Assistance Programs

Flood Mitigation Assistance (FMA):
Funding for cost-effective measures that reduce or eliminate the long-term risk of flooding

No disaster declaration necessary
Disaster Operations and Hazard Mitigation

Disaster Assistance After Declared Disaster

Stafford Act:
Only applies after a Presidentially Declared Disaster
Stafford Grants Available
- Public/Infrastructure Assistance Grants
  - Up to 75% of the cost of repair/restoration to PUBLIC AGENCIES as well as CERTAIN PRIVATE NON-PROFITS
  - Subject to Deductible
  - Money awards can be increased (through FEMA) if mitigation measures are introduced that were not in place prior to the disaster
Disaster Operations and Hazard Mitigation

- Stafford Grants Available
  - Hazard Mitigation Programs (HMGP funds)
    - Monies to help reduce the susceptibility
    - 75% of the cost of mitigation projects
    - Projects may also mitigate other hazards
    - Projects include relocation; acquisition; elevation; and minor drainage improvements
    - You may be eligible without a disaster declaration if your State has received one
Let's Get Examined!

Take your time
If there is a map in the exam materials, use the legend as a resource
Closed book
Multiple Choice
Multiple Versions of Test

Final Questions before Lunch?