Pennsylvania Emergency Management Agency

HAZARD MITIGATION DIVISION

DR-4408 Columbia County Workshop
Orange Township Municipal Building
February 8, 2019 1300-1600

Topics:
Hazard Mitigation Grant Program
Floodplain Management
National Flood Insurance Program
Heavy Rain Events are Increasing

- The Northeast U.S. leads the country with a 74% increase in heavy rain events over the past five decades
- Heavy downpours are increasing nationally, especially over the last three to five decades, with the largest increases in the Northeast
- Increases in extreme precipitation are projected for all U.S. regions
- All reasons to for flood insurance **both inside and outside flood plains**

Sources: A. DeGaetano, Global Change.gov
Red dots are flood reports outside the 100-year floodplain.

Green dots are flood reports inside the 100-year floodplain.

Interactive map link
Flood reports to the NWS from 1993-2018
Some locations may be approximate

94% of flood reports are OUTSIDE the 100-year floodplain.
Pennsylvania Flood Mitigation

Red dots are flood reports outside the 100-year floodplain.

Green dots are flood reports inside the 100-year floodplain.

Black dots are flood mitigation projects completed to reduce flood hazards and damages.

Interactive map link

Flood reports to the NWS from 1993-2018
Some locations may be approximate
Maps

- **Map Modernization**
  - Digital Flood Insurance Rate Maps (DFIRMs)

- Digitized representation of the floodplain overlaid on the most recent available topography
Acquisition of Flood Risk Homes
Catawissa Borough (Columbia)
Acquisition of Flood Risk Homes
Montour Township (Columbia)
Acquisition of Flood Risk Homes
Scott Township, Columbia County (Eastern Area)
HEC-RAS is a computer program that models the hydraulics of water flow through natural rivers and other channels. ... The Hydrologic Engineering Center (HEC) in Davis, California developed the River Analysis System (RAS) to aid hydraulic engineers in channel flow analysis and floodplain determination.

Topography
Hydrology
Hydraulics
Field Survey
Hazard Mitigation Grant Program (HMGP)

For

FEMA-4408-DR-PA
(August 2018 Flooding)
August 10 – 15, 2018

All Counties & Municipalities Eligible for HMGP
Preliminary Damage Assessment/Claims Data
Hazard Mitigation is:

“any cost-effective action taken to **eliminate** or **reduce** the long term risk to life and property from natural and technological hazards and to protect sense of place.”
What is the Hazard Mitigation Grant Program?

HMGP – a federal disaster assistance program administered by PEMA to provide funding for specialized projects that reduce or eliminate disaster-related losses to life and property.

Created in 1988 by the Stafford Act

FEMA provides 75% match funds to States to fund post-disaster hazard mitigation measures.

For this disaster, State will provide 25% of total cost.

There will NOT be a Local match requirement

Overall Goal: Reduce vulnerability to natural hazards
How is the HMGP funded?

Funding under the HMGP is based on 15% of the federal funds that are spent on the Individual Assistance (IA) and Public Assistance (PA) Programs for each declared disaster.

For example, for every $1 million in IA & PA funding, HMGP gets $150,000.

For HMGP-4408 there will be about $10 million in State and Federal HMGP funds available.
What are the HMGP’s objectives?

• To prevent future loss of life and property due to natural disasters.
• To provide funding for previously identified mitigation measures that benefit the disaster area.
• To implement State, County, and Municipal Hazard Mitigation Plans.
Who is eligible?

State, County, and Municipal Governments

Certain private non-profit organizations or institutions that own or operate a private non-profit facility
What About Buyouts (Acquisition Projects)?

- Local government is the applicant, **not homeowners**.
- Must be **voluntary participation**.
- Homes are demolished, land is owned by local government and must remain in “open space” use forever.
- PEMA recommends State certified appraisals of pre-flood value for purchase price.
- Some homeowner disaster assistance may be deducted from the final purchase price.
Projects on private property may be eligible for funding under the HMGP only if submitted by a local government entity.

- (County, City, Township, Borough, etc.).

Participation in an HMGP project by a private citizen MUST BE VOLUNTARY!
What types of projects can be funded?

• Acquisition/Demolition or relocation of structures in hazard-prone areas
• Flood-proofing or retrofitting to protect structures from future damage
• Detention/Retention and debris basins, etc.
• Development of standards to protect new and substantially damaged structures from disaster damage
Prerequisites

- County must have an approved and adopted All Hazard Mitigation Plan.
- Municipality must have participated and adopted the approved county plan.
- Projects must meet the FEMA, State, and local municipal strategies.
- Requested project funding must have been identified as a mitigation activity in the county plan.
Do you have a plan/listed where?

The 2018 Pennsylvania state HM Plan is located at https://pahmp.com/

<table>
<thead>
<tr>
<th>County</th>
<th>Location of Hazard Mitigation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luzerne</td>
<td><a href="http://www.lyco.org/Departments/Planning-and-Community-Development/Hazard-Mitigation">http://www.lyco.org/Departments/Planning-and-Community-Development/Hazard-Mitigation</a></td>
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<td>Lehigh</td>
<td><a href="http://www.tiogacountypa.us/Departments/Emergency_Services/Pages/Hazard-Mitigation-Plan.aspx">http://www.tiogacountypa.us/Departments/Emergency_Services/Pages/Hazard-Mitigation-Plan.aspx</a></td>
</tr>
<tr>
<td>Sullivan</td>
<td>Only public notice online</td>
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Eligible HMGP Projects

- Hazard Mitigation Projects
  - Property Acquisition and Structure Demolition
  - Structure Relocation
  - Dry Floodproofing of Historic Residential Structures
  - Dry Floodproofing of Non-residential Structures
  - Minor Localized Flood Reduction Projects
  - Structural Retrofitting of Existing Buildings
  - Non-structural Retrofitting of Existing Buildings and Facilities
  - Safe Room Construction
  - Infrastructure Retrofit
  - Structure Elevation
  - Soil Stabilization
  - Wildfire Mitigation
  - Post-disaster Code Enforcement
  - 5% Initiative Projects
  - Hazard Mitigation Planning (counties)
• Acquisition/Demolition of damaged, substantially damaged, or destroyed homes
• Small structural projects using FEMA Benefit Cost Analysis (BCA) Software
• Other eligible State Initiative flood mitigation opportunities (up to 5% of the grant total)
• Development of County Hazard Mitigation Plans (allowable amount up to 7% of the grant total)
• Home elevation projects
• **Eligible** business mitigation activities, e.g. flood-proofing or other resilient mitigation retrofitting measures

**Note:** Other federal and state programs are available for structural projects – see link to PA Silver Jackets Guide ahead
How To Apply & Review Process

• Municipality sends in Letter of Intent/Pre-Application.
  – *(available on the PEMA website)*

• PEMA reviews pre-applications.

• PEMA sends out an application packet if it meets eligibility criteria
  – *(municipality is notified of eligibility determination either way)*.

• Applicant completes the HMGP application.

• State HM Application Review Team review & ranking

• Applications must be sent to FEMA Region III within 1 year of the disaster declaration date.
What goes in an application?

- Basic application information:
  - For buyouts: homeowner/property information, appraisals, latitude & longitude, site elevations
  - For structural projects: design, engineering, latitude & longitude, site elevations
  - Total hazard mitigation project budget
  - Damage information
  - Photos, Maps, FEMA Flood Insurance Study (FIS) data
  - Local Mitigation Plan information
• Local costs in developing and submitting an application, like appraisals, elevation surveys, personnel costs, etc. If included in the application under project costs, can be reimbursed only if the project is approved by FEMA.

• PEMA may provide some technical assistance like elevation surveys and proposed site visits in some cases based on PEMA staff & resource availability.
How are HMGP projects selected for funding?

• The eligibility criteria, contained in the Commonwealth’s HMGP Administrative Plan states that:
  – Projects that are cost-effective, substantially reduce risk, and have multi-hazard application will have the advantage.
  – A State Hazard Mitigation Team applies this criteria in its review and ranking of all project applications.
2013 FEMA Cost-Effectiveness Policy

- For properties in the 100-year floodplain
- Acquisitions, if cost is $276,000 or less*
- Elevations, if cost is $175,000 or less*:
  - The project is considered cost-effective and no further Benefit-Cost Analysis (BCA) is required.
- For all other project types or properties that do not meet thresholds above, BCA is required

*(average cost per property in the project)
Cost Effectiveness
What is a Benefit Cost Analysis?

BENEFIT
(Reduced Damage)
--------------------------------- = 1.0 +
PROJECT COST

Where a house sits in the floodplain predicts how often and how much damage will occur over time.

- 100 yr flood
- 50 yr flood
- 10 yr flood
What is a BCA and BCR?

BCA – Benefit Cost Analysis is the federally required method of determining the cost effectiveness of a hazard mitigation measure using a standardized method of determining avoided future damages (that is, the Benefit) as compared to the Cost of a project.

• A BCA is based on the expected damages to a structure located in the floodplain or the actual damages incurred in past disaster events.
BCR – the Benefit Cost Ratio is a numerical expression of the cost effectiveness of a project calculated as the net present value of total project benefits divided by the net present value of total project cost – that is, the derived Benefit divided by the Cost.

• A minimum BCR score of above 1.0 or is required to meet FEMA’s cost-effectiveness requirement for a project to be eligible for funding.
• Example: A single home acquisition has a total cost of $300,000.

  BCA – Benefits of $450,000 over 100 years

  BCR – Benefits divided by cost of project
  \[
  (450,000 \div $300,000 = 1.50) = \text{Passing BCR}
  \]

• The project is cost-effective & eligible.
Acquisitions/Elevations
Special Concerns

• All homes must be primary residences
• Owners must be U.S. citizens/legal aliens
• Environmental & Historic Preservation (EHP) Reviews
• Acquisitions may be rentals but tenant relocation costs must be included (Uniform Relocation Act)
• Mineral rights, gas drilling leases for acquisitions
• Federal Duplication of Benefits deductions (IA & NFIP)
• Open space uses, post-acquisition transfer of property
• Payments to owners are exempt from Federal Income Tax
• Only basic elevation costs to minimum level* eligible.

* Minimum level is 100 year flood level plus 1.5 feet.
All projects submitted to FEMA must be reviewed for Environmental considerations.

Structures 50 years old or more must be reviewed for Historic consideration.

Potential EHP impacts can require additional review time to determine eligibility prior to FEMA’s decision on project approval.
Uniform Relocation Act (URA)

- Displaced tenants of rental properties acquired under the HMGP are entitled to URA assistance and may be eligible for relocation costs up to $7,200.
- Relocation costs should be included in the HMGP application project cost budget.
- URA procedures and provisions are the responsibility of the local community.
Duplication of Benefits (DOB)

Federal disaster assistance and other damage-related claims paid to the homeowner following the most recent disaster that have not been expended for the intended purposes are deducted from the final purchase price of the home at closing. FEMA will not pay pre-damage value on a home if repair claim funds were not used appropriately.

• This process is called Duplication of Benefits (DOB) and is the responsibility of local community with PEMA/FEMA to resolve as required.
Once acquired, a property must remain undeveloped as “open space in perpetuity” and in the possession of the local community.

Some uses, consistent with the location’s performance as open floodplain, are allowed but only with written pre-approval from PEMA & FEMA (44 CFR Part 80).

Transfer of the property to some governmental, environmental or conservancy entities is permitted with similar State & Federal pre-approvals.
What Isn’t Eligible for HMGP?

- Repair or Replacement of Existing Infrastructure, Roads, Facilities, Deferred maintenance, etc.
- Debris/snow removal, Stream-related work
- Bridge replacement
- Major structural projects – levees, dams, etc.
- Phased or contingent projects
- Mitigation for damaged infrastructure that can be funded under Public Assistance
- Designs, studies or plans not directly related to HM projects
When will I know if my application is approved?

Once an application is sent to FEMA, the approval process usually takes **90-120 days***

Certain aspects of a project can add to review time: historic buildings or sites, special environmental concerns, archaeological studies.

*If no catastrophic disasters have occurred elsewhere in the United States (2018 TX, FL, VI, PR)
What do I need to do now?

As a local official – you will need to:

• Decide if there is a mitigation project in your community that should be completed;

• Complete the HMGP Letter of Intent (LOI);

• Mail, email or fax your LOI/Pre-Application to:

  Pennsylvania Emergency Management Agency
  State Hazard Mitigation Officer
  Bureau of Recovery & Mitigation/Hazard Mitigation Division
  1310 Elmerton Avenue
  Harrisburg, PA 17110
  Fax 717-651-2150
  or email RA-shazmitoff@pa.gov
The HMGP Letter of Intent & Pre-Application

- Must be signed by a local official.
- Is not binding.
- Identifies the single Contact Person for HMGP (Applicant’s Agent).
- Describes problem & the proposed mitigation project.
- Must be submitted to receive an HMGP application.
Letter of Intent (LOI) on PEMA website

HMGP Letter of Intent/Pre-Application can be downloaded from the PEMA website at http://www.pema.pa.gov

Hover Cursor over:
RESPONSE AND RECOVERY
• DISASTER ASSISTANCE
• Click on MITIGATION
  • Hazard Mitigation Forms, Presentations, and Other Docs
  • Unified HM Grant Program Forms

SELECT ‘00-HMGP-Letter of Intent/Pre-App

Or go directly to:
http://www.pema.pa.gov/responseandrecovery/Disaster-Assistance/Pages/Unified-Hazard-Mitigation-Grant-Program.aspx
IMPORTANT HMGP DEADLINES

• Your Letter of Intent/Pre-Application form must be returned to PEMA by: **February 28, 2019**

• HMGP DR-4408 applications must be submitted to PEMA by: **May 24, 2019**

• State Hazard Mitigation Team Application Review:
  • **June 17 – 21, 2019**

*PEMA & the State Hazard Mitigation Team reserve the right to alter the dates at their discretion.*
Flood Mitigation Assistance (FMA)

Pre-Disaster Mitigation (PDM) programs

- FMA – includes Repetitive Loss (RL) & Severe Repetitive Loss (SRL) property acquisitions & elevation, current NFIP insurance required on all properties
- Funding varies – 75% for FMA, up to 90% for RL, 100% for SRL (may use ICC funds for local match)
- Annually funded, nationwide competitive grants
- Application is made on FEMA’s eGrant website.

https://www.pema.pa.gov/responseandrecovery/Disaster-Assistance/Documents/Disaster%20Assistance%20Documents/FY17%20FMA-PDM%20NOFO%20Webinar.pptx

The 2019 grant application period has closed. Link above is for program information only. For additional info contact Julie Yu at juyu@pa.gov
OTHER POSSIBLE FUNDING SOURCES
Silver Jacket Initiative

INTERAGENCY FLOOD MITIGATION PROGRAM GUIDE

Updated by our Pennsylvania team in 2015
Used across the country as a Best Practices Reference Document
On the Silver Jackets website at:
• Pennsylvania Interagency Flood Mitigation Program Guide, 2015

For more about Pennsylvania Silver Jackets program:
• http://silverjackets.nfrmp.us/State-Teams/Pennsylvania
Contact Information

Tom Hughes, State Hazard Mitigation Officer
(717) 651-2726 or thughes@pa.gov

Jen Carle, HMGP Project Coordinator
(717) 651-7072 or jcarle@pa.gov

Don Smith, Senior Project Officer
(717) 651-2279 or dowsmith@pa.gov

PEMA WEBSITE:
http://www.pema.pa.gov

For a copy of this presentation “HMGP-4408 Initial Briefing” go to:
http://www.pema.pa.gov/responseandrecovery/Disaster-Assistance/Pages/Hazard-Mitigation-Presentations.aspx

PEMA, 1310 Elmerton Avenue, Harrisburg PA 17110

Our best advice is to email your scanned Letters of Intent (LOI) directly to Jen Carle at jcarle@pa.gov.

PEMA Fax# is: 717-651-2150
Questions
National Flood Insurance Program & Floodplain Management
National Flood Insurance Program (NFIP) Background

- Created by National Flood Insurance Act of 1968
- Participation is voluntary
  - Adopt and enforce regulations
  - Eligible for flood insurance
- Benefits of participation
  - Flood insurance
  - Grants and loans
  - Disaster assistance
  - Federally-backed mortgages
- Goals of the NFIP include
  - Save lives and protect property
  - Encourage a comprehensive approach to floodplain management
Risk and Floodplains

Know the Risk
- Flood Insurance Rate Maps (FIRMs)
- Flood Insurance Studies (FIS)
- High Water Marks

Mitigate the Risk
- Floodplain Ordinances
- Hazard Mitigation Plans
- Hazard Mitigation Grant Programs

Insure the Risk
- Flood Insurance
Floodplain – What Does It Mean?

Characteristics of a Floodplain

- Floodplain
- Flood Fringe
- Floodway
- Base Flood Elevation (BFE)
- Normal Channel

Source: NFIP Guidebook, FEMA
The Effects of Fill on a Floodplain

This house never flooded before the fill was placed on the riverbank

100 year flood after fill
100 year flood before fill
10 year flood after fill
10 year flood before fill
“Bank Full”
Risk = Initial & Residual Risk

Planned Strategies and Actions

Identify the Risk
Mitigate the Risk
Insure to the Risk
Floodplain management is the operation of a community program of corrective and preventative measures for reducing flood damage.

A community does this by adopting and enforcing floodplain management ordinances, particularly with respect to new construction, is an important element in making flood insurance available to home and business owners. Could also include zoning, building codes, and other land-use ordinances.

Currently over 20,100 U.S. communities voluntarily adopt and enforce local floodplain management ordinances that provide flood loss reduction building standards for new and existing development.
PA Model Ordinance Components

- Pennsylvania Floodplain Management Act (1978-166).
- FEMA 44 CFR 60.3
- Article I – Statutory Authorization & Purpose
- Article II – General Provisions
- Article III – Administration – D&R of FP Administrator, Permitting
- Article IV – Provisions for Hazard Reduction – Standards for Construction, Sub-Divisions, Utilities, Development that may endanger life
- Article V – High Risk Land Uses – Hospitals, Nursing Homes, Jails or Prisons
- Article VI - Definitions
Duties of the Floodplain Administrator

- Review applications
- Make floodplain determinations
- Make Substantial Improvement / Damage determination
- Issue or deny permits
- Review plans and specifications
- Ensure all other permits are obtained
- Notification of watercourse alterations
- Maintain and help update flood data and maps
- Inspect development
- Recordkeeping
- Remedy violations

Keep good records! A project file should be kept for each development permit application to demonstrate that the project was built in compliance with your regulations.
Duties of the Floodplain Administrator

- **Training and education**: Understand the NFIP regulations, State regulations, and local ordinances.

- **Community Outreach**: Educate residents on the need for permits, the benefits of floodplains, the economic sustainability of good floodplain management, and the benefits of flood insurance.

- **Coordinate with other agencies**: State agencies, adjacent communities, public works, zoning, code enforcement, or building dept.

- **Apply ordinances consistently**: Get specific guidance from your community’s legal counsel as necessary.

Common legal questions and answers about floodplain regulations in the courts can be found in *Appendix C of ASFPM’s No Adverse Impact: A Toolkit for Common Sense Floodplain Management.*
Permits Are Required For All Types of Development

ALL development in the SFHA requires a permit

- Definition of development (as per 44 CFR 59)
  Any manmade change to improved or unimproved real estate, including, but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials

Ensure you have a process for capturing all floodplain development
Other Types of Development

- Other types of development require inspections
  - Placement of fill
  - Installation of fences
  - Storage of equipment and materials
  - Placement of recreational vehicles
  - Etc.

- Develop administrative procedures to permit for and inspect non-building development

Dauphin County, PA (from FEMA Region III)
Floodplain tour revealed unpermitted trailer storage in floodway, about 10 feet from top of bank
Which activities in the SFHA require a development permit?

- Construction of new buildings
- Additions to existing buildings
- Substantial improvements of existing buildings
- Repair of substantially damaged buildings
- Renovation of existing building interiors
- Installation of manufactured homes
- Subdivision of land
- Placement of temporary buildings and accessory structures
- Construction of roads, bridges, and culverts
- Placement of fill, grading, excavation, and dredging
- Alteration of stream channels
- Construction of a fence
- Paving
Application Should Include...

- A good permit application should **capture all information** needed to evaluate the proposed work for compliance with required building/development standards of proposed work

- Application **MUST** include a floodplain determination and a **substantial improvement determination** (for modifications to an existing building)

  **For Official Use Only:**
  - Floodplain Determination: __________
  - Base Flood Elevation: __________
  - Cost of Improvement: $__________
  - Market Value of Structure: $__________
  - Improvement Percentage: _________%
Who are the people typically responsible for reviewing permits?

- Floodplain Administrator
- Building Code Officer
- Zoning Officer
- Municipal Engineer
- Third-party permitting/inspection company

Coordination with other reviewers:

- Is one person responsible for all aspects of floodplain development?
- If not, are all parties aware of the floodplain requirements?
- How is the permit application routed and either approved or denied?
Application Review

Review for completeness

- Forms filled out
- Site plan
  - Floodplain delineation
  - Elevations
- Building plans
- Certifications
- All other permits obtained (see PA model)

Review for compliance

- Proposed building elevations
- Proposed design standards
- Building/fill/material placement
- Mechanical elevations
- Compliant openings
- Flood resistant materials
Review Permits For...

- **Location/Siting**
  - Floodplain determination
  - Zone and BFE identification

- **Use**
  - Residential
  - Non-residential

- **Type of work**
  - New construction/addition
  - Placement of fill, etc.

- **Cost of improvement**
  - Substantial improvement?

- **Design standards**
  - Compliance with minimum and higher standards?
  - Is a variance necessary?

Elevated utilities in Yardley Borough, Bucks County, PA (from PEMA)
**Floodways**

**Floodway** is the channel designated to convey the fastest deepest moving waters during the base flood.

Also designed to help floodplain management – no federal minimum requirement for development outside the floodway to submit studies about BFE impacts.
Considerations for Floodways

Development must prove “no rise”

- No rise = zero foot (0.00’)
- Rise is tracked both upstream and downstream of development location

Documentation requirement

- H&H study
- If existing structure, site plan showing footprint will not expand

Ensure “no rise” certificate is prepared and certified by a qualified and licensed engineer. Read the certification; ensure it shows no rise.
Issue/Deny Permit

• **Issue the permit**
  – Include any conditions (i.e. required inspections)
  – Start of work must commence within 180 days from the issuance of the permit

• **Deny the permit**
  – Provide written explanation citing the specific provisions of the ordinance not met in the application
  – Citation of specific provisions point out how to resubmit application in compliance with regulations
  – Provide instructions regarding appeal or a variance
Conduct Inspections

• **Importance of coordination:** Check for compliance with the NFIP minimum standards
  – Inspect frequently during construction
  – Check openings and mechanicals

• **Recommend a minimum of three inspections**
  1. After site is staked but before permanent foundation work
  2. After foundation is complete
  3. Before issuing certificate of occupancy

Identifying compliance issues prior to construction will be much easier – and cheaper – to correct than correcting compliance issues post-construction.
Considerations During Inspections

Address Non-Compliance Early

- If inspections reveal violations, take steps to bring into compliance
  - Voluntary option
  - Provide written notice
  - Issue fines or penalties
  - Withhold final approvals
- Refer to ordinance for specific enforcement procedures
- Insurance for non-compliant structures is available, but it’s very expensive!
On-site Changes Can Cause Non-Compliance

Other Considerations:
- Crawlspace issues
- Setbacks
- Foundation construction
- Flood resistant materials

Elevations:
- Lowest floor
- LAG
- etc.

Compliant openings

Elevation of utilities and mechanicals

Yardley Borough, Bucks County, PA (from PEMA)
Collecting Compliance Documentation

- Permit file **must contain as-built** or finished construction data for all new structures or substantial improvements in SFHA
- Required to prove compliance with the floodplain ordinance
- Must be **signed and sealed** by the design or certifying professional

Examples of compliance documentation

- Site plans and surveys
- Building/architectural plans
- FEMA Elevation Certificate (EC)
- Floodproofing certificate
- Engineered openings
- Non conversion agreement
The Elevation Certificate (EC)

- Administrative tool used to provide elevation information necessary to
  - Ensure compliance with community floodplain management ordinances
  - Determine the proper insurance premium rate
  - Support requests for certain Letters of Map Change
Elevation Certificate, FFE, BFE, LAG
Record Keeping Requirements

- Requirement to maintain compliance documentation indefinitely
- What records?
  - Permit application
  - Inspections
  - As-built documentation
  - Other compliance documentation (for instance, certifications)
  - Flood map changes and updates
- Best practices
  - Store permits by address (rather than property owner name)
  - Use colored file folders to identify floodplain properties

For a structure located in the SFHA, FEMA and the State will require data to prove a potential violation is compliant.
Discovering and Investigating Potential Violations

• Violations can be found through
  – Periodic inspections
  – Reports by other government agencies
  – Citizen’s complaint

• Violations not remedied can result in
  – Increased risk to life and property
  – Increased insurance premiums
  – Probation – increased insurance rates for everyone
  – Suspension – NFIP insurance and many grants/loans unavailable

Investigate potential violations and take appropriate action!
Ordinance Enforcement Options

- Check your ordinance for the enforcement procedures that have already been outlined

- May include
  - Voluntary compliance by property owner
  - Written Notice of Violation or stop work order and/or revoke permit
  - Per day fine
  - Withhold certificate of occupancy
  - Record on Deed
  - Injunction – court order to stop non-compliant activity
  - Municipal housing court or building court
  - Coordinate with your solicitor
**Full Compliance**

- Risk and liability reduction
- Greatest insurance savings
- Ensures continued participation in NFIP

- Can be expensive
- Can be time consuming

- Elevation/Floodproofing of lowest floor and utilities
- Installation of openings
- Proper anchoring
- Flood resistant materials

**Partial Mitigation**

- Often less expensive
- Less time consuming

- Jeopardizes participation in NFIP
- Risk and liability increase
- Increase in insurance costs
- Transfer of increased risk & costs to future owners

- Note on deed citing violations
- Partial elevation and/or floodproofing

**Non-Compliance**

- Cheapest (short term)
- Least time consuming

- Surcharge existing and no new policies
- Loss of disaster assistance
- Loss of federal grants/loans
- Increase in risk and insurance costs

- Take no corrective actions
Community Liability

- Flood problem awareness with no action
- Failure to warn citizens of known flood hazard
- Improper development that increases flood risk
- Inconsistent administration of floodplain provisions
Post-Flood Event Checklist

- Review floodplain management ordinance **Section 2**
- Notify property owners of permit and building requirements **Section 3**
- Require permits for all development, not just for substantial damage **Section 3**
- Make floodplain determination for permitting using FIRMs **Section 1**
- Determine BFEs using FIS **Section 1**
- Perform substantial damage determination
- Notify property owners of determination results and subsequent building requirements in writing
- Tour floodplain to ensure development/rebuilding is compliant
Permits Are Required Post-Event

• A permit is required **regardless** of whether or not the repairs rise to the level of substantial damage.
  – Permits are required for repairs
  – The permit fee can be waived
  – The permit requirement **cannot be waived**

• Non-compliance post-disaster will have negative insurance implications and could result in sanctions.
Substantial Improvement/Damage

Definition:

- Cost to restore the structure to its **pre-damaged** condition equals or exceeds **50%** of its **pre-damage market value**

Middletown Borough, Dauphin County, PA (from PEMA)

Town of Bloomsburg, Columbia County, PA (from PEMA)
Substantial Damage Determination Process

1. Assess Damage
2. Make Substantial Damage Determinations
3. Notify Damaged Structures of Ordinance Requirements

Less Than Substantially Damaged:
- Use Flood Resistant Materials Below BFE

Substantially Damaged:
- Elevate/Floodproof Utilities At or Above BFE
- Use Flood Resistant Materials Below BFE
- Elevate/Floodproof Utilities At or Above BFE
- Elevate Lowest Floor At or Above BFE
Substantial damage determinations are a **local responsibility**

- Ways to determine market value:
  - Tax assessed value
  - Appraisal (licensed professional)
- Actual cash value, including depreciation
- “Qualified estimates” based on professional judgment of local official
Substantial Damage Determinations

Compliance

- Reduces exposure to flood risk
- Compliance with local codes
- Fulfills one prerequisite for ICC eligibility
- Cost beneficial for HMGP grants
- Long term reduction in insurance premiums and damage costs

Mitigating non-compliance

- Long term increase in insurance premiums and damage costs
- Jeopardizes entire community’s participation in the NFIP
- Short term increase in construction costs
- Typically requires significant changes to design of structure
Post-Flood Opportunities

Mitigation Opportunities

• Increase awareness of flood risk
• Encourage residents to build back safer and stronger
• Share low cost mitigation actions with property owners
• Distribute information on grant opportunities
• Capture high water marks
Obtaining Flood Insurance

• Flood Insurance is provided in the US by the federal government via the National Flood Insurance Program (NFIP), in two ways.
  – First, the government directly provides coverage for some properties.
  – Second, the government works in concert with around 90 private insurers who function as servicing contractors.

• For more information see: https://www.floodsmart.gov/floodsmart/

• DCED Flood Insurance Information (on Floodplain Maps and NFIP): http://www.pafloodmaps.com/Pages/default.aspx#.V6N9tSfD-po
Flood Insurance Information Resources

What NFIP related questions have you been asked?


Pennsylvania Emergency Management Agency
[https://www.pema.pa.gov/planningandpreparedness/floodplainmanagement/Pages/default.aspx](https://www.pema.pa.gov/planningandpreparedness/floodplainmanagement/Pages/default.aspx)

- [https://www.fema.gov/information-state-local-officials](https://www.fema.gov/information-state-local-officials)
  RA-FLOODPLAINMGTINS@pa.gov

FOR MUNICIPAL USE ONLY - Not Residents or Businesses

For general public information about the National Flood Insurance Program (NFIP):
Map specialists are available at the **FEMA Map Information eXchange (FMIX)** to assist customers. **FMIX** also connects stakeholders with a wide range of technical subject matter experts.

1-877-FEMA MAP  
(1-877-336-2627)  

FEMAMapSpecialist@riskmapcds.com  

Online Chat:  
www.floodmaps.fema.gov/fhm/fmx_main.html
Recently other Flood Insurance has appeared in the market

For additional information or questions about this insurance you can find additional information on the Pennsylvania Department of Insurance website at:

- https://www.insurance.pa.gov/Coverage/Pages/Flood.aspx