



# West Piedmont Planning District Commission Regional Hazard Mitigation Plan Update 2021 Patrick County (incl. Stuart) LPT Meeting #1

February 24, 2021

# Agenda

1. Purpose and Need for Hazard Mitigation Plan
  - Long Term Goals of Hazard Mitigation
2. Update on Hazard Mitigation Grant Programs
  - How Can the Plan be Used?
3. Hazards to Include in the Plan
4. Introduction to Hazard Mitigation Strategies and Actions
5. Components of the Planning Process
6. Data Review and Update Discussion



# Purpose and Need for a Plan Update

## Authority

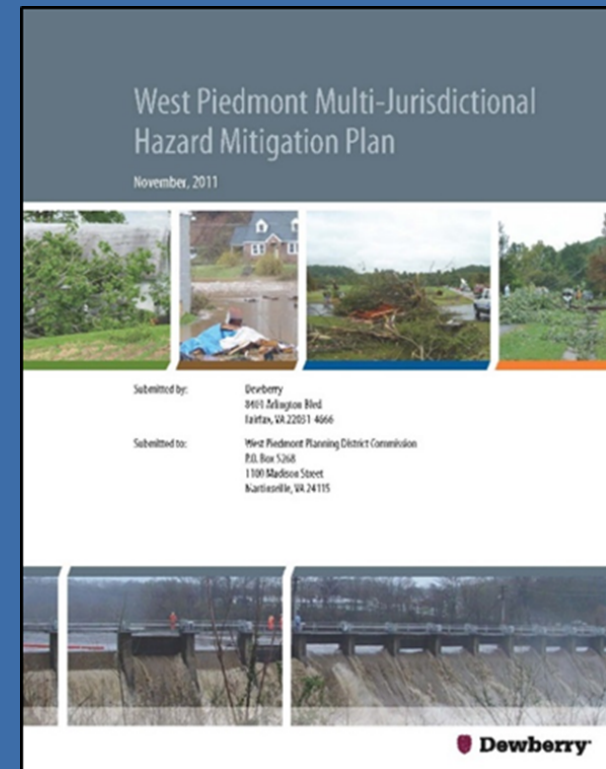
- Disaster Mitigation Act of 2000 (amendments to Stafford Act of 1988)

## Goal of Disaster Mitigation Act

- Encourage disaster preparedness
- Encourage hazard mitigation actions to reduce losses of life and property

## Status of WPPDC HM Plans

- Initial plan created in 2006 and updated through 2016
- Local plans are updated every five years
- The VA State HMP is on a similar 5-year cycle



# Purpose and Need for a Plan Update

## What is a natural hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.



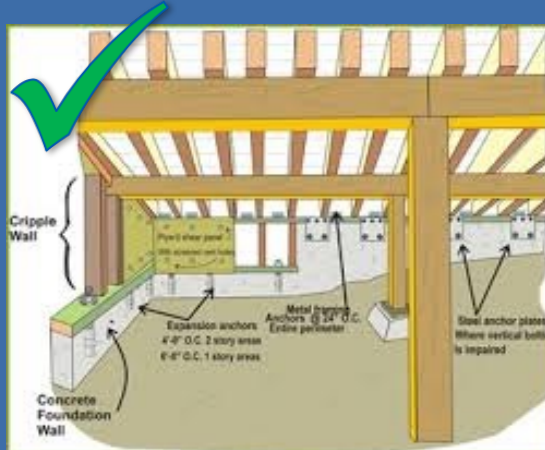


# What is Mitigation?

*Any sustainable action that will reduce or eliminate injury to citizens, damages to structures and allow continuity of critical society functions*



**Mitigation**  
Defensible Space for  
Wildfire Mitigation



**Mitigation**  
Earthquake Retrofit



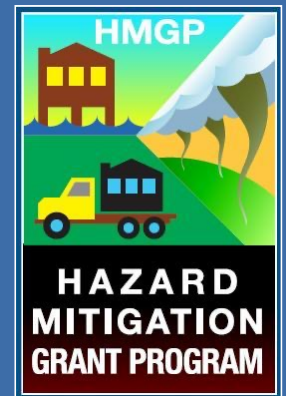
**Preparedness & Response**  
purchase of a police  
command vehicle

# Why a Hazard Mitigation Plan?

- Reduces or eliminates the need to respond
  - Lessening resource burden
- Creates resiliency and sustainability
- Promotes data sharing between different levels of government and academia
- Supports decision-making
- Disaster Mitigation Act of 2000
  - Certain Public Assistance (State Plans)
  - Hazard Mitigation Assistance Programs

# Hazard Mitigation Grants

- Local communities must have a FEMA-approved hazard mitigation plan in place to receive federal grant funds for hazard mitigation Projects
  - BRIC (Building Resilient Infrastructure and Communities)
  - HMGP (Hazard Mitigation Grant Program)
  - FMA (Flood Mitigation Assistance)
- Virginia has allocated its HMGP funds from TS Michael (2018-DR 4411-VA) and Hurricane Florence (2018 DR-4401-VA)
- Next opportunity for grant applications will be BRIC in 2021
- Other (non-FEMA) funding sources



# How Can the Plan Be Used?

Grants can be used for:

- Building acquisitions or elevations
- Culvert replacements
- Drainage projects
- Bank stabilization
- Infrastructure hardening
- Wind retrofits
- Seismic retrofits
- Snow load retrofits
- Standby power supplies for critical facilities
- And more

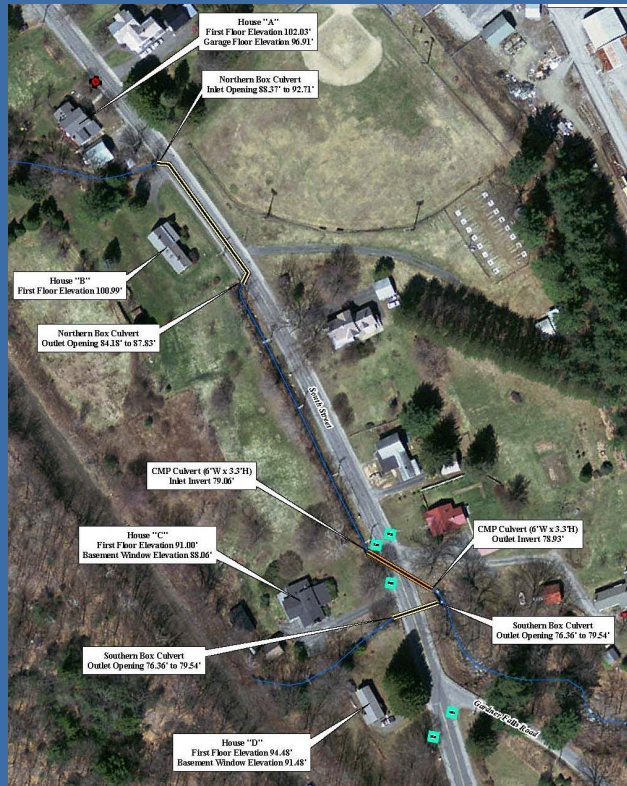


This home was acquired and demolished using a FEMA grant





# How Can the Plan be Used?



CULVERT REPLACEMENT FUNDED BY HMGP



Floyd 1999



Irene 2011

# Natural Hazards Included in the Plan

- Winter Storms
- Flooding
- Hurricane
- Tornadoes
- Drought
- Wildfires
- Landslide
- Earthquakes

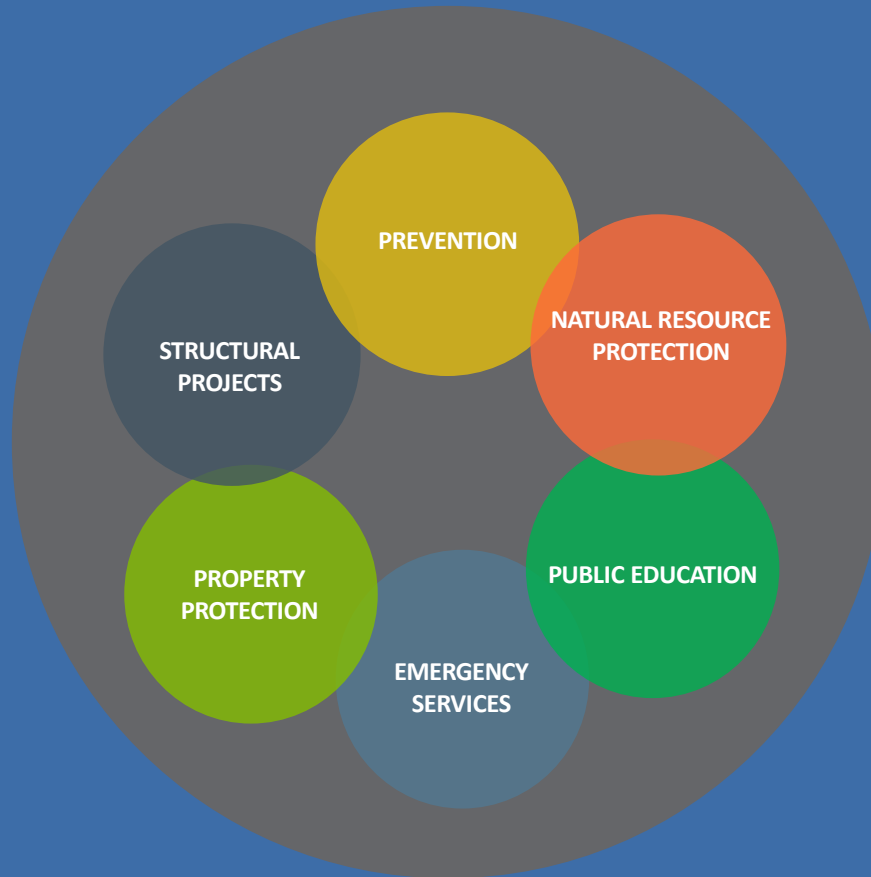
CLIMATE CHANGE



# Man-Made and Human-Caused Hazards Included in the Plan

- Dam Failure
- HVT Lines
- Organic and Inorganic Spills
- Pipeline Failure
- Agriterrorism

# Hazard Mitigation Strategies and Actions



Structural Project



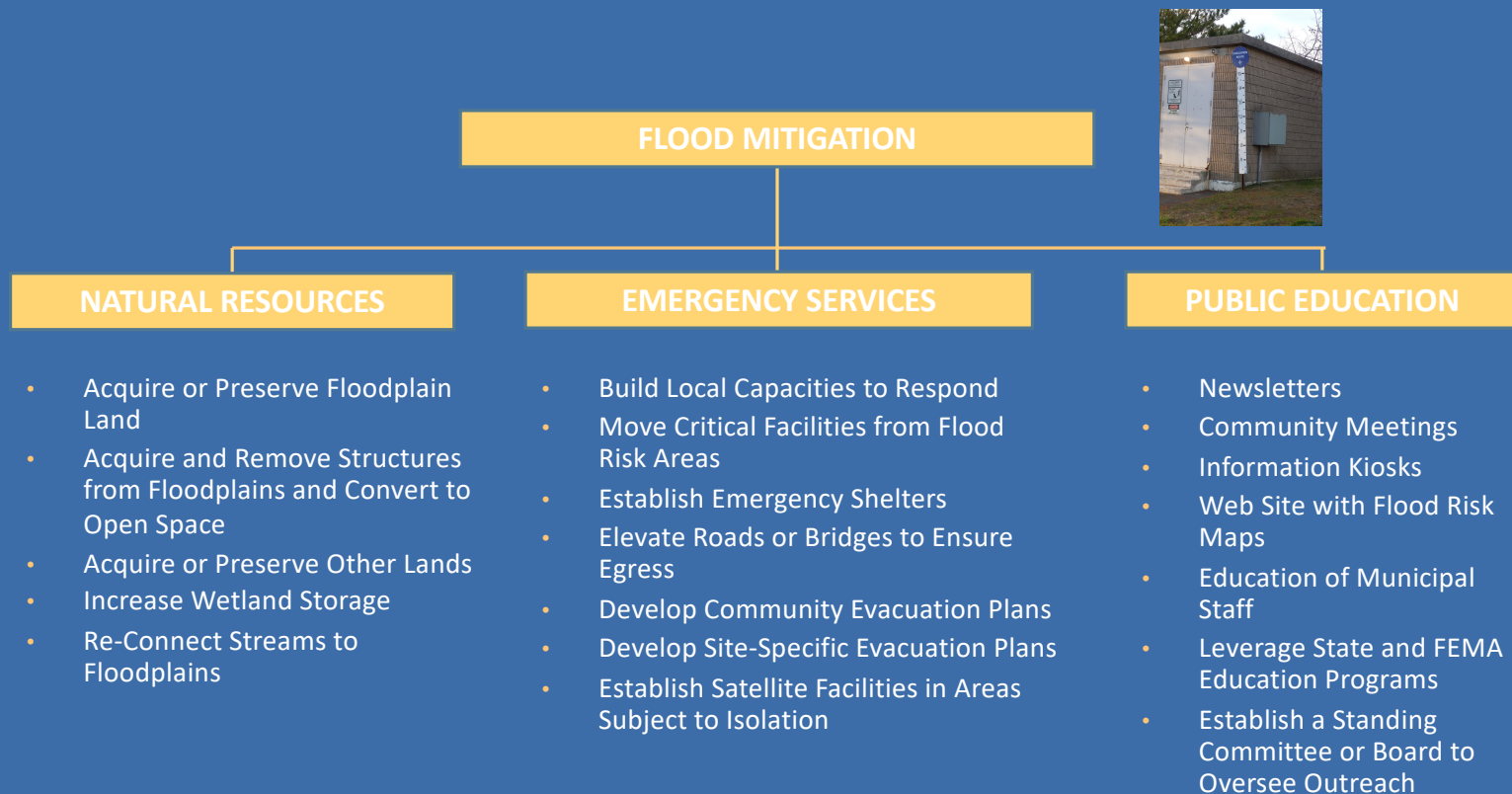
Property Protection



# Flood Mitigation Strategies



# Flood Mitigation Strategies



# Other Hazard Mitigation Strategies

- Strengthen or reinforce shelters and critical facilities
- Create backup critical facilities
- Bury utilities
- Harden utilities
- Expand and fund tree maintenance programs
- Snow removal plans and programs
- Shutters, load path, and roof projects
- Enhance fire suppression capabilities with dry hydrants, cisterns, etc.
- Bracing for potential earthquake damage
- Public education programs and resources



Hurricane Shutters



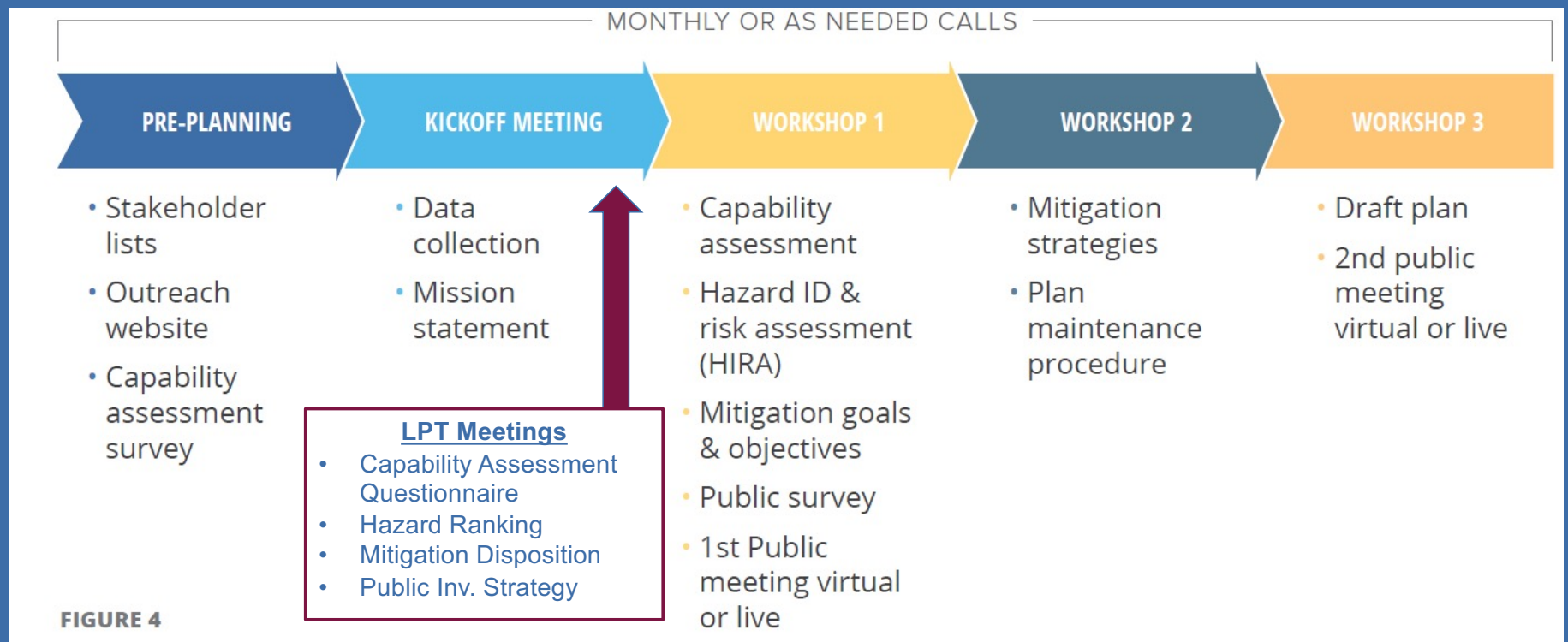
Dry Hydrants

# Plan Update Requirements

- Comprehensive planning process / foster relationships
  - Description of who is involved and how the plan is prepared
  - Established method for monitoring, maintaining and updating the plan
- Hazard Identification and Risk Assessment update
  - Hazard profiles, vulnerabilities, potential losses, development trends
- Focus on mitigation strategy and actions
  - Goals, progress, evaluation of actions, implementation plan
- Improve mitigation capabilities
  - Discussion of current policies, programs, and capabilities to support LHMPs and reduce risk statewide
- Approval by VDEM & FEMA and adoption every 5 years



# Planning Process



# Data Collection and Discussion

- Community Profile/Development Changes
- Critical Facilities
- Transportation and Infrastructure
- GIS Data (parcels, values, footprints, other)
- Capabilities
- Policies, Programs and Regulations
- Plans and Studies
- Events since last plan
- Hazard Ranking
- Mitigation Goals, Objectives and Strategy Disposition (time permitting)

New bridge in Vernon

# Walk Through Handout

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# Spare Slides

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# Hazard Ranking Criteria

Probability/History	Vulnerability	Maximum Threat (Geographic Area Affected)	Warning Time
<b>Unlikely</b> No documented occurrence with annual probability <0.01	<b>Negligible</b> 1 to 10% of people or property	<b>Isolated</b> < 5% of community impacted	<b>Extended</b> Three days or more
<b>Somewhat Likely</b> Infrequent occurrence with at least one documented event with annual probability between 0.5 and 0.01	<b>Limited</b> 10 to 25% of people or property	<b>Small</b> 5 to 25% of community impacted	<b>Limited</b> 2 days
<b>Likely</b> Frequent occurrence with at least 2 documented events with annual probability between 1 and 0.5	<b>Critical</b> 25 to 50% of people or property	<b>Medium</b> 25 to 50% of community impacted	<b>Minimal</b> 1 day
<b>Highly Likely</b> Common events with annual probability >1	<b>Catastrophic</b> >50% of people or property	<b>Large</b> >50% of community impacted	<b>No Notice</b> < 24 hours

# Goals and Objectives

**Goal 1: To protect persons and property, and reduce future damage and losses to the community**

Objective 1.1. Improve local warning capabilities.

Objective 1.2. Use planning and regulations to reduce risk.

Objective 1.3. Use property acquisition techniques to reduce exposure in the floodplain.

Objective 1.4: The West Piedmont Planning District Commission communities will support implementation of structural and non-structural mitigation activities to reduce exposure to natural and man-made hazards.

**Goal 2: Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to natural hazards.**

Objective 2.1. Use construction practices and other techniques to reduce vulnerability to natural hazards.

# Goals and Objectives

**Goal 3: Protect new and existing public and private infrastructure and facilities from the effects of hazards.**

Objective 3.1. Undertake actions to protect facilities (i.e., buildings) owned by the community.

Objective 3.2. Implement measures to protect utility systems from natural hazards.

Objective 3.3. Improve natural and manmade drainage systems to reduce flooding.

Objective 3.4. Identify and implement ways to reduce flooding of roadways.

**Goal 4: Ensure continued functionality of critical services**

Objective 4.1. Undertake actions to ensure continued power at critical community facilities.

Objective 4.2. Undertake activities to provide continuous water service.

Objective 4.3. Reduce amount of time that roads are closed after a natural hazard event.

# Goals and Objectives

**Goal 5: Enhance the capabilities and capacity of local government to lessen the impacts of future disasters**

Objective 5.1. Enhance or develop plans that improve the community's ability to respond to and recover from disaster.

Objective 5.2. Address training and staffing needs.

Objective 5.3. Improve data used for emergency management purposes.

**Goal 6: Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.**

Objective 6.1. Develop and implement programs that address manmade hazards.

Objective 6.2. Develop and implement programs that educate people and businesses about what they can do to prepare for natural hazards.

Objectives 6.3. Work with community partners to improve awareness of natural hazards.

Objective 6.4. Use the media to increase awareness of natural hazards.



# Goals and Objectives

**Goal 7: Promote hazard mitigation as a public value in recognition of its importance to the health, safety, and welfare of the population**

Objective 7.1. Undertake activities that recognize the importance of hazard mitigation as crucial to the long-term viability of the community and economic resiliency.

**Goal 8: Increase use of existing and new technology to enhance disaster mitigation, preparedness, response and recovery**

Objective 8.1. Use mapping to improve awareness of potential hazards.

Objective 8.2. Use mapping to improve response and recovery after hazards occur.

Objective 8.3. Continue to expand capabilities of existing technological tools for the purposes of warning and response.

**Goal 9: Promote regional approaches to emergency management**

Objective 9.1. Develop memoranda of understanding, mutual aid agreements, and other mechanisms for collaborative response to disasters.

# Project Schedule

