

# Rappahannock-Rapidan Regional Hazard Mitigation Plan Update

Steering Committee Meeting  
May 23, 2018



Rappahannock-Rapidan  
REGIONAL COMMISSION

# Meeting Agenda

- Introductions
- Plan Update Status Report
  - Sections in Draft Form
  - Status of Local Information Requests
- Vulnerability Assessment Overview: Flood & Wildfire Hazards
- High-Level Review of Draft Plan Sections
- Next Steps & Final Requests to Localities

# Hazard Mitigation Overview

- Hazard Mitigation Plan Mandate
  - Primary goal is to identify strategies and implementation approaches to address risks and vulnerabilities that impact jurisdiction(s) in order to reduce loss of life and property related to natural disasters
  - Adoption ensures jurisdiction is eligible for funding via Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) sources available from FEMA
  - Five-Year Review and Revision requirement in order to maintain eligibility
  - RRRC provides technical assistance for Hazard Mitigation in the region, to include administering/managing the plan update process
  - Localities committed to committee participation, data review and revision, and responding to local information requests via signed MOUs

# Plan Update Process to Date

- March 29, 2017: Kickoff Meeting
  - Local data requests for GIS, Critical Facility Review, Mitigation Strategy Status Report
  - RRRC Staff Complete Initial Revisions to Hazard Identification, Historical Hazards, Hazard Analysis sections
- August 28, 2017: Steering Committee Meeting
  - Review of Hazard History
  - Comparison of Regional Hazard Impacts to State Hazard Mitigation Plan
  - RRRC Staff Completes Vulnerability Assessment updates via HAZUS software and historical data compilation, GIS mapping updates for relevant hazards with new data, as available

# Plan Update Process to Date

- February to April 2018: Local Contact Meetings
  - Review Mitigation Strategies and Discuss Recommended Additions related to new FIRMs in development for all jurisdictions by FEMA Region III, Incorporation of Hazard Mitigation planning with other local plans, etc.
  - Request Information on Capability Assessment updates
  - Opportunity to Identify Additional Unique Hazards for each locality

# Plan Update Status

- Plan remains in Draft Status
- Sections 1 through 6 & 9 are in Final Draft form
  - I: Introduction & Background
  - II: Planning Process
  - III: Regional Profile
  - IV: Hazard Identification
  - V: Hazard Analysis
  - VI: Vulnerability Analysis
  - IX: Plan Maintenance

# Plan Update Status

- Plan remains in Draft Status
- Section 7 and 8 are in Draft form, awaiting final information from localities
  - VII: Capability Assessment
  - VIII: Mitigation Strategies – Status & Updates
- Appendix Documents to Include:
  - Meeting Agendas/Presentations
  - Locality Responses for Capability Assessment, Mitigation Strategies, Unique Hazards
  - Community Rating System *What-If* Scenarios
  - Dam Inundation Zone maps
  - Public Input Documentation (Website Posts, Newsletters, Social Media, Flyers, etc.)

# Vulnerability Assessment Overview

- Purpose: Describe the community's vulnerability to identified hazards, including summary of the hazard and impact on the community
  - Describe in terms of existing and future infrastructure within hazard areas, estimate of potential losses due to potential impact of hazard, and general description of land uses and development trends in relation to hazard impacts
- Qualitative Review
  - Existing Plan Ranked Hazards in terms of likelihood, spatial extent, and potential impact
  - Committee Reviewed and Updated in 2017
- Quantitative Review
  - HAZUS Modeling for Flood, Earthquake, Hurricane hazards
  - Historical Impacts for other identified hazards (as available)



# Vulnerability Assessment Overview

- RRRC Staff Combined two rankings into Estimated Risk Level

Hazard	2012 Plan	Steering Committee Review (2017)	Quantitative Analysis (2017)	As Proposed in 2018 Plan
Dam Failure	Low	Low (Locally Higher for Town of Culpeper)	Low/Unknown	Low
Drought	Medium	Medium	High	Medium
Earthquake	Low	Low (Locally Higher in Culpeper)	Medium	Low
Erosion & Landslide	Low	Low	Low/Unknown	Low
Flood	High	High	High	High
Hurricane/Tropical Storm (Non-Rotational Wind)	High	Medium	Medium	Medium
Severe Thunderstorm/Tornado	Medium	High	Medium	High
Sinkholes/Karst	Low	Low	Low/Unknown	Low
Wildfire	Medium	Medium (Locally Higher in Madison/Rappahannock)	Medium	Medium
Winter Storm	High	High	Medium	High

# Unique Hazards

- Opportunity to Identify hazards that may impact your locality to a greater degree than the overall regional hazard ranking
  - Existing Locally Identified Hazards
    - Wildfire: Madison & Rappahannock counties identify wildfire as a high-risk hazard for their jurisdictions due to western boundary with Shenandoah National Park
    - Earthquake: Culpeper County identifies earthquake as a high-risk hazard in response to the 2011 earthquake and aftershocks
    - Dam Failure: Town of Culpeper identifies dam failure as a high-risk hazard due to the location of dams at Lake Pelham and Mountain Run Lake and the potentially-impacted populations, property, and critical facilities
    - Haz Mat/Railroad: Town of Orange identifies the railroad and potential transport of hazard materials as a high-risk hazard impacting the Town.
- Additional Unique Hazards Identified
  - Fauquier County & Town of Remington: Railroad/Transportation Infrastructure/Hazardous Materials

# Other Significant Changes from Adopted Plan

- Data Updates
  - Section 3 through 6: Updated Demographics, Land Use/Land Cover information
  - Additional detail on growth trends that have changed since the initial plan was developed in the mid-2000's
- Sections 4 & 5: Hazard Identification & Analysis
  - All hazards reviewed for historic events and economic impacts
  - Section 5 includes references to the 2012 Derecho and recent trends of severe thunderstorms/microbursts, etc.

# Other Significant Changes from Adopted Plan

- Section 6: Vulnerability Analysis
  - HAZUS Assessment as referenced
    - Previous versions of HAZUS software utilized 2000 Census data
    - Updated version includes 2010 Census data → Results in changes to the Quantitative loss estimates in the Vulnerability Assessment
  - Non-HAZUS GIS Analysis for Flood Loss Estimates
    - Local GIS data availability and use continues to be a positive factor for Hazard Mitigation overall

# Capability Assessment Overview

- Measures and Assesses Local/Regional Capacity to Implement Mitigation Strategies
  - Planning/Regulatory
  - Administrative/Technical
  - Fiscal
  - Education & Outreach
- Overall capability varies due to the relative size of jurisdictions and services provided (Town versus County, shared services, etc.)
- Overall goal is to tie local/regional capacity to achievable mitigation strategies

# Capability Assessment Changes

- Locally-identified plan updates
  - Emergency Operations Plans
  - Comprehensive Plans
  - Recommended goal of incorporating Hazard Mitigation plan references into other local plans as future updates allow
- State Uniform Code requirements
  - Initial plan was heavily reliant on local building/fire codes.
  - Now reference to Statewide codes and local enforcement requirements
- In general, format will remain similar but will have additional details from Capability Worksheets completed by local staff

# Mitigation Strategy Updates

- Requested Input from local staff on progress on existing strategies and any newly-identified strategies or ongoing projects that may be relevant to the Hazard Mitigation plan
- Ongoing FIRM updates are one item that should be added to each locality's strategies (or as an update to an existing strategy)
  - Need for public outreach and education given changes to the flood zone designations
- Structural projects are not likely a great fit in this region, given lack of repetitive loss properties, but should still be identified as a strategy

# Mitigation Strategy Updates

- Existing projects identified in local Capital Improvement Plans
- Reference VDEM presentation from March 2017 for project possibilities
  - Flood Diversion
  - Floodplain & Stream Restoration
  - Soil Stabilization (Erosion/Landslide Hazard) – Would need historical trend and evidence of subsidence
  - Infrastructure Retrofits
- 5% Initiative Projects (no cost-benefit requirement)
  - Generators/Quick Connects
  - Public Awareness/Education
  - Identification/Mapping Equipment for Implementation
  - Alert & Warning Systems



# Commonwealth Priorities

- Strategic level projects that have multiple benefits
  - Climate resilience mitigation activities
  - Large scale projects with whole community impacts
  - Holistic mitigation measures (protects multiple hazards)
  - Infrastructure protection projects
  - Alert and warning projects
  - State level projects
  - Improved data in mitigation plans to drive project development



# Next Steps

- May 23 to June 1, 2018
  - Finalize Capability Assessments and Mitigation Strategies
  - Release of Draft Plan for local/public review
- June: Public Review Period
  - Request for Localities to share via Websites, Newsletters, Social Media
    - Please let RRRRC staff know when items are shared with the Public for documentation and inclusion in the plan appendix
    - Any comments from local staff and/or public to be reviewed and incorporated into plan, as necessary
- July: Submission to VDEM & FEMA for review
  - Incorporate any requested changes or clarifications from VDEM & FEMA
  - Conditional Approval from FEMA: *September/October (Tentative)*
- Following Conditional Approval from FEMA, Localities may begin adoption process via Resolution
  - RRRRC staff can provide Summary Memo documents and/or be present at Board/Council meetings as needed

Thank you for your efforts to date!

Rappahannock-Rapidan Regional Commission

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Plan webpage: <http://www.rrregion.org/mitigation.html>