



West Piedmont Hazard Mitigation Plan – 2021 Update

MAC Draft Plan Review

August 5, 2021 / Virtual



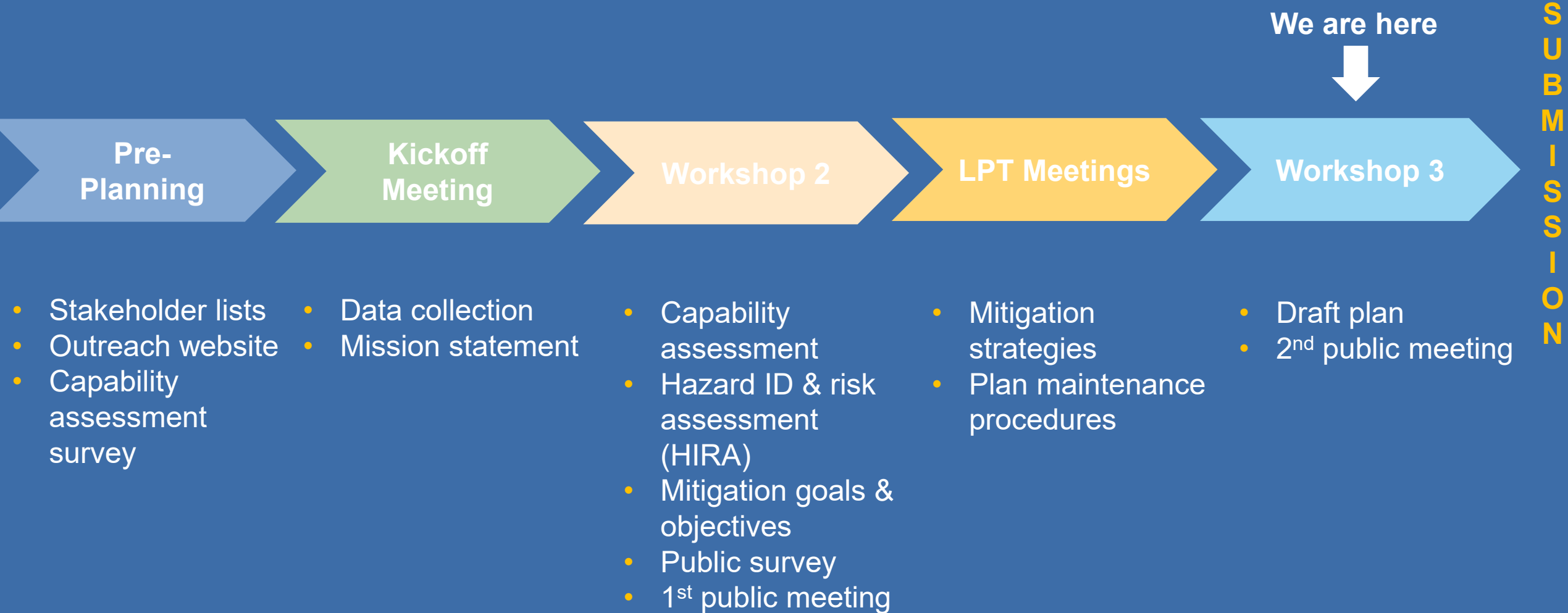
AGENDA

- Introduction
 - Submission Timeline
- Overview of the Draft Plan
 - Organization
 - Changes
- Cover Photo Update
- Mitigation Strategy Ranking
- Open Discussion
- Next Steps



Danville, VA

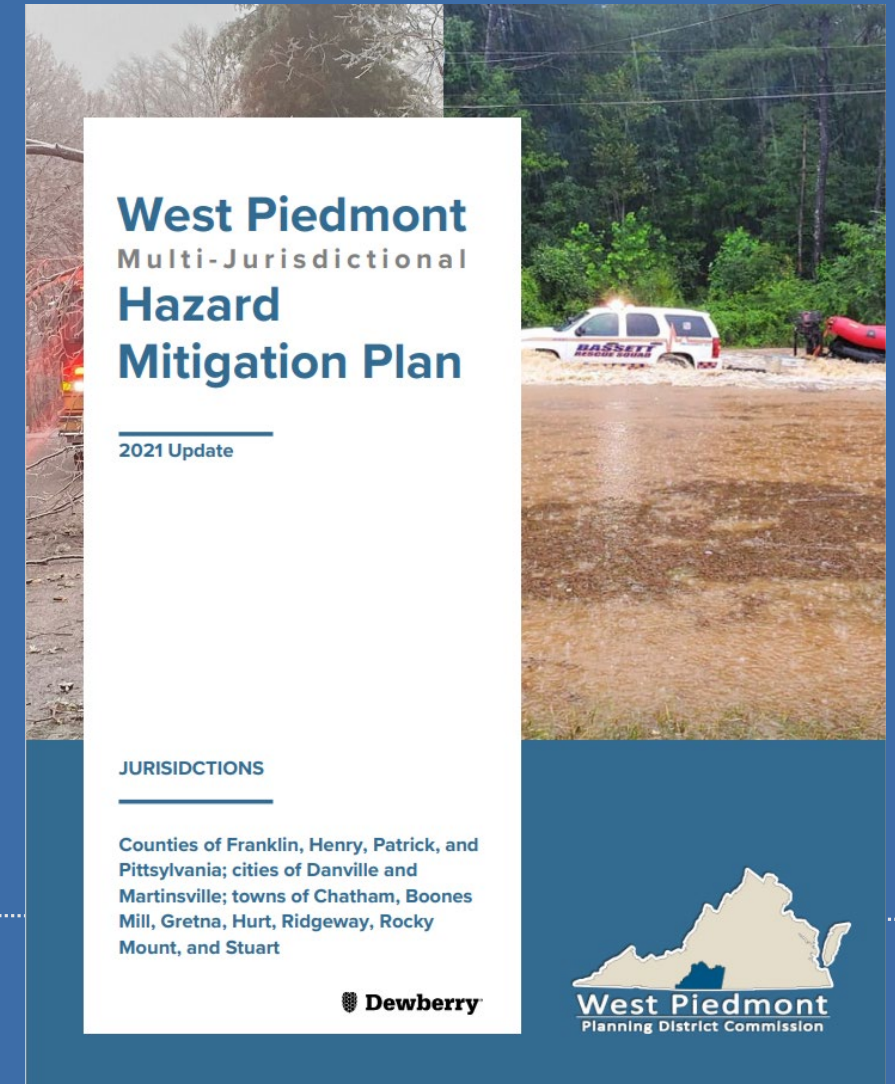
Project Timeline



	D '20	J '21	F	M	A	M	J	J	A	S	O	N	D
HM Plan Milestone	Kick-Off						Draft #1	Draft #2	Address Comments / Revise			Final	
Review 2020 HMP													
Data Collection													
HIRA									R E V I S E				
Capability Assessment													
Revise Goals + Objectives													
Mitigation Strategy Development													
MAC Review / Input	MAC #1				MAC #2				MAC #3				
LPT Review / Input			LPT #1			LPT #2							
Public Engagement						Mtg #1			Mtg #2				
VDEM Review / Approval									✦				
FEMA Review / Approval													
Plan Adoption, Approval Letters, Plan Distribution													

Overview of Draft 2021 Hazard Mitigation Plan

Organization & Changes



Plan Sections

1. Executive Summary
 2. Introduction
 3. Planning Process
 4. Community Profile
 5. Hazard Identification and Risk Assessment
 6. Capability Assessment
 7. Mitigation Strategy
 8. Plan Monitoring and Maintenance Procedures
 9. References
 10. Appendices (Separate Document)
- Updated contextual and technical data throughout*

2021 Changes to the Hazard ID and Risk Assessment

- **Updated hazard ranking** incorporating regional feedback
- **New analyses**, including:
 - HAZUS used for flood risk assessment
 - Dam inundation and pluvial flooding
 - Severe Weather included as new hazard section
- **New maps** based on updated data
- **Climate change impacts** in each hazard profile
- **Consequence Analysis** for human-caused hazards

		Hazard Type	2016 Priority Level	2021 Priority Level
Natural		Flooding (with Shoreline Erosion)	High	High (Top)
		→ Pluvial Flooding	Not Addressed	High (Top)
		Winter Storms	High	High
		Wind (Hurricane, Thunderstorms – 2016 only)	Medium-High	Medium-High
		Severe Weather	Addressed in “Wind”	Medium-High
		Drought	Medium-Low	Medium-Low
		Wildfire	Medium	Medium
		Tornado	Medium	Medium-High
		Earthquake	Low	Medium-Low
		Landslide	Low	Low
Human-Caused		Dams (Impoundment Failure)	Medium-Low	Medium-Low
		High Voltage Transmission (HVT) Lines	Medium	Medium
		Organic/Inorganic Spills	Medium-High	Medium-High
		Pipeline Failure	Medium	Medium
		Agriterrorism	Medium-Low	Medium-Low

Hazard Ranking Priority Comparison

Goal 1 + Objectives

Reduce future damages, losses, and risks to the community by **protecting new and existing built infrastructure** (homes, businesses, utility infrastructure, critical facilities, and other property) from the effects of hazards.

Objective 1



Implement cost-effective, **physical hazard mitigation projects** at the regional and local level to reduce the exposure and vulnerability of people and property.

Goal 2 + Objectives

Ensure local ability to mitigate, prepare for, respond to, and recover from hazard impacts by **enhancing the capabilities and capacities of local governments** through regional partnership; the efficient use of new and existing technology; and the implementation of hazard mitigation policies, regulation and planning.

Objective 1



Integrate hazard mitigation principles into new and existing government **planning, policy, regulation** and **actions** to increase the resilience of public infrastructure and services and protect future development.

Objective 2



Utilize **mapping, drones, trainings, data**, and other **technological tools** to improve the capability and capacity of local governments before, during, and after a hazard occurrence.

Goal 3 + Objectives

Implement **education and outreach programs and campaigns** to increase public awareness of hazard risks; promote hazard mitigation's importance to health, safety, and welfare; and enhance public engagement.

Objective 1



Develop programs that help the **public carry out actionable activities** they can implement in the near- and long-term to mitigate and prepare for hazards.

Objective 2



Implement **education and awareness campaigns** through **social media and partnerships** with local media and businesses that educate the public on what risks hazards pose to them and how they (and their community) can increase resiliency better respond to those hazards.

Plan Maintenance

- MAC Develops **implementation evaluation criteria**
- Jurisdictions provide **annual updates** on hazard events, mitigation actions, public involvement, timelines, and changes in funding options
 - **Corrective action plans** will be used as needed for mitigation strategies that were not completed
- PDC will provide **annual progress report** and provide feedback to the MAC on progress
 - Will be posted publicly on the hazard mitigation planning webpage



Cover Photo Update

Are there other photos you want to use?

Mitigation Strategy Ranking

Approval of Process and Ranking Activity

STAPLE/E Criteria

STAPLE/E Review and Selection Criteria for Alternatives

Social

- Is the proposed action socially acceptable to the community(s)?
- Are there equity issues involved that would mean that one segment of a community is treated unfairly?
- Will the action cause social disruption?

Technical

- Will the proposed action work?
- Will it create more problems than it solves?
- Does it solve a problem or only a symptom?
- Is it the most useful action in light of other community(s) goals?

STAPLE/E Criteria

Administrative

- Can the community(s) implement the action?
- Is there someone to coordinate and lead the effort?
- Is there sufficient funding, staff, and technical support available?
- Are there ongoing administrative requirements that need to be met?

Political

- Is the action politically acceptable?
- Is there public support both to implement and to maintain the project?

STAPLE/E Criteria

Legal

- Is the community(s) authorized to implement the proposed action? Is there a clear legal basis or precedent for this activity?
- Are there legal side effects? Could the activity be construed as a taking?
- Is the proposed action allowed by a comprehensive plan, or must a comprehensive plan be amended to allow the proposed action?
- Will the community(s) be liable for action or lack of action?
- Will the activity be challenged?

STAPLE/E Criteria

Economic

- What are the costs and benefits of this action?
- Do the benefits exceed the costs?
- Are initial, maintenance, and administrative costs taken into account?
- Has funding been secured for the proposed action? If not, what are the potential funding sources (public, non-profit, and private)?
- How will this action affect the fiscal capability of the community(s)?
- What burden will this action place on the tax base or local economy?
- What are the budget and revenue effects of this activity?
- Does the action contribute to other community goals, such as capital improvements or economic development?
- What benefits will the action provide?

STAPLE/E Criteria

Environmental

- How will the action affect the environment?
- Will the action need environmental regulatory approvals?
- Will it meet local and state regulatory requirements?
- Are endangered or threatened species likely to be affected?

STAPLE/E Prioritization – Rank as High?

STAPLEE Criteria	S (Social)	T (Technical)	A (Administrative)	P (Political)	L (Legal)	E (Economic)	E (Environmental)
Alternative Actions:							
WPPDC: Conduct a regional study by 2025 to inspect and assess stormwater and sewer system capacity for major rain events and identify potential mitigation actions.	+	+	-	+	+	-	+
Danville: Coordinate with VDOT to complete at least one flood mitigation action per year on a roadway that, if obstructed, would prevent vulnerable populations from evacuating and/or reaching safety. Prioritize actions addressing known problem areas and based on previous study findings.	+	+	-	+	+	+	+
Pittsylvania County: Conduct mitigation projects that will result in protection of public or private property from natural hazards (see plan for list of suggested projects).	+	+	-	+	+	-	+ / -

STAPLE/E Prioritization – Rank as High?

STAPLEE Criteria	S (Social)	T (Technical)	A (Administrative)	P (Political)	L (Legal)	E (Economic)	E (Environmental)
Alternative Actions:							
Martinsville: Implement at least one flood/erosion mitigation strategy for the intersection of Indian Trail, Cherokee Court, and Sam Lions Trail.	+	+	+	+	+	-	+
Hurt: Enforce and enhance zoning and building codes to prevent/control construction within the floodplain.	-	+	+	+	-	+	+
Gretna: Identify and protect at least one critical aquifer recharge zone in a high-risk area per year	+	+	-	+	+	+	+
Chatham: Upgrade water systems to bring additional water sources on-line, to link community systems to provide redundancy, and to provide additional areas with non-well water.	+	+	-	+	+	+	-

STAPLE/E Prioritization – Rank as High?

STAPLEE Criteria	S (Social)	T (Technical)	A (Administrative)	P (Political)	L (Legal)	E (Economic)	E (Environmental)
Alternative Actions:							
Henry County: Implement a channel maintenance program consisting of routine inspections and subsequent debris and sediment removal to ensure free flow of water in local streams and watercourses by 2023. Include detections and prevention of discharges into stormwater and sewer systems from home footing drains, downspouts, or sewer pumps. Identify funding opportunities including partnering with local non-governmental or volunteer organization	+	+	+	+	+	+	+
Ridgeway: Develop plan for Norfolk Southern Railroad Bridge to routinely monitor underlying creek for debris and sediment removal to reduce risk for overflows	+	-	-	+	+	+	+

STAPLE/E Prioritization – Rank as High?

STAPLEE Criteria	S (Social)	T (Technical)	A (Administrative)	P (Political)	L (Legal)	E (Economic)	E (Environmental)
Alternative Actions:							
Patrick County: Continue providing critical public facilities with (1) necessary electrical hook-up, wiring, and switches to allow readily accessible connections and (2) backup generators, communications, and/or vehicles to ensure continued functionality after disaster. Apply for additional funding for schools, fire stations, EMS and other critical facilities.	+	-	+	+	+	+	+
Stuart: Expand broadband capabilities to improve emergency communications to rural areas and increase Internet access.	+	+	+	+	+	-	+

STAPLE/E Prioritization – Rank as High?

STAPLEE Criteria	S (Social)	T (Technical)	A (Administrative)	P (Political)	L (Legal)	E (Economic)	E (Environmental)
Alternative Actions:							
Franklin County: Continue increasing drainage or absorption capacities of the biggest stormwater flooding problem areas with detention and retention basins, relief drains, spillways, drain widening/dredging or rerouting, logjam and debris removal, extra culverts, bridge modification, dike setbacks, flood gates and pumps, or channel redirection.	+	+	+	+	+	-	-
Boones Mill: Submit an FMA, HMGP, or BRIC application to address the flooding from high intensity rainfall events in downtown Boones Mill.	+	+	-	+	+	-	+
Rocky Mount: Complete a flood mitigation action for Rocky Mount.	+	+	-	+	+	-	+



Feedback on Draft Plan

Questions & Comments from the Public

Next Steps

1. **Review the Draft Plan** at <http://www.wppdc.org/hazard-mitigation-plan>
2. **Send feedback** on the draft plan to jpayne@dewberry.com by **8/11**.

Submission to VDEM will happen this month, and submission to FEMA will happen once we address any comments from VDEM.

Final hazard mitigation plan expected adoption – **Late 2021**

BRIC grant opportunity shortly after adoption