



APPENDIX A. MEETING DOCUMENTATION

Appendix A includes meeting agendas, sign-in sheets, and meeting notes (where applicable and available) for meetings convened during the development of the State of West Virginia Hazard Mitigation Plan.



MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) Steering Committee Kickoff Meeting		
Date	July 26, 2022	Time	10:00 a.m. – 12:00 p.m.
Location	Microsoft Teams Webinar		
Attendees	Gabriel Reed, State Hazard Mitigation Officer, West Virginia Emergency Management Division (WV EMD)		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WV EMD		
	Brian Penix, Hazard Mitigation Project Officer, WV EMD		
	Nuvia Villamizar, GIS Manager, WV EMD		
	Al Whitaker, Lead Planning Officer, WV EMD		
	Sherry Risk, Community Development Block Grant (CDBG) Program Manager, West Virginia Department of Economic Development		
	Kurt Donaldson, Senior Project Manager, West Virginia Geographic Information Systems (GIS) Technical Center		
	Maneesh Sharma, GIS Project Lead, West Virginia GIS Technical Center		
	Eric Hopkins, Lead GIS Specialist, West Virginia GIS Technical Center		
	Robert Martin, Director, West Virginia State Resiliency Office		
	Ed Martin, Deputy Director, West Virginia State Resiliency Office		
	Holly Quentrill, Administrative Assistant, West Virginia State Resiliency Office		
	Carla Dent, Administrative Staff, Region 8 Planning and Development Council		
	Mike Paprocki, Executive Director, Brooke-Hancock Regional Planning and Development Council (Region 11)		
	Ray Perry, Floodplain Administrator, Logan County; Chair, West Virginia Floodplain Management Association		
	Rachel Snavelly, Executive Director, The Eastern Panhandle Planning and Development Council (Region 9)		
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, Federal Emergency Management Agency (FEMA)		
	Tony Subbio, Project Manager, Tetra Tech		
	JaLeesa Tate, Deputy Project Manager, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the Steering Committee Kickoff Meeting.

Welcome and Introductions

Mr. Reed and Mr. Subbio welcomed attendees to the meeting. Attendees introduced themselves and identified the following areas of concern for the HMP update:

- Ms. Risk stated that the CDBG-Mitigation grant is funding updates of the Regions 1 through 5 HMPs, and that information in the regional plans needs to be rolled up to the state level.



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- Ms. Garnett stated that the Region 1 HMP is approvable pending adoption, FEMA is currently reviewing the updated Region 4 HMP, and the Region 9 plan was recently updated and approved. She stated that half of the other regional plans will be submitted to FEMA by the end of the year, and the other half are pursuing funding for updates.
- Mr. Penix stated that the “Total Exposure in Floodplain (TEIF)” and “Total Exposure in Landslides (TEIL)” tools must be incorporated into the analysis performed for the HMP update.

Project Objectives

Mr. Subbio reviewed the following objectives of the HMP update project:

- The state will have a fully approved, implementable HMP by September 15, 2023.
- Maintain the state’s eligibility to apply for FEMA Hazard Mitigation Assistance funding.
- The HMP will document strategies for lowering overall risk and vulnerability across the state.

Ms. Garnett stated that the state’s Flood Protection Plan is currently being updated. Mr. Ed Martin elaborated that the existing 2004 document is being reviewed, and the plan will be updated next year. Though the plan is aging, much of the information is still pertinent, and several issues identified in the plan were not yet addressed.

Planning Process

Mr. Subbio led the group through a description of the planning process. The list below summarizes points of discussion.

- Applicable Regulations and Standards
 - Mr. Subbio stated that the WV HMP will be updated to meet the requirements of the State Mitigation Planning Policy Guide (released April 2022 and effective April 2023), Emergency Management Accreditation Program (EMAP) standards, and the High Hazard Potential Dam (HHPD) grant program.
 - Ms. Garnett stated that all of the FEMA Region III states, except the State of Maryland, will be submitting their HMPs for review soon, so FEMA review of the plan may be delayed because of the workload.
 - Mr. Ed Martin stated that the Conservation Agency has 170 dams and the agency has GIS files of the inundation areas for these dams as well as GIS files for U.S. Army Corps of Engineers (USACE) dams. Mr. Penix stated that he stays in contact with the staff of the Dam Safety Program. Mr. Penix also stated that there are problems with coal impoundments and dams maintained by the Natural Resource Conservation Service and USACE. Mr. Reed stated that Mr. Whitaker is working on revisions to the Dam Safety Plan. Mr. Penix stated that he will send the draft to Mr. Subbio. Ms. Garnett reported that the 2019 amendment to the WV HMP does not meet HHPD requirements.
- State Planning Team
 - Mr. Subbio reviewed a list of agencies that were involved in the previous planning process, organized by the sectors defined in the State Mitigation Planning Policy Guide. He pointed out that there may be some overlap, and that a single agency may be categorized under more than one sector.
 - The table below identifies the organizations that were included in the 2018 planning process and the organizations identified to be added to the State Planning Team.



MEETING NOTES

Sector	Involved in the 2018 Planning Process	To Add to the 2023 Planning Process
Emergency Management	<ul style="list-style-type: none"> EMD Division of Homeland Security State Fire Marshal Non-Governmental (VOAD, American Red Cross, Salvation Army) Federal (FEMA, NOAA, USACE) WV Floodplain Management Association 	<ul style="list-style-type: none"> State Emergency Management Council Mine Health and Safety State Historic Preservation Office
Economic Development	<ul style="list-style-type: none"> Board of Risk and Insurance Management Dept. of Commerce/State Resilience Office Geologic and Economic Survey 	<ul style="list-style-type: none"> West Virginia Infrastructure and Jobs Development Council West Virginia Department of Economic Development's Office of Broadband Development Appalachian Regional Commission Local economic development authorities U.S. Economic Development Administration program managers
Housing, Food, Water, Shelter	<ul style="list-style-type: none"> Dept. of Agriculture Education Housing Development Fund 	<ul style="list-style-type: none"> Homeless shelter service providers West Virginia VOAD
Health and Social Services	<ul style="list-style-type: none"> Dept. of Health and Human Resources (DHHR) 	<ul style="list-style-type: none"> Office of Epidemiology and Prevention Services
Infrastructure	<ul style="list-style-type: none"> Department of Transportation Intelligence Fusion Center Public Service Commission 	<ul style="list-style-type: none"> Major power companies Conservation Agency (for dam expertise)
Natural and Cultural Resources	<ul style="list-style-type: none"> Conservation Agency Environmental Protection Division of Forestry Division of Natural Resources Geologic and Economic Survey 	<ul style="list-style-type: none"> State Historic Preservation Office U.S. Fish and Wildlife National Park Service
Land Use and Development	<ul style="list-style-type: none"> Regional Planning and Development Councils 	<ul style="list-style-type: none"> State Fire Commission (for building code expertise) WV Department of Economic Development Community Advancement and Development Office



MEETING NOTES

- The following organizations will be added to the State Planning Team to leverage their expertise [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- The following organizations will be added to the State Planning Team to leverage their expertise on equity and social vulnerability:
 - West Virginia Department of Arts, Culture & History
 - Herbert Henderson Office of Minority Affairs
 - Community advocacy organizations
- Mr. Reed will identify a point of contact in the Secretary of Economic Development's office to coordinate economic development sector agency involvement.
- Mr. Reed will send a list of non-profit organizations to Mr. Subbio to be included in the State Planning Team.
- Mr. Penix will obtain contact information for the four major power companies and for a group he is working with regarding microgrids.
- Ms. Risk will identify staff from the Community Advancement and Development Office.
- Ms. Risk will provide contact information for the homeless shelter service providers.
- State Assets
 - Mr. Donaldson pointed out that the West Virginia Board of Risk and Insurance Management (BRIM) has a database of state facilities.
 - Ms. Villamizar and Mr. Donaldson will serve as the points of contact for GIS data.
- Hazards of Concern
 - Subsidence and landslides, which were profiled together in the 2018 HMP, will be separated into their own hazard profiles.
 - Drought and extreme temperatures will be separated into their own hazard profiles and the extreme temperatures hazard profile will address extreme hot and extreme cold.
 - Dam and levee failures will be separated into their own hazard profiles.
 - Pandemic will be added as a hazard of concern.
 - Hazardous materials incidents will be added.
 - Utility failure will be added.
 - Ms. Risk requested that nuclear power plant incidents be added because of the state's vulnerability to incidents at the Beaver Valley Power Station in Pennsylvania.
 - Ms. Garnett asked if the group wished to include radon exposure and reviewed the full set of hazards that the Commonwealth of Pennsylvania includes in its HMP.



MEETING NOTES

- Attendees agreed to table the decision on the final list of hazards of concern and instead include it in an email conversation following the meeting.
- [REDACTED]
 - [REDACTED]
 - [REDACTED]
- Focus on Social and Cultural Equity
 - Ms. Tate summarized Tetra Tech's approach for addressing social and cultural equity in the planning process and in the plan.
 - Tetra Tech will identify areas where technical solutions to mitigate hazards may not be viable because of the status of communications infrastructure.
- Outreach
 - Mr. Subbio described the outreach methods that will be used during the planning process, including stakeholder surveys, public meetings, an online mapping survey tool for users to identify problems and problem areas in the state, and developing a StoryMap website.
 - The StoryMap website will be built under the state's account. Ms. Villamizar will coordinate with Tetra Tech's GIS team on developing the StoryMap.
- Ms. Garnett reported that, from FEMA's perspective, there were no additional issues to address in the planning process, but that she would speak with Ms. Mari Radford about it.

Schedule

Mr. Subbio reviewed the project schedule with the Steering Committee. He stated that the draft plan will be submitted to FEMA in mid-May 2023 to allow for FEMA review, adoption, and formal approval by September 15, 2023.

The State Planning Team Kickoff Meeting will be held during the week of September 12-16, 2022.

Ms. Garnett requested that calendar appointments be sent for planning meetings, instead of simply posting the meeting to the project website. This will help garner participation from the State Planning Team.

Data and Document Collection

Mr. Subbio reported that Tetra Tech has received the current HMPs for Regions 1 through 5 and requested the plans for the other regions and Jefferson County.

In addition, attendees identified the following documents and data for review:

- Dam failure inundation areas GIS data
- State Threat/Hazard Identification and Risk Assessment (THIRA)
- State Preparedness Report (SPR)
- State Emergency Operations Plan



MEETING NOTES

- State CDBG Action Plan
- Continuity plan templates developed by WV EMD
- Flood mitigation funding source summary developed by the Silver Jackets
- Draft McDowell County watershed plan
- Data and maps regarding past mitigation projects and expenditures and disaster history records maintained by Mr. Penix. Ms. Villamizar will coordinate with Mr. Penix to share those records with Tetra Tech.
- Source water protection plans maintained by DHHR
- Watershed and critical concerns data related to watersheds, maintained by DHHR
- Bulk data regarding COVID that FEMA sent to WV EMD

Mr. Subbio will work with Mr. Reed and others identified above to obtain data and documents for incorporation into the planning process.

Next Steps

Mr. Subbio reviewed the following next steps in the HMP update process with attendees:

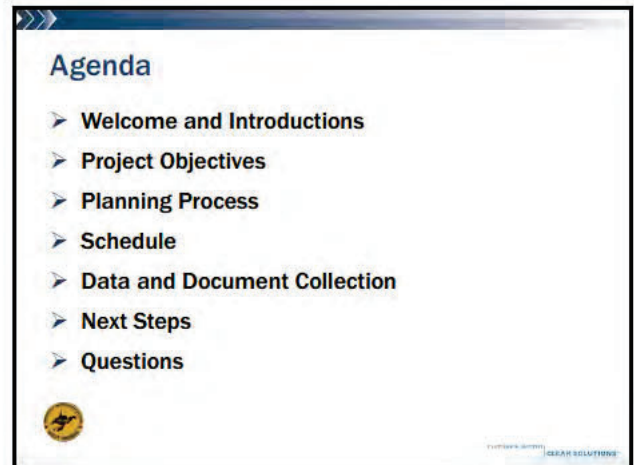
- Tetra Tech will update the project schedule based on discussions with the committee members.
- Mr. Subbio will connect Ms. Villamizar and Mr. Donaldson with Tetra Tech's GIS lead to discuss data transfer and developing the StoryMap website.
- The state will provide data and documents to Tetra Tech, including the Dam Safety Plan, the 2019 amendment to the WV HMP, and the historical records that Mr. Penix maintains.
- Tetra Tech will develop the stakeholder surveys and project website.
- Mr. Reed, Mr. Subbio, and Ms. Tate will meet with FEMA Region III staff on August 10, 2022, to discuss the region's expectations for the plan update.
- Mr. Reed, Mr. Subbio, and Ms. Tate will finalize the list of State Planning Team members.
- Mr. Reed will identify a point of contact in the Secretary of Economic Development's office to coordinate economic development sector agency involvement.
- Mr. Reed will send a list of non-profit organizations to Mr. Subbio to be included in the State Planning Team.
- Mr. Penix will obtain contact information for the four major power companies and for a group he is working with regarding microgrids.
- Ms. Risk will identify staff from the Community Advancement and Development Office.
- Ms. Risk will provide contact information for the homeless shelter service providers.
- Mr. Reed, Mr. Subbio, and Ms. Tate will schedule the State Planning Team Kickoff Meeting for the week of September 12-16, 2022.
- The Steering Committee will finalize the set of hazards of concern to be analyzed in the HMP.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

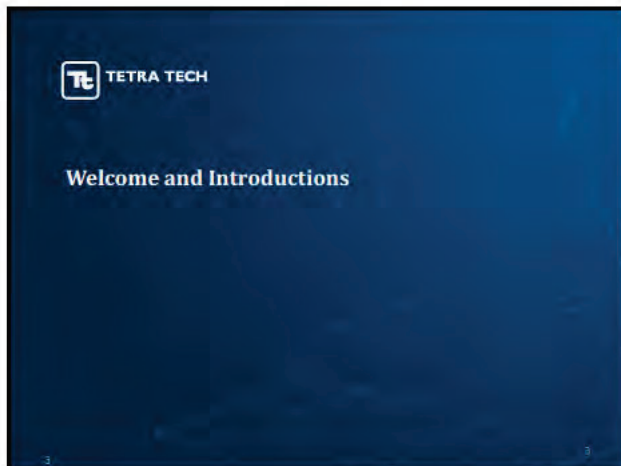
The meeting adjourned at 11:50 a.m.



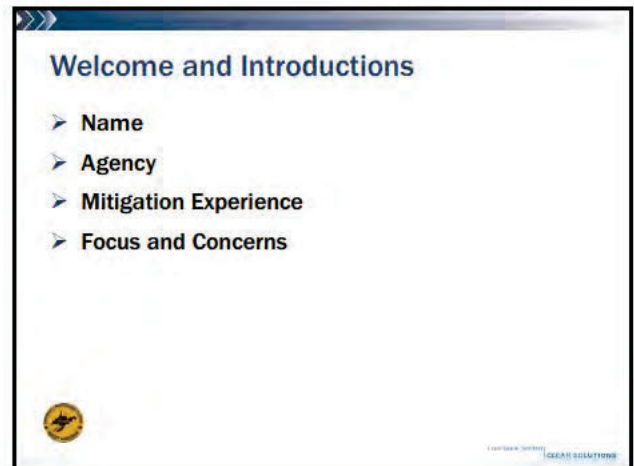
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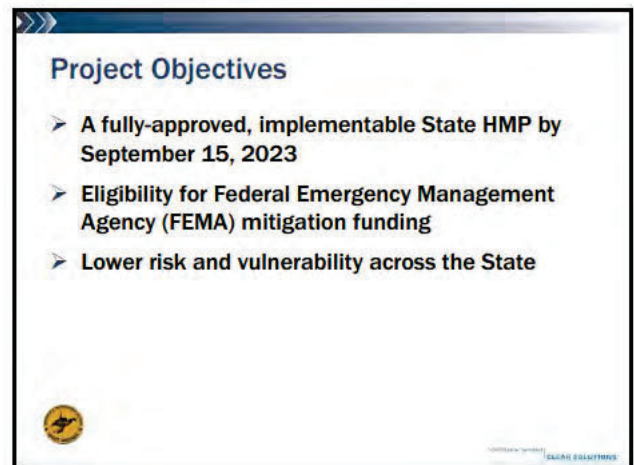
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Planning Process

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Planning Process

➤ Applicable Regulations and Standards



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Planning Process

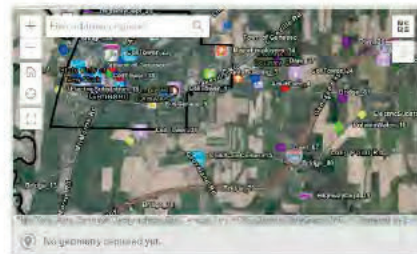
➤ State Planning Team

- State Agencies
 - Federal Agencies
 - Regional Organizations
 - Local Government
- Sectors
 - Emergency Management
 - Economic Development
 - Land Use and Development
 - Housing
 - Health and Social Services
 - Infrastructure
 - Natural and Cultural Resources

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Planning Process

➤ State Assets



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Planning Process

➤ Hazards

- 2018 Hazards
 - Flood
 - Winter Weather
 - Drought and Extreme Heat
 - Landslide and Subsidence
 - Wildfire
 - Earthquake
 - Severe Storms
 - Dam and Levee Failure
- Additional?
 - Pandemic
 - Hazardous Materials?
 - Utility Failure?

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Planning Process

➤ Focus on Social and Cultural Equity

- Engaged, empowered stakeholder groups
- Assessment of risks and capabilities
- Prioritizing mitigation actions






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Planning Process

➤ Outreach

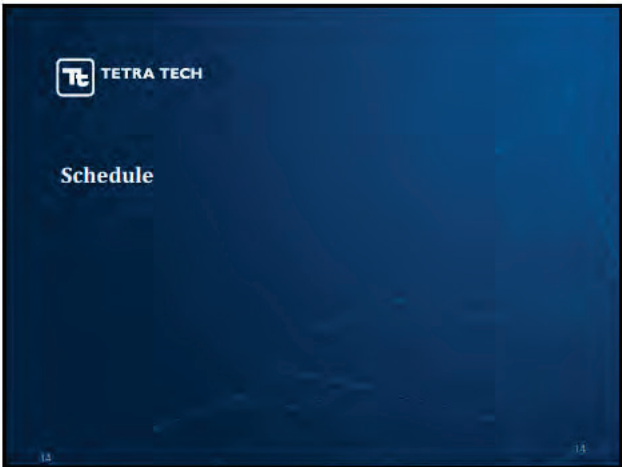
- Stakeholder Surveys
- Public Meetings
- Mapping Survey Tool
- StoryMap Website



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 TETRA TECH


Data and Document Collection

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Data and Document Collection

- Remaining Regional and Jefferson County HMPs
- Other Plans, Studies, Reports
- NFIP Statistics
- GIS Data

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TETRA TECH

Next Steps

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Next Steps

- Update Work Plan
- Connect GIS Leads
- Data Transfer
- Document Collection and Review
- Develop Website and Surveys
- FEMA Region III Meeting – August 10, 2022
- State Planning Team Kickoff Meeting



CLARK COUNTY
TETRA TECH

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Questions?

Thank you for your time!



CLARK COUNTY
TETRA TECH

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Contacts

Tony Subbio

tony.subbio@tetrattech.com

(717) 839-5654

JaLeesa Tate

jalessa.tate@tetrattech.com

(302) 283-2231



CLARK COUNTY
TETRA TECH

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AGENDA

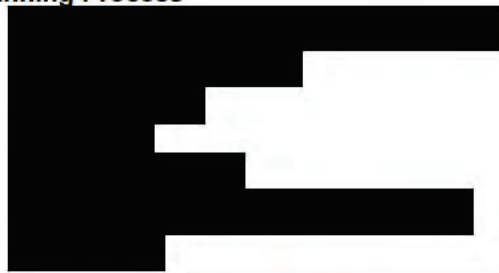
STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE Steering Committee Kickoff Meeting

July 26, 2022 | 10:00 a.m. – 12:00 p.m.

1. Welcome and Introductions

2. Project Objectives

3. Planning Process



4. Schedule

5. Data and Document Collection

6. Next Steps

7. Questions



Project Schedule

Subject to Change

Task	Timeframe
Project Management	<ul style="list-style-type: none"> Steering Committee Kickoff Meeting conducted on July 26, 2022 Monthly status reports and invoices beginning in early September 2022 Quarterly progress reports beginning October 2022 Project close-out meeting conducted at the end of September 2023
Phase 1: Planning Process	<ul style="list-style-type: none"> State Planning Team and other stakeholders identified and invited to participate by the beginning of August 2022 Current plan reviewed and update requirements identified by the middle of August 2022 Website developed by late August 2022 and maintained for the life of the project Initial State Planning Team Meeting conducted on or about August 17, 2022 State Building Inventory updated by mid-August 2022
Phase 2: Hazard Identification and Risk Assessment	<ul style="list-style-type: none"> Hazard analysis and risk assessment updated by early November 2022 Risk assessment reviewed with the State Planning Team on or about November 16, 2022 Public meetings to collect feedback on the risk assessment conducted in late November 2022
Phase 3: State Mitigation Capabilities and Local Planning Coordination and Capacity Building	<ul style="list-style-type: none"> Strategy for integrating plans and securing EMAP compliance developed by early December 2022 Capability assessment webinars with stakeholders conducted in early December 2022 Capability assessment meeting with the State Planning Team conducted in mid-December 2022 Capability assessment updated by the end of December 2022
Phase 4: Mitigation Strategy	<ul style="list-style-type: none"> Goals and objectives from the 2018 HMP reviewed with the State Planning Team in early January 2023 Goals and objectives updated by the end of January 2023 Mitigation strategy webinars with stakeholders conducted in early February 2023 Mitigation actions updated by the middle of February 2023 Mitigation strategy meeting of the State Planning Team conducted on or about February 22, 2023
Phase 5: Update Plan, Public Forums, Final Plan	<ul style="list-style-type: none"> Draft plan developed by early March 2023 Stakeholder review completed from mid-March to mid-April 2023 Public meetings to review the draft HMP conducted in mid-April 2023 Draft plan reviewed with the State Planning Team on or about April 20, 2023 Draft plan updated based on State Planning Team and stakeholder reviews by late April 2023 Updated draft reviewed by Agency leadership by early May 2023 Meeting to discuss Agency leadership comments on the updated draft conducted in mid-May 2023 Plan draft finalized by May 18, 2023
Phase 6: Formal Adoption	<ul style="list-style-type: none"> Plan submitted to FEMA Region III by May 19, 2023 Plan reviewed by FEMA through July 6, 2023 Meeting to discuss FEMA comments on the draft plan conducted on or about July 14, 2023 Plan updated based on FEMA comments by July 26, 2023 Updates reviewed by FEMA through August 4, 2023 APA status granted by August 4, 2023 Agency sign-offs collected through August 18, 2023 Plan adopted by the Governor by September 1, 2023 Adoption reviewed by FEMA by September 14, 2023 Full approval granted by FEMA by September 15, 2023 Final deliverables provided to Agency by October 5, 2023



MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) Geographic Information Systems (GIS) Team Introduction Meeting		
Date	August 4, 2022	Time	12:30 – 1:30 p.m.
Location	Microsoft Teams Webinar		
Attendees	Gabriel Reed, State Hazard Mitigation Officer, West Virginia Emergency Management Division (WV EMD)		
	Brian Penix, Hazard Mitigation Project Officer, WV EMD		
	Nuvia Villamizar, GIS Manager, WV EMD		
	Kurt Donaldson, Senior Project Manager, West Virginia Geographic Information Systems (GIS) Technical Center		
	Eric Hopkins, Lead GIS Specialist, West Virginia GIS Technical Center		
	Shannon Maynard, West Virginia GIS Technical Center		
	Jenn Lenart, GIS Lead, Tetra Tech, Inc. (Tetra Tech)		
	Tony Subbio, Project Manager, Tetra Tech		
	JaLeesa Tate, Deputy Project Manager, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the GIS Introduction Meeting. Ms. Lenart led the discussion and reviewed the GIS Data Wish List that was provided to attendees before the meeting.

State-Owned and -Leased Buildings

- Tetra Tech will focus on state-owned and -leased facilities rather than local critical facilities.
- Mr. Donaldson stated that the State does not have a comprehensive list of state-owned or -leased buildings. He stated that the Department of Administration's Real Estate Office should have a list of buildings. He also stated that the Board of Risk and Insurance Management (BRIM) has data on State buildings, but it may be difficult to understand.
- Mr. Reed stated that he would approach the Real Estate Office and BRIM staff for the data.

Total Exposure in Floodplains (TEIF) and Total Exposure in Landslides (TEIL) Data

- Mr. Donaldson stated that the TEIF and TEIL tools only show buildings in those hazard areas.
- Ms. Lenart requested the raw data inputs from the TEIF and TEIL tools.

Data Requests and Data Sharing

- Mr. Reed stated that WV EMD staff will introduce Tetra Tech staff to other State agencies and requested that all data requests of those agencies be sent to Mr. Reed. Mr. Reed will then officially request the data from the other agencies, and Ms. Villamizar will check the quality of the data before sending it to Tetra Tech for incorporation into the analysis.
- Ms. Villamizar stated that she maintains several data layers that are more up to date than what was reflected on the GIS Data Wish List.



MEETING NOTES

- Ms. Lenart requested that the State identify any datasets reflected on the GIS Data Wish List for which the State has more-current versions than what is identified on the list.
- Ms. Lenart requested that the State identify filenames and links to newer data in the “State Notes” column of the GIS Data Wish List for any data added to the file sharing site.
- Mr. Penix stated that he maintains extensive records that are relevant to the planning effort, including information on disaster history, dams by region, and communications sites.
- Ms. Villamizar will share a link to a file sharing site with Ms. Lenart, to facilitate data exchange.

Mapping

- Ms. Villamizar will provide Tetra Tech a key for the symbology that the State uses on maps.
- Ms. Lenart and Ms. Villamizar will coordinate efforts on mapping.

StoryMap Development

- Mr. Donaldson stated that there are several existing StoryMaps that would be relevant to this planning project.
- Ms. Lenart will coordinate with Ms. Villamizar and Mr. Donaldson to schedule a separate meeting to discuss the StoryMap site and other existing StoryMaps.
- Ms. Lenart will coordinate with Ms. Villamizar on the StoryMap development. Ms. Lenart will provide information regarding who will be Tetra Tech’s administrator on the State’s ArcGIS online account.

High-Hazard Dams

- Mr. Donaldson stated that he maintains GIS files for the inundation areas of 175 high-hazard dams.
- Ms. Villamizar reported that WV EMD has an agreement in place with the U.S. Army Corps of Engineers (USACE) regarding inundation areas. Ms. Villamizar will work with the USACE to provide Tetra Tech the inundation area GIS data.
- Mr. Hopkins stated that one can also view inundation area data on the National Inventory of Dams website.
- Mr. Donaldson stated that the Blue Stone Dam is the State’s largest dam.

Next Steps

The following list summarizes action items for attendees.

- Mr. Reed will approach the Real Estate Office and BRIM staff for data on State buildings.
- Ms. Villamizar will coordinate with other State staff to identify more-current data than what was listed on the GIS Data Wish List and will provide information on the filenames and locations of the data on the list.
- Ms. Villamizar will share a link to a file sharing site with Tetra Tech.
- Ms. Villamizar will provide Ms. Lenart a key for the symbology that the State uses on maps.
- Ms. Villamizar will work with the USACE to obtain dam information and share the information with Tetra Tech.
- Mr. Donaldson will provide the raw data inputs from the TEIF and TEIL tools to Tetra Tech.



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- Mr. Donaldson will provide dam data to Tetra Tech.
- Mr. Penix will provide his relevant records.
- Ms. Lenart will schedule a meeting with Ms. Villamizar and Mr. Donaldson to discuss StoryMap development.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

The meeting adjourned at 1:30 p.m.



MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) Federal Emergency Management Agency (FEMA) Region III-State of West Virginia Emergency Management Division (WV EMD) Contractor Kickoff Meeting		
Date	August 10, 2022	Time	10:00 a.m. – 12:00 p.m.
Location	Microsoft Teams Webinar; WV EMD (2403 Fairlawn Ave., Dunbar, WV 25064)		
Attendees	Gabriel Reed, State Hazard Mitigation Officer, WV EMD		
	Kelli Batch, Chief of Mitigation and Recovery, WV EMD		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WV EMD		
	Mari Radford, Mitigation Planner, FEMA Region III		
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, FEMA Region III		
	Tony Subbio, Project Manager, Tetra Tech		
	JaLeesa Tate, Deputy Project Manager, Tetra Tech		

Discussion Points

The purpose of this meeting was to define the expectations of FEMA Region III for the State of West Virginia 2023 HMP. This section summarizes the discussions held during the meeting.

Project Schedule

- Ms. Radford stressed that the 2023 HMP will need to meet the updated State Planning Policy Guide requirements.
- Ms. Radford stated that she received a copy of the project schedule discussed during the Steering Committee Kickoff Meeting on July 26, 2022. Mr. Subbio stated that the only change to that schedule so far is that the State Planning Team Kickoff Meeting was delayed to mid-September, but that does not change any of the rest of the schedule.
- Ms. Radford requested that Ms. Garnett be included in all meetings.
- Ms. Radford informed attendees that FEMA will send the governor a one-year plan expiration reminder letter in October 2022. The letter is meant to inform the State of the upcoming expiration date and is not intended to signify any compliance issues.
- Ms. Radford inquired as to whether the State will be soliciting letters of participation from State departments/agencies. Mr. Reed reported that he discussed that with Ms. Batch. Ms. Radford stated that the governor of Pennsylvania sends an official invitation to the heads of Commonwealth agencies.
- Mr. Subbio stated that Tetra Tech will work with Mr. Reed from the time that the HMP is sent to FEMA for review until sign-off from State agencies and adoption by the governor. Tetra Tech will ensure these milestones are accomplished in the necessary timeframes for the plan to be fully approved in September 2023. The schedule includes the projected amount of time for State adoption.
- Ms. Radford stated that a range of FEMA staff will support the plan review. Therefore, FEMA's review may take the full 45 days allowed by law, but the review will be completed in that 45-day window. FEMA expects there to be required revisions for Tetra Tech and the State to



MEETING NOTES

address. Mr. Subbio replied that the project schedule allows time for updating the draft based on FEMA's review.

New State Policy Planning Guidance Side-by-Side Comparison and Opportunities for Improvement of the 2018 HMP

- The HMP must highlight additional agencies and stakeholders that may be project applicants in the future. This includes quasi-governmental entities, such as water districts.
- The plan must address community lifelines in the risk assessment and mitigation strategy.
- Mr. Subbio and Mr. Reed will determine whether to include working groups organized by lifeline category to facilitate the planning process.
- Hazards
 - No hazards analyzed in the 2018 HMP are being eliminated. Drought and extreme heat are being separated into separate profiles; extreme heat will become extreme temperatures, which will include both extreme heat and extreme cold. Landslides and subsidence are also being separated.
 - In addition to natural hazards, the HMP will analyze dam failure, levee failure, hazardous materials releases, radon exposure, radiological incidents, and utility interruption.
 - Ms. Radford suggested the HMP meet the requirements of FEMA's Fire Management Assistance Grant (FMAG)) and include the State Forestry office on the planning team.
 - Mr. Subbio listed the organizations discussed during the Steering Committee Kickoff Meeting for participation in the planning process [REDACTED]. Ms. Radford suggested adding someone from the U.S. Army Corps of Engineers (USACE). Ms. Garnett reported that Ms. Michelle Brown is leaving the Silver Jackets, so the State will need to find a replacement for her on the State Planning Team. Ms. Garnett will ask Ms. Brown for the name of her replacement and will inform the rest of the attendees.
- State Assets
 - Ms. Radford confirmed that State assets is a focus area for the HMP. The analysis should look at the age of structures and identify any non-historic buildings that may be at the end of their life span as particularly vulnerable.
 - Mr. Subbio described the online mapping survey tool that will be deployed for stakeholders to identify problems caused by hazards at state infrastructure over which the local stakeholders have no control, such as an undersized culvert under a state highway that causes flooding problems in the local community.
- Vulnerable Jurisdictions and Populations
 - Mr. Subbio listed the organizations discussed during the Steering Committee Kickoff Meeting for participation in the planning process for their expertise in social equity. Ms. Tate described how Tetra Tech incorporates social equity and socially vulnerable populations in the planning process, and how vulnerability is examined.
 - Ms. Radford asked that the HMP detail the process for how equity was considered, and to include new actions that address key concerns.



MEETING NOTES

- The State may have more granular data on social vulnerability than the federal data sources have. Ms. Garnett recommended that the project team contact the State Resilience Office to identify the datasets being used in the update to the Flood Protection Plan.
 - Mr. Reed stated that the State is suffering from a dying economy, significant educational differences exist between communities, and local officials are forced to fill many roles. The project should focus on the “forgotten places” in the State.
 - Ms. Garnett suggested that the project team review the Region 3 Planning and Development Commission HMP.
- The HMP should have more information on past and future development in the State.
- Population Data
 - The 2020 Census data will not be released until 2023, so the analysis in the HMP will use the most current data available as of August 10, 2022, whether it is from the 2010 Census or 5-year estimates.
 - Ms. Radford instructed the project team to include text describing which datasets were used and indicated that new data will be reviewed and the analysis updated (as necessary) as part of the annual review process.
- The project team will develop a targeted list of data to be obtained from local jurisdictions for incorporation into the HMP.
- The updated HMP will include more information on land use laws, enabling legislation, etc.
- Mr. Keaton stated that the State adopted the 2018 building codes, so any jurisdiction that wants to enforce building codes will have to adopt that version.
- National Flood Insurance Program (NFIP)
 - Mr. Keaton will compile all required information.
 - The HMP will describe activities currently being conducted by the State, and its goals for floodplain management in the future.
- Funding Streams
 - The HMP must address using all applicable FEMA funding programs: Building Resilient Communities and Infrastructure (BRIC); Flood Mitigation Assistance (FMA); Hazard Mitigation Grant Program (HMGP); High Hazard Potential Dam (HHPD) Grant Program; Section 406 Public Assistance; and Individual Assistance.
 - The HMP must also address Community Development Block Grant – Mitigation (CDBG-MIT) and – Disaster Recovery (CDBG-DR), as well as U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) funding.
 - The HMP must address other funding streams, such as state funding, as well.
- Mitigation Strategy
 - Mr. Subbio stated that Mr. Brian Penix of WV EMD has a wealth of information about past mitigation efforts in the State. Ms. Radford responded that the HMP should include only a table reflecting the status of each action; additional information can be included as an appendix.
 - The State’s mitigation goals need to be improved and objectives must be added.
 - The goals, objectives, and actions will be described in a single section of the HMP.



MEETING NOTES

- Actions must be specific and implementable. The project team must ensure that actions reflect the concerns of local jurisdictions across the State; the actions should not be limited to protecting state assets.
- Capabilities Assessment
 - FEMA Region III is working to finalize a state capabilities methodology in the next few weeks.
 - The HMP must describe the State's strategy to support local mitigation planning, including a robust strategy on how to fund local HMPs, provide training, etc.
 - The HMP needs more detail regarding how the State prioritizes funding. Ms. Garnett stated that it seemed to be whoever requested funding first was served first. Mr. Keaton stated that funding decisions had historically been based on public safety.
 - Mr. Reed stated that the project team needs to develop a policy that addresses equity in funding decisions.
 - Ms. Tate reported that other FEMA Region III states have good models of a prioritization matrix and recommended that the State begin with Virginia's as a model.
- The HMP must address ongoing meetings to be conducted by the State to maintain the HMP after it is approved.
- High Hazard Potential Dams (HHPD) Program Requirements
 - The planning team will not start with the 2019 amendment to the HMP to meet the HHPD requirements but will instead start from scratch.
 - Ms. Garnett stated that the 2018 HMP seems to focus on the day-to-day operations of the Dam Safety program. She stated that this content can remain in the HMP if the State finds it relevant, but the updated HMP should focus on establishing a thorough understanding of risk, mitigation goals, and mitigation actions. Doing so will be key to developing a dam failure section which meets FEMA's current HHPD requirements.
 - Ms. Tate reported that the Deputy Director of the State Resilience Office has been providing information on dams and discussing how they can be addressed in the planning process.
 - Ms. Radford stated that the State needs to determine how visible dam information will be to the public. Mr. Reed replied that, given the State's history of dam failure, the State will not hold back any information unless specifically asked to.
 - Mr. Reed stated that efforts are underway to make WV EMD the repository for dam information.
 - Ms. Radford stated that the HHPD program guidance changes often, but the requirements listed in the side-by-side comparison document need to be met.
- The 2023 HMP will be written to meet Emergency Management Accreditation Program (EMAP) standards.
- Tetra Tech will develop content to meet Enhanced Plan standards and include the content as an appendix to the HMP.

With no further questions, Mr. Reed, Ms. Radford, and Mr. Subbio thanked attendees for their time and participation. The meeting adjourned at 12:00 p.m.

Subbio, Tony

From: Garnett, Casey <casey.garnett@fema.dhs.gov>
Sent: Tuesday, August 9, 2022 1:08 PM
To: Reed, Gabriel A; Subbio, Tony
Cc: Radford, Mari; Tate, JaLeesa
Subject: RE: WV State HMP Contractor Kickoff Meeting
Attachments: State_Policy_Comparison_2015-2022.pdf

 **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. 

Updated Agenda:

- Review Project Schedule
- Go over New State Policy Guidance Side-by-Side comparison (see attached)
- 2018 Plan opportunities for improvement discussion
- Questions?

Join ZoomGov Meeting

<https://fema.zoomgov.com/j/1617037686>

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+15512851373,,1617037686# US

Dial by your location

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+1 646 828 7666 US (New York)

+1 669 216 1590 US (San Jose)

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Find your local number: <https://fema.zoomgov.com/u/akTcMDRrn>

Join by SIP

1617037686@sip.zoomgov.com

Join by H.323

161.199.138.10 (US West)

161.199.136.10 (US East)

Meeting ID: 161 703 7686

Passcode: 412991



MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) State Planning Team (SPT) Kickoff Meeting		
Date	September 13, 2022	Time	9:00 a.m. – 12:00 p.m.
Location	Holiday Inn and Suites, 400 2 nd Ave. SW, Charleston, WV 25303 and Microsoft Teams webinar		
Attendees	Kelli Batch, Section Chief, West Virginia Emergency Management Division (WV EMD)		
	Matt Blackwood, Deputy Director, WV EMD		
	Lonnie Bryson, Section Chief, WV EMD (remote)		
	Brent Burger, Hazard Mitigation Planner, WV EMD		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WV EMD		
	Jason Means, Public Assistance Lead, WV EMD		
	Brian Penix, Hazard Mitigation Project Officer, WV EMD		
	Gabriel Reed, State Hazard Mitigation Officer, West Virginia Emergency Management Division (WV EMD)		
	Christopher Rucker, Preparedness Specialist, WV EMD		
	Nuvia Villamizar, GIS Manager, WV EMD		
	Al Whitaker, Lead Planning Officer, WV EMD (remote)		
	Timothy Priddy, Director, WV Center for Threat Preparedness		
	Kurt Donaldson, Senior Project Manager, West Virginia Geographic Information Systems (GIS) Technical Center (remote)		
	Robert Martin, Director, West Virginia State Resiliency Office		
	Ed Martin, Deputy Director, West Virginia State Resiliency Office		
	Stephen Allen, Director, Jefferson County Department of Homeland Security and Emergency Management (remote)		
	Melissa Wall, Project Administrator, Region 2 Planning and Development Council (remote)		
	Jamie Baker, Project Assistant, Region 4 Planning and Development Council (remote)		
	John Tuggle, Executive Director, Region 4 Planning and Development Council (remote)		
	Carla Dent, Administrative Staff, Region 8 Planning and Development Council (remote)		
	Terry Lively, Executive Director, Region 8 Planning and Development Council (remote)		
	Ray Perry, Floodplain Administrator, Logan County; Chair, West Virginia Floodplain Management Association		
	Kristine Huber, PEW Charitable Trusts (remote)		
	Jamie Bielinski, Meteorologist in Charge, National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS)		
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, Federal Emergency Management Agency (FEMA)		
	Meesh Zucker, Supervisory Community Planner, FEMA (remote)		
	Tony Subbio, Project Manager, Tetra Tech		
	Christina Groves, Planner, Tetra Tech		



MEETING NOTES

Discussion Points

This section summarizes each discussion point addressed during the State Planning Team Kickoff Meeting.

Welcome and Introductions

Mr. Reed welcomed attendees to the meeting. Attendees introduced themselves. Mr. Subbio provided an orientation to the materials in participant folders (for those attending in person) and attached to the meeting invitation (for those attending remotely).

Overview of Hazard Mitigation

Mr. Subbio provided an orientation to hazard mitigation. He described the requirements of the Disaster Mitigation Act of 2000 (DMA 2000) as they relate to development of the State HMP.

Objectives

Mr. Subbio reviewed the following objectives of the HMP update project:

- Lower risk and vulnerability across the State.
- Involve more stakeholders in the planning process than were involved in the 2018 State HMP planning process.
- Deliver a fully approved, implementable State HMP by September 15, 2023.
- Maintain the State's and local governments' eligibility for FEMA mitigation funding.

Mr. Subbio stressed that the State HMP is a State of West Virginia plan led by the WV EMD, not a WV EMD-focused plan.

Planning Process

Mr. Subbio led the group through a description of the planning process. The list below summarizes points of discussion.

Applicable Regulations and Standards

Mr. Subbio stated that the WV HMP will be updated to meet the requirements of the State Mitigation Planning Policy Guide (released April 2022 and effective April 2023), Emergency Management Accreditation Program (EMAP) standards, and the High Hazard Potential Dam (HHPD) grant program.

State Planning Team

Mr. Subbio described the range of stakeholder organizations that will be invited to participate on the State Planning Team.

Mr. Subbio described the different sectors that the State is striving to involve through participation in the planning process, shown in the following list:

- Emergency Management
- Economic Development
- Land Use and Development
- Housing
- Health and Social Services
- Infrastructure



MEETING NOTES

- Natural and Cultural Resources
- [REDACTED]

Social and Cultural Equity

Attendees indicated which sector their organizations are affiliated with on the Input and Feedback Questionnaire.

Hazards of Concern

Mr. Subbio reviewed the list of hazards of concern, shown in the following list:

- Dam Failure
- Drought
- Earthquake
- Extreme Temperatures
- Flood
- Hazardous Materials
- Landslide
- Levee Failure
- Severe Storm
- Subsidence
- Pandemic
- Radiological Incidents
- Radon Exposure
- Utility Failure
- Wildfire
- Winter Weather

Attendees indicated which hazard(s) they or their organizations have special experience and/or expertise with on the Input and Feedback Questionnaire.

[REDACTED]

[REDACTED]

Social and Cultural Equity

Mr. Subbio summarized Tetra Tech's approach for addressing social and cultural equity in the planning process and in the plan.

Outreach

Mr. Subbio described the outreach methods that will be used during the planning process, including stakeholder surveys, public meetings, an online mapping survey tool for users to identify problems and problem areas in the state, and a StoryMap website.

Ms. Batch stated that some people may not be comfortable with electronic means of participation and that it may be necessary to have at least one in-person meeting in the southern end of the State.

Schedule

Mr. Subbio reviewed the project schedule with the Steering Committee. He stated that the draft plan will be submitted to FEMA in mid-May 2023 to allow for FEMA review, adoption, and formal approval by September 15, 2023.

The Capability Assessment SPT Meeting will be held in November 2022; the Risk Assessment Review SPT Meeting will be held in December 2022.



MEETING NOTES

Attendees were concerned that vacations and hunting seasons will make it difficult to have well-attended meetings between Thanksgiving and New Year's Day. Meetings in December should be held in the afternoon to allow individuals to spend the morning hunting. They recommended that meetings be advertised well in advance, and the project team follow the project schedule provided.

Discussion and Input

Ms. Groves led the attendees through the questions on the Input and Feedback Questionnaire. A summary of the discussion is provided below.

Additional SPT Members

The following groups/agencies should be included in the SPT:

- Local floodplain managers
- WV Division of Highways
- WV DEP Dam Safety
- WV National Guard Civil Support Team (CST)
- U.S. Army Corps of Engineers
- Natural Resources Conservation Service
- WV Division of Forestry
- WV Division of Natural Resources
- WV Department of Health and Human Resources
- Academia
- West Virginia Hospital Association
- State Fire Commission
- WV Joint Legislative Committee on Flooding
- WV Structure Committee
- Lions Club and other service providers

Mr. Subbio stated that many of those groups and agencies were already identified and invited to participate.

Concerning [REDACTED] Impacts

Attendees identified the following impacts [REDACTED] as concerning to them:

- Flash flooding on small streams is getting worse.
- Land movement, landslides, and mudslides are a concern and led to the development of the Total Exposure Area Landslide (TEAL) tool.
- Stream channels are migrating.
- Frequency of events is increasing.
- The state is experiencing more rain and more snow.
- Extreme heat events are more frequent.
- It is unclear whether dams can withstand the increase in precipitation.
- Rules and regulations are designed for rapid-onset events, and the State needs laws and regulations to address long-term vulnerabilities.



MEETING NOTES

- Attendees are concerned about the impacts of hazards to crops and wildlife.
- Erosion is causing soil loss.
- Droughts are causing cascading wildfire risk.
- The State relies on the timber industry, which is vulnerable to drought and other hazards.

Barriers and Characteristics that may Create Additional Vulnerabilities

Attendees discussed the following barriers and community characteristics that exist within the State that may create additional vulnerabilities to hazards:

- The Social Vulnerability Index (SVI) shows that most of the State's communities are small, impoverished communities.
- Property owners might not want to take mitigating action to protect property.
- There is no statewide building code in effect.
- It is not cost-effective to telecommunications companies to establish broadband infrastructure in many parts of the State.
- The State sets geographic regions for service providers. This creates a set of monopolies, and some individuals cannot get service if the provider does not install the infrastructure.
- People might not have an accurate understanding of their risk if they do not have connectivity.
- People might not know how to use the available tools to protect themselves and their property.
- West Virginia has the highest rate of elderly population per capita in the country.
- Cellular service in the southern end of the State is lacking to non-existent.
- Enforcement of floodplain management regulations was lacking for 20 years in some parts of the State.
- One attendee stated a belief that individuals are turning away from public radio as the media has become more liberal.

Success Stories

Attendees identified the following mitigation success stories within the State:

- McDowell County's activities (no details provided).
- Anderson Furniture was acquired in Logan County.
- NRCS dams built in the 1950s-1970s were effective in reducing flooding.
- Stream restoration projects that reconnect the waterway and floodplain in the southern part of the State, including a \$44 million project in Logan County.
- Many water treatment plants had generators installed.
- Dam reclamation.
- Bridge projects carried out by voluntary organizations.
- The \$300 million Blue Stone Dam project.
- A corridor study of I-70 led to a redesign of the corridor, which led to fewer accidents involving tractor-trailers.
- Emergency/Disaster Response 101 webinars are conducted on a quarterly basis.
- The State has a model floodplain management ordinance that incorporates higher standards.



MEETING NOTES

Challenges or Barriers to Reducing Vulnerability

Attendees identified the following challenges or barriers to reducing vulnerability:

- People do not understand the risk they face.
- Steep slopes and thin soil throughout the State.
- People historically settled in hazard-prone areas.
- Stormwater runoff is increasing flooding.
- Conflicting rules between WV DOH and WV DEP as they relate to debris in waterways impacting bridges.
- Railroad companies will not clear debris from their bridges.
- Language and demographic diversity between regions.
- Lack of funding, especially to cover the non-federal share of mitigation grants.
- Keeping trained, experienced floodplain management staff at the local level.
- Officials filling too many roles (i.e., “wearing too many hats”).
- Large set of responsibilities being carried out by the regional planning and development councils (defined in Chapter 8-25-8 of the West Virginia Code).
- Warning and notification is conducted on a county-by-county basis.
- Cellular service is low or non-existent in some areas.
- There are gaps in the stream gauge network.
- Individuals do not know what they can or cannot do to protect their property.
- Communities do not have the technical or financial expertise to implement programs.

Support Needed from the State

Attendees identified the following needs from the State to reduce vulnerability:

- Public outreach.
- Training and education.
- Legislation and regulation enforcement and updates.
- The Public Service Commission needs to have enforcement mechanisms.
- Access to data at the local level.

Mitigation Capabilities

Attendees discussed the following mitigation capabilities that were developed in the last five years:

- The State Resiliency Office was established.
- Encouraging participation in the CRS Program.
- GIS datasets are being continuously developed and improved.
- The Flood Tool has evolved.
- Health networks have been enhanced.
- Local health departments conduct a risk assessment every five years.



MEETING NOTES

Next Steps and Questions

Mr. Subbio reviewed the following next steps in the HMP update process with attendees:

- Tetra Tech will develop the stakeholder surveys.
- Tetra Tech will complete the risk assessment.
- Tetra Tech will work with the State, regions, and counties to assess capabilities to implement hazard mitigation activities.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

The meeting adjourned at 12:00 p.m.



1



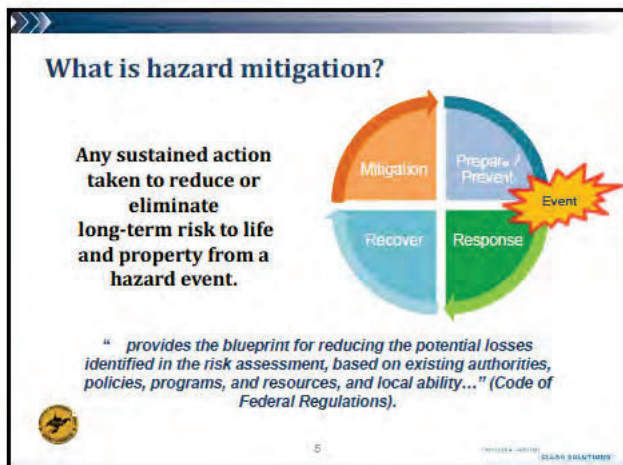
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6

Federal Requirements

Disaster Mitigation Act of 2000


- Risk assessment
- Public outreach and participation
- Process for update
- Formal Federal Emergency Management Agency (FEMA) review
- Documentation of acceptance by the State

7





Objectives




8

Project Objectives


- Lower risk and vulnerability across the State
- Involve more stakeholders in the planning process
- A fully-approved, implementable State HMP by September 15, 2023
- Eligibility for FEMA mitigation funding

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Planning Process





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Planning Process

- Applicable Regulations and Standards

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Planning Process


- State Planning Team
 - State Agencies
 - Federal Agencies
 - Regional Organizations
 - Local Government
 - Other Organizations
- Sectors
 - Emergency Management
 - Economic Development
 - Land Use and Development
 - Housing
 - Health and Social Services
 - Infrastructure
 - Natural and Cultural Resources
 - Social and Cultural Equity




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Planning Process

- Hazards
 - Dam Failure
 - Drought
 - Earthquake
 - Extreme Temperatures
 - Flood
 - Hazardous Materials
 - Landslide
 - Levee Failure
 - Severe Storm
 - Subsidence
 - Pandemic
 - Radiological Incidents
 - Radon Exposure
 - Utility Failure
 - Wildfire
 - Winter Weather





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Planning Process



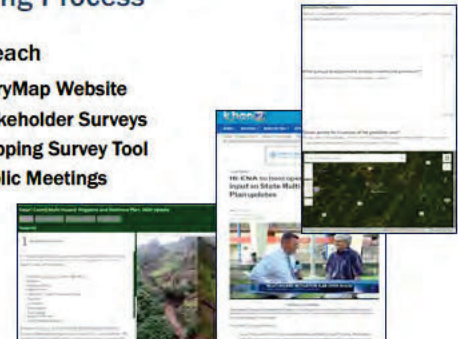

- Social and Cultural Equity
 - Engaged, empowered stakeholder groups
 - Assessment of risks and capabilities
 - Prioritizing mitigation actions

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Planning Process

- Outreach
 - StoryMap Website
 - Stakeholder Surveys
 - Mapping Survey Tool
 - Public Meetings

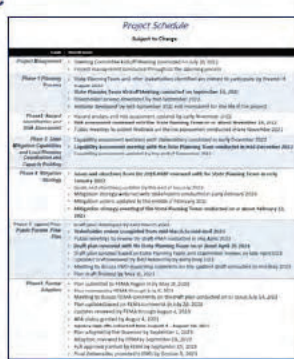

15

Schedule



16

Schedule

17



Discussion and Input




18

Discussion and Input


- Success Stories
- Challenges and Barriers to Reducing Vulnerability
- Support Needed from the State
- Capabilities
 - Plans, reports, and other documents
 - Staff expertise
 - Funding
 - Other

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Next Steps and Questions

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Next Steps

- Stakeholder surveys
- Risk assessment
- Identify capabilities






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Questions?


Thank you for your time!

Please leave your completed questionnaires for collection!





22



Contacts



Gabriel Reed
gabriel.a.reed@wv.gov
 (304) 414-7673



Tony Subbio
tony.subbio@tetrattech.com
 (717) 839-5654


23



AGENDA

STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE State Planning Team Kickoff Meeting

September 13, 2022 | 9:00 a.m. – 12:00 p.m.

1. Welcome and Introductions	9:00 – 9:15
2. Overview of Hazard Mitigation	9:15 – 9:30
3. Objectives	9:30 – 9:35
4. Planning Process	9:35 – 10:05
	
5. Schedule	10:05 – 10:15
6. Break	10:15 – 10:30
7. Discussion and Input	10:30 – 11:45
8. Next Steps and Questions	11:45 – 12:00





INPUT AND FEEDBACK

Name/Title: _____

Organization: _____

Which of the following sectors and areas of expertise do you represent? Mark all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Emergency Management | <input type="checkbox"/> Natural and Cultural Resources |
| <input type="checkbox"/> Economic Development | <input type="checkbox"/> Land Use and Development |
| <input type="checkbox"/> Housing, Food, Water, Shelter | <input type="checkbox"/> [REDACTED] |
| <input type="checkbox"/> Health and Social Services | <input type="checkbox"/> Social and Cultural Equity |
| <input type="checkbox"/> Infrastructure | |

What officials and/or organizations are not in the room today, but should be involved in this planning effort?

For which hazard(s) do you feel that you or your organization have special interest and/or expertise? Check all that apply.

- | | | |
|---|--|---|
| <input type="checkbox"/> Dam Failure | <input type="checkbox"/> Landslide | <input type="checkbox"/> Radiological Incidents |
| <input type="checkbox"/> Drought | <input type="checkbox"/> Levee Failure | <input type="checkbox"/> Radon Exposure |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Severe Storms | <input type="checkbox"/> Utility Failure |
| <input type="checkbox"/> Extreme Temperatures | <input type="checkbox"/> Subsidence | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Flood | <input type="checkbox"/> Pandemic | <input type="checkbox"/> Winter Weather |
| <input type="checkbox"/> Hazardous Materials | | |

What potential impacts [REDACTED] are most concerning to you?



INPUT AND FEEDBACK

What barriers and community characteristics exist within the State that may create additional vulnerabilities to hazards? Examples: transportation, broadband access, economic disadvantages, physical health (chronic diseases), limited physical mobility, age (older adults and children), and rural vs. urban communities.

What stakeholders need to be involved who may not have the ability to provide their input electronically? How are they usually involved in planning efforts?

Do you have any concerns about the schedule? If so, what are your concerns?



INPUT AND FEEDBACK

What are the mitigation “success stories” in West Virginia, or in your organization in particular?

What challenges or barriers to reducing vulnerability in West Virginia do you see?

What support does your organization/jurisdiction need from the State to reduce your vulnerability?

What mitigation capabilities has your organization/jurisdiction developed in the last five years?



INPUT AND FEEDBACK

Other Notes

Please return these questionnaires at the end of the meeting.

Project Schedule

(Subject to Change)

Task	Timeframe
Project Management	<ul style="list-style-type: none"> Steering Committee Kickoff Meeting conducted on July 26, 2022 Project management conducted throughout the planning process
Phase 1: Planning Process	<ul style="list-style-type: none"> State Planning Team and other stakeholders identified and invited to participate by the end of August 2022 State Planning Team Kickoff Meeting conducted on September 13, 2022 Stakeholder surveys developed by mid-September 2022 Website developed by mid-September 2022 and maintained for the life of the project
Phase 2: Hazard Identification and Risk Assessment	<ul style="list-style-type: none"> Hazard analysis and risk assessment updated by early November 2022 Risk assessment reviewed with the State Planning Team on or about November 16, 2022 Public meetings to collect feedback on the risk assessment conducted in late November 2022
Phase 3: State Mitigation Capabilities and Local Planning Coordination and Capacity Building	<ul style="list-style-type: none"> Capability assessment webinars with stakeholders conducted in early December 2022 Capability assessment meeting with the State Planning Team conducted in mid-December 2022 Capability assessment updated by the end of December 2022
Phase 4: Mitigation Strategy	<ul style="list-style-type: none"> Goals and objectives from the 2018 HMP reviewed with the State Planning Team in early January 2023 Goals and objectives updated by the end of January 2023 Mitigation strategy webinars with stakeholders conducted in early February 2023 Mitigation actions updated by the middle of February 2023 Mitigation strategy meeting of the State Planning Team conducted on or about February 22, 2023
Phase 5: Update Plan, Public Forums, Final Plan	<ul style="list-style-type: none"> Draft plan developed by early March 2023 Stakeholder review completed from mid-March to mid-April 2023 Public meetings to review the draft HMP conducted in mid-April 2023 Draft plan reviewed with the State Planning Team on or about April 20, 2023 Draft plan updated based on State Planning Team and stakeholder reviews by late April 2023 Updated draft reviewed by EMD leadership by early May 2023 Meeting to discuss EMD leadership comments on the updated draft conducted in mid-May 2023 Plan draft finalized by May 18, 2023
Phase 6: Formal Adoption	<ul style="list-style-type: none"> Plan submitted to FEMA Region III by May 19, 2023 Plan reviewed by FEMA through July 6, 2023 Meeting to discuss FEMA comments on the draft plan conducted on or about July 14, 2023 Plan updated based on FEMA comments by July 26, 2023 Updates reviewed by FEMA through August 4, 2023 APA status granted by August 4, 2023 Agency signoffs collected from August 4 – August 18, 2023 Plan adopted by the Governor by September 1, 2023 Adoption reviewed by FEMA by September 14, 2023 Full approval granted by FEMA by September 15, 2023 Final deliverables provided to EMD by October 5, 2023



STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Kickoff Meeting

SIGN-IN

September 13, 2022 | 9:00 a.m. - 12:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Kelli Batch-Chief	WV EMD	kelli.r.batch@wv.gov	304-590-6145
Christopher Rucker	WV EMD	christopher.c.rucker@wv.gov	
Brian Panix HMA P/O	WV EMD	Brian.M.Panix@wv.gov	304-414-7664
Brent Burger	WV EMD	brent.a.burger@wv.gov	304-539-1177
Ray Perry	Logan County	perry@lccwv.us	304-687-9680
Matt Blackwood	WV EMD	matt.blackwood@wv.gov	
Timi Keaton	WV EMD	timow.keaton@wv.gov	304-414-7659
Bob Martin	WV SRO	robert.f.martin@wv.gov	304-558-2000
Ed Martin	WV SRO	edwin.f.martin@wv.gov	11





STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Kickoff Meeting

SIGN-IN

September 13, 2022 | 9:00 a.m. – 12:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Cathy Gurnett	FEMA	cathy.gurnett@fema.dhs.gov	202-856-1882
Cadino Reed	WV EMD	gabriel.a.reed@wv.gov	
JASON MREANS	WV EMD	JASON.S.MREANS@wv.gov	304-550-4571





STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Kickoff Meeting

SIGN-IN

September 13, 2022 | 9:00 a.m. – 12:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Christina Groves	Tetra Tech	christina.groves@tetra.tech	(270) 820-7817
Jamie Bielinski	NOAA NWS	Jamie.Bielinski@noaa.gov	(304) 546-9350
Nuvia Villanizar	WUEND	nuvia.e.villanizar@wu.gov	
Tim Parson	CTP	Timothy.J.Parson@wu.gov	304.389.7905
Tony Subbio / PM	Tetra Tech	tony.subbio@tetra.tech	717.831.5654





MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) State Planning Team (SPT) Capabilities Assessment Meeting		
Date	November 9, 2022	Time	9:00 a.m. – 12:00 p.m.
Location	West Virginia Emergency Management Division, 2403 Fairlawn Avenue, Dunbar, West Virginia		
Attendees	Lonnie Bryson, Section Chief, WV EMD		
	Tony Domingo, Assistant Section Chief, WV EMD		
	Matthew Gregg, Region 6 Liaison Officer/EMAC A-Team, WV EMD		
	Ben Hersman, Region 1 Liaison Officer/EMAC A-Team, WV EMD		
	Gabriel Reed, State Hazard Mitigation Officer, West Virginia Emergency Management Division (WV EMD)		
	Nate Meadows, Deputy Director - Homeland Security And Emergency Response, West Virginia Department of Environmental Protection		
	Robert Bailey, Deputy State Fire Marshal, West Virginia State Fire Marshal's Office		
	Robert Martin, Director, West Virginia State Resiliency Office		
	Holly Quentrill, Administrative Assistant, West Virginia State Resiliency Office		
	C.W. Sigman, Director/Fire Coordinator, Kanawha County Office of Emergency Management		
	Ray Perry, Floodplain Administrator, Logan County		
	Sheena McClung, Floodplain Administrator, Nicholas County		
	Tony Edwards, Warning Coordination Meteorologist, National Weather Service Charleston, West Virginia		
	Tony Subbio, Project Manager, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the State Planning Team Capabilities Assessment Meeting.

Welcome and Introductions

Mr. Reed welcomed attendees to the meeting. Attendees introduced themselves. Mr. Subbio provided an orientation to the meeting materials.

State Legal and Regulatory Environment

- Building Codes
 - The West Virginia State Building Code is not enforced in all communities. Communities can decide whether to enforce a building code. If they choose to, they must adopt and enforce the State Building Code.
 - Having no statewide mandatory building code makes West Virginia less competitive for funding under the Federal Emergency Management Agency's (FEMA) Building Resilient Infrastructure and Communities (BRIC) grant.
 - FEMA's mitigation-reconstruction funding requires a structure to be built to the 2015 International Code, but it is not clear who would enforce that requirement in a community that has not adopted a building code.



MEETING NOTES

- ASCE24 is incorporated in the State Building Code.
 - The State Fire Commission is the lead agency for the State Building Code.
 - The State Fire Marshal's Office issues licenses for building code officials, sets requirements, and investigates complaints.
 - There is no mechanism in place for communities to pay for adoption and enforcement of the State Building Code.
 - Training for building code officials is conducted online.
- Building and Fire Codes
 - Larger municipalities enforce the State Building Code and the Fire Code.
 - Fire Codes apply to all structures except 1–2 family residential structures.
- Permitting
 - State facilities are exempt from permitting requirements.
 - There is a high degree of variability throughout the State regarding permitting.
 - There is little regulation of areas outside the floodplain. Banks and the insurance industry force people to follow floodplain regulations; people outside regulated areas know little about permitting requirements.
- Stream Work
 - Section 7-1-3u of the West Virginia Code provides authority to counties and municipalities to "rechannel and dredge streams; remove accumulated debris, snags, sandbars, rocks and any other kinds of obstructions from streams; straighten stream channels, and carry out erosion and sedimentation control measures and programs."
 - A brochure describing what work can be done in a stream would be useful.
 - The WV DEP has authority to enforce environmental requirements.
- There is no disclosure law related to whether a structure is in the floodplain. A seller only has to disclose information that they were provided when they purchased the structure or if someone was murdered in the home in the last seven years. Structure owners do not know about past damages to the structure.

Existing State Plans and Strategies

- The current Flood Protection Plan was adopted in 2004. The SRO has completed its review of the plan, and the SRO Board of Directors are reviewing a document summarizing the review of the plan. After the SRO Board of Directors reviews the review document, the review document will go to the Governor's Office and then the State Legislature for their review. Following the Governor's Office's and State Legislature's reviews and approvals of which recommendations to implement, the SRO will begin updating the Flood Protection Plan.
- The State's Community Development Block Grant (CDBG) – Mitigation (-MIT) Action Plan is being written.
- The WV Department of Transportation (WV DOT) has a capital improvements plan related to highway improvements.
- The West Virginia Department of Commerce maintains a statewide economic development plan.
- Dam Safety
 - There is not a single State Dam Safety Plan.



MEETING NOTES

- WV DEP and the West Virginia Conservation Agency coordinate dam safety in the State. Attendees suggested speaking with the WV DEP Dam Safety office to determine who regulates dam safety statewide.
- The West Virginia State Emergency Operations Plan (EOP) includes dam safety information. The WV EMD Preparedness section is expanding the EOP's dam safety information.
- Local emergency managers often "sign off" on dam Emergency Action Plans (EAP) without thoroughly reviewing them.
- Attendees identified the need for a State Recovery Plan and a plan for coordinating large-scale responses that incorporate multiple State agencies.

Local Capabilities

- Mr. Subbio reviewed local capabilities that were reported in regional HMPs and Jefferson County's HMP. Capabilities information reported in each plan was not consistent across plans.
- The following HMPs did not include any information on local capabilities:
 - Region 2
 - Region 5
 - Region 6
 - Region 8
 - Region 9
 - Region 10
 - Jefferson County
- The following tables identify the number of participating jurisdictions in each region's plan that have the capabilities indicated in effect.
- Region 1

Planning Commission	Mitigation Planning Committee	Chief Building Official	Mutual Aid Agreements	Community Planner	Civil Engineer
6/31	1/31	7/31	7/31	1/31	2/31

- Region 3

Planning Commission	Comprehensive Plan	Floodplain Regulations	Building Department	Zoning Ordinance	Capital Budget	Public Works Budget
25/25	5/25	25/25	9/25	6/25	0/25	25/25

- Region 4

Hazard Mitigation Plan	31/31
Comprehensive Land Use Plan	8/31
Floodplain Management Plan	4/31
Open Space Management Plan (or Parks & Rec/ Greenway Plan)	0/31



MEETING NOTES

Stormwater Management Plan/Ordinance	0/31
Natural Resource Protection Plan	0/31
Flood Response Plan	3/31
Emergency Operations Plan	3/31
Evacuation Plan	2/31
Disaster Recovery Plan	2/31
Capital Improvements Plan	0/31
Economic Development Plan	0/31
Historic Preservation Plan	1/31
Flood Damage Prevention Ordinance	2/31
Floodplain Regulations	31/31
Zoning Ordinance	18/31
Subdivision Ordinance	1/31
Unified Development Ordinance	1/31
Post-Disaster Redevelopment Ordinance	0/31
Building Code	1/31
Fire Code	1/31
National flood Insurance Program	31/31
NFIP CRS	2/31
Planning Commission	31/31
Building Department	2/31

- Region 7

Floodplain Regulations	Zoning Regulations	Subdivision Regulations
31/31	2/31	1/31

- Region 11

Planning Commission	10/10
Comprehensive Plan	3/10
Radiological Emergency Plan	10/10
Floodplain Regulations	9/10
Building Codes	10/10
Zoning Ordinance	4/10
Historic Preservation Plan	1/10
CRS	0/10
Capital Budget	4/10
Public Works Budget	1/10
Community Economic Development Strategy	10/10

- Officials in communities that have plans in place may not be aware that the plans exist, so the above tables may not be completely accurate.
- The State should identify which capabilities to require jurisdictions to report in local HMPs.



MEETING NOTES

- Funding for staffing at the local level is low.
- Smaller communities do not have many plans or regulations in place.
- Attendees felt that floodplain regulations were the most effective in reducing vulnerability.
- Property acquisition projects are effective in reducing vulnerability to disaster, but they may remove critical infrastructure (e.g., the only grocery store in a community).
- Insurance premium increases related to Risk Rating 2.0 were painful to many people in the State.
- Communities need support in conducting benefit-cost analyses.
- Disparities among the State's communities are related to local capability and capacity.
 - Local officials fill too many roles (i.e., wear too many hats).
 - There is high turnover of local officials.
 - Use of technology varies. Communities in the north are more adept with electronic communication than areas in the south.
- Mr. Edwards recommended that more local communities in the State pursue the NWS Storm Ready certification. Attaining this certification may be relatively easy for many communities. It does not require much extra funding; participants support annual training that can be conducted by NWS staff, and the program requires schools have weather radios, especially if they are in areas without cellular coverage. He stated that most counties already meet the requirements.

Funding Resources

- Attendees discussed the following federal funding streams:
 - FEMA Hazard Mitigation Assistance (HMA)
 - Traditionally, the State has paid the non-federal share of HMA awards. Now, the State requires local communities to show how they can find the non-federal share funding.
 - FEMA Rehabilitation of High Hazard Potential Dams (HHPD) grant program
 - FEMA Safeguarding Tomorrow Revolving Loan Fund Program
 - Small Business Administration loans
 - U.S. Army Corps of Engineers (USACE) technical assistance
 - USACE is studying the Kanawha River's entire watershed. Three more hydrologic and hydraulic (H&H) studies are slated for implementation.
 - Infrastructure Investment and Jobs Act (IIJA) funds
- Attendees reported that the State does not have any of its own funding streams specifically for mitigation purposes.

Coordination

- Mr. Subbio stated that Tetra Tech will collect information on coordinating floodplain management from Mr. Timothy Keaton separately since he was not able to attend the meeting.
- Attendees stated that assistance provided by the FEMA Integration Team (FIT) has been beneficial.
- WV EMD and SRO staff collaborate regularly.
- Annual risk reduction consultations are being re-established.



MEETING NOTES

- WV EMD reported that staff are building relationships with colleagues in other State departments and agencies.
- WV EMD is developing stronger relationships with the regional planning and development commissions through in-person visits and regular coordination calls.

Next Steps and Questions

Mr. Subbio reviewed the following next steps in the HMP update process with attendees:

- Tetra Tech will work with Mr. Reed to distribute the stakeholder surveys.
- Tetra Tech will complete the risk assessment.
- Tetra Tech will work with the Steering Committee to set the goals and objectives for the updated HMP.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

The meeting adjourned at 12:00 p.m.



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Existing State Plans and Strategies

- Existing Plans and Strategies
 - Flood Protection Plan and Update
 - Dam Safety Plan
 - Other
- What plans or strategies need to be developed to reduce vulnerability throughout the State?



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TETRA TECH
CLEAR SOLUTIONS

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Local Capabilities

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Local Capabilities

- Capabilities in Local HMPs
 - Not described
 - Region 2
 - Region 5
 - Region 6
 - Region 8
 - Region 9
 - Region 10
 - Jefferson County



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TETRA TECH
CLEAR SOLUTIONS

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Local Capabilities

➤ Region 1

Planning Commission	Mitigation Planning Committee	Chief Building Official	Mutual Aid Agreements	Community Planner	Civil Engineer
6/31	1/31	7/31	7/31	1/31	2/31

➤ Region 3

Planning Commission	Comprehensive Plan	Floodplain Regulations	Building Department	Zoning Ordinance	Capital Budget	Public Works
25/25	5/25	25/25	9/25	6/25	0/25	25/25



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TETRA TECH
CLEAR SOLUTIONS

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Local Capabilities

➤ Region 4

Hazard Mitigation Plan	31/31
Comprehensive Land Use Plan	8/31
Floodplain Management Plan	4/31
Open Space Management Plan (or Parks & Rec/ Greenway Plan)	0/31
Stormwater Management Plan/Ordinance	0/31
Natural Resource Protection Plan	0/31
Flood Response Plan	3/31
Emergency Operations Plan	3/31
Evacuation Plan	2/31
Disaster Recovery Plan	2/31
Capital Improvements Plan	0/31
Economic Development Plan	0/31
Historic Preservation Plan	1/31



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TETRA TECH
CLEAR SOLUTIONS

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Local Capabilities

➤ Region 4

Flood Damage Prevention Ordinance	2/31
Floodplain Regulations	31/31
Zoning Ordinance	18/31
Subdivision Ordinance	1/31
Unified Development Ordinance	1/31
Post-Disaster Redevelopment Ordinance	0/31
Building Code	1/31
Fire Code	1/31
National Flood Insurance Program	31/31
NFIP CRS	2/31
Planning Commission	31/31
Building Department	2/31



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TETRA TECH
CLEAR SOLUTIONS

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Local Capabilities

- Region 7

Floodplain Regulations	Zoning Regulations	Subdivision Regulations
31/31	2/31	1/31



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Local Capabilities

- Region 11

Planning Commission	10/10
Comprehensive Plan	3/10
Radiological Emergency Plan	10/10
Floodplain Regulations	9/10
Building Codes	10/10
Zoning Ordinance	4/10
Historic Preservation Plan	1/10
CRS	0/10
Capital Budget	4/10
Public Works Budget	1/10
Community Economic Development Strategy	10/10




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Local Capabilities

- What local capabilities are most effective in reducing vulnerability?
- What support do local governments need from the State?
- What disparities exist in different regions of the State? In underserved communities?
-



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Funding Resources




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Funding Resources

- Federal
 - FEMA Hazard Mitigation Assistance
 - FEMA CAP-SSSE and CTP
 - FEMA Public Assistance
 - Natural Resources Conservation Service
 - Federal Highway Administration
 - U.S. Army Corps of Engineers



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Funding Resources

- Interstate
 - Appalachian Regional Commission
- State
 - WV Department of Environmental Protection Stream Partners Program
 - WV Department of Economic Development - U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG)



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Funding Resources

- What other federal funding sources could be leveraged?
- What other State funding sources could be leveraged?
- What funding do local governments rely on to reduce vulnerability?

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TETRA TECH

Coordination

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Coordination

- How is floodplain management coordinated across the State?
- How do State agencies coordinate activities related to hazard mitigation?
- How do State agencies work with regions and local governments to reduce vulnerability?

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TETRA TECH

Next Steps and Questions

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Next Steps

- Stakeholder surveys
- Complete risk assessment
- Set goals and objectives

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Questions?

Thank you for your time!

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Contacts



Gabriel Reed

gabriel.a.reed@wv.gov

(304) 414-7673



Tony Subbio

tony.subbio@tetratech.com

(717) 839-5654



LETTER HOME CLASS EXCHANGE



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STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Capabilities Assessment Meeting

SIGN-IN

November 9, 2022 | 9:00 a.m. – 12:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Red Scho	WV EMD	Reg66c@wv.gov	
Math Greys	WV EMD	matthew.e.greys@wv.gov	
Ray Perry	Logan Co. Emergency	Perryr@logan.wv.us	304.687.9680
Nate Meadows HSEF	WV DEP	Nathan.C.Meadows@dep.wv.gov	304-983-2280
C.W. Sigman	Kanawha OEM	cwsigman@kanawha.us	304 550 2819
Holly Quentrell	WV SRO	Holly.A.Quentrell@wv.gov	304 558-2000
Bob Martin	WV SRO	Robert.H.Martin@wv.gov	304 558-2000
Robert Bailey	WV SFRMC	Robert.T.D.Bailey@wv.gov	304-558-2191
Lonnio Bryson	WV EMD	Lonnio.F.Bryson@wv.gov	(304) 558-5380
Tommy Dominguez asst section	WV EMD	James.A.Dominguez@wv.gov	304-558-5380





STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Capabilities Assessment Meeting

SIGN-IN

November 9, 2022 | 9:00 a.m. – 12:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Tony Edwards (online)			
Shenna McLung (online)			
Ben Hersan (online)			
Tony Subbio/pm	Tetra Tech	tony.subbio@tetra-tech.com	77-834-5654





MEETING NOTES

Meeting	State of West Virginia 2023 Hazard Mitigation Plan Update State Mitigation Capabilities & Local Planning Coordination Assessment Webinar		
Date	November 16, 2022	Time	1:30 pm- 2:30 pm
Location	Microsoft Teams		
Attendees	Lonnie Bryson, Section Chief, West Virginia (WV) Emergency Management Division (EMD)		
	Brent Burger, WV EMD		
	Jeff Cunningham, Training / SAR Officer, WV EMD		
	Lora Lipscomb, Public Information Officer, WV EMD		
	Roy McCallister, Threat Preparedness/Response Officer, WV Department of Agriculture		
	Tim Priddy, Director, WV Center for Threat Preparedness		
	Sherry Risk, Community Development Block Grant Program Manager, WV Department of Economic Development		
	Bob Martin, Director, West Virginia State Resiliency Office (SRO)		
	Ed Martin, Deputy Director, West Virginia SRO		
	Eric Hopkins, Lead GIS Specialist, West Virginia University GIS Technical Center		
	John Tuggle, Executive Director, Region 4 Planning & Development Council (PDC)		
	Joel Davis, Mid-Ohio Valley Regional Council (Region 5)		
	Randy Lilly, Director, Berkeley County Emergency Management Agency (EMA)		
	Jeffrey Luck, Brooke County EMA		
	Ray Perry, Floodplain Administrator, Logan County; Chair, West Virginia Floodplain Management Association		
	Steve Byus, Director, City of Madison Emergency Management (OEM)		
	Keith Gunnoe, Mercer County OEM		
	Richard Miller, Director, Monroe County OEM		
	Michael O'Brien, Director, Pocahontas County 911 and Emergency Management		
	Kevin Stitzinger, Pocahontas County		
	Rob Daman, Deputy Director, Randolph County OEM		
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, FEMA Region III		
	JaLeesa Tate, Tetra Tech, Planner		
	Emily Vassallo, Tetra Tech, Planner		

Discussion Points

This section summarizes each discussion point addressed during the State Planning Team Capabilities Assessment Webinar.

Welcome and Introductions

J. Tate thanked everyone for attending the capabilities meeting, introduced herself, and explained Tetra Tech's role in the Hazard Mitigation Plan update process. A brief introduction by Lonnie Bryson with



MEETING NOTES

West Virginia Emergency Management Division emphasized how important stakeholder participation is to produce a better plan.

Agenda

J. Tate gave a general overview of the agenda of topics to be covered during the meeting. The meeting was held to gain information on training and technical assistance, regulatory issues, staffing, outreach, funding, and challenges.

Training and Technical Assistance

Training and technical assistance looks at what resources the State has to provide mitigation planning, risk assessment, and implementation technical assistance, along with grants management.

The can request specific hazard mitigation planning training from the FEMA Region 3 office. The curriculum is predeveloped but can be tailored to fit local needs that may be more specific to a particular area. These trainings can be requested and offered virtually and in person, depending on a region's abilities.

L. Bryson stated that the planning team can have a discussion with Tim Keaton, the State NFIP Coordinator, to discuss NFIP-related capabilities such as joining the CRS Program to reduce flood insurance premiums. L. Bryson also stated that the WV National Guard's Critical Infrastructure Protection Mission Assurance division that can conduct CI/KR reviews across the State.

Regulatory

Regulatory capabilities include laws, policies, building codes, floodplain management ordinances, and plans that contribute to hazard mitigation. Earlier discussions focused on the State building code and fire code. Regulatory capabilities also incorporate how the State promotes and encourages NFIP compliance and CRS Program participation.

West Virginia State University has an environmental department with specific tool-trained engineers. Partnering with them at the State and local levels would be beneficial because state and local entities could be provided training on how to read engineering plans. Using their expertise, the State would also be able to gain an engineering perspective on some of the proposed projects. Cross departmental coordination in a multidisciplinary approach is beneficial in reducing vulnerabilities because hazard mitigation is not a one size fits all approach.

L. Bryson reiterated that collaborating with other departments, such as the WV National Guard, would be beneficial in identifying and prioritizing critical infrastructure in the State. State and federal agencies can work together to identify critical infrastructure, and the WV National Guard can then assess the infrastructure's vulnerability

Attendees identified disclosure of floodplain status, the vulnerability of the well ahead of a home purchase, and recognizing the challenges and limitations of code enforcement as important issues.

Enforcement of plans and regulations is challenging if the jurisdiction does not have the staffing available to carry it out.



MEETING NOTES

Staffing

Staff with expertise in mitigation planning, data collection, funding, project management, and grants management are needed to implement a mitigation program.

The Resiliency Office recently cross trained with the West Virginia State Police on critical infrastructure, and additional training is coming in December on the electrical grid. SRO collaborates with WV EMD as much as possible.

The mitigation team in WV EMD hosts an annual risk reduction consultation with a goal of identifying the State's priorities. L. Bryson stated that State agencies struggle to clarify what program has ownership of critical infrastructure protection.

E. Martin suggested that having a unified message of hazard mitigation would be beneficial.

C. Garnett pointed out that the State has been focusing on developing partnerships, such as the flood tool developed by the WVU GIS Technical Center and the regional councils.

Outreach

EMD has an annual plan for public outreach based on what time of year it is and what storms typically occur at that time. EMD uses Twitter, Facebook, and other methods of mass communication.

SRO currently has a website, but it is not usable. SRO's goal is to use the website as a hub where people can go and have a direct link to the information they are looking for, such as county websites, WV DEP or EMD.

The Flood Tool includes information on improving CRS Program rating, elevation certificates, and mitigation buyout property locations. Continuing to offer presentations at fairs and conferences regarding the Flood Tool and other community programs is a possible outreach method.

The SRO conducted the Flood Symposium this spring, the focus was to gather experts from around the State to evaluate the 2004 Flood Protection Plan.

The West Virginia Silver Jackets would be able to aid with outreach. L. Lipscomb stated that the Silver Jackets would tailor materials to the community for sharing at fairs or similar events.

Funding

The WV Silver Jackets are working on a document that would highlight funding opportunities for hazard mitigation funds in the State. L. Bryson described the Hazardous Materials Emergency Preparedness (HMEP) Grant and Pipeline Emergency Response Grant (PERG). In 2022, West Virginia received about \$250,000 in PERG grants. The State has also applied for and will continue to look into and apply for federal funding streams such as BRIC, FMA, HMGP, and CDBG (and its subgrants). NRCS also has potential funding programs for dam rehabilitation.

Challenges

There is a lack of funding at the local level for local jurisdictions to be able to supply the non-federal match for mitigation grants. The State does not have the funding to supply the non-federal match on



MEETING NOTES

local jurisdictions' behalf. Local officials may want to implement hazard mitigation projects but not know where to start.

Communities may also not have available staff to perform monitoring, inspection, or maintenance of larger mitigation projects.

Most communities only have their ARPA funds available to serve as matching funds, but have already committed those funds to other projects.

E. Martin stated that many projects could use federal funds from multiple programs, but the restrictions on duplication of benefits and intermingling federal funds pose a barrier to implementation.

Next Steps and Questions

Tetra Tech and the State will distribute a set of stakeholder surveys for the following groups:

- State departments
- Emergency managers
- Local floodplain administrators
- Academia
- Other stakeholders

The meeting adjourned at 2:30 p.m.



MEETING NOTES

Meeting	State of West Virginia 2023 Hazard Mitigation Plan Update State Mitigation Capabilities & Local Planning Coordination Webinar		
Date	November 17, 2022	Time	9:00 – 10:23 a.m.
Location	Microsoft Teams		
Attendees	Nuvia Villamizar, GIS Manager, WV EMD		
	Roy McCallister, Threat Preparedness & Response Officer, WV Department of Agriculture and Emergency Preparedness		
	Timothy Priddy, Director, WV Center for Threat Preparedness		
	Bob Martin, State Resiliency Officer, WV State Resiliency Office (SRO)		
	Ed Martin, Deputy Director, WV SRO		
	Holly Quentrill, Administrative Assistant, WV SRO		
	Eric Hopkins, Lead GIS Specialist, West Virginia University GIS Technical Center		
	George Eidel, Director of Emergency Management and Floodplain Management, Doddridge County		
	Stephen Allen, Director, Jefferson County Department of Homeland Security and Emergency Management		
	Dick Myers, Deputy Director, Jefferson County Office of Homeland Security and Emergency Management		
	Francis Holton, Deputy Director, Lincoln County Office of Emergency Services		
	Ray Perry, Floodplain Administrator and Building Code Official, Logan County		
	Steve Byus, Director of Emergency Management, City of Madison		
	Unidentified individual, Ohio County EMA		
	Steve Wykoff, Director, Upshur County Department of Homeland Security and Emergency Management		
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, FEMA Region III		
	Jamie Baker, Project Assistant, Region 4 Planning and Development Council		
	Betsy Morris, Planner, Region 4 Planning and Development		
	Carla Dent, Planner, Region 8 Planning & Development Council		
	M. Fortney		
	Alan Miles		
	John Slater		
	Christina Groves, Planner, Tetra Tech		
	Emily Vassallo, Planner, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the State Planning Team Capabilities Assessment Webinar.



MEETING NOTES

Welcome and Introductions

Christina Groves thanked everyone for attending and introduced herself. Attendees then introduced themselves. C. Groves briefly discussed the purpose and agenda of the meeting.

Training and Technical Assistance

In the past there have been grant management training sessions offered to State employees through different divisions. Recently, no postings or information on similar training sessions have been distributed. Attendees identified the following training topics as being needed in the State:

- Benefit-cost analysis
- Where to find necessary information and data sources
- CRS Program
- Dams

Attendees agreed that training opportunities are increasing.

C. Groves described CRS points available for HMPs.

C. Garnett identified the following success stories for training in the State:

- Modular trainings for planning teams, for each part of the planning process
- Plan Implementation and Grant Development Workshop, offered in a hybrid format, was the largest training session offered in Region III.

C. Garnett stated that FEMA Region III is always looking for new ideas for training sessions.

SRO has attempted to conduct a quarterly informational seminar or forum through the WV Municipal League for municipalities, as preparedness and resilience should start at the community level. SRO received no interest from municipalities. The original idea of the seminar was to provide technical assistance and training at a community level and move up to the county level and regions before encompassing State entities as well. There is a need to train all entities of the State in how to go about contacting the Emergency Operations Center and reporting any and all types of hazards.

SRO also has piloted a program where representatives from various State agencies will come into communities and look at the biggest problems prevalent in that community, and then provide them with a step-by-step process on how to address these issues. This would include information related to relevant grants, potential equipment that may be needed, or reaching out to neighboring communities. SRO intends to pilot the program in 2023.

Regulatory

S. Allen stated that most counties do not have zoning. Berkeley County is discussing limited zoning. In some areas, the only flat, developable land may be areas that water has flattened the land (e.g., in floodplains).



MEETING NOTES

E. Martin stated that the SRO has discussed requiring the local floodplain administrator to review development applications before the utilities can be turned on. C. Groves described her experience in a county that required a floodplain permit.

G. Eidel stated that the lack of building codes is an issue. People are able to build wherever they want to, and most of the time, if a structure is built in the floodplain, no one will know until after everything has already been completed. D. Myers pointed out a lack of enforcement is also a large issue. It is difficult and tedious to inspect floodplains regularly. The county will tell residents that they must follow the building code and will hand out permits, but no one is there for the enforcement process in making sure they are following the rules and regulations.

There used to be a voluntary partnership between the utility companies and the floodplain managers which helped to prevent development in a flood hazard area. The partnership ended because it was no longer cost effective. SRO would like to promote a law that enforces the concept of needing permission from the floodplain manager to turn on utilities. This concept would add assurance that structures are meeting minimum standards.

Staffing

Staff at the local level often has too much on their plate and are expected to do more than what they were hired to do. Some have to operate as a floodplain manager, code enforcement official, and grant coordinator all at one time. Being able to get everything that needs to be done in a timely manner is a struggle. Many communities and counties would benefit from education in order for people to properly carry out tasks outside of their expertise. The State could train local officials on the many roles that staff are being asked to fill. A mutual aid agreement in funding and sharing staff may be a good thing for neighboring jurisdictions to look into.

In West Virginia, floodplain managers are required to have six hours of training every year, however, the issue is that no one is tracking the education to make sure it is being done. The tracking and training should be managed at local levels so that scheduling can be more easily addressed. The State used to have training regulations of 24-40 hours of training to handle funding that was funneled down to the county levels, but that also stopped being tracked, and training stopped being a requirement.

Outreach

G. Eidel state that there is a need for social media training because some communities and jurisdictions want to create a website with useful information on it, but no one knows how to get started and what should be included in social media posts or on a website. All communities that do have a website have very different content and styles because they had to learn it on their own. Some communities cannot afford to start a website because they do not have spare funding to do that.

S. Byus stated that WV EMD and NWS are effective in disseminating messages, but other agencies should be involved.

SRO intends to design their website to be a hub of information that is useful to everyone in the State so that people may access information faster. Information must be written in a concise and clear manner so that anyone has the ability to understand it.



MEETING NOTES

Jefferson County is a good example of an information hub and can be used by all jurisdictions in the State. The site contains floodplain information, links to the flood mapping tool, and information on emergency management and the hazard mitigation plan. They county also has their public information officer look through their social media daily and post any relevant information. Monthly, newsletters are sent out to anyone that has signed up, including residents and local governments, so that everyone is on the same page.

Funding

Several staff members have left WV EMD, so a lot of experience with funding that was there is no longer there. FEMA has been trying a new method of reaching out to the regional councils and working with them to share grant information. Email lists have been used to reach out to people regarding grants, but it seems like they are not being read by people which brings up the question of what the best method of grant outreach might be.

Challenges

Having people to administer grants at the local level is an issue. There is also an issue that many localities do not understand that in-kind services can be used as a part of their local match for grants.

E. Martin stated that culturally, the State operates under a reactive mentality and collectively needs to change the culture and push towards a proactive mentality where it comes to preparedness, response, and recovery.

Next Steps and Questions

C. Groves urged attendees to complete the information-surveys that they will be invited to complete depending on their role(s). She encouraged attendees to reach out to Gabe Reed (the State Hazard Mitigation Officer) or Tony Subbio (Tetra Tech's project manager) with any questions or concerns. With no further questions, C. Groves concluded the meeting at 10:23 a.m.



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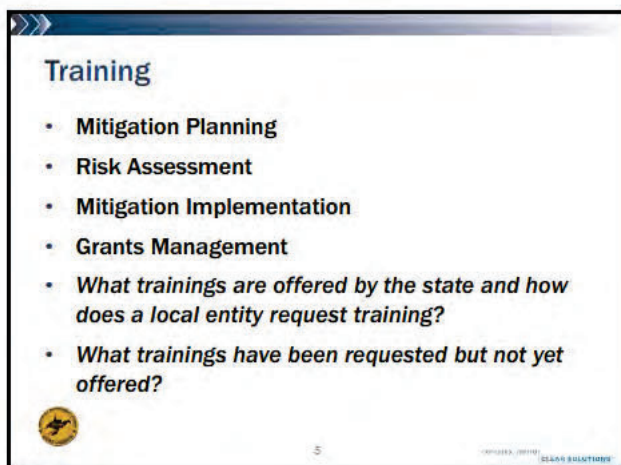
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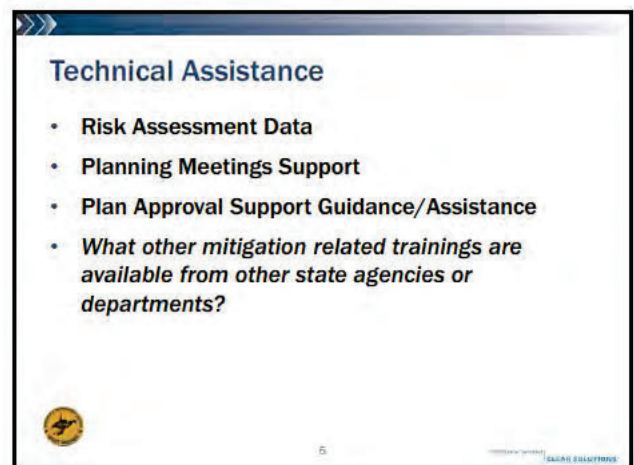
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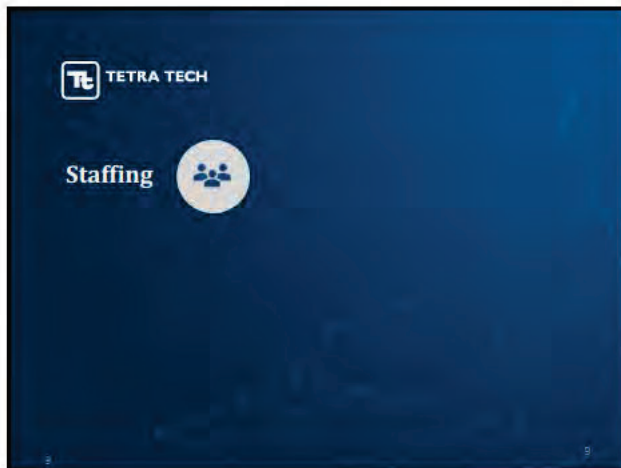
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 A white presentation slide with a blue header bar containing two white arrows pointing right. The title 'Regulatory' is in blue. Below it is a bulleted list:

- Land Use Laws
- Building Codes and Enforcement
- National Flood Insurance Program (NFIP) Coordination
- Others
- *What laws or regulations need to be developed to reduce vulnerability?*
- *What challenges to effective enforcement exist?*

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8



9

 A white presentation slide with a blue header bar containing two white arrows pointing right. The title 'Staffing' is in blue. Below it is a bulleted list:

- Mitigation Planning
- Risk Assessment
- Mitigation Implementation
- Grants Management
- *What trainings are offered by the state and how does a local entity request training?*
- *What trainings have been requested but not yet offered?*

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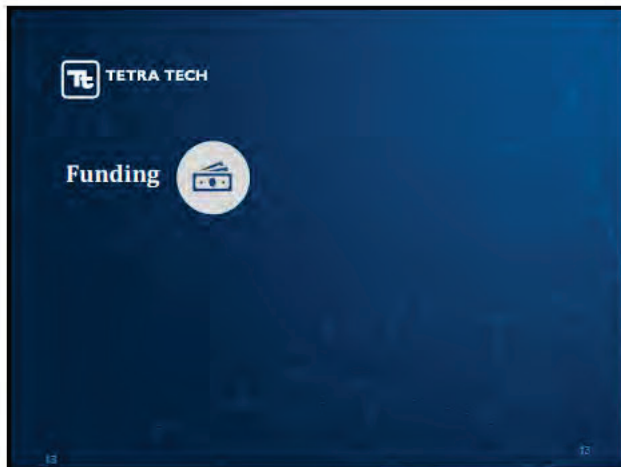
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 A white presentation slide with a blue header bar containing two white arrows pointing right. The title 'Outreach' is in blue. Below it is a bulleted list:

- Websites
- Social Media
- Printed Materials
- *What trainings are offered by the state to support local efforts for outreach and how does a local entity request training?*
- *What projects and/or materials the state could offer to support outreach at the local level?*

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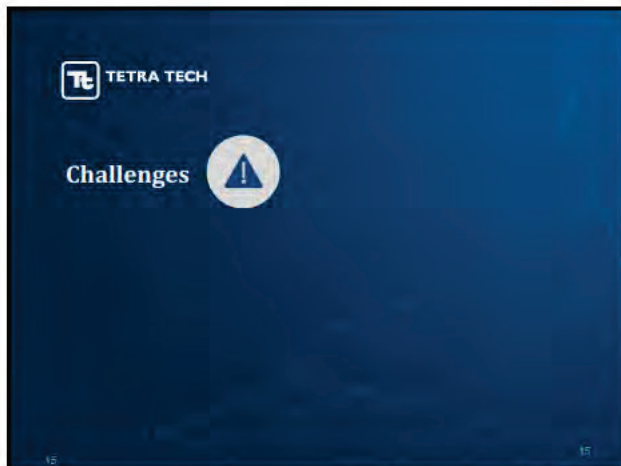


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Funding

- Federal, state, and/or private
 - Grant Availability
 - Grant Applications
 - Managing Mitigation Funds
- *How does the state educate local communities regarding the topics listed above?*

14

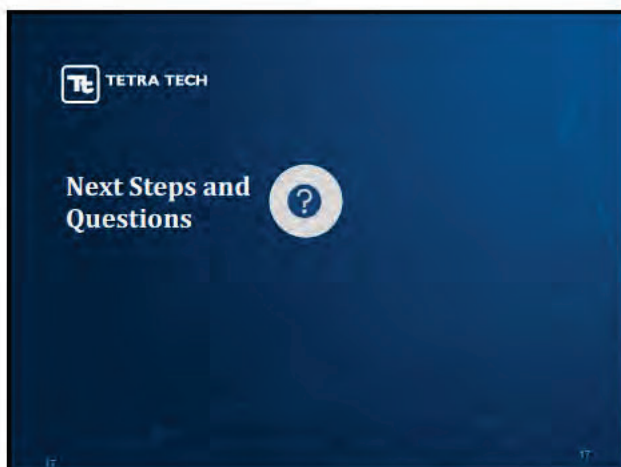


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Challenges

- Capacity Issues
- Integration Issues
- Coordination Issues
- Challenges Developing Mitigation Actions
- Lack of Data
- *What barriers facing the development of local hazard mitigation plans?*
- *What are actions that can address some of the barriers?*

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Next Steps

- Stakeholder surveys
 - Local FPAs - https://www.surveymonkey.com/r/WVHMP_FPA
 - Other Stakeholders - https://www.surveymonkey.com/r/WVHMP_Others
 - Academia - https://www.surveymonkey.com/r/WVHMP_Academic
 - County Emergency Mgt. - https://www.surveymonkey.com/r/WVHMP_CountyEM
 - State Departments - https://www.surveymonkey.com/r/WVHMP_StateDepts

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Questions



THREAT SOLUTIONS

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Contacts



Gabriel Reed, State Hazard Mitigation Officer

gabriel.a.reed@wy.gov

(304) 414-7673



Tony Subblo, Project Manager

tony.subblo@tetratech.com

(717) 839-5654



THREAT SOLUTIONS

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MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) State Planning Team (SPT) Risk Assessment Meeting		
Date	January 4, 2023	Time	9:00 a.m. – 12:50 p.m.
Location	West Virginia Emergency Management Division (WVEMD) 2403 Fairlawn Avenue, Dunbar, WV 25064 and Microsoft Teams webinar		
Attendees	Ginger Barnett, Chief of Mitigation and Recovery, WVEMD		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WVEMD		
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, Federal Emergency Management Agency (FEMA)		
	Ed Martin, Deputy Director, West Virginia State Resiliency Office (WV SRO)		
	Tony Edwards, Warning Coordination Meteorologist, National Oceanic and Atmospheric Administration (NOAA)/National Weather Service (NWS)		
	Jeremy Jones, Assistant State Forester, West Virginia Division of Forestry (WV DOF)		
	Ray Perry, Floodplain Administrator, Logan County; Chair, West Virginia Floodplain Management Association		
	Robert “Bob” Martin, Director, WV SRO		
	Dionne Allen, Planner, Region 7 Planning and Development Council (PDC) (remote)		
	Timothy Priddy, Director, WV Center for Threat Preparedness (remote)		
	Hunter Roberts, Grants Management Specialist, FEMA (remote)		
	Jamie Baker, Project Assistant, Region 4 Planning and Development Council (remote)		
	Ryan Halsey, Community Development Block Grant (CDBG) Infrastructure Project Manager, WV Community Advancement and Development		
	Kathy Bowe, Assistant Director of Disaster Response and Safety, WV Department of Transportation		
	Sherry Risk, CDBG Program Manager, WV Community Advancement and Development		
	Stephen Allen, Director, Jefferson County Department of Homeland Security and Emergency Management (remote)		
	Steven Patterson, Deputy Director, West Virginia Fusion Center		
	JaLeesa Tate, Tetra Tech, Deputy Project Manager		
	Christina Groves, Tetra Tech, Senior Planner		

Discussion Points

This section summarizes each discussion point addressed during the SPT Risk Assessment Meeting.

Welcome and Introductions

Ms. Barnett welcomed attendees to the meeting. Ms. Tate provided an overview of the purpose of the meeting, and attendees introduced themselves. The meeting serves to provide an overview of the Risk Assessment in the 2023 State Hazard Mitigation Plan (SHMP) and identifies hazards, assets, and vulnerabilities within the state.



MEETING NOTES

Purpose of State Hazard Mitigation Planning

Ms. Tate highlighted the goals of conducting the SHMP planning process. The WV SHMP serves as an opportunity for strategic planning for the future. Benefits include identifying vulnerabilities, increasing public awareness, building partnerships, and integrating statewide planning efforts. The SHMP is required for the state to maintain eligibility for FEMA's Hazard Mitigation Assistance (HMA) programs and certain categories of Public Assistance (PA).

Components of the Risk Assessment

Ms. Tate defined risk and provided an example to attendees. Risk can be defined as the intersection of hazards, assets, and vulnerabilities. Ms. Tate reviewed the basic methodology for conducting a Risk Assessment:

- Identify and describe hazards:
 - Location and extent
 - Past occurrences and impacts
 - Future probability
- Identify and assess potential impacts on assets:
 - People
 - Public service facilities
 - Critical facilities
 - Environment
 - Economy
- Analyze risks
 - Intersection of hazards, vulnerability, and exposure

Ms. Tate reviewed the below components of the Risk Assessment:

- | | |
|----------------------------|--|
| • Hazard Identification | • Changes in Development |
| • Asset Identification | • Impacts from Climate Extremes |
| • Vulnerability Assessment | • Impacts to Socially Vulnerable Communities |

Statewide Snapshot

Ms. Tate reviewed the hazards identified in the state's 11 Regional Planning and Development Councils (RPDCs) and Jefferson County local hazard mitigation plans (HMPs). It was noted that all hazards may not be identified in local HMPs due to differences in geography, concentration of people and structures, etc. Additionally, hazards may be identified and categorized differently. For example, in some plans, wind may be assessed as an independent hazard, but in other HMPs, it may be categorized with severe weather. The following hazards were assessed in local HMPs; bolded hazards are included in the 2023 SHMP update.



MEETING NOTES

- Civil Disturbance
- **Dam Failure**
- **Drought**
- **Earthquake**
- **Epidemic**
- Expansive Soil
- **Extreme Heat**
- **Flood**
- Hailstorm
- **Hazardous Materials Incident**
- Infestation
- **Landslide**
- **Radiological Hazards**
- **Severe Winter Storm**
- Structure/Urban Fires
- Technological Hazards
- Terrorism
- **Tornado**
- **Wildfire**
- **Wind/Severe Storm**

Social Vulnerability

Ms. Tate defined social vulnerability as the susceptibility of social groups to adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. In West Virginia, barriers and challenges contributing to social vulnerability may include the following:

- Lack of access to transportation
- Crowded housing
- Economic disadvantages
- Age
- Physical limitations and disabilities
- Lack of access to broadband (internet)

Attendees also noted the following:

- Substance abuse and addiction can serve as a barrier that contributes to the barriers and challenges noted above.
- Individuals experiencing homelessness are vulnerable and many of the barriers and challenges noted above impact them more severely.
- There is an unwillingness for people to relocate or evacuate which places them in greater danger.
- Educational barriers increase vulnerability due to the necessity for individuals to be able to interpret warnings and notifications.

Ms. Tate reviewed an analysis of the [Center for Disease Control and Prevention \(CDC\) / Agency for Toxic Substances and Disease Registry \(ATSDR\) Social Vulnerability Index](#). The index ranges from 0 to 1, with 0 representing the least vulnerability and 1 representing the greatest vulnerability. The data is aggregated by census tracts. The SVI is calculated based on 16 data points that are categorized into four themes:

- Socioeconomic status (below 150% poverty, unemployed, housing cost burden, no high school diploma, no health insurance)
- Household characteristics (aged 65 or older, aged 17 or younger, civilian with a disability, single-parent households, English language proficiency)
- Racial and ethnic minority status (Hispanic or Latino of any race; Black and African American, Not Hispanic or Latino; American Indian and Alaska Native, Not Hispanic or Latino; Asian, Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander, Not Hispanic or Latino; Two or More Races, Not Hispanic or Latino; Other Races, Not Hispanic or Latino)



MEETING NOTES

- Housing type and transportation (multi-unit structures, mobile homes, crowding, no vehicle, group quarters)

Within West Virginia, the themes for socioeconomic status and household composition and disability have the greatest vulnerabilities within the southwestern areas of the state. The theme for minority status and language has the least vulnerability. The housing type and transportation theme is varied throughout the state and does not depict a concentration of increased vulnerability.

Ms. Tate also provided an overview of the composite SVI of all four themes representing the highest 20% percent of census tracts with an SVI of 0.8 or greater. These areas are mostly located with the southern region of the state.

Attendees noted additional information on social vulnerability within the state may be found in local HMPs, the [CDBG-MIT Action Plan](#), and the [CDBG-DR RISE Disaster Recovery Program](#)'s unmet needs assessment.

Review of Draft Risk Assessment

Ms. Tate introduced the draft Risk Assessment for the 2023 West Virginia SHMP. A summary of the discussion is provided below.

Dam Failure

Dams can result in catastrophic damages downstream that include flooding, loss of life, and damage to property and the environment. Approximately half the dams in the state are privately owned, and one-third are state-owned. The remaining percentage is a combination of federal, local government, and public utility ownership. High hazard potential dams pose the greatest risk, and 74% of dams in the state are within this category.

Attendees noted that the potential causes of dam failure (e.g., flooding, deferred maintenance, aging infrastructure, etc.) often occur in combination and are not mutually exclusive.

To meet High Hazard Potential Dam (HHPD) requirements, the SHMP must evaluate incremental, non-breach, and residual risk.

Drought

Per the U.S. Drought Monitor, West Virginia has not experienced frequent drought, but there have been noteworthy events in the state including a drought lasting 41 weeks and a widespread drought impacting 25% of the state. Attendees noted that drought can result in cascading hazards, such as increased wildfire risk, which can also result in poor air quality.

Earthquake

The state has a moderate risk of seismic activity and is susceptible to activity along the New Madrid Seismic Zone. Risk is lower in the state due to low population and structure density. Attendees mentioned that fracking may result in earthquakes. In 2016, a small earthquake was detected in



MEETING NOTES

Braxton County as a result of fracking.¹ Additionally, attendees raised concerns regarding the potential for earthquakes to result in damage to pipelines.

Extreme Temperature (Hot and Cold)

There have been several extreme temperature events impacting the state. These events can have significant impacts on human health, commercial and agricultural businesses, and infrastructure. Attendees noted the limitations to using the National Centers for Environmental Information (NCEI) database to quantify impacts from extreme temperature events; fatalities and economic damages are often not reported accurately. Attendees encouraged the use of locally available data to provide a more in-depth assessment of extreme temperature. The state's Fusion Center developed a Statewide Threat Assessment that includes additional information on climate data.

Flood

Flooding is the most frequent and devastating hazard in the state. The mountainous topography of the landscape exacerbates flooding, and towns located in valleys may experience more impacts from flooding. Localized flooding events outside of the Special Flood Hazard Area have increased. Attendees noted the following additional discussion for inclusion in the SHMP.

- Excessive localized rainfall
- Riverine/flash flooding
- Stormwater flooding
- Flooding as a result of infrastructure being undersized and/or infrastructure failure

Hazardous Materials

Hazardous material incidents can occur anywhere in the state but are most likely to occur along major transportation routes. West Virginia has multiple capabilities to support the cleanup of hazardous material incidents, such as the National Guard Civil Support Team. Attendees encouraged direct outreach to the Department of Environmental Protection (DEP) to gain additional insight for this hazard.

Landslide

The eastern region of the state is especially susceptible to landslides due to its mountainous terrain. The total exposure area landslide (TEAL) data provides granular detailed information in regard to the location of homes, structures, roads, etc. This information can be used to inform the goals and objectives developed for the plan. The TEAL data also includes photos that can be used throughout the plan to depict what a landslide may look like.

Levee Failure

There are 21 levee systems in the state. In addition to these regulated levees, there are several homebuilt levees prevalent throughout the state. These homebuilt structures are likely not constructed to engineering standards, are not regulated, and can result in multiple unintended consequences.

¹ <https://www.dailykos.com/stories/2016/5/10/1525056/-West-Virginia-fracking-and-earthquakes>



MEETING NOTES

Attendees noted that the Huntington Levee has the highest risk in FEMA Region III. Attendees encouraged developing SHMP goals that will strengthen coordination between actions completed for levees and dams and mitigation activities.

Severe Storm

Severe storms may include high winds, thunderstorms, lightning, hail, tornadoes, and remnants of hurricanes. Although these events can occur anywhere in the state, the flatter areas tend to be ideal for tornado longevity.

Subsidence

The state's susceptibility to subsidence is exacerbated due to abandoned mines and areas with karst and carbonate rocks. Karst topography is most common in the eastern part of the state. DEP oversees abandoned mine lands, and it was recommended to reach out to DEP directly to gather additional information.

Pandemic

The entire state is susceptible; however, location-based factors such as population density, travel, and the length of time spent in a location all contribute to the spread of infectious diseases. Previous occurrences include COVID-19, seasonal flu, H1N1, and West Nile virus.

Radiological Incidents

Radiological materials released into the environment may be disabling or fatal as a result of direct exposure or ingestion of contaminated food or water. While there are no radiological facilities located within the state, the Beaver Valley Nuclear Power Station is within the proximity of the state and poses a risk.

Radon Exposure

Radon exposure can pose a serious threat to public health when it accumulates in poorly ventilated residential and occupation settings. Radon is found everywhere in the state, but some counties have elevated levels of radon.

Utility Failure

A significant interruption of utilities can result in disruption or loss of public services, equipment failure, loss of heating and cooling, etc. These events can occur anywhere in the state but are typically localized.

Wildfire

Appalachian forests tend to be wetter when compared to fire-prone forests in the western U.S. Appalachian forests typically burn at lower severities. An intact, mature temperate forest offers conditions less likely to burn into severe wildfires. With less undergrowth, the fire cannot jump into the forest crown as easily; with thicker bark, mature trees resist fire damage; and with more shade, the forest floor is often cooler and wetter.

Attendees noted that additional data is available and will provide the data to Tetra Tech.



MEETING NOTES

Winter Weather

Several winter weather events have occurred in the state. The higher elevations of the state, including the foothills, tend to experience more frequent winter weather events, with the western portions of the state generally experiencing less frequent snow events.

Next Steps and Questions

Ms. Tate reviewed the next steps in the HMP update process with attendees:

- Goals and Objectives Meeting
 - January 18, 2023, from 9:00 a.m.–12:00 p.m.
- Mitigation Strategy Meeting
 - February 9, 2023, from 9:00 a.m.–12:00 p.m.
- Draft Plan Review
 - Mid-April

With no further questions, Ms. Barnett and Ms. Tate thanked attendees for their time and participation.


The meeting adjourned at 12:50 p.m.



West Virginia
2023 State Hazard
Mitigation Plan Update
 January 4, 2023
 Christina Groves, CFM and JaLeesa Tate, CFM

West Virginia Emergency Management

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Agenda

- Welcome and Introductions
- Purpose of State Hazard Mitigation Planning
- Components of the Risk Assessment
- Statewide Snapshot
- Review of Draft Risk Assessments
- Next Steps and Questions

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Stakeholder Introductions

Name

Organization/Agency

Role in Mitigation

Focus and concerns

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3



Purpose of State Hazard Mitigation Planning

- Identify vulnerabilities and increase public awareness
- Develop roadmap for long-term risk reduction strategies
- Build partnerships
- Integrate statewide planning efforts
- Identify shared goals across State government

Strategic planning for the future

Maintain eligibility for Federal funding:

- Hazard Mitigation Grant Program
- Flood Mitigation Assistance
- Building Resilient Infrastructure and Communities
- Fire Mitigation Assistance Grants
- Public Assistance (PA) Categories C through G (e.g., repairs to damaged infrastructure)

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Defining Risk

- Identify and describe hazards
 - Location and extent
 - Past occurrences and impacts
 - Future probability
- Identify and assess potential impacts on assets
 - People
 - Public service facilities
 - Critical facilities
 - Environment
 - Economy
- Analyze risks
 - Intersection of hazards, vulnerability, and exposure

Vulnerability
 Potential for damage and disruption

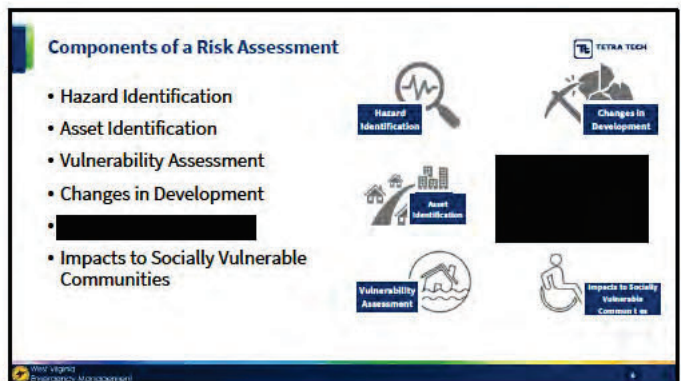
Hazards
 Factors that cause the potential for impact on people, property, and the environment

Exposure
 The location, condition, and value of assets that are important to communities

Risk

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Components of a Risk Assessment

- Hazard Identification
- Asset Identification
- Vulnerability Assessment
- Changes in Development
- Impacts to Socially Vulnerable Communities

Hazard Identification

Asset Identification

Vulnerability Assessment

Changes in Development

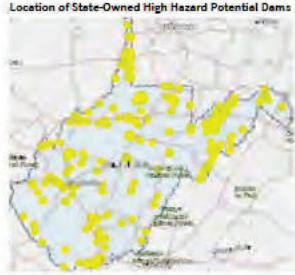
Impacts to Socially Vulnerable Communities

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Dam Failure

- 74% of dams are classified as High Hazard of Significant (NID).
- Previous Occurrences:
 - August 9, 1916: A spillway deficiency resulted in 44 deaths, and \$500,000 to \$1 million in economic damages.
 - August 9, 1916: A spillway deficiency resulted in 60 deaths.
 - February 26, 1972: A dam failure of a coal waste impoundment at Buffalo Creek Dam resulted in 125 deaths, and over \$100 million in economic damages (ASDSO 2020).
 - October 2000: A dam in line, Kentucky affected WV streams, and caused \$56 Million in clean-up costs across both states.
 - April 2007: A privately-owned pond, Lee's Fishing Lake, rose 22" after 2.5" of rainfall in 24 hours. Nearly 1000 evacuated, but no damage (Association of State Dam Safety Officials 2013).



Location of State-Owned High Hazard Potential Dams

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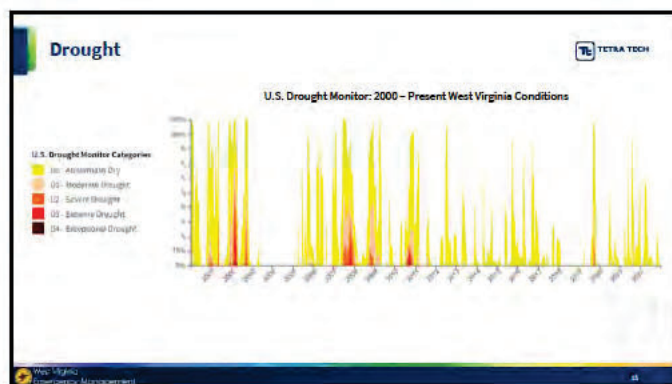
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Drought

- Can negatively impact potable water supply and quality, public health, agriculture, the environment, and the economy.
- Causes:
 - Lack of rainfall
 - Increasing potable water demand (population increase)
 - Irrigation
- Entire State is vulnerable.
- Previous Occurrences:
 - May 29, 2007 – March 4, 2008: Longest duration of drought lasted 41 weeks
 - March 12, 2002: The most intense period of drought. Extreme drought conditions affected 24.55% of West Virginia land (USDM).

West Virginia Emergency Management


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Earthquake

- Can result in significant property damage and loss of life and be followed by surface faulting, flash flooding, dam failure, and landslides.
- Causes:
 - Movement of tectonic plates
- The State has a moderate risk of seismic activity; however, any potential damage from this seismic activity is relatively low, when compared to states with more dense populations and tall buildings.
- Previous Occurrences:
 - No past Federal Declared Disasters or National Center for Environmental Information (NCEI) recorded events for earthquakes in West Virginia.



Earthquake Epicenters of West Virginia 1824 through 2021

West Virginia Emergency Management

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Extreme Temperature (Hot and Cold)

- Can have a significant impact on human health, commercial/agricultural businesses, and primary and secondary effects on infrastructure (e.g., burst pipes and power failure).
- Causes:
 - Cold fronts
 - Warm fronts
 - Increased humidity
- The entire state of West Virginia is vulnerable to extreme temperature events.
 - Urban areas in the state may be more vulnerable to the heat island effect, which occurs when cities replace the natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat.
- Previous Occurrences:
 - West Virginia has been impacted by 1,827 extreme temperature events between 1950 and 2022.

Hazard Type	Number of Occurrences Between 1950 and 2022	Total Fatalities	Total Injuries	Total Property Damage (\$)	Total Crop Damage (\$)
Extreme Heat	898	0	0	0	0
Extreme Cold	929	0	0	\$3,763 Million	\$3,875 Million

West Virginia Emergency Management

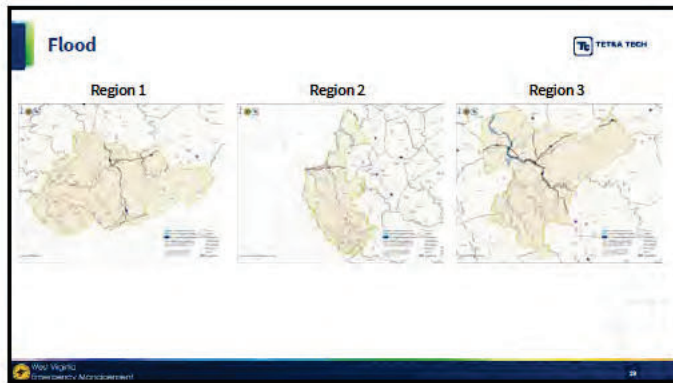
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Flood

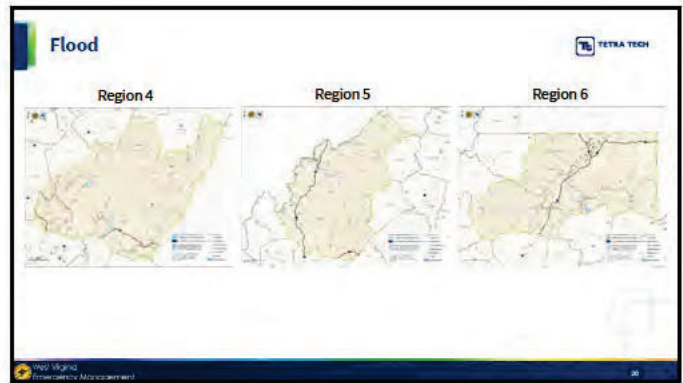
- Most frequent and devastating hazard in West Virginia.
- Causes:
 - Heavy rain
 - Ground water levels
 - Ice jams
- Flooding is exacerbated by the mountainous topography of the State.
- Previous Occurrences:
 - Between 1953 and 2022, the State of West Virginia was included in 32 disaster (DR) or emergency (EM) declarations for flood-related events.
 - Between 2012 and 2022, West Virginia was included in 44 flood-related agricultural disaster declarations.

West Virginia Emergency Management

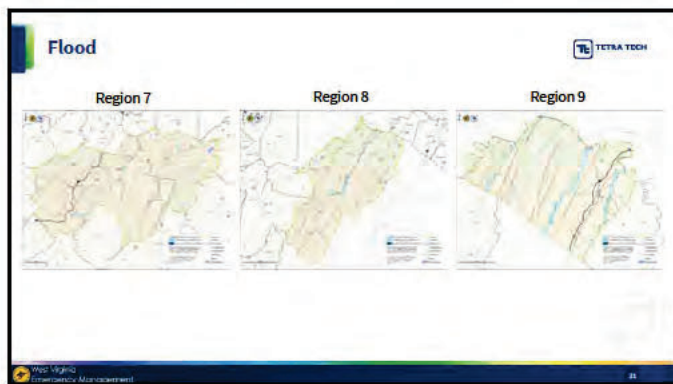
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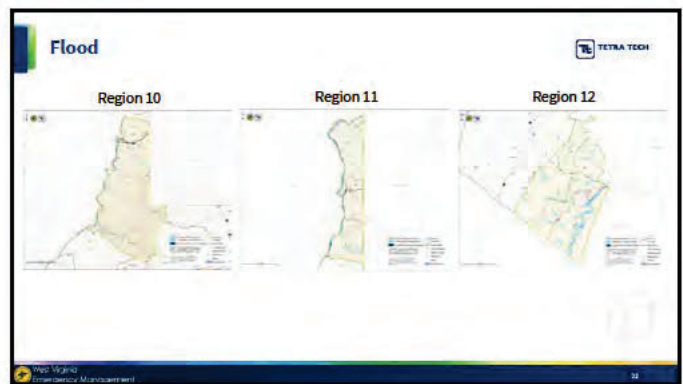
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Hazardous Materials

- Threatens public health and the environment.
- Causes:
 - Improper disposal of chemicals
 - By-products of manufacturing processes
 - Leaks
 - Accidents
- May occur in any areas of the State; most likely to occur on major transportation corridors.
- Previous Occurrences:
 - January 2014:** 10,000 galls of chemicals spilled from coal mining operation storage. Contaminated potable water for 300,000 people in the State.
 - August 2022:** Tractor-trailer accidents resulted in the West Virginia Turnpike being shut down. Approximately 9 miles of Paint Creek were impacted.

West Virginia
Emergency Management

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Landslide

- Can range in size and have extensive impacts on people and property.
- Causes:
 - Heavy rain
 - Rapid snow melt
 - Steepening of slopes (construction or erosion)
 - Earthquakes
 - Changes in ground water levels
 - Deforestation
- The eastern region of the State is especially susceptible to landslides due to its mountainous terrain.
- Previous Occurrences:
 - June 29, 2019:** Estimated damage to public property, Marion \$551,000, Monongalia \$516,000, and Preston \$465,000.
 - April 15 - 16, 2018:** Over-saturated ground due to several rounds of rain across the area lead to several landslides in western Pennsylvania and northern West Virginia.
 - June 22 - 29 2016:** Heavy rain and erosion resulted in eight Interstate mudslides.

West Virginia
Emergency Management

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Levee Failure

- Can result in catastrophic localized property damage, injury, loss of life, and negative environmental impacts.
- Causes:
 - Flooding
 - Landslides
 - Geological conditions
 - Deferred maintenance
 - Construction deficiencies
- Total of 21 levee systems in the State.
- Previous Occurrences:
 - No past Federal Declared Disasters or National Center for Environmental Information (NCEI) recorded events in West Virginia.

West Virginia
Emergency Management

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Severe Storms

- High winds, thunderstorms, lightning, hail, tornadoes, and remnants of hurricanes can cover vast areas of the State quickly and without enough warning, leading to flooding, lightning-initiated fires, and significant structural damage.
- Causes:
 - Meteorological conditions (air temperature, moisture, wind, etc.)
- Severe storms can take place anywhere in West Virginia.
 - Higher elevations in mountainous areas tend to experience more snowfall and winter weather.
 - Flatter areas tend to be more ideal for tornado longevity making those areas more at risk.
- Previous Occurrences:
 - May 3, 2021: An isolated, cyclic supercell thunderstorm tracking along a warm front produced sporadic straight-line wind damage and spawned several tornadoes and led to one documented injury.
 - August 25, 2020: A line of storms developed and resulted in damaging wind and some flash flooding which led to a documented injury and \$322,500 in property damages.
 - April 9, 2020: A strong low-pressure system produced large hail and wind gusts up to 45 mph and produced \$1,010,000 in property damages.

West Virginia
Emergency Management

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Subsidence

- Impacts may be minor or major.
- Causes:
 - Removal of underground materials (pumping, fracking, or mining)
 - Earthquakes
 - Soil compaction
 - Erosion
- May occur in any area of the State, but areas with abandoned mines and areas with karst and carbonate rocks have a higher susceptibility.
 - Karst topography is most common in the eastern part of the State
- Previous Occurrences:
 - No past Federal Declared Disasters or National Center for Environmental Information (NCEI) recorded events in West Virginia.

West Virginia
Emergency Management

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Pandemic

- Threatens public health on a widespread scale such as several countries, continents, or the entire globe. Can lead to social disruption, economic loss, and general widespread hardship.
- Causes:
 - Easy transmission
 - Bacteria or virus resistance
 - Emergence of a new disease
- The entire State is susceptible; however, location-based factors such as population density, travel, and the length of time spent in a location all contribute to the spread of infectious diseases.
- Previous Occurrences:
 - COVID-19
 - Seasonal Flu
 - Swine Flu
 - West Nile Virus

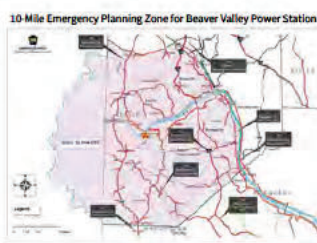
West Virginia
Emergency Management

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Radiological Incidents

- Radiological materials released into the environment be disabling or fatal as a result of direct exposure or ingestion of contaminated food or water.
- Causes:
 - Mishandling
 - Releases during transport
 - Discovery of uncontrolled, unlicensed, or unidentified radiological materials
 - Nuclear power plant incident
 - Terrorism
- Beaver Valley Power Station (BVPS) located to the east of Hancock County.
- Previous Occurrences:
 - No past Federal Declared Disasters or National Center for Environmental Information (NCEI) recorded events in West Virginia.

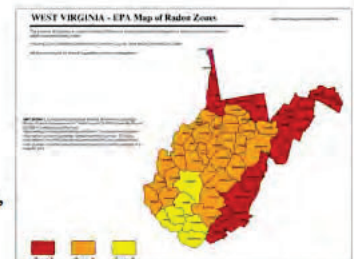
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Radon Exposure

- Can pose a serious threat to public health when it accumulates in poorly ventilated residential and occupation settings.
- Causes:
 - Natural radioactive decay of uranium and thorium
- Found everywhere in the State, with some counties have elevated levels of radon.

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Emergency Management

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Utility Failure

- A significant interruption of utilities can result in disruption or loss of public services, equipment failure, loss of heating and cooling, etc.
- Causes:
 - Technological failure
 - Natural disasters
 - Traffic accident
 - Human error
 - Terrorism
- May occur anywhere in the State and are typically localized.
- Previous Occurrences:
 - February 17, 2021: Winter storm produced heavy snow and ice accumulations which led to over 500 broken power poles and yards of wire in need of replacement. This cause significant power outages.
 - February 10, 2021: A wintry mix led to significant tree damage and made more than 45,000 residents in West Virginia lose power.
 - February 24, 2019: Isolated storms led to downed trees and powerlines leaving a peak of 91,000 residents of West Virginia without power.

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Emergency Management

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Wildfire

- Can cause extensive damage to ecosystems and biodiversity, people, and property.
- Causes:
 - Extended drought and/or high heat
 - Lightning
 - Human-caused (powerlines, mechanical equipment, discarded cigarettes, etc.)
- Appalachian forests tend to be wetter when compared to fire prone forests in the western U.S. Appalachia forests typically burn at lower severities. An intact mature temperate forest offers conditions less likely to burn into severe wildfires: with less undergrowth, the fire can't jump into the forest crown as easily; with thicker bark mature trees resist fire damage, and with more shade, the forest floor is often cooler and wetter.
- Previous Occurrences:
 - Since the 1950s, about 1,100 forest fires burned an average of 38,000 acres annually in West Virginia.
 - 1987: 429,000 acres
 - 1991: 346,000 acres
 - 1992: 638,000 acres

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Emergency Management

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Winter Weather

- Includes heavy snow, blizzards, sleet or freezing rain, and ice storms.
- Causes:
 - Low temperatures
 - Wind
 - Ice
 - Frozen precipitation
- Grant County has the highest number of winter events, while Mason County has the lowest.
 - The higher elevations of the State, including the foothills, tend to experience more frequent winter weather events with the western portions of the state generally getting less, or less frequent snow events.


Hazard Type	Number of Occurrences between 1950 and 2022
Heavy Snow	>500
Blizzard	142
Ice Storm	228
Winter Weather/Winter Storm	>500
Total	>1,000

West Virginia
Emergency Management

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Next Steps

- Goals and Objectives Meeting
 - January 18, 2023
 - 9:00 a.m. – 12:00 p.m.
- Mitigation Strategy Meeting
 - February 9, 2023
 - 9:00 a.m. – 12:00 p.m.
- Draft Plan Review
 - Mid-April



West Virginia
Emergency Management

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Questions

Gabriel Reed, MBA, BSBA

- Homeland Security Grant Manager and State Hazard Mitigation Officer: WVEMD
- Gabriel.A.Reed@wv.gov

Tony Subbio, CEM, CFM, PMP

- Project Manager, Tetra Tech
- Tony.Subbio@tetratech.com

JaLeesa Tate, CFM

- Deputy Project Manager, Tetra Tech
- JaLeesa.Tate@tetratech.com

Christina Groves, CFM

- Senior Planner, Tetra Tech
- Christina.Groves@tetratech.com

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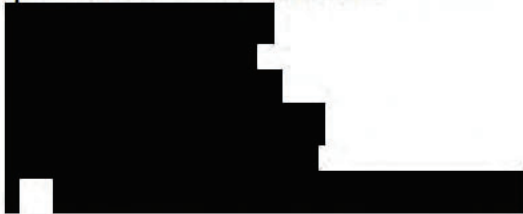
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AGENDA

STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE State Planning Team Risk Assessment Meeting

January 4, 2023 | 9:00 a.m. – 12:00 p.m.

1. Welcome and Introductions	9:00 – 9:15
2. Components of the Risk Assessment	9:15 – 9:40
	
3. Statewide Snapshot	9:40 – 9:50
a. Local HMP rollup	
b. Center for Disease Control Social Vulnerability Index (SVI)	
4. Review of Draft Hazard Risk Assessments	9:50 – 10:25
a. Dam Failure	
b. Drought	
c. Earthquake	
d. Extreme Temperature (Heat and Cold)	
e. Flood	
5. Break	10:25 – 10:35
6. Review of Draft Hazard Profiles	10:35 – 11:50
a. Hazardous Materials	
b. Landslide	
c. Levee Failure	
d. Severe Storms	
e. Subsidence	
f. Pandemic	
g. Radiological Incidents	
h. Radon Exposure	
i. Utility Failure	
j. Wildfire	
k. Winter Weather	
7. Next Steps and Questions	11:50 – 12:00





STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE State Planning Team Risk Assessment Meeting

January 4, 2023 | 9:00 a.m. – 12:00 p.m.

Name/Title	Agency/Organization	Email Address	
Christina Groves	Tetra Tech	christina.groves@tetratech.com	270
Jaleesa Tate	Tetra Tech	jaleesa.tate@tetratech.com	
Casey Garnett	FEMA	casey.garnett@fema.dhs.gov	600
Ed Martin	WVSRO	edwin.r.martin@wv.gov	300
Tony Edwards	NOAA/NWS	tony.edwards@noaa.gov	300
Ginger Barnett	WVEMD	ginger.sc.barnett@wv.gov	680
Jeremy Jones	WV DOR	jeremy.c.jones@wv.gov	300



STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE State Planning Team Risk Assessment Meeting

January 4, 2023 | 9:00 a.m. – 12:00 p.m.

Name/Title	Agency/Organization	Email Address	
Ray Perry ^{Building Code} Official, CFM	Lugan County Comm	rperry@lccwv.us	3
Bob Martin WVSEO DIRECTOR	WV GOV OFFICE	robert.t.martin@wv.gov	3



MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) State Planning Team (SPT) Goals and Objectives Meeting		
Date	January 18, 2023	Time	8:30 – 11:30 a.m.
Location	West Virginia Emergency Management Division, 2403 Fairlawn Avenue, Dunbar, West Virginia		
Attendees	Ginger Barnett, Chief of Mitigation and Recovery, West Virginia Emergency Management Division (WV EMD)		
	Gabriel Reed, State Hazard Mitigation Officer, WV EMD		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WV EMD		
	Xzavier Morgan, Project Officer, WV EMD		
	Stephanie Rosier, WV EMD		
	Christopher Rucker, Preparedness Specialist, WV EMD (remote)		
	Tammy Sneed, Project Officer, WV EMD		
	Nuvia Villamizar, GIS Manager, WV EMD		
	Timothy Priddy, Director, WV Center for Threat Preparedness (remote)		
	Ryan Halsey, Community Development Block Grant (CDBG) Infrastructure Project Manager, WV Community Advancement and Development (remote)		
	Jennifer Skaggs, Interim Executive Director, WV Conservation Agency (remote)		
	Susan Pierce, WV Department of Arts, Culture & History (remote)		
	Ben Riggle, Senior Structural Historian, WV Department of Arts, Culture & History (remote)		
	Sherry Risk, CDBG Program Manager, West Virginia Department of Economic Development (remote)		
	Karen Lasure, WV Department of Energy		
	David Dove, WV DEP		
	Nate Meadows, WV DEP		
	Leo Medellin, Engineer, WV DEP - Dam Safety (Non-Coal) (remote)		
	Luke O'Neal, WV DEP		
	Dennis Stottlemeyer, Deputy Environmental Advocate, WV DEP (remote)		
	Aaron Tonkery, Program Manager, WV DEP Dam Safety (Non-Coal) (remote)		
	Kathy Bowe, Assistant Director of Disaster Response and Safety, WV Department of Transportation (remote)		
	Eric Hopkins, Lead GIS Specialist, West Virginia GIS Technical Center (remote)		
	Lieutenant Colonel Todd Justice, WV National Guard		
	Colonel Robert J. Kincaid, WV National Guard		
	Bobby Cales, Chief of the Division of Natural Resources Law Enforcement Section, WV Division of Natural Resources (remote)		
	Robert Martin, Director, WV State Resiliency Office (SRO) (remote)		
	Ed Martin, Deputy Director, WV SRO		



MEETING NOTES

Kat Garvey, Director, Land Use and Sustainable Development Law Clinic at the West Virginia University (WVU) College of Law (remote)
Alton Hyman, Disaster Site Worker Training Coordinator, WVU Extension (remote)
Mark Lambert, Director, WVU Fire Service Ext/WV State Fire Training Academy (remote)
Tony Michael, Program Director – Family & Community Development, WVU Extension (remote)
Nicolas Zegre, Director, Mountain Hydrology Lab, West Virginia University (remote)
Jenny Gannaway, Executive Director, WV Voluntary Organizations Active in Disaster (VOAD) (remote)
Shawn Wolford, Emergency Manager, Berkeley County Office of Emergency Management (OEM) (remote)
Chad Jones, Director, City of Charleston Office of Homeland Security and Emergency Management (OHSEM) (remote)
Dick Myers, Deputy Director, Jefferson County OHSEM (remote)
David Armstrong, Kanawha County Emergency Management (remote)
Direl Baker, Lincoln Office of Emergency Services (OES) (remote)
Francis Holton, Deputy Director, Lincoln County OES (remote)
Steve Byus, Director, City of Madison Emergency Management (remote)
Robert Bowman, Deputy Director, McDowell County OEM (remote)
Keith Gunnoe, Director, Mercer County OEM
Annette Taylor, Director, Nicholas County Department of Homeland Security and Emergency Management (remote)
Kevin White, Tucker County Homeland Security and Emergency Management (HSEM) (remote)
Jason Roberts, Executive Director, Region I Planning and Development Council (PDC) (remote)
Bruce Mullins, Project Coordinator, Regional Intergovernmental Council (Region 3) (remote)
Kaleb Armentrout, Projects Information & Communications Specialist, Region 4 Planning and Development Council (remote)
Jamie Baker, Project Assistant, Region 4 Planning and Development Council (remote)
Marilyn Guerrero, Region 4 Planning and Development Council (remote)
Betsy Morris, Region 4 Planning and Development Council (remote)
Amanda Smarr, Project Assistant/GIS Coordinator, Region 4 Planning and Development Council (remote)
Joel Davis, Mid-Ohio Valley Regional Council (Region 5)
Sheena Hunt, Region 6 Planning and Development Council (remote)
Carla Dent, Administrative Staff, Region 8 Planning and Development Council (remote)
Craig Aaron Brown, Economic Development Specialist, Brooke Hancock Jefferson Metropolitan Planning Commission (remote)
Jared Beard, State Soil Scientist, U.S. Department of Agriculture Natural Resources Conservation Service (remote)



MEETING NOTES

	Brian Farkas, Federal Emergency Management Agency (FEMA)
	Casey Garnett, West Virginia Hazard Mitigation Community Planner, FEMA Region III
	Elizabeth Ranson, FEMA Region III
	Meesh Zucker, Supervisory Community Planner, FEMA
	Roger (remote - no last name provided)
	Tony Subbio, Project Manager, Tetra Tech

Discussion Points

This section summarizes each discussion point addressed during the State Planning Team Goals and Objectives Meeting.

Welcome and Introductions

- WV EMD Director G.E. McCabe welcomed attendees and expressed his thanks for their participation.
- Mr. Reed welcomed attendees to the meeting. Attendees introduced themselves. Mr. Subbio provided an orientation to the meeting materials.

Hazard Mitigation Planning – Refresher

- Mr. Subbio provided a brief overview of hazard mitigation and hazard mitigation planning. Attendees were familiar with the concepts.

Overview of Goals and Objectives

- Mr. Subbio gave an overview of goals as broad statements that reflect long-term policy and the State's vision for mitigation and explained that the goals should express what the State wants to achieve through implementation of the plan.
- Mr. Subbio described FEMA's requirements for goals in a State HMP. The goals must represent what the State seeks to accomplish using a wide range of funding, not only FEMA's Hazard Mitigation Assistance (HMA) funding. The goals must be consistent with the risk assessment. To meet the requirements of the High Hazard Potential Dam (HHPD) grant program, the goals must include reducing long-term vulnerability from HHPDs, though there does not need to be a goal specifically related to dams. Mr. Subbio reviewed the goals from the 2018 version of the HMP with attendees.
- Mr. Subbio then described objectives as more specific than goals. Objectives address individual problems identified in the plan. Objectives are not technically required to be included in the plan, but they help focus the goals toward implementation. Col. Kincaid provided insight on strategic planning and stated that the State needs to think about how to measure implementation of the goals and objectives.
- Mr. Reed stated that the HMP will need to address that the severity of wildfires is increasing though the number of fires is decreasing, and that overall capacity at all levels seems to be decreasing.



MEETING NOTES

Build Capabilities

- Mr. Subbio reviewed the planning team's findings regarding capabilities and suggested that goals and objectives be developed related to building capabilities throughout the State. Points of discussion in each topic area are shown below.

Regulations

- There is little regulation of development outside of the FEMA-mapped special flood hazard area (SFHA).
- The State Fire Code is mandatory across the State but excludes 1-2 family residential structures.
- The State Building Code is strong but is not mandatory.
- The State Fire Commission is responsible for the State Building Code.
- The State Fire Marshal's Office within the State Fire Commission enforces the Fire Code and licenses building code inspectors but does not enforce the State Building Code.
- Attendees at previous meetings stated that there is no mechanism to pay for enforcement of the State Building Code.
- Mr. Keaton stated that the State is submitting an application for funding through the Building Resilient Infrastructure and Communities (BRIC) grant to increase code enforcement in the State. He stated that there is not enough development in the State to pay for the costs of code enforcement.
- Shared services agreements among jurisdictions may be necessary to make code enforcement cost-effective.
- Funding is available to enforce the State Energy Code.
- Personal freedom, including where and how to build on one's property, is a fundamental part of the culture in West Virginia.
- The economic benefit of implementing and enforcing the State Building Code needs to be shown to jurisdictions and officials.
- Ms. Garnett stated that FEMA has programs related to supporting building code adoption and enforcement, such as the Building Codes Save analysis.
- The updated HMP will include a goal to increase the number of communities that adopt and enforce the State Building Code.
- The requirement for a jurisdiction to have adopted and enforce the State Building Code can be integrated into State programs, especially funding programs.
- State Building Code adoption could be at the county level. There could also be a system of tiers of State Building Code requirements based on the jurisdiction's size, density, and/or type of community.
- A possible goal for consideration is to establish a system whereby the State Building Code is adopted at the local level, but code enforcement is a county responsibility.

Staff Capabilities

- Local officials often fill several roles and may not know their responsibilities.
- It is difficult to retain staff.
- Training and education are needed to ensure staff remain effective.



MEETING NOTES

- The County Commissioners Association, the West Virginia Municipal League, and other organizations offer training to municipal officials, but there is no mandated training for elected officials. All elected officials should have minimum training requirements, including how emergency management in the State works.
- There needs to be a way to demonstrate the economic benefits of mitigation.
- There should be a goal related to educating officials and the general public in the updated plan.
- The WV EMD Area Liaisons can be leveraged at the local level.

Financial Capabilities

- Planning team members stated that there is no State-level funding mechanism specifically related to mitigation.
- Local communities find it difficult to pay for the non-federal share of FEMA's HMA grants.
- Mr. Davis described the Infrastructure Jobs Development Council (IJDC), which mostly focuses on water and sewer infrastructure projects. Mr. Davis stated that all of the major funding agencies sit on the IJDC board. The IJDC would be expanded to include stormwater management infrastructure concerns as well. WV EMD should open a conversation with the IJDC leadership.
- Ms. Garnett described FEMA's new program to provide capital for states to administer a revolving loan program. She stated that it is up to the State to design the program. She also stated that the loans CAN be used as the non-federal match on FEMA's HMA programs.

Coordination and Integration

- Coordination of the NFIP in the State moved to WV EMD.
- There is collaboration between WV EMD and the SRO.
- There is increasing collaboration among WV EMD's programs.
- Dam safety is administered by three separate offices: the WV DEP Dam Safety Program (which regulates non-coal, non-federal dams); the WV DEP Coal Program (which regulates dams related to the coal industry); and the WV Conservation Agency.
- Ms. Garnett stated that integration of the regional planning and development councils should be detailed in the HMP.

Reduce Vulnerability

Hazards

Mr. Subbio reviewed the list of hazards being analyzed in the 2023 HMP.

State Facilities

- Maintenance of State facilities is a key issue.
- State facilities do not have to comply with permitting requirements.
- Attendees suggested that State facilities should have to follow permitting processes, and there should be routine risk assessments performed on State owned or leased facilities.
- There is an opportunity to integrate the State's mitigation analysis with the WV Board of Risk and Insurance Management (BRIM) and Real Estate Offices to reduce vulnerability of State facilities to hazard impacts.



MEETING NOTES

- All agencies have continuity of operations (COOP) plans.

Jurisdictional Vulnerability

- Education about technical resources that are available from the State and other sources is needed. Education of State agencies about what programs other State agencies carry out is also needed.
- The Conservation Agency has a program to help landowners reduce sediment and flooding on their land.
- WV DEP has stormwater management expertise to share.
- The Department of Energy performs energy audits and brings in experts to share information.
- Many State agencies have established regions, but those regions are not the same from agency to agency.
- Targeted outreach to the planning and development councils whereby the State agencies provide information on their programs would be beneficial.
- Technical assistance on consolidation of school districts and infrastructure systems would be beneficial to local stakeholders.
- The State should encourage or require local mitigation planning processes to include schools in their assessments.

High Hazard Potential Dams (HHPD)

In the interest of time, a separate meeting of representatives from WV DEP Dam Safety (both coal- and non-coal programs), WV EMD (Mr. Reed and Mr. Keaton), the WV SRO (Ed Martin and Bob Martin), and Tetra Tech will be scheduled to discuss the State's dam safety program.

Future Conditions

Attendees agreed that the discussions of hazards earlier in the meeting applied to addressing future hazard conditions as well. No further discussion was held.

Build Mitigation Programs

- The Total Exposure in Floodplain (TEIF) and Total Exposure Area Landslide (TEAL) tools should be required to be used for all local HMPs.
- NFIP staff will conduct more outreach.
- Real estate disclosure laws would ensure that property buyers are informed of hazards faced by the properties they buy. FEMA has presented on this topic to the West Virginia Association of Realtors.
- The State could pay Google to insert a link to the West Virginia Flood Tool at the top of any search results related to real estate in West Virginia.
- It would be beneficial for the State to develop standards related to local mitigation planning, including a mitigation action prioritization methodology.
- The State should require that local plans meet HHPD requirements.
- The State should implement ongoing public education campaigns.
- The State should accept and review mitigation project applications on an ongoing basis.



MEETING NOTES

Revisit 2018 HMP Goals

- All of the goals from the 2018 HMP would require an educational component if they remain in the 2023 version of the HMP.
- Goal 1 should be updated to reflect strategic and/or proactive projects.
- The WV SRO is coordinating efforts to align State programs, as stated in Goal 2.
- The 2023 HMP should include a goal with the same intent as Goal 3 from the 2018 HMP but reword it.
- Specifying “continual” support and technical assistance should be added to Goal 4.

Next Steps and Questions

Mr. Subbio reviewed the following next steps in the HMP update process with attendees:

- Tetra Tech will complete the risk assessment.
- Tetra Tech will complete the capabilities assessment sections.
- Tetra Tech will work with the Steering Committee to set the goals and objectives for the updated HMP.
- The State Planning Team will discuss mitigation actions at the next meeting on February 9, 2023.
- The State and Tetra Tech will conduct a meeting to discuss dam safety.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

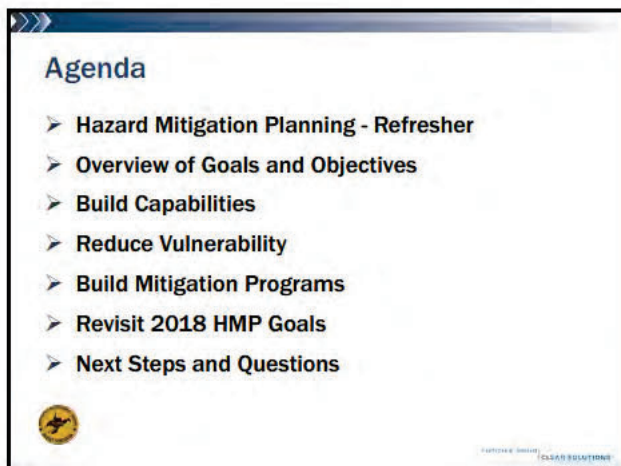
The meeting adjourned at 11:30 a.m.



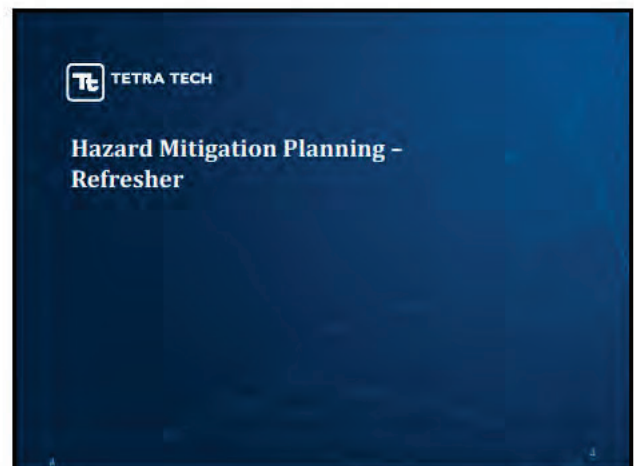
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Goals

- Broad
- Reflect long-term policy
- Vision
- What we want to **ACHIEVE**




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Requirements for Goals

- Represent what the State seeks to accomplish through mitigation plan implementation using a wide range of funding, including non-FEMA funding.
- Be consistent with the risk assessment.
- Include reducing long-term vulnerabilities from high hazard potential dams.




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Starting Point - 2018 HMP

Handout

We will come back to these later!



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Objectives

- More specific than goals
- Address individual problems
- Not technically required, but help focus development and implementation




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Build Capabilities

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Regulations

- Little regulation of development outside the special flood hazard area (SFHA)
- Fire Code
 - Mandatory
 - Excludes 1-2 family homes
- State Building Code
 - Strong
 - Not mandatory



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Regulations

- State Fire Commission
 - Responsibility for the State Building Code
 - State Fire Marshal's Office
 - Enforces Fire Code
 - Licenses building code inspectors
 - Does not enforce the building code
- No mechanism to pay for enforcement



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TETRA TECH
CLEAR SOLUTIONS

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Regulations

- Should additional regulations be mandated?
 - What topics?
 - What geographic areas?
- Can funding mechanisms for enforcement be developed?



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TETRA TECH
CLEAR SOLUTIONS

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Staff Capabilities

- Officials wear many hats
- Difficult to retain staff
- Training and education needed
- What goals and objectives can we establish related to staffing needs?
- Set minimum requirements for certain positions?
- Require continuing education of certain officials?



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TETRA TECH
CLEAR SOLUTIONS

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Financial Capabilities

- No State-level funding mechanism related to hazard mitigation
- Local communities need to find non-Federal share for Hazard Mitigation Assistance (HMA) funding
- In an ideal world, what new funding streams would we be able to establish?
- Are there any funding streams that can be tweaked to fund mitigation activities?



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TETRA TECH
CLEAR SOLUTIONS

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Coordination and Integration

- NFIP now within the Emergency Management Division
- Emergency Management Division and State Resiliency Office Collaboration
- Programs within the Emergency Management Division
- Dam safety within WV Department of Environmental Protection and WV Conservation Agency
- What additional coordination/integration is necessary?



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Reduce Vulnerability

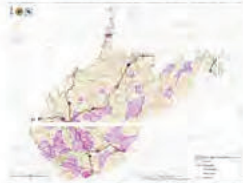
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Hazards

- Dam Failure
- Drought
- Earthquake
- Extreme Temperature
- Flood
- Hazardous Materials
- Landslide
- Levee Failure
- Pandemic
- Radiological Incident
- Radon Exposure
- Severe Storms
- Subsidence
- Utility Failure
- Wildfire
- Winter Weather



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State Assets

- State facilities are exempt from permitting requirements
- Many State facilities are in areas vulnerable to hazards (e.g., flood, subsidence, wildfire, etc.)
- How can we reduce overall vulnerability to State assets?
- What goals should we have related to protecting vulnerable State assets?



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TETRA TECH GREAT SOLUTIONS

20

Jurisdictional Vulnerability

- What resources do local jurisdictions need to evaluate their vulnerability?
- How can the State support local jurisdictions vulnerable to each hazard?
- What is the State's vision for working with jurisdictions to reduce vulnerability at the local level?



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TETRA TECH GREAT SOLUTIONS

21

High Hazard Potential Dams (HHPD)

- Not necessarily specific to HHPDs
- Reduce vulnerability to HHPDs
- Reduce vulnerability from failure of HHPDs
- Reduce number of them?
- Stronger floodplain management standards?
- Remove structures/infrastructure from inundation areas?



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TETRA TECH GREAT SOLUTIONS

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Future Conditions

- Stronger, more frequent storms
- Wind
- Rain → flooding
- Droughts
- How can we limit vulnerability to what hazards will look like in the future?



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TETRA TECH GREAT SOLUTIONS

23



Build Mitigation Programs

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Build Mitigation Programs

- How to enhance mitigation programs across the State
- Staff vs. workload for an effective program?
- Additional staff capabilities within WV EMD?
- Set standards for regional/county HMPs?
- Additional State-level data sources?



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TETRA TECH CLEAR SOLUTIONS

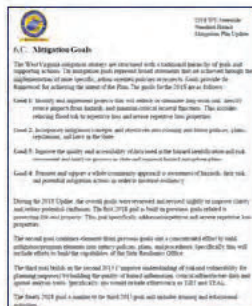
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Revisit the 2018 HMP Goals

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2018 HMP Goals - Revisited



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TETRA TECH CLEAR SOLUTIONS

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Next Steps and Questions

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Next Steps

- Complete risk assessment sections
- Complete capabilities assessment sections
- Draft and finalize goals and objectives
- Discuss mitigation actions
 - SPT Mitigation Strategy Meeting – February 9, 2023



TETRA TECH CLEAR SOLUTIONS

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Questions?

Thank you for your time!



TETRA TECH CLEAR SOLUTIONS

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Contacts



Gabriel Reed

gabriel.a.reed@wv.gov

(304) 414-7673



Tony Subbio

tony.subbio@tetratech.com

(717) 839-5654



LETTER HOME CLASS EXCHANGE



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6.C. Mitigation Goals

The West Virginia mitigation strategy are structured with a traditional hierarchy of goals and supporting actions. The mitigation goals represent broad statements that are achieved through the implementation of more specific, action-oriented policies or projects. Goals provide the framework for achieving the intent of the Plan. The goals for the 2018 are as follows:

- Goal 1:** Identify and implement projects that will reduce or eliminate long-term risk, directly reduce impacts from hazards, and maintain critical societal functions. This includes reducing flood risk to repetitive loss and severe repetitive loss properties.
- Goal 2:** Incorporate mitigation concepts and objectives into existing and future policies, plans, regulations, and laws in the State.
- Goal 3:** Improve the quality and accessibility of data used in the hazard identification and risk assessment and analysis process in state and regional hazard mitigation plans.
- Goal 4:** Promote and support a whole community approach to awareness of hazards, their risk, and potential mitigation actions in order to increase resiliency.

During the 2018 Update, the overall goals were reviewed and revised slightly to improve clarity and reduce potential confusion. The first 2018 goal is built on previous goals related to protecting *life and property*. This goal specifically addressed repetitive and severe repetitive loss properties.

The second goal combines elements from previous goals into a concentrated effort to build mitigation program elements into agency policies, plans, and procedures. Specifically, this will include efforts to build the capabilities of the State Resiliency Office.

The third goal builds on the second 2013 (“improve understanding of risk and vulnerability for planning purposes) by building the quality of hazard information, critical infrastructure data and spatial analysis tools. Specifically, this would include efforts such as TIEF and TEAL.

The fourth 2018 goal is similar to the third 2013 goal and includes training and educational activities.



STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Goals and Objectives Meeting

SIGN-IN

January 18, 2023 | 8:30 – 11:30 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Meesh Zucker	FEMA	mi.chelle.zucker@fema.dhs.gov	
Cassey Garrett	FEMA	cassey.garrett@fema.dhs.gov	
Ko.H Gunner	mercer Co.	mercerco.0cm1@outlook.com	
Kinard Robert J	WVNG	robert.b.kinard, jr. @ Army.mil	304 546 4789
KAREN L. LARSEN	WVDE	KAREN.L.LARSEN@WV.GOV	
Brian Tankas	FEMA	brian.Tankas@FEMA.DHS.gov	
Tammy Sneed	State HM	tammy.M.Sneed@WV.gov	
Stephanie Rosier	State HM	sarosier@yahoo.com	
Xavier Morgan	State HM	xavier.m.morgan@WV.gov	
Luke O'Neal	WVDEP	Luke.p.oneal@wv.gov	

★ ~~Anthony T. Justice~~ milearmy.mil 304-561-6434
Nathan C. Meadows@WV.GOV





STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Goals and Objectives Meeting

SIGN-IN

January 18, 2023 | 8:30 – 11:30 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Joel Davis	MOVRC	Joel.Davis@movrc.org	704-483-3058
Nuvia Villamizar	WVERP - GIS	nuvia.e.villamizar@wv.gov	
Ed Martin	WV SRO	edwin.p.martin@wv.gov	
Elizabeth Ransom	FEMA FPM & I	Elizabeth.Ransom@fema.dhs.gov	252-347-0686
David Dove	WV DEP	david.Dove@wv.gov	309-690-5905
Gabe Reed, SUMO			
Tony Subbio, PM			
Tim Keaton, NRP Coordinator			





MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) State Planning Team (SPT) Mitigation Strategy Meeting		
Date	February 9, 2023	Time	9:30 a.m. – 2:00 p.m.
Location	Kanawha County Public Library, 123 Capitol Street, Charleston, West Virginia		
Attendees	Ginger Barnett, Chief of Mitigation and Recovery, WV Emergency Management Division (WV EMD)		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WV EMD		
	Xzavier Morgan, Project Officer, WV EMD		
	Amberlea Perks, WV EMD		
	Gabriel Reed, State Hazard Mitigation Officer, WV EMD		
	Stephanie Rosier, State Hazard Mitigation Planner, WV EMD		
	Tammy Sneed, Project Officer, WV EMD		
	Nuvia Villamizar, GIS Manager, WV EMD		
	Susan Pierce, Deputy State Historic Preservation Officer, WV Department of Arts, Culture and History, WV State Historic Preservation Office (remote)		
	Ryan Halsey, Community Development Block Grant (CDBG) Infrastructure Project Manager, WV Community Advancement and Development (remote)		
	Jennifer Skaggs, Interim Executive Director, WV Conservation Agency		
	Sherry Risk, CDBG Program Manager, WV Department of Economic Development (remote)		
	Jeremy Bandy, WV Department of Environmental Protection (WV DEP)		
	David Dove, Engineer, WV DEP – Dam Safety		
	Leo Medellin, Engineer, WV DEP - Dam Safety (Non-Coal) (remote)		
	Dennis Stottlemeyer, Deputy Environmental Advocate, WV DEP (remote)		
	Aaron Tonkery, Program Manager, WV DEP Dam Safety (Non-Coal)		
	Anthony Evans, Deputy State Forester, WV Division of Forestry		
	Eric Hopkins, Lead GIS Specialist, WV GIS Technical Center (remote)		
	Julia Morton, Supervisor – Land and Streams, WV Department of Natural Resources (remote)		
	John Slater, WV Department of Natural Resources, Land and Streams (remote)		
	Robert Martin, Director, WV State Resiliency Office (SRO)		
	Ed Martin, Deputy Director, WV SRO		
	Jenny Gannaway, Executive Director, WV Voluntary Organizations Active in Disaster (VOAD) (remote)		
	Sandra Keener, Senior Case Manager, WV VOAD (remote)		
	Mark Lambert, Director, WVU Fire Service Ext/WV State Fire Training Academy (remote)		
	Corey Brandon, Emergency Manager, Floodplain Manager, Deputy Dir. 911, Barbour County (remote)		
	Shawn Wolford, Emergency Manager, Berkeley County Office of Emergency Management (OEM) (remote)		



MEETING NOTES

	E. John Hoffman, Director, Braxton Emergency Services (remote)
	Jeff Luck, Deputy Director, Brooke County Emergency Management Agency (EMA) (remote)
	Andy Nickerson, Director, Brooke County EMA (remote)
	Paula Brown, Deputy Director, Greenbrier County Homeland Security and Emergency Management (remote)
	Paul Lewis, Hardy County OEM (remote)
	Stephen Allen, Director, Jefferson County Office of Homeland Security and Emergency Management (remote)
	David Armstrong, Deputy Director, Kanawha County Emergency Management
	Direl Baker, Lincoln Office of Emergency Services (OES) (remote)
	Ray Perry, Floodplain Administrator, Logan County
	Steve Byus, Director, City of Madison Emergency Management (remote)
	Robert Bowman, Deputy Director, McDowell County OEM (remote)
	Keith Gunnoe, Director, Mercer County OEM (remote)
	Harold W. Sperringer, Deputy Director, Monongalia County Emergency Management (remote)
	Richard Miller, Director, Monroe County OEM (remote)
	Steven T. Yoho, Director, Wetzel County Emergency Management/E-911 (remote)
	Kim Odle, Executive Assistant, Region 1 Planning and Development Council (remote)
	Marilyn Guerrero, Region 4 PDC (remote)
	Mitch Lehman, Project Assistant, Region 4 PDC (remote)
	Betsy Morris, Project Assistant, Region 4 PDC (remote)
	Amanda Smarr, Project Assistant/GIS Coordinator, Region 4 PDC (remote)
	Joel Davis, Project Administrator, Mid-Ohio Valley Regional Council (Region 5)
	Sheena Hunt, Executive Director, Region 6 PDC (remote)
	Carla Dent, Administrative Staff, Region 8 PDC (remote)
	Craig Aaron Brown, Economic Development Specialist, Brooke Hancock Jefferson Metropolitan Planning Commission (remote)
	Richard Begley, Faculty Emeritus Marshall University; Senior Project Manager, Alliance Consulting, Inc. (remote)
	Meesh Zucker, Supervisory Community Planner, Federal Emergency Management Agency (FEMA) Region III (remote)
	Tom Hansen, Grants Management Specialist, FEMA Region III
	Jason Metzger, FEMA Region III
	Elizabeth Ranson, Hazard Mitigation Grants Specialist, FEMA Region III
	James Young, Disaster Field Coordinator, FEMA Region III
	Marisa Gonzalez, Program Analyst, U.S. Department of Housing and Urban Development, Charleston Field Office (remote)



MEETING NOTES

	JoAnn Combs, Economist/Silver Jackets Coordinator, U.S. Army Corps of Engineers (USACE)
	Lisa Berger, WV Staff Liaison, International Code Council (remote)
	Lou Vargo, Director, Wheeling-Ohio County Homeland Security and EMA (remote)
	Christina Groves, Senior Community Resilience Planner, Tetra Tech (remote)
	Tony Subbio, Project Manager, Tetra Tech
	JaLeesa Tate, Deputy Project Manager, Tetra Tech

Discussion Points

This section summarizes each discussion point addressed during the SPT Mitigation Strategy Meeting.

Welcome and Introductions

Mr. Reed welcomed attendees to the meeting. Attendees introduced themselves. Mr. Subbio provided an orientation to the meeting materials.

Hazard Mitigation Planning – Refresher

Mr. Subbio provided a brief overview of hazard mitigation and hazard mitigation planning. Most attendees were familiar with the concepts.

Risk Assessment Review

- Ms. Tate reviewed the risk assessment process and results that were presented during the January 4, 2023 meeting. Ms. Tate explained hazards, exposure to hazards, and vulnerability from the impacts of hazards. She reviewed the 16 hazards of concern.
- Ms. Tate reviewed the concept of social vulnerability and the Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index. She stated that the index ratings range from 0.0 to 1.0, and that Tetra Tech used a threshold of 0.8 to define vulnerable areas.
- Ms. Tate reviewed areas exposed to the hazards of concern in more detail. She presented tables that showed the number of State facilities and State-identified Critical Facilities in the hazard areas. She explained what facilities were used in the analysis and how facilities were categorized.
- A few attendees requested that all critical facilities throughout the State be identified and mapped in the State HMP. Tetra Tech and the Steering Committee will discuss whether this is required with FEMA Region III.
- Participants stated that the number of facilities exposed to the landslide hazard seemed low. Mr. Subbio stated that Tetra Tech would review the analysis to ensure it is accurate.
- B. Martin asked why dam failure was not included in the exposure analysis. Mr. Subbio replied that the project team is still working to obtain dam inundation data, but at the time of the analysis, these data were not available. A meeting is being scheduled for the project team and dam safety subject matter experts to discuss the State's dam safety program.



MEETING NOTES

Capabilities Assessment Review

- Mr. Subbio reviewed the results of the capabilities assessment that were discussed at the November 9, 2022 and January 18, 2023 SPT Meetings. Key issues include the following:
 - There is little regulation of development outside the special flood hazard area (SFHA).
 - The State Fire Code excludes one- and two-family residential structures.
 - Adopting and enforcing the State Building Code is optional for communities.
 - Paying for code enforcement at the local level is challenging.
 - State facilities are not required to meet local permitting requirements.
 - It is difficult to retain staff.
 - There are no dedicated funding mechanisms for mitigation at the State level.
 - There is a need for increased program coordination and integration among the State, Regional, and County mitigation programs.
- Mr. Reed requested that the HMP highlight capability shortfalls throughout West Virginia.

Goals and Objectives

- Mr. Subbio described goals and objectives in general and reviewed the draft set of goals and objectives for inclusion in the State HMP.
- Objective 1.5 will be updated to incorporate inventorying, continued maintenance, inspection, rehabilitation, and awareness activities related to high hazard potential dams.
- The wording of Objective 3.2 will be updated to require initial and ongoing education of local officials.
- The wording of Objective 3.3 will be updated to require initial and ongoing education of elected executive officials and to specifically reference dam failures.
- Goal 4 and its objectives will be updated to reflect enhancing programs to reduce vulnerability without negatively impacting community development. For example, acquisitions should be completed in a strategic manner so as not to disrupt or change the character of the local community.

FEMA Mitigation Action Types

Ms. Tate described the four types of mitigation actions defined by FEMA.

- Natural systems protection
- Education and awareness programs
- Plans and regulations
- Structure and infrastructure projects

Mitigation Action Development

- Mr. Subbio described development of mitigation actions.
 - Actions should be designed to meet the HMP's goals and objectives.
 - Some actions will be included in the HMP to reduce risk, whether by addressing vulnerable areas, vulnerable populations, or exposed State facilities. Actions should be



MEETING NOTES

developed to address common results of local risk assessments. The HMP must also include actions to address vulnerability to high hazard potential dams and to wildfire.

- Some actions will be included in the HMP to fill gaps in capabilities. This could include actions to develop and/or enhance plans and regulations, address staffing needs, or develop funding mechanisms to help implement mitigation efforts.
- Other actions will be developed to improve and integrate overall mitigation programs across the State.
- Mr. Subbio introduced attendees to the Action Worksheet form that they will complete to document their ideas for mitigation actions to include in the HMP. To facilitate data collection from remote participants, Tetra Tech developed an online survey form that collects the same information as the Action Worksheet that in-person attendees will complete.

Mitigation Action Brainstorming

Ms. Tate and Mr. Subbio led attendees through brainstorming actions to include in the HMP. Attendees identified potential actions in the following categories. In developing the actions below, attendees also held the following discussions:

- In a majority of communities, the only buildable land is within the floodplain; development in the floodplain cannot be prohibited. A participant suggested that development within the floodplain should have to be justified using a cost-benefit analysis or some other analysis.
- WV DEP oversees the watershed associations, and the Conservation Agency is involved in them.
- There is a WV Watershed Network that can be leveraged.
- WV DEP employs four basin coordinators to address watershed issues.
- Attendees discussed an action for the SPT to develop a list of all agencies to involve in the State's mitigation program and ensure their participation. This will be included in the Plan Maintenance section rather than as an action.
- Committees and focus groups described above would be designed to meet on a quarterly basis.
- The State will consider adding cyber attack as a hazard of concern analyzed in the HMP in the next HMP update.
- Excess management costs for Hazard Mitigation Assistance (HMA) programs could be used by the State to fund local-level mitigation programs and regional technical assistance.
- The Governor recently published two websites that provide resources for resilience, mitigation, and infrastructure efforts.
 - [Grants.wv.gov](https://grants.wv.gov)
 - WV Infrastructure Hub

Reducing Vulnerability of State Facilities

- Develop a long-term State Real Estate Plan to eventually ensure that all State buildings comply with development regulations. This could include retrofitting existing structures, building new facilities, or finding new space for lease in buildings that comply with regulations. The plan will prioritize buildings that WV EMD deems critical facilities. Participants noted that requiring State facilities to comply with permitting regulations must be phased and achievable. For some existing spaces, it would be easier to build a new building than to retrofit an existing building.



MEETING NOTES

The State should focus on critical infrastructure and require that those facilities be moved out of hazardous areas or built to code.

- In the short term, update the State Code to state that State facilities “should” go through the local permitting process. There is currently a bill going through the State Senate to make this change. It would be a first step toward eventually requiring State facilities to comply with local permitting requirements.
- Ensure at least 50 percent compliance of State-owned critical facilities to local floodplain management regulations in the next five years.

Improving Code Enforcement

- Explore making or allowing code enforcement to be a county or regional function to leverage economies of scale.
- Develop a State-level funding mechanism for local code enforcement efforts.
- Add relevant eligibility requirements to existing State funding programs or the State requirements for other funding programs administered by the State. For example, WV DEP’s new demolition program requires the community to have adopted the State Building Code to be eligible for funding.

Educating State Legislators and Local Officials

- Conduct an annual education program for State Legislators on hazards and mitigation, perhaps during Flood Resiliency Week.
- Educate legislators of the cost of locating State facilities in identified hazards areas and the benefits of locating facilities outside those areas.
- Conduct annual Flood Resiliency Awareness Week events at the State Capitol.
- Educate local elected and appointed officials on hazards, vulnerability, and mitigation, including related to dam failure.
- Conduct a one-day meeting to describe all available funding opportunities that can be leveraged to reduce long-term vulnerability.
- Develop and regularly conduct an abridged (less than one day long) floodplain management training session for local officials.
- Conduct FEMA-supported training workshops on a regional basis.
- Require documented continuing education of local officials for the community to be eligible for grant funding. For instance, communities are not eligible for FEMA’s HMA funding if their floodplain administrators are not current on their continuing education.

Program Improvement and Integration

- Develop and annually review State-level requirements for local mitigation plans and programs, including the following:
 - Require regional/county HMPs to meet the high hazard potential dams (HHPD) mitigation planning requirements.
 - Develop a standardized dam reporting template.
 - WV EMD will complete templates for flooding, landslide, and dam failure hazards.



MEETING NOTES

- Document involvement of municipal floodplain administrators in the plan development process.
- Continue and enhance integration of the WV EMD Mitigation program with the SRO.
- Integrate WV EMD's preparedness programs (e.g., Threat/Hazard Identification and Risk Assessment [THIRA], Emergency Operations Plan [EOP], Training and Exercise Plan [TEP]) with the Mitigation program, SRO, and Flood Protection Plan.
- Integrate the Infrastructure Investment and Jobs Act (IIJA) Board and projects with the WV EMD Mitigation program and SRO.
- Add WV EMD and the SRO officials to the IIJA Board.
- Demonstrate the need to invest time and coordination with established agency partners to build the State's mitigation program. Ideally, this would include getting representatives of all State offices into one room to discuss their programs and how they can integrate.
- Create and maintain a Mitigation Partner Focus Group or similar body.
- Expand coordination of the WV DEP's coal and non-coal dam safety programs, WV EMD, the USACE, local conservation districts, the Natural Resources Conservation Service (NRCS), WV Fish and Wildlife, WV DNR, and local watershed groups regarding decreasing vulnerability due to dam failures.
- Expand coordination of building code officials, the County Commissioners Association, the WV Municipal League, the Homebuilders Association, and the Realtors Association regarding reducing vulnerability.
- Establish a cadre of interdepartmental educators who would inform other departments about their capabilities and programs.
- Grow the WV Silver Jackets membership, program, and projects.

Educating the Public

- Enact a real estate disclosure law to require potential property buyers be informed of a property's history of flooding and other hazard impacts.
- Develop template marketing materials and programs for mitigation topics.
- Increase education of the public on the risk from wildfires and how to prevent them.
- Develop an online tool similar to the TEIF and TEAL for wildfire occurrences and risk.
- Conduct outreach by WV DEP to dam owners about the availability of funding through FEMA's Rehabilitation of HHPD Grant Program and work with dam owners to secure funding to protect dams and reduce the threat that the dams pose to downstream communities.

Providing Technical Assistance to Local Jurisdictions

- WV EMD will provide more technical assistance to local communities on their mitigation projects.
- WV EMD should hire at least one engineer who could provide project design and other services to local communities.

Leveraging and Enhancing the Capabilities of the PDCs as Hazard Mitigation Partners

- Fund and increase coordination and regional activities at the PDCs.



MEETING NOTES

- Leverage the PDCs to conduct outreach on mitigation topics throughout the regions, including in-person local outreach efforts.
- Develop a funding stream for the PDCs to provide mitigation planning and technical assistance to local jurisdictions.
- Conduct train-the-trainer sessions for PDC staff so that they can provide local training and education and develop a funding mechanism to do so.
- Provide additional funding to PDCs to support their local mitigation objectives.

Improving Emergency Preparedness and Response

- Require dam failure Emergency Action Plans (EAP) to assess roadway inundation in evacuation planning.
- Modernize the WV Forestry Service's firefighting capability.

Next Steps and Questions

Mr. Subbio reviewed the following next steps in the HMP update process with attendees:

- Tetra Tech and the Steering Committee will discuss with FEMA Region III whether vulnerability and exposure tables need to list each county.
- WV EMD, WV DEP, and Tetra Tech will conduct a meeting to discuss dam safety.
- Tetra Tech will update the draft goals and objectives based on discussions held during the meeting.
- Attendees will identify additional mitigation actions and submit them to Mr. Reed by February 24, 2023.
- Tetra Tech will complete sections of the HMP and post them to the project website.
- Mr. Reed will notify stakeholders when the draft HMP is complete and ready for review.
- The Steering Committee will schedule the Plan Draft Review Meeting for mid-April 2023.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

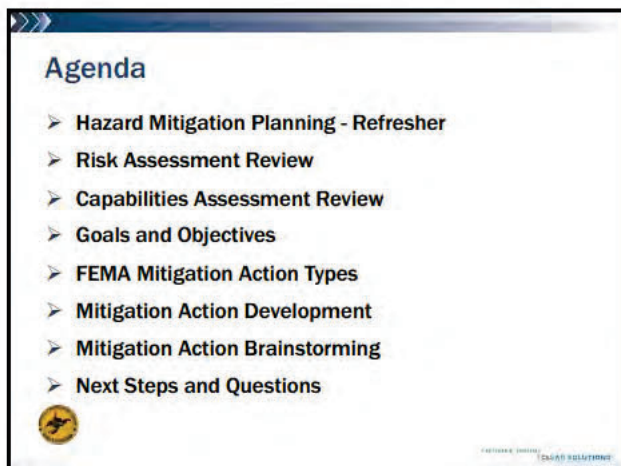
The meeting adjourned at 2:00 p.m.



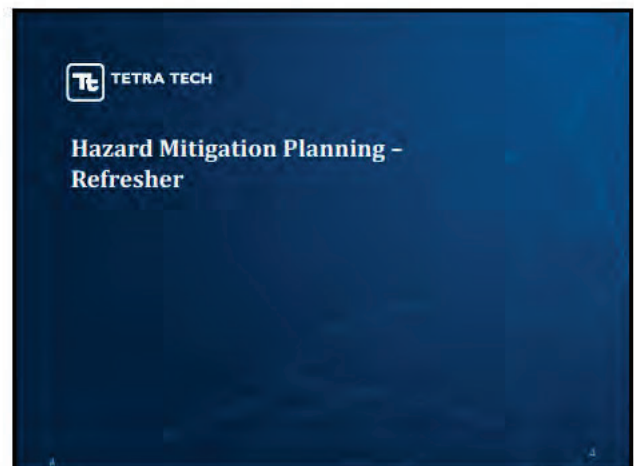
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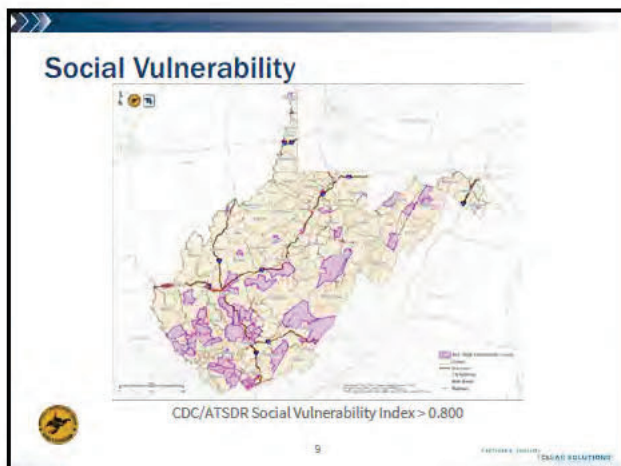


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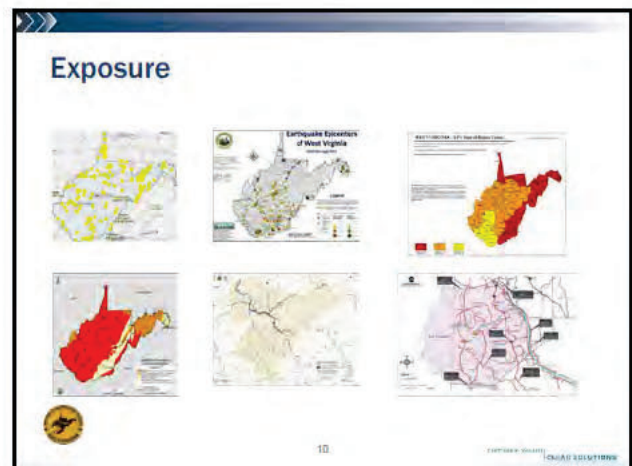
Hazards

- Dam Failure
- Drought
- Earthquake
- Extreme Temperature
- Flood
- Hazardous Materials
- Landslide
- Levee Failure
- Pandemic
- Radiological Incident
- Radon Exposure
- Severe Storms
- Subsidence
- Utility Failure
- Wildfire
- Winter Weather

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Exposure

➤ Exposure

Hazard	State Facilities			Hazard	Critical Facilities		
	Owned	Unknown	Leased		Owned	Unknown	Leased
1% Flood	48	27	21	1% Flood	3	2	4
0.2% Flood	114	47	77	0.2% Flood	23	9	24
Levee Failure	27	12	14	Levee Failure	6	2	2
Wildfire	313	103	145	Wildfire	37	20	22
Subsidence	51	18	35	Subsidence	5	3	1
Rad. Incidents	2	1	0	Rad. Incidents	0	0	0
Landslide	1	0	1	Landslide	0	0	0
Hazmat	538	184	269	Hazmat	86	41	48

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Capabilities Assessment Review

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Capabilities Assessment Review

- Little regulation of development outside the special flood hazard area (SFHA)
- Fire Code and residential exclusion
- State Building Code and its optional nature
- Paying for code enforcement



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TETRA TECH SOLAR SOLUTIONS

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Capabilities Assessment Review

- State facilities and permitting requirements
- Staff capabilities
- Funding mechanisms
- Program coordination and integration



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TETRA TECH SOLAR SOLUTIONS

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Goals and Objectives

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Goals

- Broad
- Reflect long-term policy
- Vision
- What we want to **ACHIEVE**



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TETRA TECH SOLAR SOLUTIONS

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Objectives

- More specific than goals
- Address individual problems
- Not technically required, but help focus development and implementation



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TETRA TECH SOLAR SOLUTIONS

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2023 WV HMP Goals and Objectives

West Virginia State Hazard Mitigation Plan	
2023 Goals and Objectives	
Goal 1: Reduce or eliminate the impact of hazards on infrastructure throughout the State.	
Objective 1.1	Reduce the number of State facilities (institutions) with any development requirements by 2025.
Objective 1.2	Ensure that State facilities comply with the State Building Code and other development requirements as the act of 2023.
Objective 1.3	Ensure that State facilities are constructed or facilities that are constructed of non-hazardous materials and are designed to meet improved standards, protection efforts to protect existing State facilities from hazard impacts.
Objective 1.4	Ensure that State facilities are constructed or facilities that are constructed of non-hazardous materials and are designed to meet improved standards, protection efforts to protect existing State facilities from hazard impacts.
Goal 2: Develop and implement programs related to reducing long-term vulnerability.	
Objective 2.1	Develop and implement programs related to reducing long-term vulnerability.
Objective 2.2	Develop and implement programs related to reducing long-term vulnerability.
Objective 2.3	Develop and implement programs related to reducing long-term vulnerability.
Objective 2.4	Develop and implement programs related to reducing long-term vulnerability.
Objective 2.5	Develop and implement programs related to reducing long-term vulnerability.

Handout

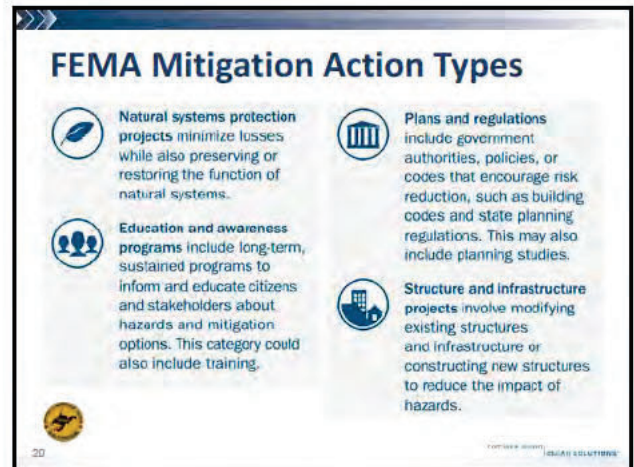
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TETRA TECH SOLAR SOLUTIONS

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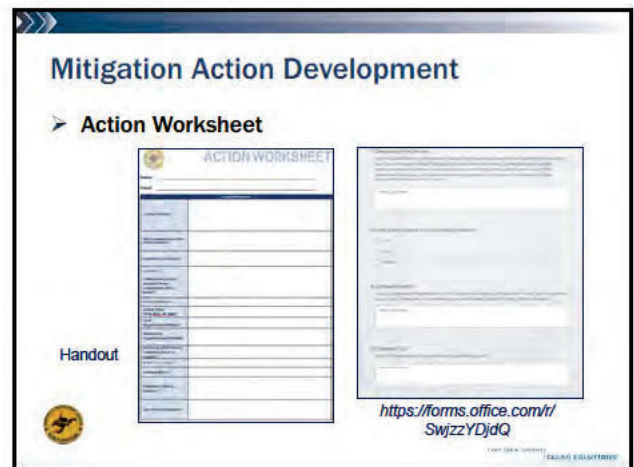
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Mitigation Action Brainstorming

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Mitigation Action Brainstorming

➤ Large Group Brainstorming



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Mitigation Action Brainstorming

➤ Individual and Small Group Brainstorming



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Mitigation Action Brainstorming

➤ Report Back



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Next Steps and Questions

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Next Steps

- Develop mitigation actions
 - Deadline: February 24, 2023
- Complete sections of the HMP
- Post Draft HMP to the project website
<https://www.westvirginiahmp.com/>
- Review Period
- SPT Draft Plan Review Meeting – mid-April 2023



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Questions?

Thank you for your time!



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Contacts



Gabriel Reed

gabriel.a.reed@wv.gov

(304) 414-7673



Tony Subbio

tony.subbio@tetratech.com

(717) 839-5654



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AGENDA

STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE State Planning Team Mitigation Strategy Meeting

February 9, 2023 | 9:30 a.m. – 2:00 p.m.

1. Welcome and Introductions	9:30 – 9:45
2. Hazard Mitigation Planning – Refresher	9:45 – 10:00
3. Risk Assessment Review <ul style="list-style-type: none">a. Riskb. Hazardsc. Social Vulnerabilityd. Exposure	10:00 – 10:15
4. Capabilities Assessment Review	10:15 – 10:35
5. Goals and Objectives <ul style="list-style-type: none">a. Goalsb. Objectivesc. 2023 WV HMP Goals and Objectives	10:35 – 11:00
6. Break	11:00 – 11:15
7. FEMA Mitigation Action Types	11:15 – 11:30
8. Mitigation Action Development <ul style="list-style-type: none">a. Goals and Objectivesb. Reduce Riskc. Fill Gaps in Capabilitiesd. Improving Statewide Mitigation Programse. Action Worksheet	11:30 – 11:50
9. Mitigation Action Brainstorming <ul style="list-style-type: none">a. Large Group Brainstormingb. Individual and Small Group Brainstormingc. Report Back	11:50 – 1:40 (including working lunch)
10. Next Steps and Questions	1:40 – 2:00



Hazard Mitigation Plan

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Leased								X
	Owned								
	Owned				X				X
	Owned								X
	Owned			Y					X
	Owned		X						X
	Owned				X				X
	Owned		X						X
	Leased		X						X
	Leased		X						X
	Owned		X		X				X
	Owned		X						X
	Leased				X				X
	Owned		X						X
	Owned		X						X
	Leased		X						X
	Leased		X						X
	Owned		X						X
	Owned								X
	Leased		X		X				X
	Owned		X						X
	Owned								X
	Owned		X		X				X
	Leased								X
	Owned	X	X						X
	Owned		X		X				X
	Owned				X				X
	Owned				X				
	Owned				X				X
	Owned								X
	Owned								X
	Leased				X				X
	Leased				X				X
	Leased								X
	Leased		X						X
	Leased				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Leased		X						X
	Leased		X						X
	Leased		X						X
	Unknown				X				X
	Unknown				X				
	Unknown	X	X		X				X
	Unknown					X			X
	Unknown								X
	Unknown				X				X
	Unknown				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned								
	Unknown				X	X			X
	Owned								X
	Unknown	X	X		X				X
	Owned	X	X						X
	Owned								
	Owned								
	Owned		X						X
	Owned	X	X		X				X
	Unknown				X				
	Unknown								X
	Unknown				X				X
	Owned				X				X
	Owned	X	X						X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Unknown	X	X	Y	X				X
	Unknown								X
	Owned		X		X				X
	Owned				X				X
	Unknown				X				X
	Owned				X				X
	Unknown				X				X
	Owned				X				X
	Owned								X
	Owned								X
	Unknown								
	Owned				X				X
	Owned				X	X			X
	Owned				X	X			X
	Owned								X
	Owned								X
	Owned					X			
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned		X		X				X
	Owned				X				X
	Owned				X				X
	Owned								X
	Unknown			Y	X				X
	Unknown	X	X						X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned								X
	Unknown				X				X
	Owned								
	Leased					X			X
	Owned				X				X
	Owned				X				X
	Owned		X						X
	Leased					X			X
	Owned				X	X			X
S	Leased								X
	Leased					X			X
	Owned								X
	Leased	X	X						X
	Leased		X						X
	Leased		X						X
	Owned				X				X
	Leased				X				X
	Leased				X				X
	Leased				X				X
	Leased				X				X
	Leased		X						X
ON	Leased		X						X
	Leased				X				X
	Leased		X						X
	Leased				X				X
	Owned		X		X				X
ON	Leased								X
	Owned								X
ON	Leased		X		X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Leased		X		X				X
	Owned				X				X
	Leased				X				X
	Owned					X			X
	Owned				X				X
	Leased					X			X
	Leased			Y					X
	Leased				X				X
	Owned				X				X
	Leased		X		X				X
	Leased								X
	Leased				X				X
	Leased				X	X			X
	Leased								X
	Owned				X				X
	Leased				X				X
	Leased				X				X
	Leased				X				X
	Leased			Y	X				X
	Leased		X		X				X
NGS	Owned				X				X
	Leased								X
	Leased								X
	Leased		X						X
	Leased								X
	Owned								
	Leased	X	X						X
	Leased								X
	Leased				X				X
A	Owned								X
	Leased				X	X			X
	Leased				X				X
	Leased					X			X
	Owned					X			X
	Owned								
	Owned								X
	Leased		X						X
	Leased		X						X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Owned				X				X
	Owned	X	X		X				X
	Owned								X
	Leased								X
	Leased				X				X
	Owned								X
	Owned				X				X
	Owned								
	Owned								X
	Owned	X	X						X
	Owned		X						X
	Leased					X			X
	Leased					X			X
	Leased			Y	X				X
	Owned				X				X
	Leased								X
	Leased					X			X
	Leased								X
	Leased					X			X
	Leased				X				
ION	Owned					X			X
S	Leased	X	X						X
	Leased					X			X
I	Leased				X				X
	Leased					X			X
	Leased	X	X						X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X				X
	Owned				X				X
	Owned			Y					X
	Owned								X
	Leased								X
	Owned								X
	Leased				X				X
	Owned				X				X
	Owned								X
	Owned				X				X
	Leased				X				
	Leased			Y	X				X
	Owned				X				X
	Leased		X						X
	Owned					X			
	Owned								
	Owned	X	X						X
	Leased				X	X			X
	Owned								X
	Owned				X				X
	Leased				X	X			X
	Leased				X	X			X
	Owned								X
	Owned				X				X
	Leased								X
	Leased								X
	Owned								X
	Leased				X				X
	Leased					X			X
	Leased								
	Leased				X				X
	Owned				X				X
	Leased								X
	Leased								X
	Owned								X
	Owned	X	X		X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Leased	X	X		X				X
	Owned								X
	Leased				X				X
	Leased								X
	Leased				X				
	Owned					X			X
	Leased				X				X
	Owned				X				X
	Owned								X
	Owned				X				X
	Owned								
	Owned				X				
	Owned		X						X
	Owned					X			X
	Owned				X		X		X
	Leased				X				X
	Leased				X				
	Owned				X				
	Leased		X						X
	Owned								
	Owned								X
	Owned				X				X
	Owned	X	X		X				X
	Leased		X						X
	Leased		X		X				X
	Leased				X				X
	Leased	X	X		X				X
	Leased			Y					X
	Leased	X	X		X				X
	Leased	X	X		X				X
I	Owned				X		X		X
	Leased								X
	Leased				X				X
I	Leased		X		X				X
	Owned				X				
	Leased								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned		X						X
	Unknown	X	X						
	Unknown								
	Unknown								X
	Leased				X				X
	Unknown	X	X						
	Unknown								
	Unknown								X
	Owned				X				X
	Unknown	X	X						
	Owned				X				X
	Leased								X
	Leased				X				X
	Owned					X			X
	Leased				X				
	Leased	X	X		X				X
	Leased				X				X
	Leased	X	X		X				X
	Owned								
	Owned								X
	Unknown								X
	Owned				X				X
	Leased	X	X		X				X
	Owned								X
	Owned				X				X
	Owned		X						X
	Owned				X				X
	Owned				X				X
	Owned				X				
	Leased								X
	Leased								X
	Leased					X			X
	Leased				X	X			X
	Leased					X			X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Leased				X				X
	Leased								X
	Leased	X	X		X				X
	Leased				X	X			X
	Leased				X				X
	Leased				X				X
	Leased				X				X
	Leased				X				X
	Leased				X				X
	Leased			Y	X				X
	Leased				X				X
	Leased				X				X
	Leased					X			X
	Leased	X	X						X
	Leased				X				X
	Leased								X
	Leased				X				X
	Leased			Y					X
	Leased		X						X
	Leased				X				X
	Leased		X	Y	X				X
	Leased								X
	Leased				X	X			X
S	Leased				X				X
	Leased								X
	Leased								X
	Leased				X				X
	Leased				X			X	
	Leased				X				X
	Leased		X		X				X
	Leased								X
	Leased				X				X
	Leased				X				X
	Leased	X	X		X				X
	Leased								X
	Leased				X				X
	Leased				X				X
	Leased								X
	Leased								X
	Owned	X	X						X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
S	Leased				X	X			X
LE	Leased				X				X
	Leased				X				X
	Leased								X
	Leased								X
	Leased								X
	Leased								X
	Leased								X
	Leased					X			X
	Leased		X						X
	Leased				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Leased		X						X
	Leased								X
	Leased	X	X		X				X
	Owned		X		X				X
	Owned								X
	Owned				X				X
	Leased				X				X
	Owned				X				X
	Owned								
	Owned		X						X
	Unknown	X	X		X				X
	Leased			Y	X				X
	Owned								X
	Owned		X		X				X
	Owned				X				X
	Owned				X				X
	Owned				X	X			X
	Leased				X				X
	Leased		X						X
	Owned				X	X			
	Owned								X
	Leased		X						X
	Owned				X				X
	Leased		X		X				X
ON	Owned		X						X
	Owned								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X				X
	Owned		X		X				X
	Owned					X			X
	Owned				X				X
	Owned				X				
	Owned				X				X
	Owned		X						X
	Owned								X
	Owned				X				X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned				X				X
	Leased		X		X				X
	Leased								X
	Leased					X			
	Leased				X				X
	Leased				X				X
	Leased								X
	Leased		X						X
	Leased		X		X				X
	Owned		X						X
	Owned		X		X				X
ON	Leased				X				X
	Owned	X	X		X				X
	Owned								X
	Owned								
	Leased		X						X
	Leased	X	X		X				X
	Owned	X	X		X				X
	Leased				X				X
	Leased		X						X
ON	Owned								X
ON	Owned								X
ON	Owned								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
ON	Owned								X
ON	Owned								X
ON	Owned								X
ON	Owned				X				
	Owned								X
ON	Owned				X				X
	Owned								X
	Owned								X
	Owned					X			X
	Unknown	X	X		X				X
	Owned				X				X
	Owned								X
	Unknown								X
	Unknown		X						X
	Owned	X	X	Y	X				X
	Owned				X				X
	Owned	X	X						X
	Owned		X						X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned		X		X				X
S	Owned								X
S	Owned				X				X
	Owned								
	Owned				X				X
	Owned	X	X		X				X
	Owned				X				X
	Owned			Y					X
	Owned		X						X
	Owned	X	X		X				X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Unknown								X
	Unknown				X				X
	Owned		X						X
	Unknown		X						X
	Owned				X				X
	Unknown				X				X
	Unknown								X
	Unknown								X
	Unknown								X
	Unknown								X
	Unknown				X				X
	Owned								X
	Owned				X	X			X
	Owned				X				
	Owned			Y	X				X
	Owned				X				X
	Owned			Y	X				X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned		X		X				X
	Owned		X						X
	Owned		X						X
	Owned				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown								X
	Owned								X
	Owned				X				X
	Unknown					X			X
	Owned				X				X
	Owned				X				X
	Owned	X	X		X				X
	Owned			Y	X				X
	Owned				X				X
	Owned					X			X
	Owned	X	X		X				X
6	Owned								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Owned	X	X						X
	Owned								
	Owned				X				X
	Owned		X		X				X
	Owned								
	Owned				X				X
	Owned				X				X
	Owned								X
	Unknown				X				X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned		X		X				X
	Owned		X						X
	Owned								X
	Owned	X	X						X
	Owned								X
	Unknown								X
	Owned								X
	Owned								X
	Owned								X
	Owned				X	X			X
	Owned				X				X
	Unknown								X
	Owned				X				X
	Owned								X
	Owned								X
	Owned	X	X						X
	Unknown				X				X
	Unknown				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned								X
	Owned								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned		X						X
	Unknown								X
	Unknown				X				X
	Owned				X				X
	Owned								X
	Unknown		X		X				X
S	Leased				X	X			X
	Owned				X				X
S	Owned								X
	Unknown					X			X
	Unknown	X	X						
	Unknown		X		X				X
	Unknown				X				X
	Unknown								X
	Unknown								X
	Unknown								X
	Unknown	X	X		X				X
	Unknown								
	Unknown				X				X
	Owned								X
	Owned								X
	Unknown				X				X
	Owned		X		X				X
	Owned								X
	Owned								X
	Owned					X			X
	Owned				X				X
	Leased		X						X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Leased		X		X				X
	Leased								X
	Owned	X	X						X
	Leased		X		X				X
	Leased				X				X
	Owned				X				
	Leased				X	X			X
	Leased		X		X				X
	Owned					X			X
	Leased				X				X
	Leased		X						X
	Owned								X
	Owned				X				X
	Leased				X				X
	Leased								X
	Owned				X				X
	Leased					X			X
	Owned				X				X
	Owned	X	X		X				
	Leased								X
/	Owned								X
	Leased				X				X
	Leased								X
	Leased								X
	Owned		X						X
	Leased								X
	Owned			Y					X
	Leased		X						X
	Owned				X				X
	Leased				X				X
	Leased	X	X		X				X
	Owned				X			X	X
	Leased								X
	Owned				X				
	Leased								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned					X			X
	Owned								X
	Owned								X
	Owned		X						X
	Owned		X						X
	Owned				X				X
	Leased								X
	Owned				X				
	Owned					X			
	Owned		X						X
	Owned				X				X
	Owned				X	X			X
	Owned				X				X
	Owned					X			X
	Owned			Y	X				X
	Owned								X
	Owned		X						X
	Owned				X				X
	Owned	X	X		X				X
	Owned		X	Y	X				X
	Owned				X				X
	Leased				X				X
	Owned				X				X
	Owned				X				X
	Leased				X				X
	Owned				X				X
	Owned				X				
Y	Owned								X
	Leased								X
	Owned								X
	Owned	X	X		X				X
	Owned				X				X
	Owned								X
	Leased								X
	Owned								X
ON	Owned		X						X
	Owned			Y	X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Owned	X	X		X				X
	Owned								
	Owned	X	X						
	Owned	X	X		X				X
	Owned	X	X		X				X
	Owned					X			X
	Owned				X				X
	Leased								X
	Leased								X
	Owned	X	X						X
S	Owned					X			X
	Owned								X
	Unknown				X				X
	Unknown				X				X
S	Owned								X
S	Owned				X				X
	Unknown								
	Owned	X	X						
	Unknown	X	X						
	Unknown				X				X
	Unknown								
S	Owned				X				
	Unknown			Y					X
	Unknown								
S	Owned	X	X			X			X
S	Owned					X			X
	Owned				X	X			X
S	Owned				X				
	Unknown					X			X
	Unknown								
	Owned								X
	Unknown					X			
	Unknown								
	Unknown				X				X
	Unknown								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Unknown								
	Owned								
	Unknown								
	Owned								
	Unknown								X
S	Owned	X	X						X
	Owned	X	X						X
	Unknown								
S	Owned				X				X
S	Owned				X				
	Unknown								X
	Owned				X				X
	Unknown	X	X						
S	Owned					X			X
	Owned								X
	Unknown								X
	Owned								X
S	Owned					X			X
	Unknown								
	Unknown			Y	X				X
	Unknown					X			
	Unknown	X	X						X
	Owned				X				X
	Owned			Y					X
S	Owned				X				X
	Owned								
	Owned				X				X
	Unknown								X
	Owned								X
	Unknown								X
	Unknown								X
S	Owned					X			X
S	Owned				X				
S	Owned					X			X
S	Owned				X				X
S	Owned				X				
	Owned								X
	Unknown								
S	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
S	Owned				X				
S	Owned				X				
S	Owned				X				X
	Owned	X	X	Y	X				X
	Unknown						X		X
	Unknown			Y	X				X
	Unknown	X	X						
	Unknown								X
S	Owned				X				X
	Unknown								
	Unknown				X				
	Owned								X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned		X						X
	Owned								X
	Owned	X	X						X
	Owned								X
	Owned				X				X
	Owned		X						X
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned				X				X
	Owned								X
	Owned				X				X
	Owned								X
	Leased				X				
	Owned								X
	Leased								X
	Owned								X
	Owned								X
	Leased		X						X
	Owned		X						X
	Owned		X						X
	Owned								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Leased		X						X
	Owned				X				X
	Owned								
	Owned				X				
	Owned				X				X
	Owned								X
	Owned								X
	Owned		X		X				X
	Owned		X						X
	Owned				X				
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Leased				X				X
	Owned				X				X
	Owned				X	X			X
	Owned					X			X
	Owned	X	X						X
	Unknown	X	X		X				X
	Owned	X	X	Y	X				X
	Owned			Y	X				X
	Owned		X						X
	Owned								X
	Leased			Y	X				X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								
	Owned								X
	Owned								X
	Leased				X				X
	Leased		X		X				X
	Leased		X		X				X
	Leased				X	X			X
	Owned				X				X
	Leased		X						X
	Leased			Y	X				X
	Leased				X				
	Owned				X				X
	Leased								X
	Owned				X	X			X
	Leased								X
	Leased		X						X
	Leased				X				X
	Owned				X				X
	Leased								X
	Leased			Y					X
N	Leased				X				X
	Leased					X			X
	Owned								X
	Owned				X				X
	Owned								X
N	Owned					X			X
	Leased								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X				
	Owned				X				X
	Owned				X				
	Leased				X				X
	Leased				X	X			X
	Owned				X				X
	Leased	X	X		X				
	Leased	X	X		X				X
	Leased					X			X
	Owned								X
	Owned								X
S	Owned				X				X
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Leased				X	X			X
	Leased								X
	Owned					X			X
A	Owned								X
	Owned								X
	Leased				X				X
	Owned								X
D	Owned				X				X
	Owned								X
ON	Owned				X				X
	Leased		X						X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X	X			X
	Unknown								X
	Owned				X				X
	Owned								X
	Owned				X				X
	Unknown				X				X
	Unknown	X	X						
ON	Unknown								X
	Unknown				X	X			X
	Unknown	X	X		X				X
	Unknown								X
	Unknown								X
I	Unknown				X				X
	Unknown	X	X		X				X
	Unknown								X
S	Unknown				X				X
	Unknown					X			
	Unknown					X			X
	Unknown			Y	X				X
	Unknown				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown		X		X				X
	Unknown				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown								X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Unknown	X	X						X
	Unknown				X				X
	Unknown								X
	Unknown								
	Unknown				X				X
	Unknown								X
	Unknown				X				X
	Unknown		X						X
	Unknown				X				X
	Unknown				X				X
	Unknown	X	X		X				X
	Unknown				X				X
	Unknown								X
	Unknown								X
	Unknown				X				X
	Unknown		X	Y					X
	Unknown				X				X
	Unknown								X
	Unknown				X				X
	Unknown				X	X			X
	Unknown				X				X
	Unknown				X				X
	Unknown								X
	Unknown		X						X
	Unknown								X
	Unknown	X	X		X	X			X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Unknown								X
	Unknown				X				X
	Unknown	X	X						X
	Unknown				X				X
	Owned				X				X
ON	Owned								X
ON	Owned		X		X				X
	Owned				X				X
	Owned	X	X		X				X
	Owned					X			X
	Owned								X
	Owned				X				X
	Owned				X				
	Unknown	X	X		X				X
	Leased			Y	X				X
	Owned			Y					X
	Owned								X
	Owned				X	X			X
	Leased				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned		X		X				X
	Owned				X				X
	Owned			Y	X				X
	Owned				X	X			X
	Owned				X	X			X
	Owned				X				X
D	Owned	X	X		X				X
	Owned			Y	X				X
	Owned								X
	Owned								X
	Owned				X				X
	Unknown					X			X
	Owned					X			X
	Owned		X						X
	Leased				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned								X
	Owned								X
	Owned								X
	Owned				X				X
	Owned			Y					X
	Owned								X
	Owned				X				X
	Owned				X	X			X
	Leased				X				X
	Owned		X	Y	X				X
	Owned		X	Y	X				X
	Owned								X
	Owned				X	X			X
S	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned								X
	Leased		X						X
	Owned				X				X
	Owned				X				X
	Owned	X	X		X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Owned			Y	X				X
	Owned			Y	X				X
	Leased				X				X
	Owned				X				X
	Owned				X				X
	Owned				X				X
	Leased	X	X						X
	Owned				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned		X		X				X
	Leased				X				X
	Owned								X
S	Owned	X	X		X				X
LE	Owned	X	X		X				X
LE	Owned	X	X		X				X
	Owned	X	X		X				
	Owned			Y	X				X
	Owned			Y					X
	Owned				X				X
	Leased		X						X
	Owned				X				X
	Owned					X			X
	Owned								X
	Owned		X		X				X
	Owned		X						X
	Owned		X						X
	Unknown								
	Unknown				X	X			X
	Unknown				X				X
	Owned		X						X
	Leased				X				X
	Owned								X
	Owned								X
ON	Owned		X						X
	Leased				X				X
	Leased	X	X						X
	Owned				X				X
	Leased								X
	Leased								X
	Owned				X				X
	Leased		X						X
	Leased				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned								X
	Leased				X				X
	Owned				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown								X
	Unknown				X				X
S	Unknown				X	X			X
	Unknown		X		X				X
	Unknown				X				X
	Unknown		X						X
	Unknown		X						X
	Unknown				X				X
	Unknown				X				X
	Unknown		X						X
	Unknown				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown		X						X
	Unknown					X			X
	Unknown				X				X
	Unknown				X				X
	Unknown		X						X
	Unknown				X				X
	Unknown				X	X			X
	Unknown								X
	Unknown								X
	Unknown				X	X			X
	Unknown				X				
D	Unknown								X
	Unknown				X				X
	Unknown		X						X
	Unknown		X						X
	Unknown	X	X		X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Unknown			Y					X
	Unknown				X				X
	Unknown								X
	Unknown			Y					X
	Unknown	X	X		X				X
	Unknown								X
	Unknown								X
	Unknown		X	Y	X				X
	Unknown								X
NGS	Unknown				X				X
	Unknown				X				X
	Unknown				X				X
	Unknown			Y	X				X
	Unknown		X		X				X
	Unknown				X				X
	Unknown								X
	Unknown								X
	Unknown	X	X		X				X
ON	Unknown		X						X
	Unknown		X	Y	X				X
	Unknown								X
	Unknown				X				X
	Unknown				X				X
	Owned								X
ON	Owned								X
	Owned				X				X
	Owned				X				X
	Owned								X
	Leased			Y					X
	Owned					X			X
	Leased				X				X
	Owned					X			X
	Owned			Y	X				X
	Owned				X				X
	Owned				X				X
	Owned								X
	Leased				X				X

	Owned vs. Leased	1% Flood	0.2% Flood	Levee Failure	Wildfire	Subsidence	Rad. Incidents	Landslide	Hazmat
	Owned				X				X
	Owned								X
	Owned		X						X
	Owned								X
	Owned	X	X		X				X
	Owned								X
	Owned								
	Owned				X				X
	Owned					X			X
	Owned			Y					X
	Unknown								X
	Owned					X			X
	Leased				X				X
	Owned	X	X						X
	Owned		X						X
	Owned	X	X		X				X
	Owned								X
	Leased		X						X
	Leased								X
	Owned				X				X



West Virginia State Hazard Mitigation Plan

2023 Goals and Objectives

Goal 1: Reduce or eliminate the impact of hazards on infrastructure throughout the State.

- | | |
|---------------|--|
| Objective 1.1 | Remove the exemption of State facilities from compliance with any development regulations by 2027. |
| Objective 1.2 | Ensure that State facilities comply with the State Building Code and other development regulations by the end of 2032. |
| Objective 1.3 | Ensure that State operations are conducted at facilities that are located outside of hazard areas, particularly areas prone to flooding. |
| Objective 1.4 | Implement strategic, proactive projects to protect existing State facilities from hazard impacts. |
| Objective 1.5 | Protect high hazard potential dams and reduce vulnerability to dam failures downstream through rehabilitation and awareness activities. |

Goal 2: Align and integrate programs related to reducing long-term vulnerability to hazards.

- | | |
|---------------|--|
| Objective 2.1 | Analyze and identify opportunities for increased coordination of State programs. |
| Objective 2.2 | Align and integrate multiple State agencies'/departments' programs related to reducing vulnerability to dam failure. |
| Objective 2.3 | Align and integrate multiple State agencies'/departments' programs related to resilience from flooding. |
| Objective 2.4 | Align and integrate programs related to preparing for, responding to, recovering from, and mitigating the impacts of hazards within individual agencies/departments. |
| Objective 2.5 | Integrate further the regional planning and development councils in the State's mitigation program. |



Goal 3: Provide consistent, continual education of the whole community on reducing long-term vulnerability throughout the State of West Virginia.

- Objective 3.1 Educate State and local officials, stakeholder groups, and the general public on hazards and reducing long-term vulnerability.
- Objective 3.2 Require continuing education of local officials with a role in regulating development and include topics on reducing long-term vulnerability in those requirements.
- Objective 3.3 Require continuing education of elected executive officials and include topics on reducing long-term vulnerability in those requirements.

Goal 4: Enhance and support mitigation programs and activities at the local (regional and county) level to reduce long-term vulnerability.

- Objective 4.1 Enact changes to existing State funding mechanisms to facilitate their use in reducing long-term vulnerability to hazards.
- Objective 4.2 Develop a State-level program to fund mitigation activities at the local level.
- Objective 4.3 Develop State-level standards for the contents of regional and county hazard mitigation plans.
- Objective 4.4 Provide technical assistance to regions, counties, and municipalities in developing their hazard mitigation programs and implementing projects.
- Objective 4.5 Develop, enhance, and advertise data that is available to support mitigation planning and implementation at the local level.
- Objective 4.6 Work with local stakeholders to protect structures and infrastructure from hazard impacts.



ACTION WORKSHEET

Name: _____

Email: _____

Action Worksheet	
Action/Solution:	
What problem does this action address?	
Hazard(s) of Concern:	
Benefits: (What losses will be avoided? What capabilities will be built?)	
Goals/Objectives:	
Action Type: (LPR, EAP, SIP, NSP)	
Lead Organization/Official:	
Supporting Organizations/Officials:	
How long will it take to complete once it is started?	
When can it start?	
Estimated Cost:	
Potential Funding Sources:	
Any other information?	

Please return this worksheet at the end of the meeting.



West Virginia State Hazard Mitigation Plan

Federal Funding Programs

Program	Agency	Description
Hazard Mitigation Grant Program (HMGP)	FEMA	To significantly reduce or permanently eliminate future risk to lives and property. HMGP funds projects in accordance with priorities identified in state and local hazard mitigation plans and enables mitigation measures to be implemented during the recovery from a disaster.
Flood Mitigation Assistance (FMA)	FEMA	To implement cost-effective measures that reduce or eliminate the long-term risk of repetitive flooding to buildings and other structures insured under the National Flood Insurance Program.
Building Resilient Infrastructure and Communities (BRIC)	FEMA	Funding is aimed towards capability and capacity building, encouraging innovation, public-private partnership, enabling larger projects, maintain flexibility and providing consistency. The goal is to reduce overall risk from upcoming hazard events and to promote future resilience at the local levels.
High Hazard Potential Dam (HHPD) Grant Program	FEMA	Funding is for states or territories with a dam classified as a high hazard dam. The program provides technical, planning and construction assistance for rehabilitation of eligible dams.
Post-Disaster Economic Recovery Grants and Assistance	EDA	Grant funding to assist with the long-term economic recovery of communities adversely impacted by disasters. Several programs are available.
American Rescue Plan	EDA	Funding to assist communities nationwide in their efforts to build back better and support economic recovery from the coronavirus pandemic and building local economies to withstand future economic shocks. Grant programs include: <ul style="list-style-type: none">• Build Back Better Regional Challenge• Good Jobs Challenge• Economic Adjustment Assistance Program• Indigenous Communities Program• Travel, Tourism, and Outdoor Recreation Program• Statewide Planning, Research, and Networks



Program	Agency	Description
U.S. Small Business Administration Loan Programs	Small Business Administration (SBA)	Provides low-interest disaster loans to be used to repair or replace the following destroyed in a declared disaster: real estate, personal property, economic injury, equipment, and inventory and business assets.
Public Assistance Grants	FEMA	Grants for the repair, replacement, or restoration of disaster-damaged, public facilities of certain private nonprofit organizations. Mitigation funding is available for damaged components of eligible buildings/structures.
Community Development Block Grants Program	HUD	<p>Provides annual grants on a formula basis to develop viable urban communities, improve housing and a suitable living environment, and by expanding economic opportunities for low and moderate-income persons. CDBG funds may be used for activities which include:</p> <ul style="list-style-type: none"> • Acquisition of real property • Relocation and demolition • Rehabilitation of residential and non-residential structures • Construction of public facilities and improvements, such as water and sewer systems, neighborhood centers, and the conversion of school buildings for eligible uses • Public services, within certain limits • Activities relating to energy conservation and renewable energy resources • Provision of assistance to profit-motivated businesses to carry out economic development and job creation/retention activities
HOME Investment Partnerships Program	HUD	Provides formula grants to states and localities that communities use - often through nonprofit groups - to fund a wide range of activities including building, buying, or rehabilitating affordable housing for rent or homeownership or providing direct rental assistance to low-income people. The program's flexibility allows states and local governments to use HOME funds for direct loans, loan guarantees or other forms of credit enhancements, or rental assistance deposits.



Program	Agency	Description
Capital Fund Emergency/Natural Disaster Funding	HUD	Funding to public housing agencies that confront an emergency situation or a
Single Family Housing Repair Loans and Grants (Section 504 Rural Housing Loans and Grants)	USDA	Repair loans, grants, and technical assistance for very low-income homeowners to repair their homes and remove health and safety hazards.
Single Family Housing Guaranteed Loans (Section 502 Rural Housing Loans)	USDA	Also known as the Section 502 Direct Loan Program, this program assists low-income applicants obtain decent, safe and sanitary housing in eligible rural areas by providing assistance to increase an applicant's repayment ability.
Emergency Management Performance Grant (EMPG)	FEMA	Grants are available to State, local, territorial, and tribal governments in preparation for a Federal Government, through the EMPG Program, provides necessary direction, guidance, and provides necessary assistance, as authorized so that a comprehensive preparedness system exists at all levels for all hazards.
Homeland Security Grant Program (HSGP)	FEMA	Supports the building, sustainment, and delivery of core capabilities essential to the Preparedness Goal of a secure and resilient nation. HSGP is composed of three programs including the State Homeland Security Program (SHSP), Urban Area Security Program (UASP), and the Operation Stonegarden (OPSG). Together, these grant programs fund activities, including planning, organization, equipment purchase, training, exercise, and administration.
Cooperating Technical Partners (CTP)	FEMA	The CTP Program is an innovative approach to creating partnerships between the Federal Emergency Management Agency (FEMA) and participating NFIP communities, regional agencies, tribes and universities that have the interest and capability to become more active in the FEMA flood hazard mapping program.



Program	Agency	Description
National Dam Safety Program (NDSF) State Assistance Grant Program	FEMA	<p>The NDSP is a partnership of the states, federal agencies, and other stakeholders and community responsibility for dam safety. Grant assistance to the States p improvement of the State dam safety programs that regulate most of the dam states use NDSP funds for the following types of activities:</p> <ul style="list-style-type: none"> • Dam safety training for state personnel • Increase in the number of dam inspections • Increase in the submittal and testing of Emergency Action Plans • More timely review and issuance of permits • Improved coordination with state emergency preparedness officials • Identification of dams to be repaired or removed • Conduct dam safety awareness workshops and creation of dam safety materials
Cooperative Forestry State Fire Assistance	U. S. Forest Service	The Cooperative Forestry program manages a number of programs including Program, The Forest Legacy Program, The Community Forest Program, The U Forestry Program, Ecosystem Services and Markets, and Wood Innovations
Small Civil Works Projects; Continuing Authorities Program (CAP)	USACE	Supports efforts for planning, designing, and constructing certain types of wa environmental restoration projects without specific Congressional authorizat is to plan and implement projects of limited size, cost, scope, and complexity. CAP authorities and their project purposes.
Nonstructural Alternatives to Structural Rehabilitation of Damaged Flood Control Works	USACE	Direct planning and construction grants for nonstructural alternatives to the s flood control works damaged in floods or coastal storms.
Transportation Trust Fund	FHA	Transportation Trust Fund funds grants through a competitive application-ba the Local Aid District Offices. County Aid Program- Administer the County Aid bridge infrastructure improvements under county jurisdiction. Each County re



Program	Agency	Description
		based allotment that takes into consideration county road lane mileage and p Program is funded through the Transportation Trust Fund and provides fundi projects included in the county's approved Annual Transportation Program.
Forest Legacy Program	U.S. Forest Service	Federal program in partnership with states supports efforts to protect enviro lands. Designed to encourage the protection of privately owned forest lands, voluntary program. To maximize the public benefits it achieves, the program of partial interests in privately owned forest lands. Forest Legacy helps states forest conservation plans. It encourages and supports acquisition of conserva binding agreements transferring a negotiated set of property rights from one removing the property from private ownership.
Rural Development Assistance—Housing	USDA	Grants, loans, and technical assistance for addressing rehabilitation and health primarily low-income rural areas. Declaration of major disaster necessary.
Rural Development Assistance—Utilities	USDA	Direct and guaranteed rural economic loans and business enterprise grants to development needs.
Land and Water Conservation Fund	NPS	Funding to states for outdoor recreational development, renovation, land acc program is divided into two distinct funding pots: state grants and federal acc
Reimbursement for Firefighting on Federal Property	USFW	Provides reimbursement only for direct costs and losses over and above norm
Fire Prevention and Safety Grant Program	FEMA	Grants for projects that enhance the safety of the public and firefighters from The primary goal is to target high-risk populations and mitigate high incidenc
Assistance to Firefighters	FEMA	Grants to local fire departments to protect citizens and firefighters against th related incidents.



Program	Agency	Description
Assistance—Community Facility Direct Loans/Grants	USDA	Grants, direct and guaranteed loans, and technical assistance to construct, enhance, or repair community facilities for healthcare, public safety, and public services in primary and secondary communities.
Hazardous Materials Emergency Preparedness Program	USDOT	Project grants and technical assistance to enhance hazardous materials emergency response capabilities.
Infrastructure Protection Program	FEMA	Grants to strengthen the nation's ability to protect critical infrastructure facilities. Includes the Transit Security Grant Program, Port Security Grant Program, Intercity Bus Security Grant Program, Trucking Security Program, and Buffer Zone Protection Program grant programs.
Farm Ownership Loans	USDA	Direct loans, guaranteed/insured loans, and technical assistance to farmers to improve, or repair farm homes, farms, and service buildings and to make other improvements.

State Funding Programs

Funding Program	Description
Abandoned Mine Lands Economic Revitalization Program	The WVDEP Office of Abandoned Mine Lands and Reclamation administers funding for economic revitalization of abandoned mine lands through the AMLER program.
Watershed Project Grants	WV's NPS administers the \$319 grants. The NPS Program emphasizes management strategies to address nonpoint pollution problems. Before project grants can be approved a watershed-based plan must be developed through local stakeholder involvement. Projects within a watershed must be designed to improve water quality.



Funding Program	Description
Rehabilitation Environmental Action Plan (REAP) Grants	<p>REAP focuses on cleanup efforts from both program staff and volunteers statewide. In a unique way, REAP empowers citizens to take ownership of their communities by providing technical, financial, and logistical support for cleanup efforts. REAP contains various grant opportunities.</p> <ul style="list-style-type: none"> • Recycling Assistance Grant Program: the funds are available to any county, municipal government, or other entity in West Virginia that is interested in planning and implementing recycling programs, educational programs or need assistance in recycling market efforts. • Litter Control Grant Program: The Litter Control Grant is a matching fund that assists local government agencies with community cleanup and litter enforcement projects. • Covered Electronic Devices Grant Program: Expenditures from the fund shall be for grants to support programs that divert covered electronic devices from the waste stream. • E-Cycling Contractors: Grantees should confirm that the contractors providing recycling services make a good faith attempt to adhere to one of the two accredited certification standards for responsible recycling: Responsible Recycling (R2) or Standard for Responsible Recycling and Reuse of Electronic Equipment.
Transportation Alternatives Program	<p>Congress initiated several reimbursable grant programs, including TAP, designed to enhance "Quality of Life in our Communities" through the Intermodal Surface Transportation Efficiency Act (ISTEA) and continuing through the Transportation Equity Act for the 21st Century. To be eligible, a project must: (1) have a relationship to surface transportation; (2) be one of the qualifying activities set by law.</p>
Recreational Trails Fund Program	<p>Congress initiated a number of reimbursable grant programs, including the RTP, designed to enhance "Quality of Life in our Communities" through the Intermodal Surface Transportation Efficiency Act (ISTEA). West Virginia's Recreational Trails and Alternatives and Recreational Trails Program (TARTP) grants help towns and cities build and improve trails, and more. The program is administered by the West Virginia Department of Transportation in cooperation with the Federal Highway Administration.</p>
Community Participation Grant Program	<p>The Governor's Community Partnership program provides state grant funds for community and economic development projects throughout West Virginia. In true community partnerships, the program enables communities to plan, develop, and improve a variety of public facilities and services.</p>



Funding Program	Description
Rural Health Infrastructure Loan Program	The Center for Rural Health Development, Inc. (Center), a West Virginia not-for-profit corporation, manages the West Virginia Rural Health Infrastructure Loan Fund (Loan Fund) for the purpose of making affordable health care services available to West Virginia's health care providers. Its objective is to strengthen West Virginia's health care system.
In Lieu Fee Program	The goal of West Virginia's ILF Program is to achieve no net loss of existing stream and wetland resources in West Virginia through effective restoration, enhancement, replacement, and preservation of stream and wetland resources. The program utilizes watershed and landscape-based planning to identify and assess potential mitigation opportunities and maximize the ecological benefits of aquatic resources within the same geographic service area.
Appalachian Regional Commission Federal Grant Program	Applicants must meet the federal financial management requirements outlined in 2 CFR 200.318. Applicants must also comply with federal regulations for environmental review and Davis-Bacon labor standards. A project may be funded by other funding source, including federal, state and local funds. Highest priority for the West Virginia ARC is for infrastructure projects (water, sewer, broadband), particularly projects in ARC-designated distressed areas.
Weatherization Assistance Program	Weatherization has operated for more than 40 years and is the nation's largest single "whole-house" energy efficiency program. The Program's primary purpose, established by law, is "...to increase the energy efficiency of low-income occupied by low-income persons, reduce their total residential energy expenditures, and improve the health and safety of especially low-income persons who are particularly vulnerable, such as the elderly, the disabled, and the handicapped." The program is administered by WV DEC.
Land and Water Conservation Fund	LWCF provides matching grants to assist in the planning, acquisition, and development of state parks and other recreational areas administered by WV DEC.
Chesapeake Bay Implementation Grant and Chesapeake Bay Regulatory/ Accountability	Project funds are available to implement projects that reduce nitrogen, phosphorous and sediment loading to the Chesapeake Bay.



Funding Program	Description
Clean Water State Revolving Fund Assistance	The Clean Water State Revolving Fund program is a funding program to address water quality wastewater facility construction, upgrades, or expansions. When a community has been recommended by the West Virginia Infrastructure and Jobs Development Council to seek the Clean Water State Revolving Fund assistance, that community will be contacted by one of the financial managers.



STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE

State Planning Team Mitigation Strategy Meeting

February 9, 2023 | 9:30 a.m. – 2:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS
David Armstrong	KCOEM	davidarmstrong@kanawha.gov
Tim Keaton	WVEMD	tim.w.keaton@wv.gov
Jennifer Skaggs	WV Conservation Agency	jskaggs@wvca.us
John Metzger	FEMA	John.William.Metzger@FEMA.DHS.gov
Xavier Morgan	WVEMD	Xavier.M.M@wv.gov
Joel Davis	MOVRC	Joel.Davis@movrc.org
Bob Martin	SRO	robert.f.martin@wv.gov
Ed Martin	SRO	edwin.r.martin@wvca.us
JoAnn Combs	USACE	Joann.D.Combs@usace.army.mil
Anthony Evans	WVDOF	anthony.evans@wv.gov



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State Planning Team Mitigation Strategy Meeting

February 9, 2023 | 9:30 a.m. – 2:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS
Tom Hansen	FEMA	Thomas.hansenjr@fema.dhs.gov
Stephanie Rosier	WV Office Emergency Management	Stephanie.a.Rosier@wv.gov
James Yong	FEMA	james.yong@fema.dhs.gov
Tammy Sneed	WV EMD	tammy.m.sneed@wv.gov
Amberlee Perkins	WV EMD	AmberleeMPerkins@wv.gov
Jeremy Bandy	WV DEP	Jeremy.W.Bandy@wv.gov
Aaron Tonkery	WV DEP	aaron.p.tonkery@wv.gov
David Dove	WV DEP	david.l.w.dove@wv.gov



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State Planning Team Mitigation Strategy Meeting

February 9, 2023 | 9:30 a.m. – 2:00 p.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS
Elizabeth Larson	FEMA R3 FPM	Elizabeth.Larson@fema.dhs.gov
Ray Perry	Logan County	rperry@lccwv.us
Gabe Reed	WVEMD	you have my email
Jaleesa Tate/Deputy PM	Tetra Tech	jaleesa.tate@tetratech.com
Tony Subbio/PM	Tetra Tech	tony.subbio@tetratech.com



MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) State Planning Team (SPT) Draft Review Meeting		
Date	May 25, 2023	Time	9:00 – 10:45 a.m.
Location	National Weather Service Office, 1754 Hendrickson Drive, South Charleston, West Virginia		
Attendees	GE McCabe, Director, West Virginia Emergency Management Division (WV EMD)		
	Matt Blackwood, Deputy Director, WV EMD		
	Ginger Barnett, Chief of Mitigation and Recovery, WV Emergency Management Division (WV EMD)		
	Lonnie Bryson, Section Chief, WV EMD (remote)		
	Stephanie Carte, Individual Assistance Coordinator, WV EMD (remote)		
	Brad Hartley, Assistant Section Chief, Mission Support, WV EMD (remote)		
	Dale Hatfield, Mitigation Project Officer, WV EMD (remote)		
	Tim Keaton, State National Flood Insurance Program (NFIP)/Cooperating Technical Partner (CTP) Coordinator, WV EMD (remote)		
	Jason Means, Public Assistance Lead, WV EMD (remote)		
	Xzavier Morgan, Project Officer, WV EMD		
	Amberlea Perks, WV EMD		
	Jeffery Perry, Chief, Mission Support, WV EMD (remote)		
	Gabriel Reed, Hazard Mitigation Officer, WV EMD		
	Stephanie Rosier, Planner, WV EMD		
	Tammy Sneed, Project Officer, WV EMD		
	Nuvia Villamizar, GIS Manager, WV EMD (remote)		
	Al Whitaker, Lead Planning Officer, WV EMD (remote)		
	Melanie Boothe, CDBG-DR/MIT, WV Community Advancement and Development (WV CAD) (remote)		
	Amy Clark, Internal Auditor CDBG-DR/MIT, WV CAD (remote)		
	Ryan Halsey, Community Development Block Grant (CDBG) Infrastructure Project Manager, WV CAD (remote)		
	Jacob Wolfe, CDBG Project Manager, WV CAD (remote)		
	Sherry Risk, CDBG Program Manager, WV Department of Economic Development (remote)		
	Michelle Tharp, WV Department of Economic Development (remote)		
	Aaron Tonkery, Program Manager, WV Department of Environmental Protection (WV DEP) Dam Safety (Non-Coal) (remote)		
	David Hoge, Chief, Grants Section, WV Department of Homeland Security (remote)		
	Brett McMillion, Director, WV Division of Natural Resources (remote)		
	John McGrath, West Virginia Secretary of State's Office (remote)		
	Robert Martin, Director, WV State Resiliency Office (SRO) (remote)		
	Ed Martin, Deputy Director, WV SRO		



MEETING NOTES

Jenny Gannaway, Executive Director, WV Voluntary Organizations Active in Disaster (VOAD) (remote)
Gordon Merry III, Director, Cabell County Emergency Medical Services (remote)
George Eidel, Director of Emergency Management and Floodplain Management, Doddridge County (remote)
Paula Brown, Deputy Director, Greenbrier County Homeland Security and Emergency Management (remote)
Stephen Allen, Director, Jefferson County Office of Homeland Security and Emergency Management (remote)
Dick Myers, Deputy Director, Jefferson County OHSEM (remote)
Jason Roberts, Executive Director, Region 1 Planning and Development Council (PDC) (remote)
Kim Odle, Executive Assistant, Region 1 Planning and Development Council (remote)
Chris Chiles, Region 2 PDC (remote)
Bruce Mullins, Project Coordinator, Regional Intergovernmental Council (Region 3) (remote)
Kaleb Armentrout, Projects Information & Communications Specialist, Region 4 Planning and Development Council (remote)
Marilyn Guerrero, Region 4 PDC (remote)
Betsy Morris, Project Assistant, Region 4 PDC (remote)
Amanda Smarr, Project Assistant/GIS Coordinator, Region 4 PDC (remote)
Melissa O'Brien, Executive Director, Mid-Ohio Valley Regional Council (MOVRC) (Region 5) (remote)
Joel Davis, Project Administrator, MOVRC (Region 5) (remote)
Luke Peters, Community Development Director, MOVRC (Region 5) (remote)
Sheena Hunt, Executive Director, Region 6 PDC (remote)
Shane Whitehair, Executive Director, Region 7 Planning and Development Council (remote)
Dione Andrews, Region 7 Planning and Development Council (remote)
Terry Lively, Executive Director, Region 8 Planning and Development Council (remote)
Rachel Snavelly, Executive Director, Eastern Panhandle Regional Planning and Development Council (Region 9) (remote)
Scott Hicks, Executive Director, Bel-O-Mar Regional Council (Region 10) (remote)
Natalie Hamilton, Community Development/Grants Administrator, Bel-O-Mar Regional Council (Region 10) (remote)
AC Wiethe, Director of Management Services, Bel-O-Mar Regional Council (Region 10) (remote)
Mike Paprocki, Executive Director, Brooke-Hancock Regional Planning and Development Council (Region 11) (remote)
Rhonda Howell, Finance Manager, Brooke-Hancock Regional Planning and Development Council (BH RPDC) (remote)
Meesh Zucker, Supervisory Community Planner, Federal Emergency Management Agency (FEMA) Region III (remote)



MEETING NOTES

	Stacey Blankin, FEMA Region III
	Brian Farkas, FEMA Region III
	Tom Hansen, Grants Management Specialist, FEMA Region III (remote)
	Matthew McCullough, FEMA Region III (remote)
	Elizabeth Ranson, Hazard Mitigation Grants Specialist, FEMA Region III (remote)
	James Young, Disaster Field Coordinator, FEMA Region III (remote)
	Joann Harmon, US Army Corps of Engineers (remote)
	Tony Subbio, Project Manager, Tetra Tech
	JaLeesa Tate, Deputy Project Manager, Tetra Tech (remote)

Discussion Points

This section summarizes each discussion point addressed during the SPT Draft Review Meeting.

Welcome

Mr. Reed welcomed attendees to the meeting. Attendees who were present in person introduced themselves. Mr. Subbio provided an orientation to the meeting materials.

Summary of the Planning Process

Mr. Subbio reviewed the planning process that the State followed to develop the HMP.

- The Steering Committee Kickoff Meeting was held in July 2022.
- The State and FEMA Region III reviewed the 2018 HMP in August 2022.
- The State Planning Team (SPT) Kickoff Meeting was held in September 2022.
- The SPT Capabilities Assessment Meeting was held in November 2022.
- The Stakeholder Capability Assessment Webinars were held in November 2022.
- The SPT Risk Assessment Review Meeting was held in early January 2023.
- The SPT Goals and Objectives Meeting was held in mid-January 2023.
- The SPT Mitigation Strategy Meeting was held in February 2023.
- The hazard profiles and mitigation strategy were completed in May 2023.

Mr. Subbio described the stakeholders who were involved in the plan update. The following stakeholders participated:

- 21 State departments/agencies
- 9 planning and development commissions
- 33 county emergency management agencies
- Floodplain administrators from 62 jurisdictions
- 5 federal agencies
- 6 other stakeholder organizations

Mr. Reed stated that involvement of stakeholders in this planning process has benefitted other State efforts, as many of the individuals involved in the HMP update have been involved in other programs.



MEETING NOTES

Draft Review

Mr. Subbio described the content of each section of the updated HMP. The following discussions were held:

- There were no comments on Section 1: Introduction.
- During the discussion of Section 2: State Profile, attendees were surprised that the image of socially vulnerable populations (based on the Centers for Disease Control and Prevention [CDC] Social Vulnerability Index [SVI] data) does not include some major cities or counties. Ms. Tate reported that the SVI data is organized by census tract, which reduces some granularity in the image, and that the map shows only the highest vulnerability. She related the image to a flood insurance rate map (FIRM). Just because an area is not mapped in the special flood hazard area does not mean that there is no risk of flooding. Likewise, an area not being mapped as highly socially vulnerable does not mean it does not have vulnerability.
- There were no comments on Section 3: Planning Process, Section 4: Risk Assessment, Section 5: Hazard Overview or the hazard profiles, Section 6: State Mitigation Capabilities, Section 7: Local Capability Assessment, Section 8: Local Government Planning, Section 9: Progress on Previous Plan, or Section 10: Goals for Hazard Mitigation.
- In the discussion of Section 11: Mitigation Actions, attendees reported the following information:
 - US Department of Agriculture (USDA) representatives attended the West Virginia Association of Floodplain Managers Conference and discussed funding available to acquire flood-prone homes. The USDA Natural Resources Conservation Service (NRCS) also manages a buyout program.
- There were no comments on Section 12: Adoption or Section 13: Review, Evaluation, and Implementation.

Next Steps and Questions

- Mr. Reed requested comments be provided by stakeholders in Microsoft Word documents to Ms. Rosier and that comments provide as much context as possible.
- Tetra Tech will update the project website to instruct readers to submit comments in Microsoft Word documents.
- The review period will last from May 30 to June 12, 2023.
- Following the review period, the State will conduct its executive review of the HMP and will then submit the HMP to FEMA for formal review.
- Following FEMA's review and any required updates to meet FEMA requirements, the State will adopt the HMP.

With no further questions, Mr. Reed and Mr. Subbio thanked attendees for their time and participation.

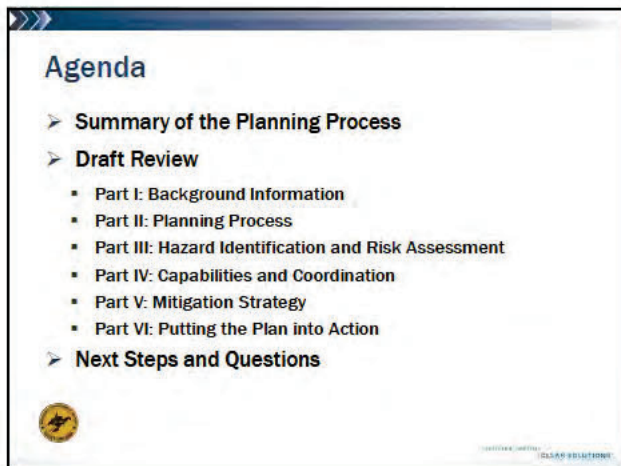
The meeting adjourned at 10:45 a.m.



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Summary of the Planning Process

➤ Stakeholders Involved

- 21 State departments/agencies
- 9 Planning and development commissions
- 33 County emergency management agencies
- Floodplain administrators from 62 jurisdictions
- 5 federal agencies
- 6 other stakeholder organizations



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Draft Review

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Part I – Background Information



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Draft Review

➤ Section 1: Introduction

- Overview
- Authorities
- Assurances
- Organization of the plan
- Overview of changes since 2018

2018	2023
Section 1 – Introduction	Section 1 – Introduction
Section 2 – Planning Process	Section 2 – Planning Process
Section 3 – State Profile	Section 2 – State Profile
Section 4 – Hazard Identification and Risk Analysis	Section 4 – Risk Assessment and Section 5 – Hazard Profiles
Section 5 – Supporting Local Plans	Section 6 – Local Government Planning Coordination
Section 6 – Migration Strategies	Section 9 – Progress on Previous Plan, Section 10 – Goals for Hazard Mitigation, and Section 11 – Mitigation Actions
Section 7 – Plan Monitoring, Maintenance & Revision	Section 10 – Plan Evaluation and Implementation
Appendix A – Capability Assessment	Section 6 – Local Capabilities and Section 7 – State Capabilities
Appendix I – Adoption Letter	Section 12 – Adoption



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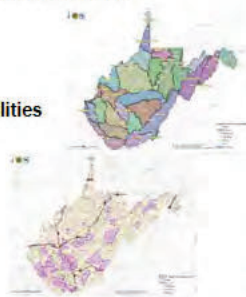
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Draft Review

➤ Section 2: State of West Virginia Profile

- Physical setting
- Demographics
- Economy
- State assets and critical facilities
- Land use and development
- Natural resources



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Part II – Planning Process



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Draft Review

Section 3: Planning Process



- Description of the process
- Stakeholder coordination
- Schedule
- Integration with other State programs



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Part III – Hazard Identification and Risk Assessment



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Draft Review

Section 4: Risk Assessment

- Identification of hazards
- Population
- Assets
- Hazard-specific data and methodologies
- Limitations



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Draft Review

Section 5: Hazard Overview

- Introduces the hazard profiles
- Hazard Profiles
 - Dam Failure
 - Drought
 - Earthquake
 - Extreme Temperature
 - Flood
 - Hazardous Materials
 - Landslide
 - Levee Failure
 - Pandemic
 - Radiological Incident
 - Radon Exposure
 - Severe Storms
 - Subsidence
 - Utility Failure
 - Wildfire
 - Winter Weather



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Part IV – Capabilities and Coordination



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Draft Review

Section 6: State Mitigation Capabilities

- Hazard mitigation programs
- Core capabilities for the Mitigation mission area
- Legal, Regulatory, Planning, and Programmatic Capabilities
- Hazard-related programs
- Funding
- Changes since 2018



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Draft Review

Section 7: Local Capability Assessment

- Local capabilities
- Summary of effectiveness of local capabilities
 - Foundational capabilities
 - Floodplain management
 - Local mitigation plans
 - Emergency local capabilities

Plan	Integration with SHMP
Local Emergency Plan	<ul style="list-style-type: none"> Local Emergency Plan (LEP) is a critical component of the local government's emergency response plan. LEP should be updated annually and should be consistent with the SHMP. LEP should be reviewed and approved by the local government's emergency management committee.
Local Mitigation Plan	<ul style="list-style-type: none"> Local Mitigation Plan (LMP) is a critical component of the local government's hazard mitigation plan. LMP should be updated annually and should be consistent with the SHMP. LMP should be reviewed and approved by the local government's hazard mitigation committee.
Local Floodplain Management Plan	<ul style="list-style-type: none"> Local Floodplain Management Plan (LFMP) is a critical component of the local government's floodplain management plan. LFMP should be updated annually and should be consistent with the SHMP. LFMP should be reviewed and approved by the local government's floodplain management committee.



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Draft Review

Section 8: Local Government Planning Coordination

- Resources for local hazard mitigation planning
- Resources for hazard information and assessment
- State review, coordination, and linkage with local plans
- Prioritizing project grants

Plan	Integration with SHMP
Local Hazard Mitigation Plan	<ul style="list-style-type: none"> Local Hazard Mitigation Plan (LHMP) is a critical component of the local government's hazard mitigation plan. LHMP should be updated annually and should be consistent with the SHMP. LHMP should be reviewed and approved by the local government's hazard mitigation committee.
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Part V – Mitigation Strategy



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Draft Review

Section 9: Progress on Previous Plan

- Status
- Carry forward?

Section 10: Goals for Hazard Mitigation

- Goals → Goals and Objectives

Plan	Integration with SHMP
Local Hazard Mitigation Plan	<ul style="list-style-type: none"> Local Hazard Mitigation Plan (LHMP) is a critical component of the local government's hazard mitigation plan. LHMP should be updated annually and should be consistent with the SHMP. LHMP should be reviewed and approved by the local government's hazard mitigation committee.
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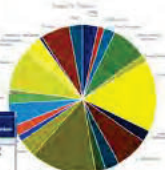
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Draft Review

Section 11: Mitigation Actions

- Identification
- Actions in local plans
- 2023 SHMP actions
- Actions by hazard
- Prioritization

Plan	Integration with SHMP
Local Hazard Mitigation Plan	<ul style="list-style-type: none"> Local Hazard Mitigation Plan (LHMP) is a critical component of the local government's hazard mitigation plan. LHMP should be updated annually and should be consistent with the SHMP. LHMP should be reviewed and approved by the local government's hazard mitigation committee.
Local Emergency Plan	<ul style="list-style-type: none"> Local Emergency Plan (LEP) is a critical component of the local government's emergency response plan. LEP should be updated annually and should be consistent with the SHMP. LEP should be reviewed and approved by the local government's emergency management committee.
Local Floodplain Management Plan	<ul style="list-style-type: none"> Local Floodplain Management Plan (LFMP) is a critical component of the local government's floodplain management plan. LFMP should be updated annually and should be consistent with the SHMP. LFMP should be reviewed and approved by the local government's floodplain management committee.



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Part VI – Putting the Plan into Action




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Draft Review

- **Section 12: Adoption**
 - Describes adoption by the Governor
- **Section 13: Review, Evaluation, and Implementation**
 - Implementing, monitoring, and reviewing actions
 - Monitoring, evaluating, and updating the plan



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Next Steps and Questions

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Next Steps

- Post Draft HMP to the project website
<https://www.westvirginiahmp.com/>
- Review Period
- Submit to FEMA
- Adoption

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Questions?

Thank you for your time!


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Contacts



Gabriel Reed
gabriel.a.reed@wv.gov
(304) 414-7673



Tony Subbio
tony.subbio@tetrattech.com
(717) 839-5654

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STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Draft Review Meeting

SIGN-IN

May 25, 2023 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Ginger Barnett ^{Chief} mit/prec	WVEMD	gingerSC.barnett@wv.gov	681 313 9803
Xavier Morgan ^{H.M.} projector	WVEMD	XZAVIER.M.MORGAN@wv.gov	434-426-9410
Matt Blackwood Deputy Director	WVEMD	Matthew.J.blackwood@wv.gov	304-552-8395
GE McCabe Director	WVEMD	ge.mccabe@wv.gov	
Gabriel Reed HMO	WVEMD	Gabriel.a.Reed@wv.gov	
Stephanie Rosier Planner	WVEMD	Stephanie.a.Rosier@wv.gov	
Brian Farkas	FEMA	brian.farkas@fema.dhs.gov	202-705-8897
AMBERLEA PERKINS H.M.P.O.	WV EMD	AMBERLEA.N.PERKINS@wv.gov	304.957-2572
Tammy Sneed H.M.P.O.	WV EMD	tammy.m.sneed@wv.gov	304-987-2572
Ed Martin, Dep. Dir.	WV SRO	edwin.r.martin@wv.gov	





STATE OF WEST VIRGINIA 2023 HAZARD MITIGATION PLAN UPDATE
State Planning Team Draft Review Meeting

SIGN-IN

May 25, 2023 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Tony Subbio / PM	Tetra Tech, Inc	tony.subbio@tetratech.com	717-839-5654





MEETING NOTES

Meeting	State of West Virginia Hazard Mitigation Plan (HMP) Draft Review Webinar		
Date	June 16, 2023	Time	10:00 – 10:40 a.m.
Location	Webinar		
Attendees	Matthew J. Blackwood, Deputy Director, WV EMD		
	Ginger Barnett, Chief of Mitigation and Recovery, WV Emergency Management Division (WV EMD)		
	Gabriel Reed, Hazard Mitigation Officer, WV EMD		
	Stephanie Rosier, Planner, WV EMD		
	Sherry Risk, CDBG Program Manager, WV Department of Economic Development		
	Robert Martin, Director, WV State Resiliency Office (SRO)		
	Ed Martin, Deputy Director, WV SRO		
	Bruce Mullins, Project Coordinator, Regional Intergovernmental Council (Region 3)		
	Tayler Sisk, Region 7 Planning and Development Council		
	Brian Farkas, FEMA Region III		
	Kate Frangos, FEMA Region III		
	Meg Mielke		
	Tony Subbio, Project Manager, Tetra Tech		

Discussion Points

This section summarizes each discussion point addressed during the Draft Review Webinar.

Welcome

Ms. Rosier welcomed attendees to the meeting.

Draft Review

Mr. Subbio requested feedback and comments on the draft sections of the updated HMP. The following summarizes the discussions held during the webinar:

- Section 1: Introduction includes a table that shows the relation between the organization of the 2018 HMP and the 2023 HMP.
- Ms. Rosier reported that Mr. Aaron Tonkery provided feedback via email.
- WV EMD staff reviewed the critical facilities and will create an annex to the HMP that describes the critical facilities that are not owned or leased by the State in a future plan update.

Next Steps and Questions

- Attendees discussed the need for additional time to provide comments; WV EMD staff will discuss a possible timeline extension.
- The State will compile comments and provide a unified set of requested changes to Tetra Tech.



MEETING NOTES

- Tetra Tech will update the HMP based on comments, update the draft documents on the project website, and create a single PDF file of the entire plan for review at the cabinet level and by FEMA.

With no further questions, Ms. Rosier and Mr. Subbio thanked attendees for their time and participation.

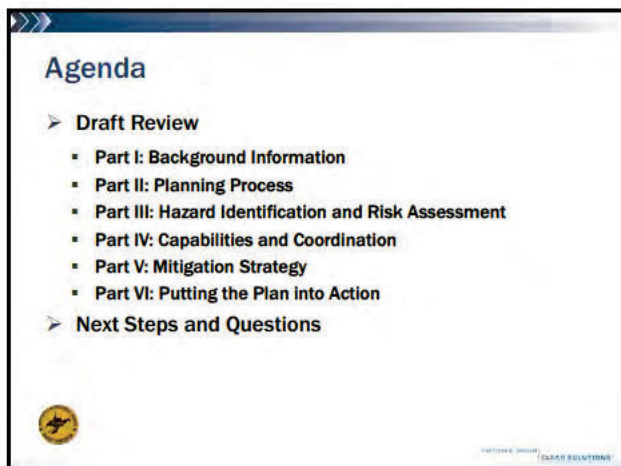
The meeting adjourned at 10:40 a.m.



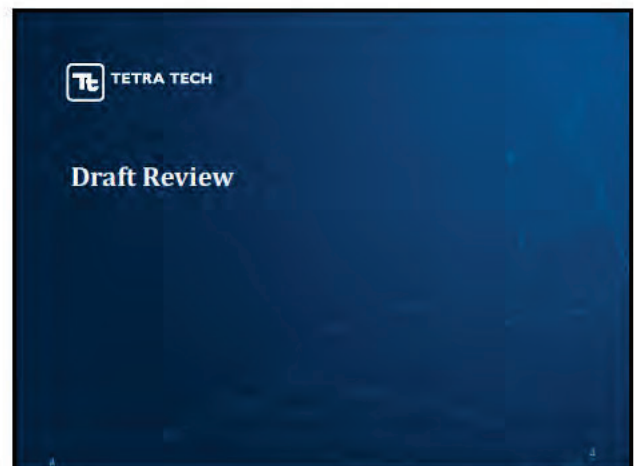
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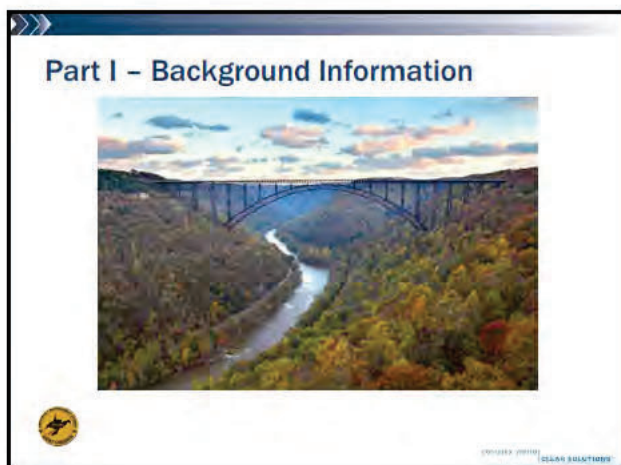
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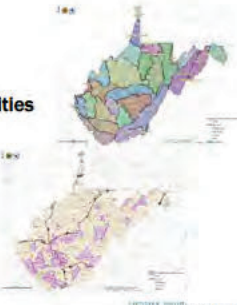


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Draft Review

➤ Section 2: State of West Virginia Profile

- Physical setting
- Demographics
- Economy
- State assets and critical facilities
- Land use and development
- Natural resources



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Part II – Planning Process



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Draft Review

➤ Section 3: Planning Process



- Description of the process
- Stakeholder coordination
- Schedule
- Integration with other State programs



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Part III – Hazard Identification and Risk Assessment



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Draft Review

➤ Section 4: Risk Assessment

- Identification of hazards
- Population
- Assets
- Hazard-specific data and methodologies
- Limitations



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Draft Review

➤ Section 5: Hazard Overview

- Introduces the hazard profiles
- Hazard Profiles
 - Dam Failure
 - Drought
 - Earthquake
 - Extreme Temperature
 - Flood
 - Hazardous Materials
 - Landslide
 - Levee Failure
 - Pandemic
 - Radiological Incident
 - Radon Exposure
 - Severe Storms
 - Subsidence
 - Utility Failure
 - Wildfire
 - Winter Weather



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Part IV – Capabilities and Coordination



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Draft Review

- Section 6: State Mitigation Capabilities
 - Hazard mitigation programs
 - Core capabilities for the Mitigation mission area
 - Legal, Regulatory, Planning, and Programmatic Capabilities
 - Hazard-related programs
 - Funding
 - Changes since 2018



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CLIMATE SOLUTIONS

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Draft Review

- Section 7: Local Capability Assessment
 - Local capabilities
 - Summary of effectiveness of local capabilities
 - Foundational capabilities
 - Floodplain management
 - Local mitigation plans
 - Emergency local capabilities

Category	Item	Assessment/Status
Foundational Capabilities	Emergency Management Plan	Adopted and updated
	Hazard Mitigation Plan	Adopted and updated
	Floodplain Management	Adopted and updated
	Local Mitigation Plans	Adopted and updated
Emergency Local Capabilities	Emergency Response	Adopted and updated
	Emergency Evacuation	Adopted and updated
	Emergency Shelter	Adopted and updated
	Emergency Communication	Adopted and updated



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CLIMATE SOLUTIONS

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Draft Review

- Section 8: Local Government Planning Coordination
 - Resources for local hazard mitigation planning
 - Resources for hazard information and assessment
 - State review, coordination, and linkage with local plans
 - Prioritizing project grants

Category	Item	Assessment/Status
Resources for local hazard mitigation planning	Local Hazard Mitigation Planning	Adopted and updated
	Local Hazard Information and Assessment	Adopted and updated
	Local Hazard Review, Coordination, and Linkage with Local Plans	Adopted and updated
	Local Prioritizing Project Grants	Adopted and updated



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CLIMATE SOLUTIONS

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Part V – Mitigation Strategy



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CLIMATE SOLUTIONS

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Draft Review

- Section 9: Progress on Previous Plan
 - Status
 - Carry forward?
- Section 10: Goals for Hazard Mitigation
 - Goals → Goals and Objectives

Category	Item	Assessment/Status
Section 9: Progress on Previous Plan	Status	Adopted and updated
	Carry forward?	Adopted and updated
Section 10: Goals for Hazard Mitigation	Goals	Adopted and updated
	Goals and Objectives	Adopted and updated



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CLIMATE SOLUTIONS

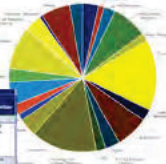
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Draft Review

Section 11: Mitigation Actions

- Identification
- Actions in local plans
- 2023 SHMP actions
- Actions by hazard
- Prioritization

Item	Priority	Responsible Agency	Estimated Cost	Estimated Start Date	Estimated End Date	Notes
1. Review and update local emergency plans to ensure they are consistent with the SHMP.	High	Local Emergency Management Committee	\$0	Q3 2023	Q4 2023	Review and update local emergency plans to ensure they are consistent with the SHMP.
2. Review and update local emergency plans to ensure they are consistent with the SHMP.	High	Local Emergency Management Committee	\$0	Q3 2023	Q4 2023	Review and update local emergency plans to ensure they are consistent with the SHMP.
3. Review and update local emergency plans to ensure they are consistent with the SHMP.	High	Local Emergency Management Committee	\$0	Q3 2023	Q4 2023	Review and update local emergency plans to ensure they are consistent with the SHMP.



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Part VI – Putting the Plan into Action



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Draft Review

Section 12: Adoption

- Describes adoption by the Governor

Section 13: Review, Evaluation, and Implementation

- Implementing, monitoring, and reviewing actions
- Monitoring, evaluating, and updating the plan

Item	Priority	Responsible Agency	Estimated Cost	Estimated Start Date	Estimated End Date	Notes
1. Review and update local emergency plans to ensure they are consistent with the SHMP.	High	Local Emergency Management Committee	\$0	Q3 2023	Q4 2023	Review and update local emergency plans to ensure they are consistent with the SHMP.
2. Review and update local emergency plans to ensure they are consistent with the SHMP.	High	Local Emergency Management Committee	\$0	Q3 2023	Q4 2023	Review and update local emergency plans to ensure they are consistent with the SHMP.
3. Review and update local emergency plans to ensure they are consistent with the SHMP.	High	Local Emergency Management Committee	\$0	Q3 2023	Q4 2023	Review and update local emergency plans to ensure they are consistent with the SHMP.



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Next Steps and Questions

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Next Steps

- Update Based on Stakeholder Review
- State Review
- Submit to FEMA
- Adoption



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Questions?

Thank you for your time!



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Contacts



Gabriel Reed

gabriel.a.reed@wv.gov

(304) 414-7673



Tony Subbio

tony.subbio@tetratech.com

(717) 839-5654



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