

2018 State of West Virginia HMP Mitigation Action Sheets

Promote/Enhance RL/SRL Program

Mitigation Action FL-01

This Mitigation Action will focus on promoting and enhancing the Repetitive Loss (RL) and the Severe Repetitive Loss (SRL) program. Specific activities to support this initiative include, but are not limited to:

- 5.1. Promote HMA grant programs to mitigate listed SRL and RL properties.
- 5.2. Promote mitigation at no property owner cost through HMA grant programs.
- 5.3. Allocate designated SRL funds to at least three high risk SRL properties for acquisition and demolition projects in targeted communities.
- 5.4. Prioritize mitigation of SRL and Repetitive Loss properties through post-disaster mitigation strategy priorities and activities among with bonus grant application scoring points for all HMA funding.
- 5.5. Provide local project sponsors that target RL and SRL property mitigation priority HMA funding.
- 5.6. Annually perform data synthesis and update the Bureau Net Database in coordination with FEMA Region III - provide RL and SRL datasets to local governments for use in their RL and SRL targeting efforts.

Mitigation Action Details

Hazard(s) Addressed:	Flooding
Goal(s) Addressed:	1
Priority:	High
Costs Associated:	Minimal
Potential Funding:	Agency budgets, NFIP, HMGP, PDM, FMA, HUD
Lead Agency:	WVDHSEM
Implementation Schedule:	Planning and initiation
Status:	On-going

Promote/Enhance CRS Program

Mitigation Action FL-02

This Mitigation Action will focus on promoting and enhancing the Community Rating System program. Specific activities to support this initiative include, but are not limited to:

1. Target and provide technical assistance to local communities.
2. Develop a CRS application to capture critical information.
3. Provide detailed directions to assist communities with the applicable process.
4. Identify communities which could benefit from CRS participation.

Mitigation Action Details

Hazard(s) Addressed:	Flooding
Goal(s) Addressed:	4, 1
Priority:	High
Costs Associated:	Minimal
Potential Funding:	Agency budgets, NFIP, CAP-SSSE, CTP
Lead Agency:	WVDHSEM
Implementation Schedule:	On-going
Status:	On-going

Promote/Enhance NFIP

Mitigation Action FL-03

This Mitigation Action will focus on promoting and enhancing the National Flood Insurance Program. Specific activities to support this initiative include, but are not limited to:

1. Conduct an outreach campaign to property owners located in Special Flood Hazard Areas regarding flood insurance and mitigation.
2. Coordinate efforts to reduce Flood Insurance Premiums by focusing on Pre-FIRM and approximate A zone.

Mitigation Action Details

Hazard(s) Addressed:	Flooding
Goal(s) Addressed:	1, 2, 4
Priority:	High
Costs Associated:	
Potential Funding:	Agency budgets, NFIP, CAP-SSSE
Lead Agency:	WVDHSEM
Implementation Schedule:	On-going
Status:	On-going

Conduct Flood Mitigation Planning

Mitigation Action FL-04

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Create advisory flood heights for all Zone A (100-year floodplain) in state;
2. Develop prioritized list of state-owned or leased facilities at risk to flood and conduct detailed site assessment to develop site-specific mitigation action plans.

Mitigation Action Details

Hazard(s) Addressed:	Flooding
Goal(s) Addressed:	1, 2, 3
Priority:	High
Estimated Cost	
Potential Funding:	HMA, CTP
Lead Agency:	WVU GIS Technical Center, WVDHSEM
Implementation Schedule:	On-going
Status:	On-going

Soil Erosion Reduction Measures

Mitigation Action LS-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Work with logging operations to reduce soil erosion.
2. Develop and implementing programs to reduce erosion and run-off following logging.
3. Identify best practices and education programs for logging operations.

Mitigation Action Details

Hazard(s) Addressed:	Landslide and Subsidence
Goal(s) Addressed:	1, 2, 4
Priority:	Medium
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	WV Conservation Agency, WV Division of Forestry
Implementation Schedule:	On-going
Status:	On-going

Understanding Landslide Risks

Mitigation Action LS-02

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Spatially track landslide occurrence along roadways.
2. Digitize WV landslide quadrangle maps to support.
3. Digitize information related to landslide prone areas.
4. Provide landslide information to support landslide risk analysis.

Mitigation Action Details

Hazard(s) Addressed:	Landslide and Subsidence
Goal(s) Addressed:	3, 1, 2
Priority:	Medium
Estimated Cost	
Potential Funding:	Agency budgets, 5% Initiative Funds (HMGP)
Lead Agency:	WV Division of Forestry
Implementation Schedule:	On-going
Status:	On-going

Develop Wildfire Prevention Measures

Mitigation Action WF-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities to take steps to reduce the risk that wildfires pose to state-owned and operated facilities, critical facilities, and private residences. Specific activities to support this initiative include, but are not limited to:

1. Promote creation of defensible spaces between structures and potential wildfire fuel sources;
2. Assist communities with reduction of hazardous wildland fuels;
3. Identify potential wildfire hazards (i.e. burning coal seams) and take measures to mitigate that hazard fuel sources.

Mitigation Action Details

Hazard(s) Addressed:	Wildfire
Goal(s) Addressed:	1, 2, 3, 4
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	WV Division of Forestry
Implementation Schedule:	On-going
Status:	On-going

Fund Community Wildfire Protection Plan Program

Mitigation Action WF-02

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Provide potential financial and technical assistance for development of Community Wildfire Protection Plans.

Mitigation Action Details

Hazard(s) Addressed:	Wildfire
Goal(s) Addressed:	2, 4
Priority:	Medium
Estimated Cost	
Potential Funding:	Agency budgets, FIREWISE
Lead Agency:	WV Division of Forestry
Implementation Schedule:	Continuous
Status:	On-Going

Coordinate Dam & Levee Safety Issues

Mitigation Action DL-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities align programs and initiatives related to dam and levee safety. Specific activities to support this initiative include, but are not limited to:

1. Coordinate activities among all stakeholders;
2. Explore remediation designs for coal dam impoundment structures to minimize inundation zone risks.
3. Develop methods to prioritize funding to mitigate risks associated with dams and levees.
4. Obtain funding for a dam safety revolving fund.
5. Explore other financial methods to fund safety programs.

Mitigation Action Details

Hazard(s) Addressed:	Dam and Levee Failure, Flooding (secondary)
Goal(s) Addressed:	1
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	SRO, WV DEP, USACE
Implementation Schedule:	Have operational by 2020
Status:	On-going

Complete Threat Assessments

Mitigation Action CF-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Build on current and existing assessment programs to conduct vulnerability assessments of critical facilities and evaluate for potential new mitigation strategies.
2. Support integration of state vulnerability analysis local data into local plan updates for use in prioritizing mitigation projects to include acquisition and demolition projects.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1
Priority:	High
Estimated Cost	Normal Operations
Potential Funding:	State Appropriations, Agency budgets, HSGP
Lead Agency:	SRO, WV Intelligence Fusion Center, DHSEM
Implementation Schedule:	Continuous
Status:	On-Going

Utilize Risk Information in Planning

Mitigation Action CF-02

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Integrate information from a variety of sources to develop a more detail vulnerability assessment to all types of natural hazards;
2. Utilize risk assessments to identify critical facilities which need redundant power;
3. Provide support to critical facilities to obtain redundant power/utilities;
4. Integrate risk information from hazards to identify communities at risk;
5. Evaluate state-owned/-operate facilities for specific vulnerability and develop methods to mitigate highest risks;
6. Incorporate Dam and Levee Safety Action Classes into risk assessment programs;
7. Collect necessary information to generate require threat/hazard assessments; and
8. Utilize existing data from WVIFC and THIRA to help sustain life and property.
9. Support development of TIEF/TIEL to enhance mapping.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 2, 3
Priority:	High
Estimated Cost	Normal Operations
Potential Funding:	State Appropriations, Agency budgets, Homeland Security Grant, 5% Initiative (HMGP)
Lead Agency:	SRO, WVDHSEM, BRIM
Implementation Schedule:	Continuous
Status:	On-Going

Build Relationships with Critical Facilities

Mitigation Action CF-03

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Continue to build relations with private utilities and owners of critical facilities;
2. Provide information related to best practices, lessons-learned, and local hazard knowledge;
3. Provide information related to threats and hazards in local communities;
4. Develop facility assessment checklist to be used as part of a Continuity of Operations/Hazard Vulnerability Assessment.
5. Encourage facility involvement in local planning efforts.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	2
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	SRO, WVDHSEM/ WV Intelligence Fusion Center
Implementation Schedule:	Continuous
Status:	On-Going

Promote Building Codes

Mitigation Action CF-04

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Promote adoption and enforcement of State Building Codes;
2. Provide technical assistance to communities related to enforcing building codes;
3. Promote building code standards for all critical facilities; and
4. Promote importance of redundant systems and protection measures in building codes.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 2, 4
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	SRO, WV State Fire Marshal
Implementation Schedule:	Continuous
Status:	On-Going

Enhance Planning Process

Mitigation Action PL-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Interface with Regional Planning and Development Council's to make recommendations to improve process for next planning cycle.
2. Collaborate with Regional Planning Development Council's and local jurisdictions for standardizations of hazard data and classification for assessment of hazards in local mitigation plans in order to aid in future roll-up in the state hazard mitigation plan (i.e. standard GIS layers).
3. Identify opportunities to coordinate mitigation and CRS planning efforts.
4. Develop better methods and tools to determine effectiveness of strategies.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 2, 3
Priority:	High
Estimated Cost	
Potential Funding:	HMGP, FMA, PDM
Lead Agency:	FEMA, WVDHSEM, SRO
Implementation Schedule:	2019
Status:	Ongoing

Utilization of Benefit-Cost Analysis

Mitigation Action: PL-02

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Create guidance on how to document losses due to high frequency, low impact events for use in developing Benefit-Cost Analyses.
2. Geospatially map current Benefit Cost Analysis data sets in order to facilitate geographic assessment of grant applications.
3. Provide BCA information (to policy maker, property owners, etc.) to promote use of mitigation measures.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 2, 3, 4
Priority:	High
Estimated Cost	
Potential Funding:	5% Initiative funds (HMGP), Agency budgets
Lead Agency:	FEMA, WVDHSEM, SRO
Implementation Schedule:	On-Going
Status:	On-Going

Integration of Climate/Land Use Change into Planning

Mitigation Action: PL-03

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Develop statewide databases for geological hazards including earthquake, karst, topography and landslide to determine land use changes;
2. Examine how land use change relates to all hazards;
3. Examine how predicted weather patterns (short-term and long-term) will affect likelihood of hazards and severity of the hazards;
4. Develop protective action recommendations related to land use changes and climate change.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 3
Priority:	Medium
Estimated Cost	
Potential Funding:	5% Initiative funds (HMGP), Agency budgets
Lead Agency:	WVU-GIS Tech, National Weather Service, SRO
Implementation Schedule:	On-Going
Status:	On-Going

Conduct Public Outreach

Mitigation Action: TE-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Conduct presentations and outreach programs to homeowner associations, civic organizations, and other groups to recommend mitigations measures;
2. Disseminate information for communities at risk for specific hazards (i.e. communities near coal impoundments);
3. Produce multi-media information related to hazards to increase awareness;
4. Conduct an outreach campaign to engaging in hazard reduction programs (i.e. use of the FIREWISE program to promote measures to reduce wildfire threats);
5. Display information related to historical hazard occurrence to promote awareness (i.e. flood high water marks to increase flood awareness).

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	3, 4
Priority:	High
Estimated Cost	
Potential Funding:	FIREWISE, 5% Initiative funds (HMGP)
Lead Agency:	WVDHSEM, SRO, Department of Forestry
Implementation Schedule:	On-Going
Status:	On-Going

Improve Use of Media

Mitigation Action: TE-02

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Develop preparedness presentations, videos, fliers, information packets, etc.;
2. Develop education programs related to hazards, mitigation, and preparedness for schools;
3. Encourage all media to run stories about preparedness and mitigation activities;
4. Ensure that preparedness information is available for all media formats;
5. Promote the whole community approach for all-hazards.
6. Develop an interagency flood risk management team (i.e. Silver Jackets Program).

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	4
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	Silver Jackets, WVDHSEM, SRO
Implementation Schedule:	On-Going
Status:	On-Going

Conduct Wildfire Suppression Training

Mitigation Action TE-03

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Provide training on wildfire suppression techniques to volunteer structure fire departments and wildland firefighters.

Mitigation Action Details

Hazard(s) Addressed:	Wildfire
Goal(s) Addressed:	4
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	WV Division of Forestry
Implementation Schedule:	On-going
Status:	On-going

Obtain Executive/Legislative Support

Mitigation Action: GL-01

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Develop directives forcing state agencies to address mitigation;
2. Develop tax incentive structure that would encourage private sector investment in mitigation;
3. Develop a review process for proposed tax-funded capital improvement projects to ensure that proper mitigation measures are being utilized;
4. Develop legislation requiring threat/hazard information is available prior to property sales/purchases.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 2
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	WVDHSEM, SRO
Implementation Schedule:	On-Going
Status:	On-Going

Explore Enhanced Funding Methods

Mitigation Action: GL-02

This Mitigation Action will focus on promoting and enhancing a variety of specific mitigation activities. Specific activities to support this initiative include, but are not limited to:

1. Identify stable and annual funding source for future regional hazard mitigation plans;
2. Evaluate funding levels available through various grants;
3. Explore alternative sources of funding to address mitigation efforts;
4. Allocate portion of available state funds to address projects that do not meet FEMA eligibility requirements.

Mitigation Action Details

Hazard(s) Addressed:	All
Goal(s) Addressed:	1, 2
Priority:	High
Estimated Cost	
Potential Funding:	Agency budgets
Lead Agency:	Silver Jackets, WVDHSEM, SRO
Implementation Schedule:	On-Going
Status:	On-Going