



## **Lehigh and Northampton Counties Annex**

### **HAZARD MITIGATION PLAN POINTS OF CONTACT**



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### Capability Assessment – Lehigh County

Capability		Degree of Capability			Change since the 2013 Hazard Mitigation Plan? If so, how?	Additional Comments
		Limited	Moderate	High		
5. Self – Assessment	Planning and Regulatory		X			
	Administrative and Technical		X			
	Financial	X				
	Education and Outreach		X			

### Capability Assessment – Northampton County

Capability		Degree of Capability			Change since the 2013 Hazard Mitigation Plan? If so, how?	Additional Comments
		Limited	Moderate	High		
5. Self – Assessment	Planning and Regulatory		X			
	Administrative and Technical		X			
	Financial	X				
	Education and Outreach		X			

**Risk Ranking – Lehigh and Northampton Counties**

Hazard Risk	Natural Hazards	Probability	Impact	Extend	Warning	Duration	Risk Factor
<b>HIGH</b>	<b>Pandemic &amp; Infectious Disease</b>	4	4	4	1	4	<b>3.7</b>
	<b>Extreme Temperature</b>	3	3	4	1	3	<b>3</b>
	<b>Flood</b>	4	2	3	3	3	<b>3</b>
	<b>Winter Storm</b>	3	2	4	1	2	<b>2.6</b>
	<b>Windstorm / Tornado</b>	2	3	3	3	2	<b>2.6</b>
	<b>Invasive Species</b>	4	1	3	1	4	<b>2.6</b>
	<b>Drought</b>	2	2	4	1	4	<b>2.5</b>
	<b>Subsidence / Sinkhole</b>	4	1	1	4	4	<b>2.5</b>
<b>MODERATE</b>	<b>Radon</b>	4	1	2	1	4	<b>2.4</b>
	<b>Wildfire</b>	3	1	2	3	2	<b>2.1</b>
	<b>Lightning</b>	4	1	1	3	1	<b>2.1</b>
<b>LOW</b>	<b>Earthquake</b>	1	1	4	4	1	<b>1.9</b>
	<b>Hailstorm</b>	2	1	2	3	1	<b>1.7</b>
	<b>Landslide</b>	2	1	1	4	1	<b>1.6</b>

Hazard Risk	Non-Natural Hazards	Probability	Impact	Extend	Warning	Duration	Risk Factor
<b>HIGH</b>	<b>Cyber-Terrorism</b>	4	3	3	4	4	<b>3.5</b>
	<b>Terrorism</b>	3	4	4	4	2	<b>3.5</b>
	<b>Drug Overdose Crisis</b>	4	3	3	1	4	<b>3.2</b>
	<b>Utility Interruption</b>	4	2	3	3	3	<b>3</b>
	<b>Environmental Hazards / Explosions</b>	4	2	2	4	3	<b>2.9</b>
	<b>Gas/Liquid Pipeline</b>	4	2	2	4	2	<b>2.8</b>
	<b>Fire (Urban / Structural)</b>	4	2	1	4	2	<b>2.6</b>
<b>MODERATE</b>	<b>Transportation Crash</b>	4	1	1	4	1	<b>2.2</b>
	<b>Civil Disturbance</b>	4	1	1	3	2	<b>2.2</b>
	<b>Dam Failure</b>	1	3	2	4	1	<b>2.1</b>
	<b>Levee Failure</b>	1	3	2	4	1	<b>2.1</b>
<b>LOW</b>	<b>Structural Collapse</b>	2	2	1	4	1	<b>1.9</b>
	<b>Nuclear Incident</b>	1	1	2	4	2	<b>1.6</b>

## 2018 Counties Action Plan Status

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
1	Maintain a centralized library of all data, information and documents compiled, developed and used for the 2018 LV HMP update process, including HAZUSMH datasets and projects (HPR files). This data shall be used to support plan implementation and future updates, and may be used to support other emergency management and planning functions. (All)	LC, NC					Continuous, carried over to 2024 Action Plan with edits.
2	As resources and training opportunities permit, LVPC and County EMAs to install HAZUS-MH and train staff in its use.	LC, NC					Continuous, carried over to 2024 Action Plan with edits.
3	Lehigh County to continue to work on enhancing their critical facility inventory, specifically with respect to attribution (e.g., names of facilities, type of construction, etc.).	LC, NC					Continuous, carried over to 2024 Action Plan with edits.
4	Support Lehigh Valley communities with ongoing compliance and enhanced participation in the National Flood Insurance Program (NFIP), specifically through the county-level initiatives identified below. (2-B)			LC, NC, LVPC			Continuous, carried over to 2024 Action Plan with edits.
5	Continue to promote and assist municipalities with adopting additional and higher regulatory standards by providing model ordinances (e.g., model floodplain management and flood damage ordinances, including increased freeboard and cumulative substantial damages/improvements; carbonate bedrock standards; steep slopes; vegetation management; riparian and wetland buffers), and assisting with local adoption of these ordinances. The LVPC model floodplain regulations are designed to be more effective at preventing flood damage and to better deal with the redevelopment of existing properties that have been subject to repeated flooding, and exceed the National Flood Insurance Program minimum requirements.			LVPC		LC, NC	Counties discontinuing – LVPC continuing carried over to 2024 Action Plan.
6	Improve communication and coordination with the Councils of Governments to promote and support local mitigation efforts.	LC		NC, LVPC			Continuous, carried over to 2024 Action Plan with edits.
7	Expand support of communities and property owners/developers to understand current and developing flood mapping and NFIP compliance issues.			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
8	Continue to promote and support municipal participation in available Hazard Mitigation Assistance (HMA) grant funding opportunities to mitigate flood-prone structures and infrastructure, including RL/SRL outreach.	LC		NC			Continuous, carried over to 2024 Action Plan with edits.
9	Support and facilitate public education and outreach on the NFIP program.					LC, NC	Merged into other Action Item, not carried over to 2024 Action Plan.

**2018 Counties Action Plan Status – continued**

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
10	Continue to support and facilitate FEMA floodplain study/remapping and Risk MAP programs.					LC, NC	Merged into other Action Item, not carried over to 2024 Action Plan
11	Promote and facilitate continued education and training programs for municipal NFIP floodplain managers and other county and local personnel involved in flood and hazard risk management by advertising and/or facilitating training and certification programs offered by PEMA, PADEP, ASFPM. Such training and certification programs include NFIP 101, Certified Floodplain Manager (CFM) certification through the Association of State Floodplain Managers, FEMA Benefit-Costs Analysis (BCA), & NFIP Community Rating System (CRS).			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
12	Promote and support municipal participation in the Community Rating System (CRS) program to better manage flood risk and reduce flood insurance premiums.			LC, NC, LVPC			Continuous, carried over to 2024 Action Plan with edits.
13	Assist municipalities with NFIP Community Assistance Visits (CAVs).					LC, NC	Counties discontinuing, not carried over to 2024 Action Plan.
<b>Integrate/coordinate the findings and recommendations of this HMP within the following regional, county and local planning and regulatory mechanisms.</b>							
14a	The “Lehigh Valley Comprehensive Plan...2030”			LVPC			Continuous, carried over to 2024 Action Plan with edits.
14b	County and Local Comprehensive / Master Plans			LVPC			Continuous, carried over to 2024 Action Plan.
14c	Capital Improvement Plans					LC, NC	Discontinuing, not carried over to 2024 Action Plan.
14d	Watershed and Stream Corridor Management Plans			LVPC			Continuous, carried over to 2024 Action Plan.
14e	Comprehensive Emergency Management Plans			LC, NC			Continuous, carried over to 2024 Action Plan with edits.

**2018 Counties Action Plan Status – continued**

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
<b>14f</b>	Act 167 Storm water Management Plans			LC, NC, LVPC			Continuous, carried over to 2024 Action Plan.
<b>14g</b>	HUD/CDBG Action Plan(s) – maintain CDBG action plans to support mitigation			LC, NC			Continuous, carried over to 2024 Action Plan.
<b>15</b>	Lead and support the implementation, monitoring, maintenance and update of this Plan. (5-B)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
<b>16</b>	Continue to provide representation & support of local/regional flood & watershed committees' commissions & task forces (e.g., Delaware River Basin Commission). (2-B)	LC		NC, LVPC			Continuous, carried over to 2024 Action Plan with edits.
<b>17</b>	Continue participation in the NOAA "Storm Ready" program to enhance County/community resilience to severe storms. "Storm Ready" communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. Participation in the NOAA "Storm Ready" program includes providing information on the "Storm Ready" program, facilitating public outreach and awareness programs, and supporting community storm risk reduction activities as appropriate. Specific actions addressed by "Storm Ready" participation include establishing a 24-hour Warning Point, increasing the number of ways EOCs receive NWS warnings, increasing the number of ways to disseminate warnings, monitoring hydro-meteorological data, providing annual weather safety talks, training weather spotters, creating a formal hazardous weather plan, hosting annual visits by NWS to communities, etc. (8-A)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
<b>18</b>	Support communities in the Lehigh Valley with participation in FEMA mitigation grant programs. Specific support activities shall include: 1) Forwarding grant program announcements provided by PEMA and/or FEMA to appropriate municipal representatives in a timely manner. 2) Posting and maintaining grant announcements and associated documents, forms, etc. on the LV HMP webpage. 3) Supporting PEMA and or FEMA-sponsored public outreach for available grant opportunities, including RL/SRL outreach. 4) Providing municipalities with grant application support. (8-A)					LC, NC	Merged into other Action Item, not carried over to 2024 Action Plan.
<b>19</b>	Continue to identify vulnerable county-owned structures and infrastructure, develop and prioritize appropriate mitigation projects, and implement projects as funding is appropriated. (3-A)			LC, NC			Continuous, carried over to 2024 Action Plan.

**2018 Counties Action Plan Status – *continued***

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
20	Work with utility companies and owners/operators of critical facilities to identify and underground important utility lines (esp. those serving critical facilities). Identify and explore potential funding programs, including public/private partnerships, to implement utility hardening projects. (3-A)	LC, NC					Continuous, carried over to 2024 Action Plan with edits.
21	Leverage existing regional and local meetings and media outlets (local websites, newsletters, email “blasts” and mailings) to promote awareness and understanding of personal preparedness and mitigation activities.			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
22	Migrate the Northampton County Emergency Management Services hazard mitigation webpage to the LVPC website; Lehigh County and Northampton County to create a link to this website on their Emergency Management websites. Promote public attention through periodic web announcements and other available media. Advise municipalities to create links to the LVPC website on their websites. (8-A)					LC, NC	Discontinuing, not carried over to 2024 Action Plan.
23	Improve public understanding of disaster preparedness and what to do during an emergency. (8-B)					LC, NC	Continuous, carried over to 2024 Action Plan with edits.
24	Expand information on emergency service for special needs populations to cover all of the Lehigh Valley. (1-C)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
25	Incorporate the public education, awareness, preparedness and personal mitigation information provided by Pennsylvania Power and Light (PPL). (8-B)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
26	Work with utilities to enhance programs to keep trees from threatening lives, property, and public infrastructure during storm events, including tree trimming and removal programs. (3-A)					LC, NC	Discontinuing, not carried over to 2024 Action Plan.
27	Improve communication and coordination between NC DCED, NC Department of Human Services (NC DHS), NCEMS, LCEMA, particularly to support response and post-disaster recovery efforts (human services, small business recovery assistance, & donations management). (7-A)						Continuous, carried over to 2024 Action Plan with edits.

**2018 Counties Action Plan Status – *continued***

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
<b>28</b>	Northampton County to maintain and train (through ESF-16 and the Regional Catastrophic Planning Task force), and Lehigh County to maintain and train (through ESF-15), a donations/volunteer management program to improve the receipt and allocation of donations (e.g. equipment, supplies, water, food, clothes), and the deployment of volunteer resources during disaster recovery. This may include identifying and training volunteers to manage the program, and establishing donation/volunteer management center(s). (7-D)			LC		NC	Continuous, carried over to 2024 Action Plan with edits.
<b>29</b>	Lehigh County EMA to continue their efforts to recruit individuals for the following programs: Citizen Corps Council, Ready...Pack...Go, Community Emergency Response Team (CERT) and update and expand programs for those with access and functional needs. (7-D)	NC		LC			Continuous, carried over to 2024 Action Plan.
<b>30</b>	County EMAs to continue their efforts at identifying and partnering w/ owners/operators of critical facilities as necessary to provide adequate planning and protection. (3-A)			LC, NC			Continuous, carried over to 2024 Action Plan.
<b>31</b>	Develop evacuation plans, routes, policies, & procedures for the full range of contingencies & geographic areas of the Lehigh Valley. (7-B)	LC, NC					Continuous, carried over to 2024 Action Plan with edits.
<b>32</b>	Develop county-level debris management plans for the Lehigh Valley. (7-B)	LC	NC				Continuous, carried over to 2024 Action Plan.
<b>33</b>	Identify areas & specific residents who would need evacuation assistance, including residents who lack transportation, & develop evacuation assistance plans. (1-C)	LC, NC					Continuous, carried over to 2024 Action Plan.
<b>34</b>	Improve coordination and cooperation with colleges and universities in the Lehigh Valley to address their emergency management & service's needs, including mass gatherings /civil disturbance risks. (7-A)		LC, NC				Continuous, carried over to 2024 Action Plan.
<b>35</b>	Continue to design replacement bridges to Federal and State standards. (3-A)					LC, NC	Discontinuing, not carried over to 2024 Action Plan.
<b>36</b>	Enhance the County website to create a place to consolidate public information related to disaster response and recovery (8-A)			LC, NC			Continuous, carried over to 2024 Action Plan.
<b>37</b>	Continue to review SARA site plans to ensure they are capturing critical facilities surrounding their facility. (3-A)			LC, NC			Continuous, carried over to 2024 Action Plan.
<b>38</b>	Continue to provide County Hazmat Team tours of large & new SARA facilities w/in the county to maintain familiarization of facility layouts and build working relationships with facility owners and operators. (7-A)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.



**2018 Counties Action Plan Status – continued**

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
39	Revise Lehigh County Evacuation Plan (7-B)		LC				Continuous, carried over to 2024 Action Plan.
40	Revise Mass Care and Shelter Plans (7-B)	LC					Continuous, carried over to 2024 Action Plan.
41	Work with American Red Cross of the Lehigh Valley to revise & update the Lehigh County & Northampton County list of Evacuation / Warming Center & Shelter locations. Conduct Site Surveys for all facilities on the current list & include new facilities that may be utilized during emergencies. (7-B)		LC, NC				Continuous, carried over to 2024 Action Plan with edits.
42	Continue to train Local Emergency Management Coordinators, Community Emergency Response Team (CERT), Lehigh Valley Community Animal Response Team (CART), Allentown Medical Reserve Corps and Bethlehem Medical Reserve Corps volunteers in Evacuation / Warming Center and Sheltering Operations, and Points of Dispensing Trainings and Exercises. (7-D)			LC			Continuous, carried over to 2024 Action Plan.
43	Continue to update Points of Dispensing (POD) locations and plans. (7-A)			LC, NC			Continuous, carried over to 2024 Action Plan.
44	Meet quarterly with Volunteer Organizations Active in Disaster (VOAD) partners to maintain preparedness, ensure situational awareness, identify resource capabilities and build stakeholder relationships pre-disaster. (7-A)			LC, NC			Continuous, carried over to 2024 Action Plan.
45	Support resiliency of the private sector through information sharing, partnership building, training and education on preparedness, Continuity of Operations Planning (COOP), mitigation principals and the Lehigh Valley Hazard Mitigation Plan. (7-C)			LC			Continuous, carried over to 2024 Action Plan.
46	Create a hazard event database to capture description, severity, location, impact and potential loss/damage estimate from an event. The data will be utilized to update the hazard analysis and mitigation actions. (5-A)					LC, NC	Discontinuing, not carried over to 2024 Action Plan.
47	Provide training opportunities for First Responder community on Disability Awareness and Cultural Diversity. (7-A)					LC, NC	Discontinuing, not carried over to 2024 Action Plan.
48	Conduct Mass Casualty Exercises (7-A)	NC		LC			Continuous, carried over to 2024 Action Plan.
49	Update the Emergency Operations Center (7-D)			LC			Continuous, carried over to 2024 Action Plan.
50	Enhance THIRA process to identify resource gaps. (5-A)		LC, NC				Continuous, carried over to 2024 Action Plan.

**2018 Counties Action Plan Status – *continued***

Existing Mitigation Action (from 2018 Hazard Mitigation Plan)		Status					Additional Comments
		No Progress / Unknown	In Progress	Continuous	Completed	Discontinued	
<b>51</b>	Purchase of necessary response vehicles and equipment for all-hazard response to disasters. (7-D)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
<b>52</b>	Install generator lugs onto generator located at County of Northampton Emergency Operations Center (EOC) in Upper Nazareth Township. This will allow a mobile generator to be installed in place of the current backup generator if there is a failure. (7-D)		NC				Continuous, carried over to 2024 Action Plan.
<b>53</b>	Generator Lugs installed at all county critical facility sites. Such as communications tower locations, critical county buildings. This will allow a mobile generator to be installed in place of the current backup generator if there is a failure. (7-D)					NC	Merged into other Action Item, not carried over to 2024 Action Plan.
<b>54</b>	Upgrade site security; enhance safety at County of Northampton EOC/911 facility in Upper Nazareth Township. Update/enhance security cameras; install fencing, other protective upgrades. (7-D)	NC					Continuous, carried over to 2024 Action Plan with edits.
<b>55</b>	Update/enhance security at County of Northampton critical facilities such as communication tower sites. Update/install fencing, update security cameras, etc. (7-D)					NC	Merged into other Action Item, not carried over to 2024 Action Plan.
<b>56</b>	Funding for training programs for first responders within the County of Northampton. (7-A)			LC, NC			Continuous, carried over to 2024 Action Plan with edits.
<b>57</b>	Installation of wireless monitoring devices on waterways/rivers through the county. Used to monitor water levels, real time data on ice jams, flooding and possible life emergencies. Wireless cameras along the river would be considered for this project. (1-B)	NC					Continuous, carried over to 2024 Action Plan.
<b>58</b>	Create/update/expand on Community Emergency Response Team (CERT) program & ServPA program. (7-A)					NC	Discontinuing, not carried over to 2024 Action Plan.
<b>59</b>	Generators at fueling stations (7-D)	LC, NC					Continuous, carried over to 2024 Action Plan.

## 2024 Counties Mitigation Action Plan

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
1	Lead and support the implementation, monitoring, maintenance and update of this Plan on an annual basis at minimum. (5-B)	All	All Hazards	High	Low-High (for 5 year update)	County, Municipal Budgets, FEMA HMA Grant Funding for 5-year update	LC & NC EMA working w/ the HazMit Plan Admin. Team, participating jurisdictions, PEMA & FEMA Region III	Ongoing	N/A
2	Maintain a centralized library of all data, information and documents compiled, developed and used for the 2024 LV HMP update process, including HAZUSMH datasets and projects (HPR files). This data shall be used to support plan implementation and future updates, and may be used to support other emergency management and planning functions. (All)	All	All Hazards	High	Low	County Budgets	LC & NC EMA; County GIS Depts.	Short-Term	N/A
3	As resources and training opportunities permit, County EMAs to install HAZUS-MH and train staff in its use. (3-A)	Education & Awareness	Flood, Windstorm, Earthquake	Medium	Medium	County Budgets	LC & NC EMA; County GIS Depts.	Long-Term DOF	N/A
4	Continue to work on enhancing critical facility inventory, specifically with respect to attribution (e.g., names of facilities, type of construction, etc.). (3-A)	Structure & Infrastructure	All Hazards	High	Low-Medium	County Budget	LC & NC EMA and GIS Depts.	Short-Term	Both
5	Support Lehigh Valley communities with ongoing compliance and enhanced participation in the National Flood Insurance Program (NFIP), specifically through the county-level initiatives identified below. (2-B)	Local Plans & Regulations	Flood	High	Low – Medium	County Budgets, LVPC	LC & NC EMA working w/ LVPC & municipalities; supported by PEMA, FEMA Region III	Ongoing	Both

## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
6	Improve communication and coordination with the Councils of Governments to promote and support local mitigation efforts.	Education & Awareness	All Hazards	High	Low	County Budgets	LC & NC EMA, & DCED's w/ LVPC	Ongoing	N/A
7	Expand support of communities and property owners/developers to understand current and developing floodplain remapping, Risk MAP programs as well as NFIP compliance issues. Support and facilitate public education and outreach on the NFIP program in its entirety. (2-B)	Education & Awareness	Flood	High	Low	County Budgets	LC & NC EMA, w/ support from FEMA Region III, ISO, PADEP and PEMA	Ongoing	Both
8	Continue to educate, promote and support municipal officials and resident's participation in available hazard mitigation grant funding opportunities such as: FMA, HMGP, BRIC or any other grant program to mitigate flood-prone structures and infrastructure, including RL/SRL outreach. (2-A) Specific support activities shall include: 1) Forwarding grant program announcements provided by PEMA and/or FEMA to appropriate municipal representatives in a timely manner. 2) Posting and maintaining grant announcements and associated documents, forms, etc. on the LV HMP webpage. 3) Supporting PEMA and or FEMA-sponsored public outreach for available grant opportunities, including RL/SRL outreach. 4) Providing municipalities with grant application support. (8-A)	Education & Awareness	Flood	High	Medium	County Budgets	LC & NC EMA, w/ support from municipal NFIP FPAs. Support provided by PEMA, FEMA Region III	Ongoing	Existing

## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
9	Promote and facilitate continued education and training programs for municipal NFIP floodplain managers and other county and local personnel involved in flood and hazard risk management by advertising and/or facilitating training and certification programs offered by PEMA, PADEP, ASFPM. Such training and certification programs include NFIP 101, Certified Floodplain Manager (CFM) certification through the Association of State Floodplain Managers, FEMA Benefit-Costs Analysis (BCA), & NFIP Community Rating System (CRS). (2-B)	Education & Awareness	Flood	High	Medium – Low	County Budgets	LC & NC EMA, w/ support from municipal NFIP FPAs., PEMA & FEMA Region III,	Ongoing	Existing
10	Promote and support municipal participation in the Community Rating System (CRS) program to better manage flood risk and reduce flood insurance premiums. (2-A)	Education & Awareness	Flood	High	Medium – Low	County Budgets, LVPC	LC & NC EMA w/ support from LVPC, FEMA Region III & PEMA	Ongoing	Both
11	Provide representation & support of local/regional flood & watershed committees' commissions & task forces (e.g., Delaware River Basin Commission). (2-B)	Education & Awareness	All Hazards	High	Low – Medium	County Budgets	LC & NC EMA w/ support from LVPC	Ongoing	N/A
12	Capital Improvement Plans (6-C)	Local Plans & Regulations	All Hazards	High	Low	Local & County funding; matching w/ available State & Federal sources	County & Municipalities	Ongoing	N/A
13	Comprehensive Emergency Management Plans (6-D)	Local Plans & Regulations	All Hazards	High	Low	County, Municipal Budgets	LC & NC EMAs working w/ municipalities	Ongoing	N/A

## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
14	Continue participation in the NOAA "Storm Ready" program to enhance County/community resilience to severe storms. The NOAA "Storm Ready" program includes providing information on the program, facilitating public outreach and awareness programs, and supporting community storm risk reduction activities as appropriate. Specific actions addressed by "Storm Ready" participation include establishing a 24-hour Warning Point, increasing the number of ways EOCs receive NWS warnings, increasing the number of ways to disseminate warnings, monitoring hydro-meteorological data, providing annual weather safety talks, training weather spotters, creating a formal hazardous weather plan, hosting annual visits by NWS to communities, etc. (8-A)	Education & Awareness	Flood, Winter Storm	High	Low – Medium	County Budgets	LC & NC EMA, w/ support from NWS	Ongoing	N/A
15	Continue to identify vulnerable county-owned structures and infrastructure, develop and prioritize appropriate mitigation projects, and implement projects as funding is appropriated. (3-A)	Structure & Infrastructure	All Hazards	Medium	Medium – High	County Budgets	LC & NC EMA working w/ county depts. & agencies w/ critical facilities & infrastructure	Ongoing	Existing
16	Work with utility companies and owners/operators of critical facilities identify and explore potential funding programs, including public/private partnerships, to implement utility hardening projects. (3-A)	Education & Awareness	Windstorm, Winter Storm, Utility Interruption, Gas/Liquid Pipeline	Medium	Medium (identification of projects); High (implementation)	County Budgets to identify; Implementation TBD	LC & NC EMA & DPWs, working w/ utilities & owners / operators of critical facilities	Ongoing	Existing

## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
17	Leverage existing regional & local meetings, conferences and media outlets (social media, local websites, newsletters, email “blasts” and mailings) to promote awareness & understanding of personal preparedness & mitigation activities the public can take to reduce or eliminate the impact of hazards on their services and infrastructure. (8-B)	Education & Awareness	All Hazards	High	Low	County, Municipal Budgets & LVPC	LC & NC EMA, and/or LVPC working w/ municipalities	Ongoing	N/A
18	Improve public understanding of disaster preparedness and what to do during an emergency. (8-B)	Education & Awareness	All Hazards	High	Low – Medium	County, Municipal Budgets	LC & NC EMA, working w/ local EM, & response agencies	Ongoing	N/A
19	Expand information on emergency service for access and functional needs, caregivers and advocates to cover all of the Lehigh Valley. (1-C)	Education & Awareness	All Hazards	High	Low – Medium	County Budgets	LC & NC EMA, County Human Services	Ongoing	N/A
20	Incorporate the public education, awareness, preparedness and personal mitigation information provided by local utilities such as Pennsylvania Power and Light (PPL), UGI, Met-Ed and others. (8-B)	Education & Awareness	Windstorm, Winter Storm, Fire (Urban/ Structural), Environmental Hazards/ Explosion, Utility Interruption, Gas/Liquid Pipeline	High	Low	County Budgets	LC & NC EMA	Short-Term	N/A

**2024 Counties Mitigation Action Plan – *continued***

<b>Mitigation Action &amp; (Goal – Objective #)</b>		<b>Mitigation Technique Category</b>	<b>Hazard(s) Addressed</b>	<b>Priority (H / M / L)</b>	<b>Estimated Cost</b>	<b>Potential Funding</b>	<b>Lead Agency / Department</b>	<b>Implementation Schedule</b>	<b>Applies to New and / or Existing Structures</b>
<b>21</b>	Improve communication and coordination between County EM agencies and their respective DCED and Department of Human Services (DHS) offices. Particularly to support response and post-disaster recovery efforts (human services, small business recovery assistance, & donations management). (7-A)	Education & Awareness	All Hazards	Medium	Medium	County, Municipal Budgets	LC & NC EMA LC & NC DCED, LC & NC DHS	Short-Term	N/A
<b>22</b>	Lehigh County to maintain and train (through ESF-15), a donations/volunteer management program to improve the receipt and allocation of donations (e.g. equipment, supplies, water, food, clothes), and the deployment of volunteer resources during disaster recovery. This may include identifying and training volunteers to manage the program, and establishing donation/volunteer management center(s). (7-D)	Education & Awareness	All Hazards	High	Medium – High	County Budget; supported by Federal & State EM funding as available	LC EMA	Ongoing	N/A
<b>23</b>	Lehigh County EMA to continue their efforts to recruit individuals for the following programs: Citizen Corps Council, Ready...Pack...Go, Community Emergency Response Team (CERT) and update and expand programs for those with access and functional needs. (7-D)	Education & Awareness	All Hazards	Medium – High	Low – Medium	County Budget	LC EMA, partnering w/ LV Center for Independent Living	Ongoing	N/A
<b>24</b>	County EMAs to continue their efforts at identifying and partnering w/ owners/operators of critical facilities as necessary to provide adequate planning and protection. (3-A)	Structure & Infrastructure	All Hazards	Medium	Low	County Budgets	LC & NC EMA	Ongoing	Existing



## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
25	Support & assist municipalities with the development & creation of evacuation plans, routes, policies, & procedures for the full range of contingencies & geographic areas of the Lehigh Valley. (7-B)	Education & Awareness	All Hazards	Medium	Medium - High	County Budgets	LC & NC EMA	Short-Term	N/A
26	Develop county-level debris management plans for the Lehigh Valley. (7-B)	Local Plans & Regulations	Flood, Windstorm, Winter Storm	Low-Medium	Medium	County Budgets, FEMA EMPG	LC & NC EMA	Long-Term	N/A
27	Identify areas & specific residents who would need evacuation assistance, including residents who lack transportation, & develop evacuation assistance plans. (1-C)	Education & Awareness	All Hazards	Medium - High	Low - Medium	County Budgets, FEMA EMPG	LC & NC EMA, working w/ County Human Services & municipalities	Short-Term	N/A
28	Improve coordination and cooperation with colleges and universities in the Lehigh Valley to address their emergency management & service's needs, including mass gatherings /civil disturbance risks. (7-A)	Education & Awareness	All Hazards, spec. Civil Disturbance/ Mass Gathering	High	Low	County Budgets	LC & NC EMA, working w/ college & university emergency services	Ongoing	N/A
29	Enhance the County website to create a place to consolidate public information related to disaster response and recovery (8-A)	Education & Awareness	All Hazards	Medium	Low	County Budget	LC & NC EMA	2025	N/A
30	Continue to review SARA site plans to ensure they are capturing critical facilities surrounding their facility. (3-A)	Structure & Infrastructure	Environmental Hazards/ Explosion, Terrorism	Medium	Low	County Budgets/ LEPC	LC & NC EMA & LEPC's	LC: Ongoing; NC: Short-Term	Both

## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
31	Continue to provide County EM personnel and LC Hazmat Team tours of large & new SARA facilities w/in the county to maintain familiarization of facility layouts and build working relationships with facility owners and operators. (7-A)	Structure & Infrastructure, Education & Awareness	Environmental Hazards/ Explosion	Low	Low	County Budget	LC & NC EMA	Ongoing	Both
32	Revise Lehigh County Evacuation Plan (7-B)	Local Plans & Regulations	All Hazards	Low	\$5,000	Grants	LC EMA	Long-Term	N/A
33	Lehigh County EMA to revise Mass Care and Shelter Plans; Northampton County EMA to develop same plans. (7-B)	Local Plans & Regulations	All Hazards	Low	Low	County Budget	LC & NC EMA	Ongoing	N/A
34	Work with American Red Cross PA Rivers Chapter to revise & update the LC & NC list of Evacuation / Warming Center & Shelter locations. Conduct Site Surveys for all facilities on the current list & include new facilities that may be utilized during emergencies. (7-B)	Education & Awareness	All Hazards	Medium - High	Low	County Funding/ Staff Time, & American Red Cross Staff / Volunteer Time	LC & NC EMA w/ American Red Cross	Ongoing	N/A

**2024 Counties Mitigation Action Plan – continued**

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
35	Continue to train Local Emergency Management Coordinators, Community Emergency Response Team (CERT), Lehigh Valley Community Animal Response Team (CART), Allentown Medical Reserve Corps and Bethlehem Medical Reserve Corps volunteers in Evacuation / Warming Center and Sheltering Operations, and Points of Dispensing Trainings and Exercises. (7-D)	Education & Awareness	All Hazards	Low-Medium	Low	County Funding / Staff Time, Local Hospitals, American Red Cross, Allentown/Bethlehem Health Bureaus and Volunteer Time	LC EMA, Allentown/Bethlehem Health Bureau and American Red Cross	Ongoing	N/A
36	Continue to update Points of Dispensing (POD) locations and plans. (7-A)	Local Plans & Regulations, Education & Awareness	Pandemic and Infectious Disease	Low	Low	County Budget, Allentown Health Bur., Northeast District Office of Dept. of Health, EMA	LC & NC EMA, Allentown Health Bureau, Northeast District Office of Dept. of Health	Ongoing	N/A
37	Meet quarterly with Volunteer Organizations Active in Disaster (VOAD) partners to maintain preparedness, ensure situational awareness, identify resource capabilities and build stakeholder relationships pre-disaster. (7-A)	Education & Awareness	All Hazards	Medium	Low	County Budgets	LC & NC EMA / PA & NEPA VOAD	Ongoing	N/A

**2024 Counties Mitigation Action Plan – *continued***

<b>Mitigation Action &amp; (Goal – Objective #)</b>		<b>Mitigation Technique Category</b>	<b>Hazard(s) Addressed</b>	<b>Priority (H / M / L)</b>	<b>Estimated Cost</b>	<b>Potential Funding</b>	<b>Lead Agency / Department</b>	<b>Implementation Schedule</b>	<b>Applies to New and / or Existing Structures</b>
<b>38</b>	Support resiliency of the private sector through information sharing, partnership building, training and education on preparedness, Continuity of Operations Planning (COOP), mitigation principals and the Lehigh Valley Hazard Mitigation Plan. (7-C)	Education & Awareness	All Hazards	Ongoing	Low	County Budget	LC & NC EMA	Ongoing	Both
<b>39</b>	Conduct Mass Casualty Exercises (7-A)	Education & Awareness	All Hazards	Low	Low	HSGP	LC & NC EMA, Hospitals, EMS, Fire & Police	Ongoing	N/A
<b>40</b>	Update the Emergency Operations Center (7-D)	Structure & Infrastructure	All Hazards	Low	Medium	HSGP	LC EMA	Ongoing	Existing
<b>41</b>	Enhance THIRA process to identify resource gaps. (5-A)	Education & Awareness	All Hazards	Low	Low	Staff Time	LC & NC EMA	Ongoing	N/A
<b>42</b>	Purchase of necessary response vehicles and equipment for all-hazard response to disasters. (7-D)	Structure & Infrastructure	Environmental Hazards/ Explosion, Terrorism	High	High	LC Capital Projects Plan	LC & NC EMA	Ongoing	N/A
<b>43</b>	Install generator lugs at all county critical facility sites including the generator located at County EOC in Upper Nazareth Township. This will allow a mobile generator to be installed in place of the current backup generator if there is a failure. (7-D)	Structure & Infrastructure	All Hazards	Medium	Medium	County Budget/ Grants	NC EMA	Short-Term (DOF)	Both

## 2024 Counties Mitigation Action Plan – *continued*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
44	Upgrade site security; enhance safety at County of Northampton EOC/911 facility in Upper Nazareth Township and other critical facilities such as tower sites, etc. Update/enhance security cameras; install fencing, other protective upgrades. (7-D)	Structure & Infrastructure	Terrorism	Medium	Medium	County Budget / Grants	NC EMA	Short – Medium DOF	Existing
45	Funding for training programs for first responders within both Lehigh & Northampton Counties. (7-A)	Education & Awareness	All Hazards	Medium	Low	County Budgets; Grants; LEPC; PEMA; FEMA & NEPA Task Force	LC & NC EMA	Short-Term	N/A
46	Installation of wireless monitoring devices on waterways/ivers through the county. Used to monitor water levels, real time data on ice jams, flooding and possible life emergencies. Wireless cameras along the river would be considered for this project. (1-B)	Structure & Infrastructure	Flood, Drought, Dam Failure, Levee Failure	Medium	Medium	County Budget/ Grants	NC EMA w/ support from the Delaware River Joint Toll Bridge Commission	Medium DOF	N/A
47	Generators at fueling stations (7-D)	Structure & Infrastructure	All Hazards	Medium	Low	HMA Grants	LC & NC EMA	Ongoing	Both
48	Explore options for grassroots public education campaigns to reduce the frequency of arson.	Education & Awareness	Urban Fire/Explosion	Medium	Low	County Budget	LC EMA	DOF	Existing
49	Utilize county drones to identify trees blocking creeks and streams	Structure & Infrastructure	Flooding	Medium	Low	County Budget	LC EMA	Short-Term	N/A

**Notes:**

**Estimated Costs:**

- Where actual project costs have been reasonable estimated: Low = < \$10,000; Medium = \$10,000 to \$100,000; High = > \$100,000;
- Where actual project costs cannot reasonably be established at this time:
  - Low** = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
  - Medium** = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
  - High** = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

**Potential Funding (FEMA HMA):**

- **FMA** = Flood Mitigation Assistance Grant Program
- **HMGP** = Hazard Mitigation Grant Program
- **HSGP** = Homeland Security Grant Program
- **EMPG** = Emergency Management Performance Grant

**Implementation Schedule:**

- **Short Term** = 1 to 5 years
- **Long Term** = 5 years or greater
- **DOF** = Depending on Funding

**Applies to New and/or Existing Structures:**

- **N/A** = Not Applicable

## 2024 Mitigation Action Plan – *continued*

### LVPC Mitigation Actions

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
1	Continue to promote and assist municipalities with adopting additional and higher regulatory standards by providing model ordinances (e.g., model floodplain management and flood damage ordinances, including increased freeboard and cumulative substantial damages/improvements; carbonate bedrock standards; steep slopes; vegetation management; riparian and wetland buffers), and assisting with local adoption of these ordinances. The LVPC model floodplain regulations are designed to be more effective at preventing flood damage and to better deal with the redevelopment of existing properties that have been subject to repeated flooding, and exceed the National Flood Insurance Program minimum requirements.	Local Plans and Regulations, Natural Systems Protection	Flood, Subsidence / Sinkhole, Landslide	High	Low – Medium	LVPC, County Budgets	LVPC, with support from municipalities and their NFIP FPA, FEMA Region III, ISO, PADEP and PEMA; DRBC	Ongoing	Both
<b>Integrate/coordinate the findings and recommendations of this HMP within the following regional, county and local planning and regulatory mechanisms:</b>									
2a	FutureLV: The Regional Plan Update (6-A)	Local Plans & Regulations, Natural Systems Protection	All Hazards	High	Medium	LVPC Budget	LVPC working w/ counties & municipalities	Short	N/A
2b	Local Comprehensive/Master Plans (6-A)	Local Plans & Regulations, Natural Systems Protection	All Hazards	High	Medium	LVPC, Municipal Budgets	LVPC working w/ municipalities	Ongoing	N/A

## 2024 Mitigation Action Plan – *continued*

### *LVPC Mitigation Actions*

Mitigation Action & (Goal – Objective #)		Mitigation Technique Category	Hazard(s) Addressed	Priority (H / M / L)	Estimated Cost	Potential Funding	Lead Agency / Department	Implementation Schedule	Applies to New and / or Existing Structures
<b>2c</b>	Lehigh Valley Watersheds Assessment & Global Act 167 Stormwater Management Plan Update (6-C)	Local Plans & Regulations, Natural Systems Protection	Flood	High	High	PEMA, HMA Grants, PADEP	LVPC working w/ Counties & municipalities	Short-Term	N/A
<b>2d</b>	Fully integrate hazard mitigation planning with infrastructure planning and funding for roads; bridges; transit; sewer, water and Storm water facilities, and other utilities. (6-A)	Local Plans & Regulations	All Hazards	High	High	Federal, State, Local	LVPC, LVTS, LV Regional Partnership	Long-Term DOF	Both
<b>3</b>	Climate Action Planning & Implementation	Local Plans & Regulations	All Hazards	High	High	EPA	LVPC	Short-Term	N/A