

### 3.0 MITIGATION STRATEGIES

As Logan County’s planning team and stakeholders developed mitigation goals and strategies for the county, their goal was to address the specific risks and vulnerabilities of each individual jurisdiction. As a result, the mitigation strategies in this plan are significantly more detailed and comprehensive than those developed for previous plans. While some strategies are similar from jurisdiction to jurisdiction, each community’s stakeholders expressed their unique circumstances and crafted strategies to address those specific issues. While similar in nature, not all jurisdictions included all strategies created, and each governmental body prioritized its selected strategies individually. The result is a set of comprehensive and customized mitigation goals and strategies that address the needs of Logan County and each jurisdiction.

#### 3.1 STATUS OF PAST MITIGATION EFFORTS

In the 2005 Logan County Hazard Mitigation Plan, mitigation goals and strategies were established for the entire county. Under guidance at that time, the strategies were more like identified potential mitigation projects, and some even included addresses and identifying characteristics. The county and its incorporated jurisdictions worked together to identify actions that would reduce risk and vulnerability across Logan County. As part of the plan development process, the 2005 goals and strategies were discussed and evaluated by the EMA Director, planning team and stakeholders during the jurisdictional meetings conducted in March 2017.

Table 3-1 identifies these goals and the current status of each. The current status is classified according to this list:

- Completed: Strategy was completed as written; item has not been included in new plan
- Ongoing: Strategy has not been achieved in its entirety and is included in new plan
- Deleted: Strategy was determined to be not feasible or necessary and has been removed from consideration in the new plan

**Table 3-1: 2005 Logan County Mitigation Goals**

Goal	Jurisdictions	Current Status
<b>MULTI-HAZARD STRATEGIES</b>		
Stabilization of CR 11 between TR 45 and CR 43; CR 39 between CR 103 and dead end; CR 73 between CR 4 and 34; TR 200 between CR 18 and TR 32; CR 32 between CR 11 and SR 47; CR 31 between CR 43 and CR 11; CR 13 between TR 214 and TR 33 by removal of dead trees.	Per location – countywide	Completed
Develop I&I plan for flooding – maps of retention basin placement, pump stations, catch basins to reduce flash flooding.	Belle Center	Ongoing and referred to as storm sewer improvement strategy
Install emergency generator at fire department for temporary shelter location.	Huntsville	Ongoing

<b>Goal</b>	<b>Jurisdictions</b>	<b>Current Status</b>
Install outdoor warning siren in village to improve coverage.	Huntsville	Completed
Install backup generator at water plant to provide water service through power outages.	Rushsylvania	Ongoing; included in current strategies as alternate power source
Trim trees within the village.	Rushsylvania	Done and ongoing because the need continues
Obtain portable generator on trailer to run sewage lift stations and support plant operations during power outages.	Rushsylvania	Ongoing
Acquire and demolish repetitive loss properties.	Russells Point	Ongoing
Construct new home that meets elevation and floodplain standards at a specific address.	Russells Point	Ongoing but modified; expressed as acquisition and demolition/relocation strategy in new plan
Flood proof water plant filtration room and well heads; will require an engineering study.	Russells Point	Partially Complete and Ongoing; included as current strategy to improve water and wastewater systems
Rehabilitation of storm sewer system and replace and upgrade it.	Russells Point	Partially Complete and Ongoing; included as current strategy to improve water and wastewater systems
Trim trees away from power lines and homes and on roadways.	Russells Point Valley Hi	Complete but Ongoing because the need is continued
Improve ditches and replace culverts to prevent road washout during heavy rain.	Valley Hi	Partially Complete but Ongoing; included in current plan because the need is continued
Acquire an emergency generator and associated equipment to use facility as a shelter.	Logan County – Bloomfield Township, McArthur Township; Miami Township; Perry Township, Pleasant Township, and Zane Township	Ongoing and modified; the county has portable generators that can be shared; Logan County has included this as one of its current strategies in the new plan
Purchase salt, grit, and fuel for township trucks to treat township roads for ice.	Harrison Township	Deleted; transferred to township operational planning
Construct an additional detention pond near McKee Creek to pick up runoff from new construction.	Liberty Township	Deleted; upon re-assessment, the need no longer exists

<b>Goal</b>	<b>Jurisdictions</b>	<b>Current Status</b>
Remove dead trees from township and private property that pose a risk to township roadways.	McArthur Township	Partially complete but ongoing; the need continues and this is included as part of Logan County strategies
Purchase a new snowplow and spreader box.	Miami Township	Deleted; transferred need to township operational activities
Install reflective road signs at major intersections to improve visibility.	Monroe Township	Completed
Install tornado siren at location with high elevation.	Monroe Township	Completed; maintenance included in new plan as ongoing
Clear debris from creeks and streams to reduce flooding.	Perry Township	Ongoing; included in new plan as county strategy on township's behalf
Install outdoor warning siren.	Richland Township	Completed
Clean and extend culvert under RT 223 to reduce flooding.	Rushcreek Township	Completed
Ditch drainage and culvert work on TR 100 to reduce flooding.	Rushcreek Township	Completed
Install outdoor warning sirens on north side of Indian Lake near state campground.	Stokes Township	Completed
Trim trees near roadways to increase visibility and reduce icy conditions during winter weather due to sun exposure.	Union Township	Deleted; transferred to township operational activities
Update snow removal equipment.	Union Township	Deleted; transferred to township operational activities
Elevate TR 198 between CR 43 and TR 200 to reduce flooding and make road accessible during heavy rain event.	Union Township	Deleted based upon cost-benefit analysis and funding sources
Clean ditch and culverts to reduce flooding at intersection of TR 187 and TR 30.	Union Township	Ongoing under Logan County objectives to maintain ditches, bridges, and culverts
Restore gravestones at Philadelphia Cemetery that were displaced during windstorms.	Union Township	Completed
Install basins and culverts in floodplains, repair roads and tiles, elevate roads, and repair drainage systems to reduce flooding.	Washington Township	Ongoing as part of Logan County objective to keep roadways clear and passable
Install outdoor warning sirens at SR 287 and CR 152.	Zane Township	Not Done; continued

### **3.2 RISK PRIORITIES**

The Hazard Identification and Risk Assessment explains in detail the identification of hazards and evaluation of risks in Logan County. That section of the plan considers numerous naturally occurring possibilities, cites the historical frequency and severity of past incidents, and considers the damages that would occur should that type incident strike a jurisdiction within Logan County. As a result of this assessment, the planning team determined that relevant hazards and applicable risks for Logan County overall are as follows, prioritized from comprehensively most-concerning to least-concerning: windstorm, tornado, flood (primarily flash flood), severe thunderstorm, severe winter storm, drought and extreme heat, dam failure, and earthquake. Some of the individual municipalities ranked threats in a different order based upon the unique characteristics or history of their community. The goals and actions are listed in order of priority determined by each work group, in the context of both historical damages and current threat assessment.

Logan County's most concerning threat is excessive wind. Considering the relatively rolling or flat terrain and impact of the Emerald Ash Borer in recent years, the exposure to high wind and the poor condition of many trees makes wind a threatening hazard. Add to that the presence of buildings with no windbreak protection by tree lines or forested land, and the number of wind vulnerable structures (conventionally roofed structures, grain bins, legs and elevators, and many older building like barns, homes, and churches), the worst havoc could be caused by another derecho or significant wind event. Tornado ranks second because rotational winds are less frequent than straight-line or sustained high wind events, but the threat is similar.

Strategies for wind focus on elimination of debris potential, hardening of utility distribution systems, and use of wind-resistant building materials and wind-wise construction practices.

Flooding is the second overall concern, and the threat is flash flooding inside the municipalities where streets and highways are inundated with rapid precipitation. While some of the ditches and streams flood under heavy rain or combined rain and snowmelt conditions, the primary threat of flooding is when precipitation is heavy and sustained and man-made drainage systems cannot handle the water load. Under those conditions, when sewers and natural drainage cannot keep up with the pace of the rainfall, streets and parking lots in municipalities flood. If accompanied by wind in fall when crops are being harvested, fodder can wash into the drainage systems and clog storm sewers, challenging drainage systems to work effectively. Trees that fall during wind storms can clog sewer systems as well. Generally, most flooding is short-term because Logan County sits at the highest elevations in the entire state, so water drains in a reasonably short period of time. However, at times, it can leave a path of damage as its legacy where flash flooding has occurred. For Logan County to have a major riverine flood, it would require extremely unusual rainfall, and there is no history of that kind of flood taking place.

Strategies for flooding focus on structural options such as retention and detention of water, elevation of structures, and water management systems and practices as a good neighbor to communities downstream. Land use regulation is used to prevent unwise construction inside flood zones. Actions can also include facilitation of drainage through system improvements and

waterway maintenance. Acquisition, demolition, and relocation projects are a likely solution for some structures that are not mitigated by other means, but these are rare examples in Logan County.

Logan County ranked utility outages, generally due to wind, ice, and snow, as their third concern. This is due to the level of disruption utility outages cause, based upon industrial and agricultural dependency upon electricity for the most part. Also, included in this category were resource shortages, such as alternate power sources and fuel shortages.

Severe thunderstorms and blizzards are disruptive and expensive in their worst form, and were ranked fourth in Logan County concerns. Both cause roads to become impassable. These storms cause accessibility problems across the county, and are especially damaging to the livestock farms that depend upon transportation services daily and the industries that rely upon open access for shipping and receiving operations. If roads are blocked and snow covered, power outages occur due to the ice and/or wind associated with the storms, and farms and businesses cannot operate. Livestock operations are dependent upon utilities and transportation support. Small industries and manufacturing are crippled by lack of access to transportation, and power outages cause shut-downs that require a complex process to restart and resume production. These storms also bring the damage of high winds and heavy precipitation, sometimes causing flooding and structural damages. Hail can damage roofs and vehicles, and anything else that is in its path. The storms are damaging because they combine several factors into a comprehensive path of destruction. In Ohio, the combination of wind, water, and extreme temperature of any direction causes havoc and destruction.

Strategies for severe storms include enhanced capacity to clear roads and bridges from debris and snow; elimination of debris potential; hardening of utilities; and improved warning and notification systems.

Logan County felt that mitigation strategies to facilitate communication and public information release were the next critical group of actions they could take to reduce damages from storms, so that is ranked fifth in their list of priorities.

The last priority for Logan County was erosion and conservation of natural resources. Because flooding is not predominant in riverine form, sedimentation is minimal. At the top of the watershed, rivers and ditches are generally small and narrow and do not roar through the county taking everything possible along with them. Therefore, while erosion and conservation of natural resources is a concern, overall in the county it ranked sixth of six in general goal areas.

Drought and extreme heat are possible but do not occur frequently in Ohio. Drought tends to be more of a “dry spell” than an extended drought. When Ohio is considered “in drought”, Logan County is generally in less distress than most of the state due to its terrain and robust water supply. When Ohio, in general, experienced drought in 1988 and 2012, Logan County was not one of the most affected counties. Grain crops are more resilient than vegetable and

fruit crops when drought strikes. The water supply through both aquifers and water systems is robust, and the effects on Logan County are rare and minimal.

Mitigation strategies for drought and extreme heat include additional public information, enhanced warning and notification, and hardening of the water supply through emergency planning and capital improvements. Threat to water supply would more likely be contamination of some sort, and therefore an emergency procedure action was included for most communities that have water treatment systems. Some communities use individual well systems, and for those, an emergency procedure is a personal preparedness issue.

Dam failure is a risk but the Class I dam at Indian Lake is well maintained by ODNR. The other two Class I dams are owned by private parties. The City of Bellefontaine, McArthur Township, and the Village of West Mansfield own one classified dam each (II and III), and these are well maintained as well as located where damages would be minimal. Most other dams are classified as “other” and are remotely located in rural areas because they are small and hold back a relatively small portion of water. They are owned by private parties. While condition is monitored as best the county can on private property, the risk is not believed to be sufficient to document a high vulnerability because the dams and waterways are small. The Indian Lake dam and spillway have recently undergone significant repair and replacement, and it is considered to be in excellent condition.

There are no levees in Logan County or other water retention structures such as dikes or floodwalls.

Mitigation of dam failure concentrates on monitoring the condition of dams and taking appropriate action if necessary. There is no history of dam failure, so maintenance and repair took a higher priority than response to failure. The recent repairs at Indian Lake make this a relatively low concern.

Earthquake is a similar possibility but low-ranked vulnerability. Buildings are single or two-story structures in most of the county with just a few higher buildings, mostly in the downtown sections of the Bellefontaine. Few bridges have long spans over water; most are as wide as two highway lanes or a county road. Most earthquakes are expected to be low on the intensity scale, and damages would be limited to fragile building contents or already-compromised structures. There are no skyscrapers in the county; buildings top out at three stories and there are few of those.

Strategies for earthquake include robust warning and notification systems and public information.

The strategies in this plan are intended to provide general options to lessen the vulnerabilities in Logan County. During the planning process, the planning team and stakeholders determined what hazards strike most frequently, which cause the most disruption, and which consequences feasibly can be prevented or lessened. With limited money and staff available to conduct

mitigation projects, the planning team weighed every potential effort by measuring the benefit against the resources realistically available to conduct the activity. The planning team endeavored to prioritize strategies that could realistically be accomplished and result in actual reduction in potential and real losses.

Considerations of cost, identifiable funding to support the strategy, actual benefit to the community, prevention of loss of life, and overall feasibility were all discussed. Strategies were rated against one another and ranked from most to least important. While it is impossible to plan for or foresee every potential hazard, Logan County attempted to identify the incidents that might realistically impact their community. These goals and strategies are an outcome of that assessment.

### **3.3 MITIGATION GOALS AND STRATEGIES**

Planning Team members and stakeholders from each jurisdiction worked individually and collaboratively countywide to develop fitting mitigation goals and strategies, and later to prioritize them and assign a champion, timeline, and a potential funding source. The Contractor drafted the strategies based on the input provided by these stakeholders, and their input was the basis for prioritization, assignment, and funding. The draft strategies were presented to the planning team and community for public review and comment, and modified accordingly. This section identifies the mitigation goals and strategies for each jurisdiction and the priority level, action type lead agency, timeline, and potential funding source assigned to each action. Strategies for specific municipalities vary from the countywide in priority of the problem and the potential solution.

#### **3.3.1 Logan County**

Logan County's mitigation strategies are intended to reduce vulnerability to damage from wind (tornado and straight line as well as derecho), water (rain and snow of all forms), severe storms (thunderstorms, lightning, hail, and ice), drought (with extreme heat or extended dry periods), dam failure (pertaining to dams located in the county; there are no levees), and earthquake. The identified goals and strategies include all non-incorporated areas of the county, such as townships and census areas or neighborhoods. These strategies will be considered as economic development and growth occurs, as regulations are written and revised, and as codes and guidance is enforced and approved. These strategies will be reflected in local building codes, land use regulations, economic development goals and strategies, capital improvement plans, and budgetary management. Projects will be conducted as funding is available, and daily practices will be adjusted to include modifications of work to implement strategies when feasible.

As Logan County Commissioners and other elected officials will represent the townships in mitigation efforts, they will communicate with one another, and especially the township trustees whose jurisdictions are affected. The county and townships will work together to implement mitigation projects that are selected for action.

This partnership between levels of local government is not new; Logan County jurisdictions have worked together in this way for many years. This collaboration will continue. Today's efforts to better include hazard mitigation in community development are another effort of this local teamwork.

More information on how the various county entities work together in development is included and detailed in Section 04 Plan Maintenance and Implementation.

*(Note: Descriptors for categories in this table are explained in Section 3.3.11.)*

**Table 3-2: Logan County Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: LOGAN COUNTY AND ITS JURISDICTIONS WILL EMPLOY MITIGATION ACTIONS TO REDUCE THE DAMAGES INCURRED FROM SEVERE WIND STORMS THAT INCLUDE STRAIGHT LINE WINDS AND TORNADOES.</b>					
1.1 Logan County will advocate proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
1	Property Protection	County Engineer	7-1-17	12-31- 22	LOC/ST
1.2 Logan County will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
2	Property Protection	EMA Director	7-1-17	12-31-22	LOC PDM
1.3 Logan County will implement a program to clear areas of debris after severe wind and flooding to keep crop fodder and other debris out of water treatment plants, sewers, transportation routes, and other infrastructure, and to keep roadways open and usable as soon as possible after storms.					
3	Property Protection	County Engineer	7-1-17	12-31-22	LOC
1.4 Logan County will enforce existing land use regulations (including zoning and development regulations and construction codes) in an effort to make properties as resistant to wind damage as possible.					
4	Property Protection	County Building Official	7-1-17	12-31-22	LOC
<b>GOAL 2: LOGAN COUNTY WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING.</b>					
2.1 Logan County will make improvements to road and infrastructure including an increase of bridge spans, repair of shoulders and berms, increase in culvert size, maintenance of bridge slopes and protection of roadways from storm and flood damage, to enhance the likelihood of open roadways even after severe flooding and rapid drainage.					
5	Property Protection	County Engineer	7-1-17	12-31-22	LOC PDM/FMA HMGP
2.2 Logan County will maintain NFIP participation through regular review of flood maps and sustain local engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
6	Prevention	Floodplain Manager	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
2.3 Logan County will implement improvements to the ditch maintenance program, and will identify how to repair damage done to streams and ditches by storms and floods, such as removal of sedimentation and prevention of erosion.					
7	Natural Resource Protection	County Engineer	7-1-17	12-31-22	LOC
2.4 Logan County will remove debris and obstructions from waterways to facilitate the flow of water.					
8	Property Protection	County Engineer	7-1-17	12-31-22	LOC
2.5 Logan County will use federal and state grant programs to fund mitigation efforts, especially in flood mitigation and mitigation planning.					
9	Prevention	EMA Director	7-1-17	12-31-22	PDM/FMA HMGP
2.6 Logan County will advocate and support flood insurance where required.					
10	Property Protection	EMA Director	7-1-17	21-31-22	LOC
2.7 Logan County will maintain existing building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures.					
11	Property Protection	County Building Authority	7-1-17	12-31-22	LOC CDBG Other
2.8 Logan County will study countywide storm water to reduce flood damages to properties through improvement to wastewater systems and field tiling practices that prevent downstream damages from runoff water.					
12	Nat. Resource Protection	Water Pollution Control Officer	7-1-17	12-31-22	LOC
2.9 Logan County will study the likelihood and potential impact of dam failure, including consideration of dam size, height, condition, elevation, floodgate management and other maintenance factors, whether the responsibility of the county, another jurisdiction, or an individual; and will incorporate the findings of the Ohio Department of Natural Resources regarding the dam in that analysis.					
13	Prevention	EMA Director	7-1-17	12-31-22	LOC
2.10 Logan County will properly maintain dams, spillways, and up-ground reservoirs to lessen the likelihood of structural failure caused by poor maintenance through cooperative efforts of the entities responsible for upkeep.					
14	Structurally Engineered	SWCD Director	7-1-17	12-31-22	LOC
2.11 Logan County will require retention or detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
15	Structurally Engineered	County Engineer	7-1-17	12-31-22	LOC
2.12 Logan County will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps and other devices or structures to protect property from flooding and to lessen flash flooding.					
16	Prevention	Water Pollution Control Officer	7-1-17	12-31-22	LOC
2.13 Logan County will acquire and demolish properties that flood repeatedly to relocate the inhabitants out of flood risk areas, and will restore the property to a natural habitat maintained as such into perpetuity.					
17	Prevention	Floodplain Manager	7-1-17	12-31-22	LOC PDM
2.14 Logan County will utilize elevation to protect critical infrastructure and property from flooding.					
18	Property Protection	County Engineer	7-1-17	12-31-22	LOC PDM/FMA

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
2.15 Logan County will advocate maintenance on waterways in Logan County through cooperation with regional conservancy districts that work to remove debris, fallen or diseased trees, and excess sediment from the waterway.					
19	Nat. Resource Protection	SWCD Director	7-1-17	21-31-22	LOC/ICC
2.16 Logan County will create vegetative buffer zones, wetlands, and natural habitat in low-lying areas to hold excess runoff until it naturally drains downstream.					
20	Nat. Resource Protection	SWCD Director	7-1-17	12-31-22	LOC
2.17 Logan County will support farmers as they replace deteriorated tiles, implement conservation practices including the use of cover crops and conservation tillage, install tile control structures where feasible, and use filter strips for slope protection.					
21	Nat. Resource Protection	SWCD Director	7-1-17	12-31-22	LOC
2.18 Logan County will use channel modification and/or diversion to eliminate areas where flooding is highly destructive and no other option is feasible to decrease the flood damage.					
22	Structurally Engineered	County Engineer	7-1-17	12-31-22	LOC PDM/FMA HMGP

**GOAL 3: LOGAN COUNTY AND ITS JURISDICTIONS WILL EMPLOY MITIGATION ACTIONS THE REDUCE DAMAGES DUE TO UTILITY OUTAGES AND SUPPLY SHORTAGES DUE TO SEVERE STORMS AND DISASTERS.**

3.1 Logan County will identify and establish alternate heating fuels, potable water suppliers, water pump stations, alternate power sources, private water systems where needed, and other critical supplies necessary for sustaining life, business, and safety during power outages with emphasis upon continuity for livestock operations, industrial and manufacturing businesses, and government critical facilities.					
23	Property Protection	EMA Director	7-1-17	12-31-22	LOC
3.2 Logan County will encourage collaboration between all levels of government and private contractors to clear roads and maintain electrical service during severe weather, especially ice, snow, wind, and floods and to protect business operations and assets from disaster related losses.					
24	Property Protection	EMA Director	7-1-17	12-31-22	LOC
3.3 Logan County will encourage the hardening of utilities through installation below grade, improvements to supply line and generation plants, and upgrade of poles, substations and transformers.					
25	Property Protection	County Engineer	7-1-17	12-31-22	LOC ICC

**GOAL 4: LOGAN COUNTY WILL CONDUCT MITIGATION ACTIONS TO REDUCE VULNERABILITY OF POPULATIONS TO DAMAGES AND CASUALTIES DUE TO ALL TYPES OF DISASTERS AND SEVERE STORMS.**

4.1 Logan County will implement a program to identify and remove dead or diseased trees along waterways, roadways, and in areas used by the public.					
26	Property Protection	County Engineer	7-1-17	12-31-22	LOC
4.2 Logan County will educate the public about digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergency incidents.					
27	Public Information	EMA Director	7-1-17	12-31-22	LOC HSGP/EMPG
4.3 Logan County will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notification of severe weather and other hazards to county residents.					
28	Public Information	EMA Director	7-1-17	12-31-22	LOC HSGP/EMPG

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
4.4 Logan County will implement a project to identify, respond to, and recover from farm losses after severe storms, power outages, or hazardous materials incident including facilitating generator availability during power outages, assisting during a severe livestock infestation, responding effectively to grain operations incident, clearing roads of snow and ice for ongoing ingress and egress to farms, and assisting with other issues of particular importance to agriculture.					
29	Property Protection	EMA Director	7-1-17	12-31-22	LOC
4.5 Logan County will assist and collaborate with farmers to identify ways to decrease losses after severe storms, including but not limited to management of rapid and excess runoff from fields or wherever manure management is necessary, helping develop protective measures for chemical storage tanks, feed silos, gran bins, and other farm structures and equipment, and other necessary protective measures common to agricultural operations.					
30	Property Protection	FSA Director	7-1-17	12-31-22	LOC
4.6 Logan County will improve capacity to implement rapid placement of temporary warning signs to indicate dangerous road conditions like flooding, wash-outs, hazardous materials incidents, and other safety issues or closures.					
31	Property Protection	County Engineer	7-1-17	12-31-22	LOC
4.7 Logan County will establish water conservation procedures to be implemented during water emergencies due to drought or contaminated supply.					
32	Nat. Resource Protection	EMA Director	7-1-17	12-31-22	LOC

**GOAL 5: LOGAN COUNTY WILL COMPLETE MITIGATION ACTIONS THAT ENABLE RAPID AND EFFECTIVE COMMUNICATION DURING A DISASTER INCIDENT FOR THE PURPOSE OF DIRECTING THE POPULATION TO TAKE PROTECTIVE ACTION AND FOLLOW OPERATIONAL PROCEDURES.**

5.1 Logan County will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.					
33	Public Information	EMA Director	7-1-17	12-31-22	LOC EMPG/HSGP
5.2 Logan County will improve GIS mapping to include infrastructure and utility designations and expand the customization capability of county software to produce data that is useful in community response planning.					
34	Public Information	County Auditor	7-1-17	12-31-22	LOC
5.3 Logan County will work to develop enhanced methods of cross-discipline and interjurisdictional planning efforts to create whole community efforts to improve communities and expand disaster resilience.					
35	Property Protection	EMA Director	7-1-17	12-31-22	LOC
5.4 Logan County will develop, utilize and maintain a communication plan to include mass media, social media, and direct contact before, during and after incidents.					
36	Public Information	EMA Director	7-1-17	12-31-22	LOC
5.5 Logan County will educate the public about local disaster hazards and vulnerabilities, protective actions, available service, special populations and assistance, and emergency procedures using mass and social media, printed media, and other means of communication.					
37	Public Information	EMA Director	7-1-17	12-31-22	LOC EMPG/HSPG
5.6 Logan County develop a multi-part communication system to notify all communities of protective action orders, warnings and notification, and other critical information related to specific disaster incidents.					
38	Public Information	EMA Director	7-1-17	12-31-22	LOC EMPG/HSGP

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
5.7 Logan County will improve GIS mapping and addressing to facilitate location of specific parcels or properties during emergency and disaster response, and to facilitate the use of mutual aid resources when needed.					
39	Public Information	County Auditor	7-1-17	12-31-22	LOC

**GOAL 6: LOGAN COUNTY WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE THE EROSION OF TOPSOIL AND ROADWAYS DUE TO FLOODING, LAND USE OR HUMAN ACTION, AND TO PRESERVE NATURAL RESOURCES IN A WAY THAT LESSENS DISASTER DAMAGES.**

6.1 Logan County will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundations or abutments, or other deterioration due to extreme runoff or highly vulnerable soil types caused by severe storms					
40	Property Protection	County Engineer	7-1-17	12-31-22	LOC
6.2 Logan County will protect waterways by reducing slope erosion, land subsidence and wind damage through various conservations measures such as use of cover plants, vegetation, grassy waterways, filter strips, buffers and such					
41	Nat. Resource Protection	County Engineer	7-1-17	12-31-22	LOC
6.3 Logan County will protect open areas and fields from wind erosion due to storms through use of windbreaks, filter strips, cover crops, tree lines, and other vegetative buffers to protect topsoil during high wind events and heavy precipitation.					
42	Nat. Resource Protection	SWCD Director	7-1-17	12-31-22	LOC

### 3.3.2 Belle Center

Belle Center is a small village in the far north central part of Logan County. The village suffers from flooding, mostly flash flooding when rain falls rapidly, and can be isolated from county resources because it is small in size. Windstorms and utility outages are concerning, and to some degree they are vulnerable to erosion due to flooding. General storm damage can occur and cause havoc for residents. They have developed the strategies that follow.

**Table 3-3: Belle Center Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: BELLE CENTER WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE THE DAMAGES FROM RIVERINE AND FLASH FLOODING.</b>					
1.1 Belle Center will consider joining NFIP as a way to make more flood protection available to the community and to prevent future damages through floodplain regulation.					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.2 Belle Center will use financial aid for flood mitigation through grants, fees, and other special programs.					
2	Prevention	Mayor	7-1-17	12-31-22	LOC
1.3 Belle Center will advocate and support flood insurance where required.					
3	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.4 Belle Center will maintain and enforce existing building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
4	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.5 Belle Center will participate in countywide storm water vulnerability study to reduce flood damages to properties through better wastewater management.					

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
5	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.6 Belle Center will implement improvements to ditch maintenance in the village to ensure adequate drainage.					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.7 Belle Center will maintain storm sewers, pumping stations, water pumps, and other devices to protect property from flooding.					
7	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.8 Belle Center will remove debris and obstructions from ditches and streams in the village.					
8	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.9 Belle Center will require retention and detention ponds to contain runoff water in new or expansion development where surface water may cause flooding.					
9	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM/HMGP
1.10 Belle Center will utilize elevation to protect critical infrastructure and property from flooding.					
10	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
1.11 Belle Center will acquire and demolish properties that flood repeatedly to relocate resident out of flood risk areas, and will restore property to a natural habitat maintained as such into perpetuity.					
11	Prevention	Mayor	7-1-17	12-31-22	PDM/HMGP
1.12 Belle Center will support efforts to replace deteriorated field tiles and will support conservation tillage and erosion protection measures.					
12	Natural Resource Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 2: BELLE CENTER WILL COMPLETE MITIGATION ACTIONS THAT ENABLE RAPID AND EFFECTIVE COMMUNICATION DURING A DISASTER INCIDENT FOR THE PURPOSE OF DIRECTING THE POPULATION TO TAKE PROTECTIVE ACTIONS AND TO FOLLOW OPERATIONAL PROCEDURES.**

2.1 Belle Center will advocate and support efforts to improve GIS mapping to include infrastructure and utility services, and to expand the customization capability of software to produce data that is useful in community planning.					
13	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
2.2 Belle Center will advocate and support improvement in parcel location mapping to facilitate locating and responding to emergency and disaster calls in a rapid and effective way, as well as to facilitate the use of mutual aid resources when necessary to assistance to responders and dispatchers.					
14	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
2.3 Belle Center will develop utilize and maintain a communication plan to include mass media, social media, and direct contact with residents before, during, and after incidents.					
15	Public Information	Mayor	7-1-17	12-31-22	LOC
2.4 Belle Center will develop a multi-part communication system to notify all residents of protective action orders, warnings and notifications, and other critical lifesaving information related to specific disaster incidents when necessary.					
16	Public Information	Mayor	7-1-17	12-31-22	LOC
2.5 Belle Center will develop interoperable communications plans to coordinate life-saving efforts between all community partners during severe incidents.					
17	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 3: BELLE CENTER WILL EMPLOY MITIGATION ACTIONS TO REDUCE THE DAMAGES INCURRED FROM SEVERE WIND STORMS THAT INCLUDE STRAIGHT LINE WINDS AND TORNADOES.</b>					
3.1 Belle Center will advocate for proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
18	Property Protection	Mayor	7-1-17	12-31-22	LOC
3.2 Belle Center will implement a program to clear areas of crop debris and other debris after storms to keep obstructions out of storm sewers and culverts.					
19	Property Protection	Mayor	7-1-17	12-31-22	LOC
3.3 Belle Center will support the construction of safe rooms for single and multi-family homes without basements or other shelters.					
20	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
3.4 Belle Center will identify and establish locations to be used as community centers during extended power outages or extreme conditions.					
21	Public Information	Mayor	7-1-17	12-31-22	LOC

**GOAL 4: BELLE CENTER WILL EMPLOY MITIGATION ACTIONS THAT REDUCE DAMAGES FROM UTILITY OUTAGES AND SUPPLY SHORTAGES.**

4.1 Belle Center will encourage the hardening of utilities through installation below grade, improvements to supply lines and generation plants, and upgrade of poles, substations and transformers.					
22	Property Protection	Mayor	7-1-17	12-31-22	LOC Private
4.2 Belle Center will identify and establish alternate heating fuels, potable water suppliers, alternate power sources and other critical supplies necessary for sustaining life, business, and safety during power outages.					
23	Prevention	Mayor	7-1-17	12-31-22	PDM HMGP

**GOAL 5: BELLE CENTER WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE THE EROSION OF TOPSOIL AND INFRASTRUCTURE DUE TO RAPID RUNOFF, LAND USE, OR HUMAN CAUSED INCIDENTS.**

5.1 Belle Center will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundation or abutments, or other deterioration due to extreme runoff or highly vulnerable soil types					
24	Property Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 6: BELLE CENTER WILL CONDUCT MITIGATION ACTIONS TO REDUCE THE VULNERABILITY OF ITS POPULATION TO DAMAGES AND CASUALTY DUE TO ALL TYPES OF DISASTERS AND SEVERE STORMS**

6.1 Belle Center will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications of severe weather and other hazards.					
25	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
6.2 Belle Center will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life threatening storms or emergency incidents.					
26	Public Information	Mayor	7-1-17	12-31-22	LOC
6.3 Belle Center will remove dead or diseased trees along waterways and in the public domain.					

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
27	Property Protection	Mayor	7-1-17	12-31-22	LOC
6.4 Belle Center will establish water conservation procedures to be implemented during water emergencies due to drought or contamination.					
28	Natural Resource Protection	Mayor	7-1-17	12-31-22	LOC
6.5 Belle Center will improve capacity to rapidly place temporary warning signs that indicate dangerous road conditions.					
29	Prevention	Mayor	7-1-17	12-31-22	LOC

### 3.3.3 Bellefontaine

Bellefontaine is the county seat of Logan County, and the only city in the county. It is centrally located on some of the highest elevations in not only Logan County, but the entire state of Ohio. Therefore, it is vulnerable to wind damage, including both straight-line and rotational winds, and that was determined to be the most significant threat. The city is slightly hilly, and therefore is vulnerable to some flash flooding in low spots, although residents did not rank floods as any of their top concerns. The city endures great difficulty during power outages because business and industry as well as retail businesses must close, and start up afterwards is not instantaneous. Shut downs are economically expensive and disruptive, oftentimes requiring a lengthy time period to re-start. Communication with the public can be challenging because many residents work at automotive plants outside the county, and because communication systems are not all interoperable or common. There are locations in the community that are not adequately covered by digital infrastructure. The rolling topography in some areas makes rapid runoff damaging as it erodes berms and undercuts foundations and roads. Additional highways, widened existing roadways, and large paved areas have increased the runoff amounts, and therefore some flash flooding and additional washouts of berms, culverts, and other infrastructure is not uncommon.

Bellefontaine ranked hazards, from most threatening to least, as follows: wind, utility outages, communication and public notification failure, flooding (mostly flash flooding), general severe storm damage (by a combination of hail, rain, wind, ice, snow, and lightning), and erosion.

**Table 3-4: Bellefontaine Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: BELLEFONTAINE WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES.</b>					
1.1 Bellefontaine will advocate proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
1	Nat. Resource Protection	City Engineer	7-1-17	12-31-22	LOC
1.2 Bellefontaine will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
2	Property Protection	Safety Service Dir.	7-1-17	12-31-22	LOC PDM
1.3 Bellefontaine will implement a program to clear areas of debris after severe wind and flooding to keep culverts and storm sewers free-running and clear.					

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
3	Prevention	City Engineer	7-1-17	12-31-22	LOC
1.4 Bellefontaine will encourage damage resistant building materials and construction techniques so structures are as resistant as possible to wind damage.					
4	Property Protection	City Engineer	7-1-17	12-31-22	LOC ICC

**GOAL 2: BELLEFONTAINE WILL EMPLOY MITIGATION ACTIONS THAT REDUCE DAMAGES FROM UTILITY OUTAGES AND SUPPLY SHORTAGES.**

2.1 Bellefontaine will encourage the hardening of utilities through installation below grade, improvements to supply line and generations plants, and upgrade of poles, substations and transformers.

5	Property Protection	City Engineer	7-1-17	12-31-22	LOC
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2.2 Bellefontaine will identify and establish alternate heating fuels, potable water suppliers, alternate power sources, and other crucial supplies necessary for sustaining life, business, and safety during extended power outages, with emphasis upon continuity for critical operations.

6	Property Protection	City Engineer	7-1-17	12-31-22	LOC HSGP/EMPG
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**GOAL 3: BELLEFONTAINE WILL COMPLETE MITIGATION ACTIONS THAT ENABLE RAPID AND EFFECTIVE COMMUNICATION DURING A DISASTER INCIDENT FOR THE PURPOSE OF DIRECTING THE POPULATION TO TAKE PROTECTIVE ACTIONS AND TO FOLLOW OPERATIONAL PROCEDURES AS WELL AS ENABLE RESPONDERS TO COMMUNICATE WITH ONE ANOTHER.**

3.1 Bellefontaine will develop a multi-part communication system to notify all residents of protective action orders, warnings and notifications, and other critical lifesaving information related to specific disaster incidents when necessary.

7	Public Information	Safety Service Dir.	7-1-17	12-31-22	LOC HSGP/EMPG PDM
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3.2 Bellefontaine will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.

8	Public Information	Safety Service Dir.	7-1-17	12-31-22	LOC HSGP/EMPG
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3.3 Bellefontaine will educate the public about local disaster hazards, vulnerabilities, protective actions, services, vulnerable populations, available assistance, and emergency procedures using mass and social media, printed information and other options.

9	Public Information	Safety Service Dir.	7-1-17	12-31-22	LOC HSGP/EMPG
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3.4 Bellefontaine will develop, utilize, and maintain a communication plan to include mass media, social media, and direct contact before, during and after incidents.

10	Public Information	Safety Service Dir.	7-1-17	12-31-22	LOC EMGP/HSGP
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3.5 Bellefontaine will work to improve parcel location mapping to facilitate locating and responding to emergency and disaster calls in a rapid and effective way, as well as to facilitate the use of mutual aid resources when necessary as assistance to responders and dispatchers.

11	Public Information	City Engineer	7-1-17	12-31-22	LOC
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3.6 Bellefontaine will improve GIS mapping to include infrastructure and utility mapping, and expand the customization capability of software to produce data that is useful in community planning.

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
12	Public Information	City Engineer	7-1-17	12-31-22	LOC
3.7 Bellefontaine will work to develop enhanced methods of cross-discipline and interjurisdictional planning efforts to create whole community efforts to improve communities and expand disaster resilience.					
13	Public Information	Safety Service Dir.	7-1-17	12-31-22	LOC

**GOAL 4: BELLEFONTAINE WILL ENGAGE MITIGATION ACTIONS THAT REDUCE THE DAMAGES FROM FLOODING, WITH AN EMPHASIS UPON FLASH FLOODING.**

4.1 Bellefontaine will maintain NFIP participation through regular review of flood maps and sustain engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
14	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.2 Bellefontaine will advocate and support flood insurance where required by adopted federal flood maps.					
15	Property Protection	Safety Service Dir.	7-1-17	12-31-22	LOC
4.3 Bellefontaine will use financial aid for flood mitigation through grants, fees, and other special programs.					
16	Prevention	Safety Service Dir.	7-1-17	12-31-22	LOC
4.4 Bellefontaine will adopt new and maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster resistant structures in all areas.					
17	Prevention	City Engineer	7-1-17	12-31-22	LOC
4.5 Bellefontaine will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
18	Property Protection	City Engineer	7-1-17	12-31-22	LOC Other
4.6 Bellefontaine will remove debris and obstructions from waterways to facilitate drainage.					
19	Property Protection	City Engineer	7-1-17	12-31-22	LOC
4.7 Bellefontaine will make improvement to roads and infrastructure including increases in size of bridge spans and culverts, repair of shoulders and berms, maintenance of bridge slopes and protection of roadways from storms and flood damage, to enhance the likelihood of open roadways even after severe flooding and damaging storms.					
20	Property Protection	City Engineer	7-1-17	12-31-22	LOC
4.8 Bellefontaine will require retention and detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
21	Structurally Engineered	City Engineer	7-1-17	12-31-22	LOC PDM
4.9 Bellefontaine will utilize elevation to protect critical infrastructure and property from flooding.					
22	Property Protection	City Engineer	7-1-17	12-31-22	LOC PDM
4.10 Bellefontaine will help study countywide storm water vulnerability to reduce flood damages to properties due to flooding through improvement to wastewater systems and wastewater management to prevent downstream flooding.					
23	Property Protection	City Engineer	7-1-17	12-31-22	LOC
4.11 Bellefontaine will remove debris fallen trees and excess sediment from waterways to improve their condition.					
24	Property Protection	City Engineer	7-1-17	12-31-22	LOC ICC
4.12 Bellefontaine will study the likelihood of dam failure where it would have a negative effect on city property and residents.					
25	Property Protection	Safety Service Dir.	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
4.13 Bellefontaine will implement improvements to ditch maintenance to facilitate the natural drainage of storm water and to identify damages to streams and ditches such as sedimentation and erosion.					
26	Natural Resource Protection	City Engineer	7-1-17	12-31-22	LOC
4.14 Bellefontaine will properly maintain dams, spillways, and up-ground reservoirs to lessen the likelihood of structural failure and flooding due to poor maintenance.					
27	Property Protection	City Engineer	7-1-17	12-31-22	LOC
4.15 Bellefontaine will acquire and demolish properties that flood repeatedly to relocate residents out of flood risk areas, and to restore the property to a natural habitat maintained as such into perpetuity.					
28	Prevention	City Engineer	7-1-17	12-31-22	LOC PDM/HMGP FMA/SRL CDBG
4.16 Bellefontaine will create vegetative buffer zones, wetlands, and natural habitat in low-lying areas to hold excess runoff until it drains downstream.					
29	Property Protection	City Engineer	7-1-17	12-31-22	LOC

**GOAL 5: BELLEFONTAINE WILL CONDUCT MITIGATION ACTIONS TO REDUCE THE VULNERABILITY OF ITS POPULATION TO DAMAGES AND CASUALTY DUE TO ALL TYPES OF DISASTERS AND SEVERE STORMS.**

5.1 Bellefontaine will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications of severe weather and other hazards.					
30	Public Information	Safety Service Dir.	7-1-17	12-31-22	HSGP/EMPG PDM
5.2 Bellefontaine will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life threatening storms or emergency incidents.					
31	Public Information	Safety Service Dir.	7-1-17	12-31-22	LOC HSGP/EMPG
5.3 Bellefontaine will implement a program to identify and remove dead or diseased trees along waterways and in the public domain.					
32	Property Protection	City Engineer	7-1-17	12-31-22	LOC
5.4 Bellefontaine will establish water conservation procedures to be implemented during a water emergency or drought.					
33	Natural Resource Protection	City Engineer	7-1-17	12-31-22	LOC
5.5 Bellefontaine will improve capacity to rapidly place temporary warning signs that indicate dangerous road conditions.					
34	Prevention	Street Superintendent	7-1-17	12-31-22	LOC

**GOAL 6: BELLEFONTAINE WILL ENGAGE MITIGATION ACTIONS THAT REDUCE THE EROSION OF TOPSOIL AND INFRASTRUCTURE DUE TO RAPID RUNOFF, LAND USE, OR HUMAN CAUSED INCIDENTS.**

6.1 Bellefontaine will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundation or abutments, or other deterioration due to extreme runoff or highly vulnerable soil types.					
35	Natural Resource Protection	City Engineer	7-1-17	12-31-22	LOC
6.2 Bellefontaine will protect waterways by reducing slope erosion and sedimentation through conservation measure such as use of cover plants, grassy waterways, filter strips, and buffers.					
36	Natural Resource Protection	City Engineer	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
6.3	Bellefontaine will protect open areas and parks from wind erosion through use of windbreaks, buffers, tree lines, and other vegetation to protect topsoil during high wind events and after heavy precipitation.				
37	Natural Resource Protection	Park Superintendent	7-1-17	12-31-22	LOC

### 3.3.4 DeGraff

This small village sits in the southwest corner of Logan County, and many residents work in area factories and industries. It is vulnerable to flooding and wind, and can become isolated from the rest of the county due to distance and priorities based upon population. This self-sufficient community has developed and ranked the strategies that follow, prioritizing water and wind as the most destructive forces.

**Table 3-5: DeGraff Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: DEGRAFF WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE THE DAMAGES FROM RIVERINE AND FLASH FLOODING.</b>					
1.1 DeGraff will maintain NFIP participation through regular review of flood maps and sustain engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
1	Prevention	Mayor	7-1-17	12-31-22	LOC
1.2 DeGraff will advocate and support flood insurance where required.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.3 DeGraff will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster resistant structures in all areas.					
3	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.4 DeGraff will use financial aid for flood mitigation through grants, fees, and other special programs.					
4	Prevention	Mayor	7-1-17	12-31-22	LOC PDM/FMA HMGP
1.5 DeGraff will advocate for removal of debris, fallen diseased trees, and excess sediment and to improve river maintenance.					
5	Natural Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.6 DeGraff will implement improvements to ditch maintenance to reduce sedimentation and erosion.					
6	Natural Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.7 DeGraff will maintain, replace or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to less flash flooding.					
7	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.8 DeGraff will remove debris and obstructions from ditches and streams.					
8	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.9 DeGraff will utilize elevation to protect critical infrastructure and property from flooding.					
9	Property Protective	Mayor	7-1-17	12-31—22	LOC PDM

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 2: DEGRAFF WILL EMPLOY MITIGATION ACTIONS TO REDUCE THE DAMAGES FROM SEVERE WIND STORMS THAT INCLUDE STRAIGHT LINE WINDS AND TORNADOES.</b>					
2.1 DeGraff will advocate proper trimming of trees and vegetation to include damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
10	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.2 DeGraff will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
11	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
<b>GOAL 3: DEGRAFF WILL CONDUCT MITIGATION ACTIONS TO REDUCE THE VULNERABILITY OF ITS POPULATION TO DAMAGES AND CASUALTY DUE TO ALL TYPES OF DISASTERS AND SEVERE STORMS.</b>					
3.1 DeGraff educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergency incidents.					
12	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
3.2 DeGraff will maintain and improve hardware, software and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
13	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
<b>GOAL 4: DEGRAFF WILL EMPLOY MITIGATION ACTIONS THAT REDUCE DAMAGES FROM UTILITY OUTAGES AND SUPPLY SHORTAGES.</b>					
4.1 DeGraff will encourage the hardening of utilities through installation below grade, improvements to supply lines and generation plants, and upgrade of poles, substations, and transformers.					
14	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
<b>GOAL 5: DEGRAFF WILL CONDUCT MITIGATION ACTIONS THAT ENABLE RAPID AND EFFECTIVE COMMUNICATION DURING A DISASTER FOR THE PURPOSE OF DIRECTING THE POPULATION TO TAKE PROTECTIVE ACTION AND FOLLOW OPERATIONAL PROCEDURES.</b>					
5.1 DeGraff will develop a multi-part communication system to notify all residents of protective action orders, warnings and notification, and other critical lifesaving information.					
15	Public Information	Mayor	7-1-17	12-31-22	LOC
5.2 DeGraff will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.					
16	Public Information	Mayor	7-1-17	12-31-22	LOC
5.3 DeGraff will educate the public about local disaster hazards, vulnerabilities, protective actions, services, vulnerable populations, available assistance and emergency procedures using mass and social media, printed information and other options.					
17	Public Information	Mayor	7-1-17	12-31-22	LOC
5.4 DeGraff will develop, utilize, and maintain a communication plan to include mass media, social media, and director contact with residents before, during and after incidents.					
18	Public Information	Mayor	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 6: DEGRAFF WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE THE EROSION OF TOPSOIL DUE TO FLOODING, WIND, LAND USE OR HUMAN-CAUSED INCIDENTS.</b>					
6.1 DeGraff will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundations or abutments, or other deterioration due to extreme runoff or specific highly vulnerable soil types.					
19	Property Protection	Mayor	7-1-17	12-31-22	LOC

### 3.3.5 Huntsville

This village is located northwest of Bellefontaine in the north central part of Logan County. As a small rural community, it can get isolated from resources and overlooked because of its small size. The village is prone to damage from wind and flooding, and preparedness in general is very important. In an effort to protect its residents and properties, they have developed the mitigation strategies that follow.

**Table 3-6: Huntsville Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: HUNTSVILLE WILL EMPLOY MITIGATION ACTIONS TO REDUCE THE DAMAGES INCURRED FROM SEVERE WIND STORMS THAT INCLUDE STRAIGHT LINE WINDS AND TORNADOES.</b>					
1.1 Huntsville will advocate proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.2 Huntsville will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
1.3 Huntsville will encourage damage-resistant building materials and techniques so structures are as resistant as possible to wind damage.					
3	Property Protection	Mayor	7-1-17	12-31-22	LOC
<b>GOAL 2: HUNTSVILLE WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING.</b>					
2.1 Huntsville will consider joining NFIP as a way to make more flood protection available to the community and to prevent future damages through floodplain regulation.					
4	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.2 Huntsville will advocate and support flood insurance where required.					
5	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.3 Huntsville will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
2.4 Huntsville will use financial aid for flood mitigation through grants, fees, and other special programs.					
7	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
2.5 Huntsville will participate in countywide storm water vulnerability study to improve wastewater systems and field tiling practices to limit damage from runoff water.					

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
8	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
2.6 Huntsville will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
9	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
2.7 Huntsville will remove debris and obstructions from ditches and streams.					
10	Natural Resource Protection	Mayor	7-1-17	12-31-22	LOC
2.8 Huntsville will utilize elevation to protect critical infrastructure and property from flooding.					
11	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM

**GOAL 3: HUNTSVILLE WILL EMPLOY MITIGATION ACTIONS THAT REDUCE DAMAGES FROM UTILITY OUTAGES AND SUPPLY SHORTAGES.**

3.1 Huntsville will encourage the hardening of utilities through installation below grade, improvements to supply lines and generation plants, and upgrade of poles, substations and transformers.

12	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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3.2 Huntsville will identify and establish alternate heating fuels, potable water suppliers, alternate power sources, and other critical supplies necessary for sustaining life, business, and safety during power outages.

13	Property Protection	Mayor	7-1-17	12-31-22	LOC
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**GOAL 4: HUNTSVILLE WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES.**

4.1 Huntsville will expand and improve its public warning and notification capability through additional or improved outdoor warning sirens, improvements to the software used in these systems, or enhanced public education regarding warning and notification of protection orders or warnings.

16	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP EMPG
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4.2 Huntsville will educate the public about local digital warning and notification systems that inform them of incoming severe weather and life-threatening incidents.

17	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP/EMPG
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**GOAL 5: HUNTSVILLE WILL COMPLETE MITIGATION ACTIONS THAT ENABLE RAPID AND EFFECTIVE COMMUNICATION DURING A DISASTER INCIDENT FOR THE PURPOSE OF DIRECTING THE POPULATION TO TAKE PROTECTIVE ACTION AND FOLLOW OPERATIONAL PROCEDURES.**

5.1 Huntsville will educate the public about all relevant disaster hazards and vulnerabilities, protective actions, available services, vulnerable populations and available assistance and other emergency procedures using a variety of means to include print and spoken media, digital resources, and other appropriate local resources.

18	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP/EMPG
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5.2 Huntsville will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
19	Public Information	Fire Chief	7-1-17	12-31-22	LOC
5.3 Huntsville will develop, utilize and maintain a communication plan to include mass media, social media, and direct contact with residents before, during and after incidents.					
20	Public Information	Fire Chief	7-1-17	12-31-22	LOC

**GOAL 6: HUNTSVILLE WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION**

6.1 Huntsville will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundation or abutments, or other deterioration due to extreme runoff or highly vulnerable soil types.					
21	Property Protection	Mayor	7-1-17	12-31-22	LOC

### 3.3.6 Lakeview

Lakeview sits in the far northwest of Logan County on the western shore of Indian Lake. It is a tourist area during warmer months, bringing thousands of tourists to the area to enjoy the recreation opportunities. The community is vulnerable to flooding, heavy rain, and severe winter storms as well as power outages. The population grows considerably during warmer months at the same time of year as severe storms are on the increase. Lakeview is concerned about public information as a transient population brings difficulty in notifying them of impending severe weather. The village is governed by a council and mayor. The mayor will lead mitigation efforts.

**Table 3-7: Lakeview Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: LAKEVIEW WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING.</b>					
1.1 Lakeview will maintain NFIP participation through regular review of flood maps and sustain engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
1	Property Protection	Mayor	7-1-17	12-31-22	PDM/FMA LOC
1.2 Lakeview will advocate and support flood insurance where required.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.3 Lakeview will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures.					
3	Prevention	Mayor	7-1-17	12-31-22	LOC
1.4 Lakeview will use financial aid for flood mitigation through grants, fees, and other special programs.					
4	Prevention	Mayor	7-1-17	12-31-22	LOC PDM/FMA
1.5 Lakeview will advocate removal of debris, fallen diseased trees, and excess sediment from rivers and to improve river maintenance.					
5	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
1.6 Lakeview will study the likelihood of potential impact of dam failure that may have negative outcomes on the community.					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.7 Lakeview will implement improvements to the ditch maintenance program to reduce sedimentation and erosion.					
7	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.8 Lakeview will remove debris and obstructions from ditches and streams.					
8	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC
1.9 Lakeview will acquire and demolish properties that flood repeatedly to relocate them out of the flood risk area, and to restore property to a natural habitat maintained as such into perpetuity.					
9	Prevention	Mayor	7-1-17	12-31-22	LOC FMA/PDM
1.10 Lakeview will create vegetative buffer zones, wetlands, and natural habitat in low-lying areas to hold excess runoff until it drains downstream naturally.					
10	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM/FMA
1.11 Lakeview will properly maintain dams and spillways to lessen the likelihood of structural failure and flooding due to poor maintenance.					
11	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
1.12 Lakeview will maintain, replace or add storm sewers wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
12	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC
1.13 Lakeview will require retention/detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
13	Property Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 2: LAKEVIEW WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES.**

2.1 Lakeview will advocate and support, and implement on village-owned property, the proper maintenance of trees and vegetation to reduce damages caused by high winds or tornadoes					
14	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.2 Lakeview will advocate for and support the creation of safe rooms for vulnerable locations, including single and multi-family homes and neighborhoods without basements or shelters.					
15	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
2.3 Lakeview will maintain and enforce local land use regulations in an effort to reduce storm damages to properties.					
16	Prevention	Mayor	7-1-17	12-31-22	LOC ICC

**GOAL 3: LAKEVIEW WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES**

3.1 Lakeview will establish redundant suppliers of heating fuels, potable water, and other utility needs and will identify and facilitate availability and proper use of generators as an alternate power source.					
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Priority	Action Type	Lead Agency	Start Date	End Date	Funding
17	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
3.2 Lakeview will encourage the hardening of utilities through damage resistant installation below grade, improvements to supply lines and generations plants, and upgrade of substations and transformers.					
18	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC

**GOAL 4: LAKEVIEW WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES**

4.1 Lakeview will improve capacity to rapidly place temporary warning signs that indicate dangerous road conditions.

24	Public Information	Fire Chief	7-1-17	12-31-22	LOC
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4.2 Lakeview will establish water conservation procedures to be implemented during water emergencies due to drought or contamination.

25	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC
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4.3 Lakeview will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergencies.

26	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
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4.4 Lakeview will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.

27	Public Information	Fire Chief	7-1-17	12-31-22	LOC Other
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4.5 Lakeview will implement a program to identify and remove dead or diseased trees along waterways and in the public domain.

28	Property Protection	Mayor	7-1-17	12-31-22	LOC
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**GOAL 5: LAKEVIEW WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY**

5.1 Lakeview will educate the public about all relevant disaster hazards and vulnerabilities, protective actions, available services, vulnerable populations and available assistance and other emergency procedures using a variety of means to include print and spoken media, digital resources, and other appropriate local resources.

29	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP/EMPG
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5.2 Lakeview will develop a multi-part communication system to notify all residents of protective action orders, warning and notification, and other critical lifesaving information.

30	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP/EMPG
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5.3 Lakeview will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.

31	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP/EMPG
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5.4 Lakeview will develop, utilize, and maintain a communication plan to include mass media, social media, and direct contact with residents before, during and after incidents.

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
32	Public Information	Fire Chief	7-1-17	12=31=22	LOC EMPG/HSGP

**GOAL 6: LAKEVIEW WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION.**

6.1 Lakeview will protect shorelines and riverbanks from wind, water and other hazards that cause erosion or degradation through stabilization techniques like lining with rip-rap or large stone.

33	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC/PDM
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6.2 Lakeview will protect roadways vulnerable to compromised structure integrity, damaged berms, washed away foundations or abutments, or other deterioration due to severe storms.

34	Property Protection	Mayor	7-1-17	12-31-22	LOC
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### 3.3.7 Quincy

This small village situated in the far southwest corner of Logan County, close to the Champaign and Shelby county lines. This small community is home to residents who work in area businesses and industries, and take pride in their quiet self-sufficient community. Quincy is governed by a mayor and council, and mitigation actions will be championed and implemented by the mayor with council's assistance.

**Table 3-8: Quincy Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
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**GOAL 1: QUINCY WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES.**

1.1 Quincy will advocate and support, and implement on village-owned property, the proper maintenance of trees and vegetation to reduce damages caused by high winds or tornadoes

1	Property Protection	Mayor	7-1-17	12-31-22	LOC
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1.2 Quincy will advocate for and support the creation of safe rooms for vulnerable locations, including single and multi-family homes and neighborhoods without basements or shelters

2	Property Protection	Mayor	7-1-17	12-31-22	PDM LOC
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1.3 Quincy will implement a program to clear areas of debris after severe wind and flooding to keep crop fodder and debris out of water treatment plants, sewers, transportation routes, and other infrastructure, and to keep roadways open and usable as soon as possible after storms.

3	Property Protection	Mayor	7-1-17	12-31-22	LOC
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1.4 Quincy will maintain and enforce land use regulations in an effort to reduce storm damages to properties.

4	Prevention	Mayor	7-1-17	12-31-22	LOC
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**GOAL 2: QUINCY WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES**

2.1 Quincy will encourage the hardening of utilities through damage resistant installation below grade, improvements to supply lines and generations plants, and upgrade of substations and transformers

5	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC Other
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Priority	Action Type	Lead Agency	Start Date	End Date	Funding
2.2 Quincy will establish redundant suppliers of heating fuels, potable water, and other utility needs and will identify and facilitate availability and proper use of generators as an alternate power source					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 3: QUINCY WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES.**

3.1 Quincy will educate the public about local digital warning and notification systems that inform them of incoming severe weather and life-threatening incidents					
7	Public Information	Fire Chief	7-1-17	12-31-22	LOC HSGP/EMPG
3.2 Quincy will develop and implement a program to assist in the removal of dead or diseased trees along waterways and roadways that have been affected by Emerald Ash Borer and other invasive species.					
8	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
3.3 Quincy will help farms reduce losses after severe storms, power outages, or hazardous materials incidents by supporting farmer's needs through clearing roads for ongoing ingress and egress to farms, and assisting with other issues of importance to agriculture.					
9	Property Protection	Mayor	7-1-17	12-31-22	LOC Other
3.4 Quincy will help farms identify protective measures needed to protect equipment, facilities, and operations from storm damages.					
10	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
3.5 Quincy will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
11	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
3.6 Quincy will improve capacity to rapidly place temporary warning signs that indicate dangerous road conditions.					
12	Property Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 4: QUINCY WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING**

4.1 Quincy will maintain NFIP participation through regular review of flood maps and sustain engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
13	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.2 Quincy will advocate and support flood insurance where required.					
14	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
4.3 Quincy will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
13	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.4 Quincy will use financial aid for flood mitigation through grants, fees, and other special programs.					
15	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
4.5 Quincy will advocate removal of debris, fallen diseased trees, and excess sediment from rivers to improve river maintenance.					
16	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
4.6 Quincy will participate in storm water vulnerability study to improve wastewater systems and field tiling practices to limit damages from runoff water.					
17	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.7 Quincy will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
18	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC ICC
4.8 Quincy will remove debris and obstructions from ditches and streams.					
19	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.9 Quincy will require retention and detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
20	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM
4.10 Quincy will utilize elevation to protect critical infrastructure and property from flooding.					
21	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM
4.11 Quincy will acquire and demolish properties that flood repeatedly to relocate residents out of flood risk areas, and restore property to a natural habitat maintained as such into perpetuity.					
22	Prevention	Mayor	7-1-17	12-31-22	LOC PDM/FMA
4.12 Quincy will create vegetative buffer zones, wetlands, and natural habitat in low-lying areas to hold excess runoff until it drains downstream naturally.					
23	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
4.13 Quincy will study the likelihood and potential impact of dam failure that may impact the village.					
24	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.14 Quincy will properly maintain dams, spillways, and up-ground reservoirs to lessen the likelihood of structural failure and flooding due to poor maintenance.					
25	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.15 Quincy will support improvement to roads and infrastructure including an increase in bridge spans, repair of shoulders and berms, increase in culvert size, maintenance of bridge slopes and protection of roadways from storm and flood damages, to enhance the likelihood of open roadways even after severe flooding and drainage.					
26	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.16 Quincy will support efforts to replace deteriorated tiles, plant cover crops, utilize conservation tillage, install tile control structures where feasible, and use filter strips for slope protection.					
27	Property Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 5: QUINCY WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION.**

5.1 Quincy will protect roadways vulnerable to compromised structure integrity, damaged berms, washed away foundations or abutments, or other deterioration due to severe storms

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
28	Property Protection	Mayor	7-1-17	12-31-22	LOC
5.2 Quincy will protect waterways by reducing slope erosion, land subsidence, and wind damage through cover plants, vegetation, grassy waterways, filter strips, buffers, and such.					
29	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC PDM
5.3 Quincy will establish conservation procedures to be used during water emergencies or shortages due to drought or contaminated water supplies					
30	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC

**GOAL 6: QUINCY WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY.**

6.1 Quincy will educate the public about all relevant disaster hazards and vulnerabilities, protective actions, available services, vulnerable populations and available assistance and other emergency procedures using a variety of means to include print and spoken media, digital resources, and other appropriate local resources					
31	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
6.2 Quincy will develop a multi-part communication system to notify all residents of protective action orders, warnings and notification, and other critical lifesaving information.					
32	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
6.3 Quincy will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.					
33	Public Information	Mayor	7-1-17	12-31-22	LOC
6.4 Quincy will improve parcel location mapping to facilitate locating and responding to emergency and disaster calls in a rapid and effective way, as well as to facilitate the use of mutual aid resources when necessary as assistance to responders and dispatchers.					
34	Public Information	Mayor	7-1-17	12-31-22	LOC
6.5 Quincy will improve GIS mapping to include infrastructure and utility mapping, and expand the customizations capability of software to produce data that is useful in community planning.					
35	Public Information	Mayor	7-1-17	12-31-22	LOC
6.6 Quincy will work to develop enhanced methods of cross-discipline and interjurisdictional planning efforts to create whole community efforts to improve communities and expand disaster resilience.					
36	Public Information	Mayor	7-1-17	12-31-22	LOC
6.7 Quincy will develop, utilize, and maintain a communication plan to include mass media, social media, and direct contact with residents before, during, and after incidents.					
37	Public Information	Mayor	7-1-17	12-31-22	LOC

### 3.3.8 Rushsylvania

Rushsylvania sites in the northeast quadrant of Logan County, and is surrounded by farms in Rushcreek Township. The small village is concerned about windstorms and general storm damage, and is exposed to some flooding, especially flash flooding, after heavy precipitation. The slightly rolling terrain is subject to some utility outages and erosion. Rushsylvania is governed by a mayor and council form of government, and the mayor will take on mitigation strategies as part of her duties.

**Table 3-9: Rushsylvania Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: RUSHSYLVANIA WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES</b>					
1.1 Rushsylvania will advocate and support the proper maintenance of trees and vegetation to reduce damages caused by high winds or tornadoes					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.2 Rushsylvania will advocate for and support the creation of safe rooms single and multi-family homes and neighborhoods without basements or shelters.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
<b>GOAL 2: RUSHSYLVANIA WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES</b>					
2.1 Rushsylvania will educate the public about all relevant disaster hazards and vulnerabilities, protective actions, available services, vulnerable populations and available assistance and other emergency procedures using a variety of means to include print and spoken media, digital resources, and other appropriate local resources					
3	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
2.2 Rushsylvania will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
4	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
2.3 Rushsylvania will implement a program to identify and remove dead or diseased trees along waterways and in the public domain.					
5	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
<b>GOAL 3: RUSHSYLVANIA WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING</b>					
2.1 Rushsylvania will consider joining NFIP as a way to make more flood protection available to the community and to prevent future damages through floodplain regulation.					
5	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.2 Rushsylvania will advocate and support flood insurance where required.					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
2.3 Rushsylvania will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
7	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
2.4 Rushsylvania will use financial aid for flood mitigation through grants, fees, and other special programs.					
8	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM/FMA
2.5 Rushsylvania will advocate for proper maintenance of dams and spillways to lessen the likelihood of structural failure and flooding due to poor maintenance.					

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
9	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.6 Rushsylvania will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
10	Property Protection	Mayor	7-1-17	12-31-22	LOC CDBG
2.7 Rushsylvania will remove debris and obstructions from ditches and streams.					
11	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
2.8 Rushsylvania will require retention/detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
12	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM
2.9 Rushsylvania will utilize elevation to protect critical infrastructure and property from flooding.					
13	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC PDM/FMA
2.10 Rushsylvania will acquire and demolish properties that flood repeatedly to relocate them out of flood risk areas, and restore property to a natural habitat maintained as such into perpetuity.					
14	Prevention	Mayor	7-1-17	12-31-22	LOC PDM/HMGP
2.11 Rushsylvania will create vegetative buffer zones, wetlands, and natural habitat in low-lying areas to hold excess runoff until it drains downstream naturally.					
15	Property Protection	Mayor	7-1-17	12-31-22	LOC

#### **GOAL 4: RUSHSYLVANIA WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES**

3.1 Rushsylvania will encourage the hardening of utilities through damage resistant installation below grade, improvements to supply lines and generations plants, and upgrade of substations and transformers					
16	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
3.2 Rushsylvania will establish redundant suppliers of heating fuels, potable water, and other utility needs and will identify and facilitate availability and proper use of generators as an alternate power source					
17	Property Protection	Mayor	7-1-17	12-31-22	LOC Other

#### **GOAL 5: RUSHSYLVANIA WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY**

5.1 Rushsylvania will educate the public about all relevant disaster hazards and vulnerabilities, protective actions, available services, vulnerable populations and available assistance and other emergency procedures using a variety of means to include print and spoken media, digital resources, and other appropriate resources					
18	Public Information	Mayor	7-1-17	12-31-22	LOC
5.2 Rushsylvania will develop a multi-part communication system to notify all communities of protective actions orders, warnings and notifications, and other critical lifesaving information.					
19	Public Information	Mayor	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
5.3 Rushsylvania will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.					
20	Public Information	Mayor	7-1-17	12-31-22	LOC
5.4 Rushsylvania will develop, utilize, and maintain a communication plan to include mass media, social media, and direct contact with residents before, during and after incidents.					
21	Public Information	Mayor	7-1-17	12-31-22	LOC

**GOAL 6: RUSHSYLVANIA WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION**

6.1 Rushsylvania will protect waterways by reducing slope erosion, land subsidence and wind damage through cover plants, vegetation, grassy waterways, filter strips, buffers and such.					
22	Property Protection	Mayor	7-1-17	12-31-22	LOC
6.2 Rushsylvania will establish conservation procedures to be used during water emergencies or shortages due to drought or contaminated water supplies					
23	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC

### 3.3.9 Russells Point

Russells Point is part of an inland lake community in the far northwest of Logan County. Sitting at the mid-southern edge of Indian Lake, these residents welcome thousands of tourists in warmer months to enjoy boating, swimming and fishing on the man-made body of water. As such, there are many roads and streets on the waterfront and hundreds of cottages and cabins, as well as mobile and recreational vehicle homes, on the shores of the lake. This community, along with Lakeview and the unincorporated areas circling Indian Lake, make up a neighborhood of resilient and hard-working people who live on the edge of a productive agricultural township or two. They are most concerned about flooding, wind, and utilities, although generally severe storms, communication with the rest of the county as well as their transient population, and erosion round out their concerns.

Russells Point is governed by a village mayor and council, and the mayor will assume responsibility for championing the mitigation strategies.

**Table 3-10 Russells Point Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: RUSSELLS POINT WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING.</b>					
1.1 Russells Point will maintain NFIP participation through regular review of flood maps and sustain engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.2 Russells Point will advocate and support flood insurance where required.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
1.3 Russells Point will maintain existing building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
3	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.4 Russells Point will use financial aid for flood mitigation through grants, fees, and other special programs.					
4	Property Protection	Mayor	7-1-17	12-31-22	PDM FMA/SRL LOC
1.5 Russells Point will advocate for removal of debris, fallen diseased trees, and excess sediment from rivers and to improve river maintenance.					
5	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.6 Russells Point will study the likelihood and potential impact of dam failure that may impact the jurisdiction if it were to occur.					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.7 Russells Point will implement improvements to the ditch maintenance program to reduce sedimentation and erosion.					
7	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.8 Russells Point will remove debris and obstructions from ditches and streams.					
8	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC
1.9 Russells Point will require retention and detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
9	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM/FMA
1.10 Russells Point will utilize elevation to protect critical infrastructure and property from flooding.					
10	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM/FMA
1.11 Russells Point will utilize channel modification and diversion to eliminate areas where flooding is highly destructive and no other option is feasible to decrease the flood damage.					
11	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM/FMA
1.12 Russells Point will participate in storm water vulnerability study to improve wastewater systems and field tiling practices to limit damages from runoff water.					
12	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.13 Russells Point will properly maintain dams and spillways to lessen the likelihood of failure and flooding due to poor maintenance.					
13	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.14 Russells Point will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
14	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.15 Russells Point will support efforts to replace deteriorated tiles, plant cover crops, utilize conservation tillage, install tile control structures where feasible and use filter strips for slope protection					
15	Property Protection	Mayor	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 2: RUSSELLS POINT WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES</b>					
2.1 Russells Point will advocate and support, and implement on village-owned property, the proper maintenance of trees and vegetation to reduce damages caused by high winds or tornadoes					
17	Property Protection	Mayor	7-1-17	12-31-22	PDM
2.2 Russells Point will advocate for and support the creation of safe rooms for vulnerable locations, including single and multi-family homes and neighborhoods without basements or shelters					
18	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
2.3 Russells Point will clear areas of debris after severe wind and flooding to keep debris out of water treatment plants, sewers, transportation routes, and other infrastructure, and to keep roadways open and usable as soon as possible after storms.					
19	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
<b>GOAL 3: RUSSELLS POINT WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES.</b>					
3.1 Russells Point will establish redundant suppliers of heating fuels, potable water, and other utility needs and will identify and facilitate availability and proper use of generators as an alternate power source					
20	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC Other
3.2 Russells Point will encourage the hardening of utilities through damage resistant installation below grade, improvements to supply lines and generations plants, and upgrade of substations and transformers					
21	Property Protection	Mayor	7-1-17	12-31-22	LOC Other
3.3 Russells Point will establish conservation procedures to be used during water emergencies or shortages due to drought or contamination.					
22	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
<b>GOAL 4: RUSSELLS POINT WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES.</b>					
4.1 Russells Point will improve capacity to rapidly place temporary warning signs that indicate dangerous road conditions.					
23	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.2 Russells Point will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergency incidents.					
24	Public Information	Mayor	7-1-17	12-31-22	LOC
4.3 Russells Point will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
25	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
4.4 Russells Point will identify and remove dead or diseased trees along waterways and in the public domain.					
26	Property Protection	Mayor	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 5: RUSSELLS POINT WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY.</b>					
5.1 Russells Point will educate the public about all relevant disaster hazards and vulnerabilities, protective actions, available services, vulnerable populations and available assistance and other emergency procedures using a variety of means to include print and spoken media, digital resources, and other appropriate local resources.					
27	Public Information	Mayor	7-1-17	12-31-22	LOC ICC
5.2 Russells Point will develop a multi-part communication system to notify all residents of protective action orders, warnings and notifications, and other critical lifesaving information.					
28	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
5.3 Russells Point will develop interoperable communication plans to coordinate life-saving efforts between all community partner during severe incidents.					
29	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
5.4 Russells Point will develop utilize, and maintain a communication plan to include mass media, social media, and direct contact with residents before, during and after incidents.					
30	Public Information	Mayor	7-1-17	12-31-22	LOC
<b>GOAL 6: RUSSELLS POINT WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION.</b>					
6.1 Russells Point will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundations or abutments, or other deterioration due to extreme runoff or specific highly vulnerable soils or slopes.					
31	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC Other
6.2 Russells Point will protect waterways by reducing slope erosion, land subsidence and wind damage through cover plants, vegetation, grassy waterways, filter strips, buffers, and other engineered options.					
32	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC Other

### 3.3.10 Valley Hi

Valley Hi sits atop the highest peak in Logan County and while the year-round population is very small, many tourists come to the village to enjoy snow skiing and other winter sports in a winter wonderland kind of atmosphere. The peak that is home to Valley Hi is steep, and the village can be isolated very easily, due to ice and snow causing the one road in – one road out to be closed, or due to wind and storms causing trees to fall and block the roadway. Fortunately, due to elevation and the steep incline leading to the hilltop village, Valley Hi is not vulnerable to flooding, but it is vulnerable to flash flooding that seriously erodes and damages roads, driveways, and bridges or culverts. The village's financial challenges have prevented them from developing resources like alternators to generate electricity when power is out, or development

of secondary access and emergency vehicle access when the road is blocked. The village is vulnerable to an array of predicaments due to the access problem. As residents and village commission members talked through mitigation actions, they developed the following list to start enabling Valley Hi to lessen risks and become a resilient, sustainable community. The city commissioners will share responsibility for implementation; there are no employees and only a clerk and a solicitor to advise them.

**Table 3-11: Valley Hi Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: VALLEY HI WILL EMPLOY MITIGATION ACTIONS THAT REDUCE DAMAGES FROM SEVERE WIND STORMS THAT INCLUDE STRAIGHT-LINE WINDS AND TORNADOES.</b>					
1.1 Valley Hi will advocate proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
1	Prevention	Commissioners	7-1-17	12-31-22	LOC
1.2 Valley Hi will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
<b>GOAL 2: VALLEY HI WILL EMPLOY ACTIONS TO LESSEN THE DAMAGES FROM SEVERE WINTER STORMS, WITH AN EMPHASIS UPON DAMAGE BY ICE AND SNOW.</b>					
2.1 Valley Hi will clear roads of ice and fallen trees to prevent blockages and make roads usable as soon as possible after storms					
3	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC
2.2 Valley Hi will study the pre-positioning of emergency apparatus, pre-deployment of necessary resources, and the stockpiling of critical supplies to sustain the community during a long-term isolating incident.					
4	Property Protection	Mayor	7-1-17	12-31-22	LOC
2.3 Valley Hi will work to identify, develop, and supply a community center to serve residents and visitors during a severe storm that isolates people from the outside area due to ingress and egress issues.					
5	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
2.4 Valley Hi will work to identify and acquire permanently installed or portable generator(s) to use for the community's protection and welfare during storms that bring power outages.					
6	Property Protection	Mayor	7-1-17	12-31-22	PDM
<b>GOAL 3: VALLEY HI WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE THE EROSION OF TOPSOIL AND ROADS DUE TO FLOODING, LAND USE, OR HUMAN CAUSED INCIDENTS.</b>					
3.1 Valley Hi will protect its roadways and streets that are extremely vulnerable to compromised structural integrity, damaged berms, washed away foundation or abutments, or other deterioration due to extreme runoff and vulnerable soil types as well as incline.					
7	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 4: VALLEY HI WILL EMPLOY MITIGATION ACTION THAT REDUCE DAMAGES FROM UTILITY OUTAGES AND SUPPLY SHORTAGES.</b>					
4.1 Valley Hi will identify and establish alternate heating fuels, potable water suppliers, alternate power sources, and other critical supplies necessary for sustaining life, business, and safety during power outages.					
	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC
<b>GOAL 5: VALLEY HI WILL COMPLETE MITIGATION ACTIONS THT ENABLE RAPID AND EFFECTIVE COMMUNICATION DURING A DISASTER INCIDENT FOR THE PUPOSE OF DIRECTING THE POPULATION TO TAKE PROTECTIVE ACTIONS AND TO FOLLOW OPERATIONAL PROCEDURES.</b>					
5.1 Valley Hi will develop a multi-part communication system to notify community member of protective action orders, warnings and notifications, and other critical lifesaving information.					
18	Public Information	Commissioners	7-1-17	12-31-22	LOC EMPG/HSGP
5.2 Valley Hi will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.					
19	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC
5.3 Valley Hi will develop, utilize, and maintain a communication plans to include mass media, social media, and direct contact with residents and businesses before, during and after incidents.					
20	Public Information	Commissioners	7-1-17	12-31-22	LOC EMPG/HSGP
5.4 Valley Hi will work to improve parcel location mapping to facilitate locating and responding to emergency and disaster calls in a rapid and effective way, as well as to facilitate the use of mutual aid resources when necessary as assistance to responders and dispatchers.					
21	Public Information	Commissioners	7-1-17	12-31-22	LOC Other
5.5 Valley Hi will work to educate the public about local disaster hazards, vulnerabilities protective actions, services, vulnerable populations, available assistance and emergency procedure using mass and social media, printed information, and other options.					
22	Public Information	Commissioners	7-1-17	12-31-22	LOC
<b>GOAL 6: VALLEY HI WILL CONDUCT MITIGATION ACTIONS TO REDUCE THE VULNERABILITY OF ITS POPULATION TO DAMAGES AND CASUALTY DUE TO ALL TYPES OF DISASTERS AND SEVERE STORMS.</b>					
6.1 Valley Hi will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them on incoming life-threatening storms or emergency incidents.					
22	Public Information	Commissioners	7-1-17	12-31-22	LOC HSGP/EMPG
6.2 Valley Hi will identify and remove dead or diseased trees along waterways, roadways and other public property.					
23	Property Protection	Commissioners	7-1-17	12-31-22	LOC
6.3 Valley Hi will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
24	Public Information	Commissioners	7-1-17	12-31-22	LOC HSGP/EMPG

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 7: VALLEY HI WILL WORK TO PREVENT DAMAGE AND CASUALTY DUE TO FLASH FLOODING.</b>					
7.1 Valley Hi will consider joining NFIP as a way to make more flood protection available to the community and to prevent future damages through floodplain regulation.					
25	Property Protection	Commissioners	7-1-17	12-31-22	LOC
7.2 Valley Hi will advocate and support flood insurance where appropriate.					
26	Property Protection	Commissioners	7-1-17	12-31-22	LOC
7.3 Valley Hi will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
27	Prevention	Commissioners	7-1-17	12-31-22	LOC
7.4 Valley Hi will use financial aid for flood mitigation through grants, fees, and other special programs.					
28	Prevention	Commissioners	7-1-17	12-31-22	LOC PDM/FMA
7.5 Valley Hi will implement improvements to ditch and stream maintenance to reduce sedimentation and erosion.					
29	Nat. Resource Protection	Commissioners	7-1-17	12-31-22	LOC PDM
7.6 Valley Hi will make improvements to roads and infrastructure including increases in bridge spans, repair of shoulders and berms, increases in culvert sizes, maintenance of bridge slopes and protection of roadways from storms and flood damages, to enhance the likelihood of open roadways during and after storms.					
30	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC
7.7 Valley Hi will remove debris and obstructions from ditches and streams.					
31	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC
7.8 Valley Hi will participate in countywide study of storm water vulnerability to improve wastewater systems and field tiling practices to limit damages from runoff water.					
32	Property Protection	Commissioners	7-1-17	12-31-22	LOC ICC
7.9 Valley Hi will require the installation of retention or detention ponds to contain runoff that might become the cause of flooding.					
33	Structurally Engineered	Commissioners	7-1-17	12-31-22	LOC PDM
7.10 Valley Hi will utilize elevation to protect critical infrastructure and property from flooding.					
34	Property Protection	Commissioners	7-1-17	12-31-22	LOC PDM
7.11 Valley Hi will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
35	Property Protection	Commissioners	7-1-17	12-31-22	LOC

### 3.3.11 West Liberty

West Liberty is a small community in central southern Logan County. Residents work in area industry, and this small community sits atop some of the higher elevations of Logan County. They are most concerned about wind and communications, followed by utility outages, general storm damage, flooding and last, erosion. The community is governed by a mayor and council, and the mayor will take on implementation of the mitigation strategies.

**Table 3-12: West Liberty Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: WEST LIBERTY WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES</b>					
1.1 West Liberty will advocate proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.2 West Liberty will clear areas of crop debris after severe wind and flooding to keep fodder out of culverts and sewer systems.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.3 West Liberty will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
3	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
<b>GOAL 2: WEST LIBERTY WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY.</b>					
2.1 West Liberty will develop a multi-part communication system to notify all resident of protective action orders, warnings and notification, and other critical lifesaving information.					
4	Public Information	Mayor	7-1-17	12-31-22	LOC
2.2 West Liberty will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.					
5	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
2.3 West Liberty will develop, utilize and maintain a communication plan to include mass media, social media, and direct contact with residents before, during, and after incidents.					
6	Public Information	Mayor	7-1-17	12-31-22	LOC
2.4 West Liberty will improve parcel location mapping to facilitate locating and responding to emergency and disaster calls in a rapid and effective way, as well as to facilitate the use of mutual aid resources when necessary as assistance to responders and dispatchers.					
7	Public Information	Mayor	7-1-17	12-31-22	LOC ICC
2.5 West Liberty will improve GIS mapping to include infrastructure and utility mapping, and expand the customization capability of software to produce data that is useful in community planning.					
8	Public Information	Mayor	7-1-17	12-31-22	LOC ICC
2.6 West Liberty will work to develop enhanced methods of cross-discipline and interjurisdictional planning efforts to create whole community efforts to improve communities and expand disaster resilience.					
9	Public Information	Mayor	7-1-17	12-31-22	LOC
2.7 West Liberty will educate the public about local disaster hazards, vulnerabilities, protective actions, services, vulnerable populations, available assistance, and emergency procedures using mass and social media, printed information and other options.					
10	Public Information	Mayor	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 3: WEST LIBERTY WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES.</b>					
3.1 West Liberty will encourage the hardening of utilities through damage resistant installation below grade, improvements to supply lines and generations plants, and upgrade of substations and transformers					
11	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC Other
3.2 West Liberty will establish redundant suppliers of heating fuels, potable water, and other utility needs and will identify and facilitate availability and proper use of generators as an alternate power source					
12	Property Protection	Mayor	7-1-17	12-31-22	LOC Other
<b>GOAL 4: WEST LIBERTY WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES.</b>					
4.1 West Liberty will identify and remove dead or diseased trees along waterways and in the public domain.					
13	Property Protection	Mayor	7-1-17	12-31-22	LOC
4.2 West Liberty will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
14	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
4.3 West Liberty will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergency incidents.					
15	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
4.4 West Liberty establish water conservation procedures to be implemented during water emergencies due to drought or contamination.					
16	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
<b>GOAL 5: WEST LIBERTY WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING</b>					
5.1 West Liberty will maintain NFIP participation through regular review of flood maps and sustain local engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
17	Property Protection	Mayor	7-1-17	12-31-22	LOC
5.2 West Liberty will advocate and support flood insurance where required.					
18	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
5.3 West Liberty will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
19	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
5.4 West Liberty will use financial aid for flood mitigation through grants, fees, and other special programs.					
20	Prevention	Mayor	7-1-17	12-31-22	LOC PDM

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
5.5 West Liberty will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
21	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC PDM
5.6 West Liberty will remove debris and obstructions from ditches and streams.					
22	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
5.7 West Liberty will advocate removal of debris fallen diseased trees and excess sediment and to improve river maintenance.					
23	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
5.8 West Liberty study countywide storm water vulnerability to improve wastewater systems and field tiling practices to limit damages from runoff water.					
24	Property Protection	Mayor	7-1-17	12-31-22	LOC
5.9 West Liberty will implement improvements to the ditch maintenance to reduce sedimentation and erosion.					
25	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
5.10 West Liberty will utilize elevation to protect critical infrastructure and property from flooding.					
26	Prevention	Mayor	7-1-17	12-31-22	LOC PDM
5.11 West Liberty will create vegetative buffer zones, wetlands, and natural habitat in low-lying areas to hold excess runoff until it drains downstream naturally.					
27	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
5.12 West Liberty will require retention/detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					
28	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM/FMA

**GOAL 6: WEST LIBERTY WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION.**

6.1 West Liberty will protect roadway vulnerable to compromised structural integrity, damaged berms, washed away foundations or abutments, or other deterioration due to extreme runoff or specific highly vulnerable soil types.

29	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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### 3.3.12 West Mansfield

This village sits on the far eastern side of Logan County, just a hop away from Union County. Near the manufacturing giant, Honda of America, many residents work in the automotive facilities and live in West Mansfield. Residents here are most concerned about flash flooding, wind and being able to communicate with each other and Logan County communities during a disaster. Rounding out their main concerns are utility outages, general bad storms, and

erosion. The village is governed by a council and mayor, and the mayor will take on implementation of the mitigation strategies.

**Table 3-13: West Mansfield Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: WEST MANSFIELD WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING.</b>					
1.1 West Mansfield will establish or maintain NFIP participation through regular review of flood maps and sustain local engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.2 West Mansfield will advocate and support flood insurance where required.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.3 West Mansfield will maintain existing local building codes, zoning regulation, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.					
3	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
1.4 West Mansfield will use financial aid for flood mitigation through grants, fees, and other special programs.					
4	Prevention	Mayor	7-1-17	12-31-22	PDM FMA/SRL LOC
1.5 West Mansfield will advocate for removal of debris, fallen diseased trees and excess sediment from rivers, and for improvement of river maintenance.					
5	Property Protection	Mayor	7-1-17	12-31-22	LOC Other
1.6 West Mansfield will participate in countywide storm water vulnerability study to improve wastewater systems and field tiling practices to limit damages from runoff water.					
6	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.7 West Mansfield will improve ditch maintenance to reduce sedimentation and erosion.					
7	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC Other
1.8 West Mansfield will maintain, replace, or add storm sewers, wastewater pumping stations, water pumps, and other devices or structures to protect property from flooding and to lessen flash flooding.					
8	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.9 West Mansfield will remove debris and obstructions from waterways in the village.					
9	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.10 West Mansfield will advocate for replacement of deteriorated tiles, planting of cover crops, utilizing conservation tillage, installation of tile control structures where feasible, and use of filter strips for slope protection to assist farmers with disaster resiliency.					
10	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
1.11 West Mansfield will require retention or detention ponds to contain runoff water in new development or expansion where surface runoff may cause flooding.					

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
11	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM
1.12 West Mansfield will make improvements to road and infrastructure including increase of bridge spans, repair of shoulders and berms, increase in culvert size, maintenance of bridge slopes and protection of roadways from storm and flood damage, to enhance the likelihood of open roadways even after severe flooding and drainage.					
12	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM
1.13 West Mansfield will utilize elevation to protect critical infrastructure and property from flooding.					
13	Structurally Engineered	Mayor	7-1-17	12-31-22	LOC PDM
1.14 West Mansfield will acquire and demolish properties that flood repeatedly to relocate resident out of flood risk areas, and to restore property to a natural habitat maintained as such into perpetuity.					
14	Prevention	Mayor	7-1-17	12-31-22	LOC PDM

**GOAL 2: WEST MANSFIELD WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES**

2.1 West Mansfield will advocate and support, and implement on village-owned property, the proper maintenance of trees and vegetation to reduce damages caused by high winds or tornadoes.

15	Property Protection	Mayor	7-1-17	12-31-22	PDM
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2.2 West Mansfield will advocate for and support the creation of safe rooms for vulnerable locations, including single and multi-family homes and neighborhoods without basements or shelters.

16	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
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2.3 West Mansfield will encourage damage-resistant building materials and techniques so structures are as resistant as possible to wind damage.

17	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
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2.4 West Mansfield will clear roads and streets of debris after severe wind and flooding to keep crop fodder and other debris out of water treatment plants, sewers, transportation routes, and other infrastructure, and to keep roadways open and usable as soon as possible after storms

18	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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**GOAL 3: WEST MANSFIELD WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY**

3.1 West Mansfield will develop interoperable communication plans to coordinate life-saving efforts between all community partners during severe incidents.

19	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
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3.2 West Mansfield will develop, utilize and maintain a communication plan to include mass media, social media, and direct contact with residents before, during and after incidents.

20	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
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Priority	Action Type	Lead Agency	Start Date	End Date	Funding
3.3 West Mansfield will improve parcel location mapping to facilitate locating and responding to emergency and disaster calls in a rapid and effective way, as well as to facilitate the use of mutual aid resources when necessary as assistance to responders and dispatchers.					
21	Public Information	Mayor	7-1-17	12-31-22	LOC ICC
3.4 West Mansfield will improve GIS mapping to include infrastructure and utility mapping, and expand the customization capability of software to produce data that is useful in community planning.					
22	Public Information	Mayor	7-1-17	12-31-22	LOC ICC
3.5 West Mansfield will work to develop enhanced methods of cross-discipline and interjurisdictional planning efforts to create whole community efforts to improve communities and expand disaster resilience.					
23	Public Information	Mayor	7-1-17	12-31-22	LOC
3.6 West Mansfield will educate the public about local disaster hazards, vulnerabilities, protective actions, services, vulnerable populations, available assistance, and emergency procedures using mass and social media, printed information and other options.					
24	Public Information	Mayor	7-1-17	12-31-22	LOC

#### **GOAL 4: WEST MANSFIELD WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES**

4.1 West Mansfield will encourage the hardening of utilities through installation below grade, improvements to supply line and generation plants, and upgrade of poles, substations and transformers.					
25	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
4.2 West Mansfield will identify and establish alternate heating fuels, potable water suppliers, alternate power sources, and other critical supplies necessary for sustaining life, business, and safety during power outages.					
26	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC

#### **GOAL 5: WEST MANSFIELD WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES.**

5.1 West Mansfield will establish water conservation procedures to be implemented during water emergencies due to drought or contamination.					
27	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
5.2 West Mansfield will educate the public about LOC digital warning and notification system like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergency incidents.					
28	Public Information	Mayor	7-1-17	12-31-22	LOC
5.3 West Mansfield will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.					
29	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
5.4 West Mansfield will identify and remove dead or diseased trees along waterways and in the public domain.					
30	Property Protection	Mayor	7-1-17	12-31-22	LOC

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
5.5 West Mansfield will improve capacity to rapidly place temporary warning signs that indicate dangerous road conditions.					
31	Public Information	Mayor	7-1-17	12-31-22	LOC

**GOAL 6: WEST MANSFIELD WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION**

6.1 West Mansfield will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundations or abutments, or other deterioration due to extreme runoff or specific highly vulnerable soil types.					
32	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC

### 3.3.13 Zanesfield

Zanesfield sits high atop the hills of Logan County, and is home to many residents who work in business and industry in several counties that join together near the village. This quaint collection of historic homes sits in a peaceful setting with wooded areas, ample vegetation, and natural surroundings. This self-sufficient community is mostly concerned about wind storms, communicating with other entities in Logan County after disasters, and utility outages. Flooding and erosion are of only minor concern as they occupy some of the highest elevations in all of Ohio.

**Table 3-14: Zanesfield Mitigation Goals and Strategies**

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>GOAL 1: ZANESFIELD WILL EMPLOY MITIGATION ACTIONS TO REDUCE DAMAGES INCURRED FROM SEVERE WINDSTORMS, INCLUDING STRAIGHT-LINE WINDS AND TORNADOES.</b>					
1.1 Zanesfield will advocate proper trimming of trees and vegetation to reduce damages caused by wind, especially where trees are infected with disease like Emerald Ash Borer.					
1	Property Protection	Mayor	7-1-17	12-31-22	LOC
1.2 Zanesfield will support the construction of safe rooms for single and multi-family homes without basements or shelters.					
2	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
<b>GOAL 2: ZANESFIELD WILL ENGAGE IN MITIGATION ACTIONS THAT ENABLE THE PUBLIC TO OBTAIN AND USE DISASTER INFORMATION TO SAVE LIVES AND PRESERVE PROPERTY FOR ALL HAZARDS PRESENT IN LOGAN COUNTY.</b>					
2.1 Zanesfield will develop a multi-part communication system to notify all residents of protective action orders, warnings and notification, and other critical lifesaving information.					
3	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
2.2 Zanesfield will educate the public about local disaster hazards, vulnerabilities, protective actions, services, vulnerable populations, available assistance, and emergency procedures using mass and social media, printed information, and other options.					
4	Public Information	Mayor	7-1-17	12-31-22	LOC HSGP/EMPG
2.3 Zanesfield will develop, utilize, and maintain a communication plan to include mass media, social media, and direct contact with residents before, during and after incidents.					

5	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
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**GOAL 3: ZANESFIELD WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES DUE TO UTILITY OUTAGES AND RESOURCE SHORTAGES FROM ALL CAUSES.**

3.1 Zanesfield will encourage the hardening of utilities through damage resistant installation below grade, improvements to supply lines and generations plants, and upgrade of substations and transformers

6	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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3.2 Zanesfield will establish redundant suppliers of heating fuels, potable water, and other utility needs and will identify and facilitate availability and proper use of generators as an alternate power source

7	Property Protection	Mayor	7-1-17	12-31-22	LOC
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**GOAL 4: ZANESFIELD WILL ENGAGE IN MITIGATION ACTIONS TO REDUCE DAMAGES FROM ALL SEVERE STORMS, INCLUDING THUNDERSTORMS AND BLIZZARDS, AND OTHER NATURAL DISASTERS AND CAUSES.**

4.1 Zanesfield will establish water conservation procedures to be implemented during water emergencies due to drought or contamination.

8	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
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4.2 Zanesfield will maintain and improve hardware, software, and capital equipment (outdoor warning sirens) used to deliver warnings and notifications.

9	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
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4.3 Zanesfield will identify and remove dead or diseased trees along waterways and in the public domain.

10	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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4.4 Zanesfield will educate the public about local digital warning and notification systems like reverse calling, weather radios, warning sirens, and digital resources that inform them of incoming life-threatening storms or emergency incidents.

11	Public Information	Mayor	7-1-17	12-31-22	LOC EMPG/HSGP
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**GOAL 5: ZANESFIELD WILL ENGAGE IN MITIGATION ACTIONS TO PRESERVE AND PROTECT NATURAL RESOURCES SUCH AS TOPSOIL AND WATERWAYS FROM EROSION.**

5.1 Zanesfield will protect roadways vulnerable to compromised structural integrity, damaged berms, washed away foundation or abutments, or other deterioration due to extreme runoff or specific highly vulnerable soil types.

12	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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**GOAL 6: ZANESFIELD WILL ENGAGE IN MITIGATION ACTIONS THAT REDUCE DAMAGES FROM FLOODING.**

6.1 Zanesfield will maintain NFIP participation through regular review of flood maps and sustain local engagement to ensure accuracy of the maps, including advocacy for adoption of current maps as amended through the appeal process.

13	Property Protection	Mayor	7-1-17	12-31-22	LOC
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6.2 Zanesfield will advocate and support flood insurance where required.

14	Prevention	Mayor	7-1-17	12-31-22	LOC
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6.3 Zanesfield will maintain existing local building codes, zoning regulations, and other land use regulations that encourage sustainable disaster-resistant structures in all areas.

15	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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6.4 Zanesfield will use financial aid for flood mitigation through grants, fees, and other special programs.

16	Property Protection	Mayor	7-1-17	12-31-22	LOC PDM
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6.5 Zanesfield will implement improvements to the ditch maintenance program to reduce sedimentation and erosion.

17	Nat. Resource Protection	Mayor	7-1-17	12-31-22	LOC ICC
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6.6 Zanesfield will remove debris and obstructions from waterways.

18	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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6.7 Zanesfield will study the likelihood and potential impact of dam failure for dams that may impact the jurisdiction under failure.

19	Prevention	Mayor	7-1-17	12-31-22	LOC ICC
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6.8 Zanesfield will participate in countywide storm water vulnerability study to improve wastewater systems and field tiling practices to limit damages from runoff water.

20	Nat. Resource Protection	Mayor	7-1-17	7-1-17	12-31-22	LOC ICC
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6.9 Zanesfield will advocate for proper maintenance of dams to lessen the likelihood of structural failure and flooding due to poor maintenance.

21	Property Protection	Mayor	7-1-17	12-31-22	LOC ICC
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6.10 Zanesfield will make improvements to roads and infrastructure including increases of bridge spans, repair of shoulders and berms, increase in culvert size, maintenance of bridge slopes and protection of roadways from storm and flood damage, to enhance the likelihood of open roadways even after severe flooding and damage.

22	Property Protection	Mayor	7-1-17	12-31-22	LOC
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### 3.3.11 Strategy Descriptors

Each strategy developed by the jurisdictions, and explained in the previous section, is assigned a priority, action type, lead agency, timeline, and potential funding source. These elements are described below. While the specific information in this chart may change prior to implementation of a strategy, the exercise of assigning time lines required stakeholders to evaluate current resources and support programs to determine how to best reduce the effects of disaster. Public information campaigns, plan enhancements, and the establishment of emergency protective measures are often a high priority and generally not significantly expensive, so they may be accomplished more quickly than other actions. Upgrading communication and notification/warning systems is more difficult because the acquisition of equipment involves procurement and budget process, therefore taking at least one budget year. Collaboration with other groups and comprehensive actions, due to the need to build trust and association between groups, takes longer to accomplish because it involves a two-phase action plan. Last on the completion list are likely to be structural projects due to design

time requirements, budget needs, and dependence upon outside funding sources through applications. The priorities of life safety, incident containment, and property conservation combined with budget and procurement needs were factors in determining the priority of goals and strategies.

#### *Priority*

Priority identifies the order of importance jurisdictions assigned to each strategy. Strategies may not be addressed in the assigned exact order, depending on availability of funds, personnel to assume responsibilities, and many other circumstances.

#### *Action Type*

Action type describes the kind of activity described in the strategy.

- Natural Resource Protection – Reduce the impacts of natural hazard by preserving or restoring natural areas and their normal functions
- Prevention – Avoid hazard problems or stop impact from worsening
- Property Protection – Protect property or structures by modifying or strengthening building to withstand impact
- Public Information – Advise the public about hazards, hazardous areas, and mitigation techniques to protect people and property as well as inform them of protective actions, impending impact, and other critical information unique to a specific incident
- Structurally Engineered Project – Lessen the impact of a hazard by modifying the environment or by stopping progression of the hazard event through designed and engineered projects that modify natural or man-made structures

#### *Lead Agency*

The lead agency is the entity charged with championing the strategy and ensuring that jurisdiction officials look for opportunities to complete the strategy over the five-year planning cycle. This agency may not have the authority or power to convert a strategy into a project, nor would they necessarily be responsible for project oversight or completion should the strategy develop into an actionable and funded project. Rather, the lead agency is responsible for coordinating the overall planning effort and plays a key role in advocating that the project be considered, or, by default, is the entity most appropriate to lead project development at the initial stage. If the strategy becomes a feasible project, this agency is not the only entity that would be involved in its execution, nor is it the only entity involved in keeping the strategy on the jurisdiction's radar. For accountability purposes, the strategy is assigned to a single entity. When the strategy becomes a project, the jurisdiction would identify a project manager who may or may not represent the lead agency assigned in this plan.

#### *Timeline*

The timeline identifies the time frame in which a mitigation strategy could realistically be implemented. The actual time frame may vary from what is described in this plan when a timeline is identified as only part of the plan validity period, depending on funding, grant opportunities, or changes in priorities as other critical activities are adjusted to meet evolving

community needs. Most actions were considered to be valid for the entire period of the plan validity and could be done at any time, or done multiple times in multiple locations. At the time of plan development, the community representatives were not ready to assign varying time lines to the various projects, and felt that by assigning the entire validity period of the plan as the timeframe, they would allow for the greatest success. As Logan County reviews this mitigation plan annually, the timelines will be reviewed, adjusted, and modified as appropriate. Many will be accomplished as funding allows and as grant opportunities occur.

#### *Funding Source*

Mitigation strategies can be funded through a variety of sources. Depending on the type and cost of the project, different funding sources will be available and appropriate.

- CDBG – Community Development Block Grants
- FMA – Flood Mitigation Assistance Grant
- PDM – Pre-Disaster Mitigation Grant
- HMGP – Hazard Mitigation Grant Program
- SRL – Severe Repetitive Loss Grant
- RFC – Repetitive Flood Claims Program
- COG – Clean Ohio Grant
- ICC – Increased Cost of Compliance (including rate increases or premiums)
- LOC – Local Funds, including county, municipal, and township
- ST – State Funds
- OTH – Other (including private funds and non-governmental agency funding)

### **3.4 IMPLEMENTATION**

The identified mitigation strategies are general actions that could be taken to reduce the negative impact of disasters and large-scale emergencies. For any given strategy to become an actionable item, it must be converted to a specific project with funding, action steps, timelines, and project goals. For example, if a repetitive loss property is to be acquired and demolished and the property owner relocated, that project must begin with the identification of the specific property to be acquired and the funding to be utilized for the project. The property owner must agree to accept the buy-out and use the money to purchase another home. The jurisdiction must accept its share of cost, planning responsibility, and project management roles. Only then can the actual project be executed. A similar process must be followed for any of the strategies identified here to become projects that reduce disaster loss in Logan County.

The EMA will monitor the implementation of these strategies through ongoing communication with officials and stakeholders. Not all actions are championed by the EMA because the details of the strategy align more closely with another agency. When grant opportunities arise, reasonable efforts will be made to secure funding by whatever agency is most appropriate to apply for the funding. For strategies that must be funded through local budgets, jurisdictions will work diligently to identify local funding sources that can be used to address disaster

vulnerability. Some may be dependent upon an assessment or fee, or increased service rates. When funding is secured, a detailed project timeline will be developed and actionable steps taken to complete the project. Upon completion, effectiveness will be evaluated by the jurisdiction and findings shared with the EMA and planning team for consideration in developing future projects.

The greatest value in these strategies is the process, knowledge, and reasoning stakeholders utilized during their development. The mitigation planning process required stakeholders to collaborate to evaluate hazards and risks in their community. They were required to examine the local community, predict where and under what conditions damages would occur, and identify how to reduce or eliminate potential damages. The solutions, in the form of mitigation goals and actions that will ultimately develop into projects, had to be developed to maximize benefit to the community while minimizing cost. This process required whole community involvement so that the community was appropriately represented in the planning process.

Ultimately, Logan County developed a set of comprehensive, thoroughly considered, relevant, and effective solutions to problems that are likely to arise. As stakeholders considered how to solve potential problems, they utilized a collaborative spirit to address community-wide problems. These strategies were original thoughts to reduce disaster vulnerability and loss at the local level. The participants adopted an assertive approach to mitigation actions, and did not allow financial constraints or past experiences negate ideas that could potentially solve a problem. While their approach may be considered highly optimistic, all participants realized that not all actions will be achieved or completed, but that their assertive approach brought as many ideas to the table as possible and would open mitigation doors to them to truly prevent and lessen damages in the future.

Given the availability of funding, personnel, and support, Logan County and its jurisdictions are positioned to move forward and implement these strategies to the best of their ability to accomplish their goals. Whatever mitigation activities are achieved will be well thought out, logical, and reasonable because of the community-wide hazard mitigation planning process.