

Mitigation Strategies

Lorain County has previously had at least two approved hazard mitigation plans, one in 2004 and an update in 2007. In the 2007 approved plan, mitigation strategies were developed for Lorain County and for a few of the individual jurisdictions. Not all cities or villages participated by developing individual strategies at that time.

At the March meeting of the HMCC, all plan strategies were discussed, evaluated, and determined their current status determined to be completed, deleted, or continued. Questions were referred to appropriate parties where those in attendance were not able to assess progress. A list of those strategies and their status is included in this section of the 2014 plan. The strategies are expressed directly from the previous plan. Notations add clarity about progress made toward each goal.

Some incorporated communities did not participate in the mitigation plan in 2007, or chose not to develop strategies for their particular jurisdiction. Those communities are listed as having “None” under the strategy column. In 2014, all incorporated cities and villages participated in the mitigation planning, and each is included in the update. Eaton Township has chosen to work through Lorain County in 2014 instead of acting as a separate jurisdiction. Ohio law allows counties to act on a township’s behalf without compromising the township’s eligibility for receiving federal assistance or mitigation grant funding.

Involvement from communities in this cycle of mitigation plan development was very individualized per community. On-site meetings were held in nine communities, and the remainder either met independently, or came to core committee meetings and addressed their jurisdiction in that way. Even the small villages of Rochester and Kipton had individual conversations with the contractor for the purpose of developing relevant and applicable mitigation strategies for their community. Due to the importance of mitigation, and the fact that damage prevention is more cost-effective than repair and replacement, local officials responded with increased participation

The mitigation strategies in this update are significantly more detailed and more comprehensive than in prior plans. While many strategies from community to community are similar, there are minimal “cookie cutter” strategies because each community expressed their intentions in their own individual way. Meetings were held, strategies were written, sent to the community for review, revised based upon feedback, and sent out again for a second (and third when needed) local review. This was done *before* the public review period in August, prior to the plan being opened in formal public review for two weeks.

Status of Past and Current Mitigation Efforts

The table below shows the mitigation strategies, per jurisdiction, developed in the 2007 hazard mitigation plan. Notations in italics in the “Strategy” column are an explanation of the current status where appropriate, or verbiage that expresses how that particular strategy was transferred to the updated plan. In many cases, progress was made but the strategy was revised and included in the new plan in expanded form, or included in multiple strategies because it was addressed with more specificity.

Each strategy marked as “Complete” means it was done and, as written, will not be continued into the updated plan (These may be rewritten or revised, combined with another strategy, or otherwise changed and included under a different strategy); “Deleted” which means the strategy was determined to be not feasible, or it was eliminated, or done in a different way than expressed in the strategy; or “Ongoing” which means the strategy will appear in the revised strategies, even though it may be expanded or detailed in a modified way in the new strategies.

<i>Risk Category</i>	<i>Strategy</i>	<i>Complete</i>	<i>Deleted</i>	<i>Ongoing</i>
LORAIN COUNTY				
Severe Storms	Provide an alternate power source, such as back-up generators, for lift stations to avoid sanitary sewers from backing up into homes creating a health hazard. <i>Note: This has been accomplished but due to the nature of generators and continual maintenance and upkeep, it is considered “ongoing”.</i>			X
	Coordinate with the electric company to better serve communities in times of crises. <i>Note: This is an ongoing activity, but building standards have been changed to require buried electrical and power lines as well as those typical underground utility lines like natural gas.</i>	X		
	Provide an alternate power source, such as back-up generators, for those sensitive population and critical facilities that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies.</i>			X
Floods	Creating a dedicated “radio” channel for decision makers to utilize for coordination during a disaster. <i>Note: This has been completed with the addition of the MARCS system.</i>	X		
	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping. <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan.</i>			X
	Coordinate a First Response Team and train them in techniques on search and rescue emergencies when there is fast moving water. The County wants to make sure the community has the resource to be able to save lives. <i>Note: This has been accomplished but is expanded in the updated plan.</i>	X		
Tornado	Provide an alternate power source, such as back-up generators, for critical facilities serving as tornado shelters that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet</i>			X

	<i>new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies</i>			
	Develop a large scale educational outreach program to teach county residents about the uses of a multi-use siren system and the different warnings to be sounded. <i>Note: This is now included on websites and social media pages at the county’s website and other individual jurisdictions.</i>		X	
Drought, Heat, and Cold	Create a public service announcement (PSA) on extreme cold and its effects on the community. Develop and distribute information on the effects of extreme cold on how to protect yourself and others. <i>Note: This is now included on websites and social media pages.</i>	X		
	Evaluate regulations requiring landlords to maintain rental properties, indoor system (e.g. heat) as well as outdoor facilities, during periods of extreme cold. <i>Note: This has been incorporated into building codes and standards.</i>	X		
	Develop an electronic map that delineates locations of sensitive populations and critical facilities throughout Lorain County to expedite getting help to those who need it. <i>Note: This has been done but due to the changing population needs and the addition/deletion of at-risk populations, it is an ongoing activity. This has been incorporated into contemporary dispatch systems.</i>			X
Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The county wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems. <i>Note: This is an ongoing issue but has been expressed in the updated plan in more specificity and broken into numerous strategies.</i>			X
	Evaluate roadway infrastructure in areas prone to erosion to determine structural stability and further action needed to eliminate future structural damage due to eroding soils. <i>Note: Erosion mitigation is included in the Lorain County Erosion Control Plan established by Agricultural Services and Soil Conservation District.</i>	X		
	Prior to commencing future construction projects, the County wants to evaluate the area and the construction activities involved in the project to determine the type of potential erosion problems associated with the construction. <i>Note: this is being done but will continue.</i>	X		
Earthquake	Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes. <i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time.</i>		X	
	Coordinate a public service announcement (PSA) and/or outreach program about earthquakes and their threats. <i>Note: This is now included on websites and social media pages.</i>	X		
	Coordinate with NOACA to establish an Intelligent Transportation			

	System (ITS) to help alleviate traffic problems. The County wants to make sure motorists have safe driving resources after an earthquake event. <i>Note: Under current cost-benefit review criteria, and taking into account the lack of historical earthquake incidents and documentation, and due to lack of documented damages due to earthquakes in the past hundred years, this objective was deleted.</i>		X	
Additional	Coordinate with NOACA to obtain Congestion Mitigation Air Quality (CMAQ) funds that would establish a regional policy on signal pre-emption. Signal pre-emption is a type of technology that exists for emergency vehicles to preemptively override traffic signals in either a sounds system or a light activated system. This alternative would decrease response time during an emergency situation for Lorain County emergency providers that resulted from any, if not all, of the natural hazards chosen by the Core Group. <i>Note: This has been done in some jurisdictions, and IT is in process in other jurisdictions.</i>			X
AMHERST				
	None			
SOUTH AMHERST				
	None			
AVON				
Flooding	Seek funding for construction of detention basins to alleviate flooding. <i>Note: This is ongoing but will be expressed in the new update in multiple strategies.</i>			X
AVON LAKE				
	None			
ELYRIA				
Severe Storms	Provide an alternate power source, such as back-up generators, for lift stations to avoid sanitary sewers from backing up into homes creating a health hazard. <i>This has been accomplished but due to the nature of generators and continual maintenance and upkeep, it is considered "ongoing".</i>			X
Flooding	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping. <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan</i>			X
	Coordinate efforts with watershed conservancy groups to determine need for retention/detention basins, focusing on communities with standing water issues. <i>Note: This is a continuing effort and has been expressed in the update with more specificity and in numerous strategies</i>			X
Tornado	Provide an alternate power source, such as back-up generators, for critical facilities serving as tornado shelters that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered "ongoing" and is included in new</i>			X

	<i>strategies</i>			
Drought, Heat, and Cold	Create a public service announcement (PSA) on extreme cold and its effects on the community. Develop and distribute information on the effects of extreme cold on how to protect yourself and others. <i>Note: This is now included on websites and social media pages.</i>	X		
Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The County wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems. <i>Note: This is an ongoing issue but has been expressed in the updated plan in more specificity and broken into numerous strategies</i>			X
Earthquake	Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes. <i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time</i>		X	
GRAFTON				
	None			
KIPTON				
	None			
LAGRANGE				
Severe Storms	Provide an alternate power source, such as back-up generators, for lift stations to avoid sanitary sewers from backing up into homes creating a health hazard. <i>This has been accomplished but due to the nature of generators and continual maintenance and upkeep, it is considered “ongoing”. More specific strategies are included in the updated plan.</i>			X
Flooding	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping. <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan</i>			X
	Coordinate efforts with watershed conservancy groups to determine need for retention/detention basins, focusing on communities with standing water issues. <i>Note: This is a continuing effort and has been expressed in the update with more specificity and in numerous strategies</i>			X
Tornado	Provide an alternate power source, such as back-up generators, for critical facilities serving as tornado shelters that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies</i>			X
Drought, Heat, and Cold	Create a public service announcement (PSA) on extreme cold and its effects on the community. Develop and distribute information on the effects of extreme cold on how to protect yourself and others. <i>Note: This is now included on websites and social media pages.</i>	X		

Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The County wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems. <i>Note: This is an ongoing issue but has been expressed in the updated plan in more specificity and broken into numerous strategies</i>			X
Earthquakes	Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes. <i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time</i>		X	
LORAIN				
Flooding	Because of the fast rate of development of the southern portion of the City of Lorain, the northern portion of the city is being inundated with additional storm water runoff and debris, such as trees and stumps. This activity taking place by residents in the northern portion of the city negatively affects the residents of the southern portion of the city. The city wants to promote coordination between jurisdictions on storm water detention and erosion control practices to avoid this problem. <i>Note: This is a continuing strategy that has been expressed in more specific strategies in the updated plan, but is continuing in nature.</i>			X
NORTH RIDGEVILLE				
Severe Storms	Provide an alternate power source, such as back-up generators, for lift stations to avoid sanitary sewers from backing up into homes creating a health hazard. <i>This has been accomplished but due to the nature of generators and continual maintenance and upkeep, it is considered “ongoing”.</i>			X
Flooding	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan</i>			X
	Coordinate efforts with watershed conservancy groups to determine need to retention/detention basins, focusing on communities with standing water issues. <i>Note: This is a continuing effort and has been expressed in the update with more specificity and in numerous strategies</i>			X
Tornado	Provide an alternate power source, such as back-up generators, for critical facilities serving as tornado shelters that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies</i>			X
Drought, Heat, and Cold	Develop an electronic map that delineates locations of sensitive populations and critical facilities throughout Lorain County to expedite getting help to those who need it. <i>Note: This has been done but due to the changing population needs and</i>			X

	<i>the addition/deletion of at-risk populations, it is an ongoing activity. This has been incorporated into contemporary dispatch systems</i>			
Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The County wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems. <i>Note: This is an ongoing issue but has been expressed in the updated plan in more specificity and broken into numerous strategies</i>			X
Earthquakes	Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes. <i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time</i>		X	
OBERLIN				
	None			
ROCHESTER				
	None			
SHEFFIELD				
Severe Storms	Provide an alternate power source, such as back-up generators, for lift stations to avoid sanitary sewers from backing up into homes creating a health hazard. <i>Note: Because generators require ongoing maintenance, this is considered “ongoing”.</i>			X
Flooding	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping. <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan</i>			X
	Coordinate efforts with watershed conservancy groups to determine need to retention/detention basins, focusing on communities with standing water issues. <i>Note: This is a continuing effort and has been expressed in the update with more specificity and in numerous strategies</i>			X
Tornado	Provide an alternate power source, such as back-up generators, for critical facilities serving as tornado shelters that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies</i>			X
Drought, Heat, and Cold	Create a public service announcement (PSA) on extreme cold and its effects on the community. Develop and distribute information on the effects of extreme cold on how to protect yourself and others. <i>Note: This is now included on websites and social media pages.</i>	X		
Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The County wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems.			X

	<i>Note: This is an ongoing issue but has been expressed in the updated plan in more specificity and broken into numerous strategies</i>			
Earthquakes	Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes. <i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time</i>		X	
SHEFFIELD LAKE				
	None			
VERMILION				
Flooding	Evaluate projects to alleviate ice jams caused by ice moving downriver that picks up debris, blocks the river, and causes flooding. <i>Note: This is ongoing and carries into the updated plan.</i>			X
WELLINGTON				
	None			
EATON TOWNSHIP				
<i>Note: Eaton Township has decided to work under Lorain County and no longer chose to develop individual strategies for the township. This section is not included in the updated plan for that reason.</i>				
Severe Storms	The County has several critical roadway intersections. When power is unavailable, back-up generators are needed to maintain the intersections. <i>Note: This is completed and is maintained.</i>	X		
Flooding	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan</i>		X	
	Coordinate efforts with watershed conservancy groups to determine need for retention/detention basins, focusing on communities with standing water issues. <i>Note: This is a continuing effort and has been expressed in the update with more specificity and in numerous strategies</i>		X	
Tornado	Provide an alternate power source, such as back-up generators, for critical facilities serving as tornado shelters that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies</i>		X	
Drought, Heat, and Cold	Create a public service announcement (PSA) on extreme cold and its effects on the community. Develop and distribute information on the effects of extreme cold on how to protect yourself and others. <i>Note: This is now included on websites and social media pages.</i>	X		
Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The County wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems. <i>Note: This is an ongoing issue but has been expressed in the updated</i>		X	

	<i>plan in more specificity and broken into numerous strategies</i>			
Earthquakes	Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes. <i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time</i>		X	
CARLISLE TOWNSHIP				
Severe Storms	Coordinate with the electric company to better serve communities in times of crisis. (First Energy) <i>Note: This is an ongoing activity, but building standards have been changed to require buried electrical and power lines as well as those typical underground utility lines like natural gas.</i>			X
	Provide an alternate power source, such as back-up generators, for those sensitive populations and critical facilities that must have continuous power to preserve and protect human health. <i>Note: Most facilities have generators because programs through public health, healthcare, and Red Cross have upgraded the facilities to meet new standards. Because generators require replacement and maintenance, and because the number of these facilities is based upon population, this is considered “ongoing” and is included in new strategies</i>			X
Flooding	Seek solutions to the inflow and infiltration with regard to the sanitary systems, such as replacing deteriorating sanitary sewer piping. <i>Note: This is ongoing and is expressed in more detailed strategies in the updated plan</i>			X
	Coordinate efforts with watershed conservancy groups to determine need to retention/detention basins, focusing on communities with standing water issues. <i>Note: This is a continuing effort and has been expressed in the update with more specificity and in numerous strategies.</i>			X
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Drought, Heat, and Cold	Create a public service announcement (PSA) on extreme cold and its effects on the community. Develop and distribute information on the effects of extreme cold on how to protect yourself and others. <i>Note: This is now included on websites and social media pages.</i>	X		
Erosion	Streams and rivers often traverse multiple jurisdictions within Lorain County. Someone’s activities upstream may become someone’s problem downstream. The County wants to promote coordination between jurisdictions on stream/river usage to avoid erosion problems. <i>Note: This is an ongoing issue but has been expressed in the updated plan in more specificity and broken into numerous strategies.</i>			X

Earthquake	<p>Evaluate building code standards within the county and incorporated areas to determine if additional requirements need to be incorporated within the building codes.</p> <p><i>Note: Due to lack of significant damages in historical incidents and due to few highly vulnerable buildings, this has been modified to cover new construction at this time</i></p>		X	
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Risk Priorities

The Hazard Identification and Risk Assessment section of this plan explains in detail how the various natural incident types were identified and how risks were evaluated in Lorain County. That section considers numerous naturally occurring possibilities, cites the historical frequency and severity of past incidents, and considers the damages that would be done should that type incident occur in a current local setting. For the purpose of detail, please refer to the HIRA section of this plan.

In summary, the HMCC determined that relevant hazards and applicable risks for Lorain County are mostly associated with water, wind, and/or extreme temperature.

Flooding and flash flooding can occur through heavy and/or rapid rainfall, locally or upstream, that causes the rivers and tributaries to fill beyond capacity with rapid flowing runoff water, breaching the riverbanks and flowing into properties, roadways, and other areas. Flooding can also happen when precipitation falls so fast and heavy that storm water systems and drainage waterways are unable to move the runoff away at the same rate it is falling, and soil is unable to absorb the precipitation quick enough to wick it away from properties. Water then backs up into properties, storm sewers, roadways, and places not normally covered by water. Flooding can happen when rapid changes in temperature, after heavy snowfall, cause snow melt that is so fast the melt is unable to flow away through ice jams and half-frozen waterways and soils.

Because Lorain County is at the end of the Black River Watershed, it feels the effects of these weather phenomena from not only Lorain County, but also Ashland, Huron, and Medina Counties where the river’s tributaries are born. The small extreme northwest section of Lorain County that is part of the Vermilion River Watershed experiences the same end-of-the-line consequences, bearing its watershed origins mostly in Huron and Erie counties.

When temperature fluctuations occur with the excessive precipitation, results can include ice development, hail, freezing rain, and sleet. Hail can cause damage to vehicles, structures, and anything outside when it falls with force and weight, from dents in cars to punctures and holes in roofs. Freezing rain and sleet cause ice on power lines, roadways, and roofs. Electricity service is interrupted, roadways are too slippery for use, and roofs collapse under the heavy weight of snow and ice.

As water combines with wind, other damages occur in Lorain County. If water combines with wind in a severe thunderstorm, the effects of water damages are added to blown off rooftops, downed trees and power lines, and uprooted trees. Debris, both natural and man-made, is strewn across the countryside from the houses, barns, and other structures in the way of Mother Nature. Structures are attacked from wind on the outside and water rising on the inside and outside, amounting to sometimes a fatal blow to the structure.

As a result of water, wind, and temperatures the Lorain County, the mitigation strategies have a predominance of actions to counter the ill effects of water in one form or another. The county lacks a countywide storm water management plan, and this lack of unchecked and uncoordinated planning has negative consequences. The Lorain County Storm Water Management Study found that 65% of runoff in Lorain County is caused by the 25% of the county that is highly developed. Therefore, runoff and debris from one area impacts another, causing property damage. Water management in one area through installation of drainage enhancements proves to the demise of another because while one area is protected, another is exposed. Therefore many strategies involve actions directed toward storm water management.

Because over the years homes have been built in flood-prone areas, there are severe and repetitive loss structures that should be removed. In other areas, developers and property owners have not adequately anticipated the need to preserve permeable soil for absorption of rainfall, and have not installed enough vegetative buffers, retention and detention ponds, and catch basins. The runoff that floods parking lots, yards, basements, and streets could be held in retention basins, but inadequate attention to drainage details during development has caused a worsening of flooding across the developed communities.

Lorain County currently maintains both commercial and residential building codes, and all areas are zoned. However, since building departments are organized city-by-city rather than as a county, efforts need to be directed toward consistency and enforcement of standards by all entities. Just like countywide storm water management would enhance the county's flooding prevention, a countywide development approach would be beneficial. All jurisdictions can benefit the communities through adherence to current regulations, be that floodplain rules, building codes, zoning regulation, or comprehensive land use planning.

Because of the growing population, in light of wind and water associated hazards, management of large numbers of people during and after storms is a challenge. Warning and notification systems, sheltering and protective measures, and care of individuals during recovery are an issue covered in this mitigation plan. Some neighborhoods have inadequate storm shelter and lack the funding to build safe rooms. Service to persons who have extra needs during disasters challenges the jurisdictions in Lorain County, and this plan intends to focus resources on providing notification and direction to all people, including those with extraordinary needs.

During temperature extremes, especially cold spells, Lorain County has found itself to be especially prone to power outages, gas supply interruptions, and utility failures. This plan addresses the development of redundant sources of utilities to keep residents warm and safe.

The strategies in this plan are developed from the gut of its hazards and vulnerabilities. The strategies are intended to be solutions to problems that Lorain County faces. While the most dangerous disaster is the one in front of you, and it's not possible to know what will stare you in the face tomorrow, Lorain County attempted to determine what disasters happen most, which ones cause the most damage, and which effects can be prevented. With limited financial and personnel resources, the HMCC weighed every dollar and every effort against a measuring stick that indicated most benefit for the least dollars. When risk was low, and sometimes not ever

documented as having occurred, the HMCC chose to expend resources where historical data supported it.

Strategies were prioritized against one another from the considerations of cost, identified funding to support the strategy, benefit to the community, prevention of loss of life, and overall feasibility. They were rated one to one against each other and a point scale ranked them from most important to least important.

While it is common emergency management professionals' belief that you will never be faced with the emergency you planned for, Lorain County tried to do just that. The following strategies are an outcome of that assessment and estimation.

Strategies

Core committee meetings began in January 2014 after a plan process orientation meeting was held in mid-December. The first meetings focused on the hazard identification and risk assessment, covering in part the damages that were caused with each storm or incident. Continuing discussion at countywide meetings involved past mitigation efforts, current initiatives, and other agency planning efforts. Documents like economic development plans and storm water management plans were discussed, and thoughts were shared regarding the fit with current threats.

As conversation required input from individual cities and villages, and some individuals important to the process were unable to attend centralized meetings, the contractor organized jurisdiction-by-jurisdiction sessions. A packet with mitigation information, strategy development tips, and sample strategies was mailed to all jurisdictions, and a follow up call resulted in most scheduling an on-site strategy meeting. This activity started in April and concluded in June, but resulted in individualized and relevant strategies for each city or village.

The contractor drafted strategies and submitted them to the 200+ individuals on the HMCC for review, as well as the additional individuals who participated in on-site meetings.

Individual meetings were held with Amherst, Elyria, Grafton, Lagrange, Lorain, North Ridgeville, Oberlin, and Vermilion. Avon Lake, Sheffield Lake and Wellington developed strategies using the packet mailed to jurisdictions in late March, and phone conversations with the EMA director and the contractor. Avon, Carlisle Township, Eaton Township, Elyria Township, Sheffield Village, and Lorain County strategies were developed through Core Committee meetings. Strategies were suggested for Kipton, Rochester, and South Amherst and were approved as written by the Core Committee after village officials were contacted numerous times to develop strategies on their own and did not respond. Conference calls were eventually held with village representatives and their input was used to edit those strategies.

Following are the mitigation strategies developed through this comprehensive process by the HMCC, crafted into document form by the contractor, and reviewed by the whole community before submittal.

LORAIN COUNTY

1. Lorain County will reduce the damages caused by flooding in all areas across the county.
 - 1.1. Lorain County will support land use regulation measures to minimize the effects of flooding.
 - 1.1.1. Lorain County will sustain, support, adopt, and enforce building codes, floodplain regulations, zoning regulations, and other use and construction standards as applied to development of commercial and residential neighborhoods.
 - 1.1.2. Lorain County will develop and adopt a countywide comprehensive land use plan.
 - 1.1.3. Lorain County will educate and advocate for development practices across the county that take into consideration cross-jurisdictional consequences of development, and requires counter-measures to prevent negative effects on neighboring communities.
 - 1.1.4. Lorain County will protect the floodplains from all development through adoption of flood maps and floodplains established by FEMA, and through enforcement of floodplain regulation.
 - 1.2. Lorain County will educate residents and businesses about the need for casualty insurance to cover the cost of losses due to storms, disasters, and other emergency incidents.
 - 1.2.1. Lorain County will support the NFIP program.
 - 1.2.2. Lorain County will maintain adoption of FEMA flood mapping.
 - 1.2.3. Lorain County will advocate for property owners' utilization of adequate casualty insurance to reduce the individual cost of disaster related damages.
 - 1.3. Lorain County will decrease the effects of flooding by managing storm water so that properties are not damaged by excessive runoff or storm water, especially during periods of heavy precipitation or snow melt.
 - 1.3.1. Lorain County will facilitate, conduct, support, and complete a countywide storm water study that results in a storm water management plan for the whole county.
 - 1.3.2. Lorain County will implement a countywide storm water management action plan as finances and jurisdictional participation allows.
 - 1.3.3. Lorain County will support jurisdictions in the improvement and/or replacement of worn and inadequate storm water infrastructure.
 - 1.3.4. Lorain County will educate, advocate, and facilitate effective waterway clearing and cleaning to remove built-up debris and sediment and to facilitate natural runoff for storm water
 - 1.4. Lorain County will restore developed floodplains to a natural habitat state where repeated flooding occurs and causes damage to property.
 - 1.4.1. Lorain County will utilize grant programs to fund the acquisition of properties and the restoration of natural habitat in areas where development has taken place on at-risk property.
 - 1.4.2. Lorain County will support and advocate for the establishment of vegetative buffer zones, retention ponds, dams, levees, and other structural devices to manage storm water and flood water so it does not cause property damage.

- 1.4.3. Lorain County will support, encourage, and conduct projects to repair and maintain dams, levees, and other structures that control the flow of water and limit or prevent flooding in developed areas.
- 1.5. Lorain County will investigate, support, sustain, and/or conduct acquisition and relocation projects for properties with severe and/or repetitive flood losses.
 - 1.5.1. Lorain County will identify properties with severe and repeated severe losses due to flooding.
 - 1.5.2. Lorain County will participate in Pre-Disaster Mitigation programs that facilitate and implement acquisition and demolition with relocation of the occupants of such property.
 - 1.5.3. Lorain County will conduct acquisition, relocation, and demolition projects as funding becomes available and property owners are willing to participate.
- 1.6. Lorain County will support and install modifications and improvements to county roadways that decrease flooding and erosion of those roadways, such as elevation of the roadway.
2. Lorain County will implement timely and effective pre-incident warning and notification of dangerous weather and emergency incidents, as well as timely dissemination of updated information during an incident.
 - 2.1. Lorain County will install and sustain a countywide warning and notification system that utilizes digital methods and traditional electronics to notify residents and workers of impending inclement weather and immediate dangers by as many means as is possible.
 - 2.2. Lorain County will identify those areas most prone to flash flooding, and will support development of data that links weather events to flooding outcomes using GIS technology, floodplain mapping, and other technology; the County will work to notify those affected populations in a rapid and effective manner when necessary.
3. Lorain County will identify and utilize protective facilities that enable residents and others to take shelter from severe weather, including storms that include rotational or straight-line winds, and other life threatening conditions such as hail, heavy precipitation, and dust.
 - 3.1. Lorain County will identify the need for and facilitate the construction of safe rooms for residents and workers who live or work in structures that lack basements or other structural protection during tornadoes or high wind incidents.
 - 3.2. Lorain County will facilitate the development and equipping of shelters, comfort stations, and service centers to be used before, during, and after disasters to help the people of Lorain County recover rapidly and effectively from disaster losses.
 - 3.2.1. Lorain County will help residents have access to information about the location of shelters, comfort stations and service centers as part of preparedness for disasters.
 - 3.2.2. Lorain County will support volunteers and organizations to be utilized during disasters to provide, supplement, sustain, or expand sheltering and gathering services available to victims.

4. Lorain County will facilitate, support, and at times conduct public awareness campaigns about disaster preparedness, safety, response, and recovery to mitigate losses and casualties because of disasters.
 - 4.1. Lorain County will develop and make available to residents and others information regarding the dangerous weather and other emergent incidents that are typical to occur in the county, and will identify the actions and counter-measures that are effective in safely enduring those incidents.
 - 4.2. Lorain County will develop and make available to residents information regarding response and safety during disasters uncommon to Lorain County, such as earthquakes and landslides
5. Lorain County will harden utility service and supply to residents and businesses, especially during extreme heat or cold that intensifies dependency upon utility services.
 - 5.1. Lorain County will work to advocate for underground electrical service lines across the county.
 - 5.2. Lorain County will advocate for capital improvements to the electrical distribution systems to harden electrical service across the county.
 - 5.3. Lorain County will advocate for improved natural and propane gas availability and distribution to residents and businesses during times of excessive need.
 - 5.4. Lorain County will advocate for improved water intake and availability for residents, including sustainment of redundancy in distribution and supply, for times of extreme weather conditions or needs.
 - 5.5. Lorain County will identify and establish redundant emergency sources for all utility services and supplies during heavy use and disaster circumstances.
6. Lorain County will improve communications between all first responders and first receivers during disasters and emergencies.
 - 6.1. Lorain County will support two-way radio upgrades and improvements by individual jurisdictions.
 - 6.2. Lorain County will advocate and facilitate interoperability of communication systems between jurisdictions, disciplines, and departments.
 - 6.3. Lorain County will coordinate and support interoperability in the 911 centers and EOC facilities across the county.
7. Lorain County will sustain mitigation efforts.
 - 7.1. Lorain County will serve as the primary monitor of strategies across the county in order to facilitate and encourage accomplishment of the identified strategies in this plan.

CITY OF AMHERST

1. Amherst will reduce the negative effects of flooding on the residents and properties in Amherst.
 - 1.1. Amherst will maintain and support land use planning efforts to lessen the impact of disaster upon the community.
 - 1.1.1. Amherst will support and enhance residential building codes.
 - 1.1.2. Amherst will support and enhance floodplain regulation and participation in NFIP flood insurance programs.
 - 1.2. Amherst will support land conservation and preservation of natural wetlands as a means to prevent development in areas that are prone to flooding.
 - 1.3. Amherst will research and assess the effects of upstream and downstream development upon the city as well as the impact of city development on adjacent jurisdictions.
 - 1.4. Amherst will work with the Ohio Turnpike Commission and the State of Ohio to utilize the Turnpike Mitigation Program to resolve issues with storm water runoff caused by roadway system development near the city
 - 1.5. Amherst will consider acquisition, demolition, and relocation projects to eliminate flood losses where property owners are willing and funds exist to complete such projects.
2. Amherst will improve and expand its public warning and notification systems for the purpose of preventing casualties and damages by natural disasters.
 - 2.1. Amherst will work with and implement a reverse calling system in collaboration with the Lorain County EMA.
 - 2.2. Amherst will use and improve warning and notification systems that utilize local cable television, websites, and other electronic means of mass communication.
3. Amherst will enhance and improve communications between responders and others to effectively communicate before, during, and after incidents.
 - 3.1. Amherst will support and implement the digital MARCS radio system P-25 standards among first responders and other departments as appropriate.
 - 3.2. Amherst will work to complete mapping and CAD interface software in city departments to aid in management of storm water and other utilities during storms.
4. Amherst will conduct a public information campaign directed at property owners to lessen the damages, including utility outages, due to storms.
 - 4.1. Amherst will advocate for the proper maintenance of trees on private property to lessen the damages from severe storms.
 - 4.2. Amherst will advocate for the proper maintenance of public property regarding tree trimming and vegetation control around and about utility lines.

5. Amherst will decrease utility outages during disasters.
 - 5.1. Amherst will harden the power services to critical facilities by acquiring and installing alternate power sources at critical and key facilities.

CITY OF AVON

1. Avon will reduce the negative effects of flooding on its residents and properties.
 - 1.1. Avon will advocate and educate officials and residents about the need to develop countywide storm water management planning and regulation.
 - 1.1.1. Avon will participate in studies and analysis of storm water in Lorain County.
 - 1.1.2. Avon will support the development of retention ponds, detention structures, and vegetative buffers to lessen flooding in downstream areas.
 - 1.1.3. Avon will establish and support economic development standards that utilize current building codes, zoning standards and other land use planning regulations that take into consideration the consequences of development on storm water and flooding effects.
 - 1.1.4. Avon will advocate for the proper maintenance of streams, ditches, and rivers to reduce debris and vegetation that causes water to back up and flood areas inside the city and upstream from the city.
 - 1.1.5. Avon will advocate for property owners in floodplains to carry flood insurance as a way to protect and mitigate flood losses.
 - 1.1.6. Avon will adopt and support current FEMA floodplain mapping by federal, state, and local agencies.
 - 1.1.7. Avon will identify, establish, and maintain erosion control measures along streams, ditches and rivers, as well as along the shoreline of Lake Erie.
 - 1.2. Avon will support and implement the proper maintenance of storm sewers and water lines to minimize flooding and maximize the ability for the city to manage storm runoff.
 - 1.3. Avon will identify, seek funding for, and complete projects that acquire, relocate, and demolish repetitive flood loss structures.
 - 1.4. Avon will create retention ponds, vegetative buffer zones, natural habitats, and barriers where flooding waterways cause repeated damages to properties that cannot feasibly be relocated or otherwise protected.
2. The City of Avon will support improvements to notification and warning systems.
 - 2.1. Avon will support and participate in the development of warning and notification systems that include digital methods of contact including text messaging, emails, as well as outdoor sirens to warn residents and workers of immediate dangers and inclement weather conditions.
3. Avon will improve storm shelter options for residents of the city.
 - 3.1. Avon will identify, support, and/or construct safe rooms for residents who live in multi-family housing developments and mobile homes without shelters for tornadoes and other severe wind incidents.

4. Avon will improve public awareness and education outreach for its residents regarding warning, notification, and information sharing.
 - 4.1. Avon will conduct and promote educational programs for children and families regarding flood safety, fire safety and prevention, and weather awareness and safety during storms and disasters.
 - 4.2. Avon will create information to be posted electronically for resident and worker safety during and after an earthquake.
 - 4.3. Avon will educate the public about heat and cold emergencies and how to be safe during those times as a way to minimize the emergency needs of the city during temperature extremes, and to minimize how significantly safety forces are overwhelmed during those times.
5. Avon will improve utility services' reliability during storms.
 - 5.1. Avon will work with utility providers to improve and harden utility services by burying utility lines in new and renovated residential areas, and by replacing old worn supply lines in older neighborhoods.

CITY OF AVON LAKE

1. The City of Avon Lake will build community-wide resiliency by minimizing the negative effects of all natural disasters on the city's property and residents.
 - 1.1. The City of Avon Lake will sustain awareness and advocacy of good regular maintenance procedures such as ditch bank maintenance, retention basin maintenance, upkeep and trimming of trees on properties, and clearing of excessive vegetation from streams and waterways.
 - 1.2. The City of Avon Lake will work with conservancy and soil conservation groups to develop and implement practices to conserve topsoil, prevent erosion, and maintain natural habitats for the purpose of reducing flood and erosion risks.
 - 1.3. The City of Avon Lake will update the existing comprehensive plan for land use within the jurisdiction, taking into account the consequences of development and the effect of existing properties and businesses, as well as the consequences on the communities downstream
 - 1.4. The City of Avon Lake will maintain and sustain building standards for construction, including contractor-vendor approval, industry stands for construction and reasonable construction materials guidance.
 - 1.5. The City of Avon Lake will follow the Ohio Basic Building Code as a reference for disaster-resistant construction standards.
 - 1.6. The City of Avon Lake will maintain land use ordinances that protect and preserve the best use and least damaging use of properties within the jurisdiction.

- 1.7. The City of Avon Lake will sustain requirements that new development follow sustainable design in planning new structures and land uses.
2. The City of Avon Lake will develop projects to lessen the damages to property from flooding.
 - 2.1. The City of Avon Lake will conduct acquisition and demolition/relocation projects to remove severe and repetitive loss structures and to prevent further losses.
 - 2.2. The City of Avon Lake will require construction of retention ponds to hold runoff water during periods of heavy precipitation. Retention ponds will be required to contain the 100-year frequency storm runoff.
 - 2.3. The City of Avon Lake will improve storm sewer systems to more adequately manage runoff water for all areas and enhance prevention /minimization of flooding in residential and commercial areas.
 - 2.3.1. The City of Avon Lake will complete efforts to revise the city's storm water master plan to include computer modeling.
 - 2.3.2. The City of Avon Lake will maintain/repair retention basins and structures that hold or contain water that otherwise may flood homes and other properties.
 - 2.4. The City of Avon Lake will identify and develop elevation options for roadways, streets, and other infrastructure that is negatively affected by flooding on a regular basis.
3. The City of Avon Lake will educate the community about the notification system that warn them of impending disasters and the actions they should take immediately to protect themselves and their property.
 - 3.1. The City of Avon Lake will maintain the current Code Red communication system that enables the city to notify residents in numerous ways of impending danger and/or inclement weather risks.
 - 3.2. The City of Avon Lake will improve the communication systems between first responders and other critical resources in the event of an emergency or disaster.
 - 3.3. The City of Avon Lake will develop partnerships with Lorain County Emergency Management Agency and others to develop information dissemination capabilities that might include 2-1-1 and other community agencies that would enhance the community's ability to communicate with all populations, including those with functional and special needs.
 - 3.4. The City of Avon Lake will identify and communicate with special populations within the jurisdiction as it relates to disasters, warning and notification, and response.
 - 3.5. The City of Avon Lake will educate the community about evacuation procedures and how to identify shelter locations, comfort stations, and service centers during disasters.

4. The City of Avon Lake will establish sites to be used as shelters, comfort stations, and service centers during disasters, and will strive to equip these sites with features necessary to adequately serve the community during storms, power outages, and other disasters.
 - 4.1. The City of Avon Lake will investigate and implement means to create and provide safe rooms for residents who live in homes built on concrete slabs, and other structures that lack storm shelters used as protection in wind and other severe storms.

5. The City of Avon Lake will work with utility providers to harden utility services and to prevent excessive outages during storms and inclement weather.
 - 5.1. The City of Avon Lake will bury power and utility lines in new neighborhoods, homes, and businesses.

 - 5.2. The City of Avon Lake will replace deteriorating power, water, sewer, and other utility distribution systems.

 - 5.3. The City of Avon Lake will develop protective actions to prevent or lessen the likelihood of damage to water treatment and/or distribution systems during disasters and inclement weather.

 - 5.4. The City of Avon Lake will work with wireless service providers to establish dependable and resilient wireless service within the jurisdiction to improve the capability to communicate during inclement weather and disasters.

6. The City of Avon Lake will improve structure identification systems in the city.
 - 6.1. Avon Lake will improve GIS mapping and addressing within the community so that first responders and service providers can more easily locate and assist victims at particular residences and businesses.

7. The City of Avon Lake will develop a solid waste and debris management plan for the city to facilitate rapid storm clean up.
 - 7.1. Avon Lake will identify and approve disposal sites for disaster debris, including segregated solid waste such as construction materials, wood and combustible waste, masonry and concrete waste, metal waste, paper and general garbage, and hazardous waste.

8. The City of Avon Lake will implement a redundant secondary water supply to be used for purposes such as firefighting.
 - 8.1 Avon Lake will identify and implement a water supply plan for emergencies that supports, supplements, or serves in place of the municipal or county water supply during large fires.

 - 8.2 The City of Avon Lake will advocate and support construction of ponds with the capability of being used as an alternative water supply that are equipped with dry hydrants.

CARLISLE TOWNSHIP

1. Carlisle Township will work to minimize the effects of flooding on residents and properties in the township.
 - 1.1. Carlisle Township will improve storm sewer systems to more adequately manage runoff water for all areas thus preventing/lessening flooding in residential and/or commercial properties.
 - 1.2. Carlisle Township will identify and develop elevation options for roadways, streets, and other infrastructure that is negatively affected by flooding on a regular basis.
 - 1.3. Carlisle Township will construct retention ponds to hold runoff waters during periods of heavy precipitation.
 - 1.4. Carlisle Township will maintain, repair, and replace dams, dikes, and reservoirs that hold or contain waters that otherwise might flood homes and other properties.
 - 1.5. Carlisle Township will acquire, demolish and relocate families as a means to remove repetitive loss structures and prevent further losses.
 - 1.6. Carlisle Township will work with conservancy and soil conservation groups to develop and implement practices to conserve topsoil, prevent erosion and maintain natural habitats to reduce flood and erosion risks and losses.
2. Carlisle Township will improve and harden utility services and infrastructure to improve the city's ability to manage storms, disasters, and other catastrophes without unnecessary loss.
 - 2.1. Carlisle Township will replace aging and deteriorating power, sewer, and other utility distribution systems.
 - 2.2. Carlisle Township will identify and implement a water supply plan for emergency purposes that support, supplement, or serve in place of a municipal or county water supply during large fires.
 - 2.3. Carlisle Township will develop protective actions to lessen the likelihood of damage to water treatment and/or distribution systems during disasters and inclement weather.
 - 2.4. Carlisle Township will acquire a backup generator for public safety facilities and shelters.
 - 2.5. Carlisle Township will bury power and utility lines in new neighborhoods, homes, and businesses.
3. Carlisle Township will develop, improve, and sustain effective communications during disasters for the purpose of saving lives and preserving property.
 - 3.1. Carlisle Township will improve communication between first responders and other Critical resources before, during, and after disaster incidents.

- 3.2. Carlisle Township will partner with Lorain County Emergency Management Agency and others to develop communications capabilities such as text messages, phone call systems, and others to notify the public of impending danger or inclement weather risks.
- 3.3. Carlisle Township will improve GIS mapping and addressing within the community so that first responders and service providers can more easily locate and assist victims at particular residences and businesses.
- 3.4. Carlisle Township will develop, expand, and/or maintain an outdoor warning siren system.
- 3.5. Carlisle Township will work with wireless service providers to establish dependable and resilient wireless service within the city to improve the capability to communicate during inclement weather and disasters.
- 3.6. Carlisle Township will identify and communicate with special populations including those with functional and special needs regarding disaster related needs and recovery needs.
4. Carlisle Township will inform and advocate preventive and sustainable actions of property owners to decrease the damages to property during disasters, and to foster rapid recovery from storms and floods.
 - 4.1. Carlisle Township will advocate to property owners about regular maintenance practices that result in preventing excessive damage to structures during storms such as ditch bank maintenance, tree trimming and clearing excessive vegetation from streams and waterways.
5. Carlisle Township will develop a comprehensive plan for land use within the township, taking into account the consequences of development and the effect on existing properties and businesses, as well as consequences on communities downstream.
 - 5.1. Carlisle Township will consider establishing land use ordinances that protect and preserve the best and least damaging property use within the city.
 - 5.2. Carlisle Township will consider the creation of building standards for construction, including such practices as contractor-vendor approval, acceptable industry standards for construction, and reasonable construction materials guidance
6. Carlisle Township will develop storm shelters, community rooms, and other protective measures for residents and visitors during severe storms.
 - 6.1. Carlisle Township will investigate and implement safe rooms for residents who live in mobile homes, homes built on concrete slabs, and other structures that lack storm shelters used as protection in wind and other severe storms.
 - 6.2. Carlisle Township will educate the community about evacuation procedures and how to identify shelters, comfort stations, and service centers.

- 6.3. Carlisle Township will update lists of sites to be used as shelters, comfort stations, and service centers during storms, power outages, and other disasters.
7. Carlisle Township will develop improved debris management to make recovery faster and more effective.
 - 7.1. Carlisle Township will identify and approve disposal sites for disaster debris including segregated solid waste, construction materials, wood combustibles, masonry, concrete, and metal waste, paper, general garbage, and hazardous waste.

CITY OF ELYRIA

1. The City of Elyria will develop, improve, and sustain effective communications during disasters for the purpose of saving lives and preserving property.
 - 1.1. The City of Elyria will improve communication between first responders and other critical resources.
 - 1.2. The City of Elyria will partner with Lorain County Emergency Management and other agencies to develop or acquire communications tools such as text messages phone call systems, and others to notify the public of impending danger or inclement weather risks.
 - 1.3. The City of Elyria will educate the community about evacuation procedures and how to identify shelters, comfort stations, and service centers.
 - 1.4. The City of Elyria will develop expand, and/or maintain an outdoor warning siren system.
 - 1.5. The City of Elyria will identify and communicate with special populations including those with functional and special needs.
2. The City of Elyria will engage in property and natural resources mitigation.
 - 2.1. The City of Elyria will educate and advocate to property owners about regular maintenance practices that result in preventing excessive damage to structures during storms such as ditch bank maintenance, tree trimming and clearing excessive vegetation from streams and waterways.
 - 2.2. The City of Elyria will consider development of a comprehensive plan for land use within the city, taking into account the consequences of development and the effect on existing properties and businesses, as well as consequences on communities downstream.
 - 2.3. The City of Elyria will investigate and implement means to create and provide safe rooms for residents who live in mobile homes, homes built on concrete slabs, and other structures that lack storm shelters used as protection in wind and other severe storms.
 - 2.4. The City of Elyria will consider establishing land use ordinances that protect and preserve the best and least damaging property use within the city.
 - 2.5. The City of Elyria will consider the creation of building standards for construction, including such practices as contractor-vendor approval, acceptable industry standards for construction, and reasonable construction materials guidance.
 - 2.6. The City of Elyria will work with conservancy and soil conservation groups to develop and implement practices to conserve topsoil, prevent erosion and maintain natural habitats to reduce flood and erosion risks.
3. The City of Elyria will work to mitigate flood consequences.

- 3.1. The City of Elyria will work to improve storm sewer systems to more adequately manage runoff water for all areas thus preventing/lessening flooding in residential and/or commercial properties.
 - 3.2. The City of Elyria will identify and develop elevation options for roadways, streets, and other infrastructure that is negatively affected by flooding on a regular basis.
 - 3.3. The City of Elyria will consider construction of retention ponds to hold runoff waters during periods of heavy precipitations.
 - 3.4. The City of Elyria will work to maintain/repair/replace dams, dikes, and reservoirs that hold or contain waters that otherwise might flood homes and other properties.
 - 3.5. The City of Elyria will consider acquisition and demolition projects to remove repetitive loss structures and prevent further losses.
4. The City of Elyria will protect utilities as part of the mitigation efforts.
 - 4.1. The City of Elyria will work to replace aging and deteriorating power, sewer, and other utility distribution systems.
 - 4.2. The City of Elyria will work to develop protective actions to lessen the likelihood of damage to water treatment and/or distribution systems during disasters and inclement weather.
 - 4.3. The City of Elyria will work with wireless service providers to establish dependable and resilient wireless service within the city to improve the capability to communicate during inclement weather and disasters.
 - 4.4. The City of Elyria will work to bury power and utility lines in new neighborhoods, homes, and businesses.
 5. The City of Elyria will take other actions to promote disaster mitigation and lessen damages due to storms and natural hazards.
 - 5.1. The City of Elyria will identify and implement a water supply plan for emergency purposes that supports, supplements, or serves in place of a municipal or county water supply during large fires.
 - 5.2. The City of Elyria will improve GIS mapping and addressing within the community so that first responders and service providers can more easily locate and assist victims at particular residences and businesses.
 - 5.3. The City of Elyria will acquire backup generators for public safety facilities and shelters.
 - 5.4. The City of Elyria will update the list of sites to be used as shelters, comfort stations, and service centers during storms, power outages, and other disasters.
 - 5.5. The City of Elyria will advocate and support the construction of ponds with the capability of being used as an alternative water supply and equip these with dry hydrants.
 - 5.6. The City of Elyria will identify and approve disposal sites for disaster debris including segregated solid waste (construction materials, wood, combustibles, masonry, concrete, and metal), paper, general garbage and hazardous waste.

VILLAGE OF GRAFTON

1. The Village of Grafton will maintain residential and commercial building codes to include a regular inspection program and contractor registration for work within the village.

- 1.1. The Village of Grafton will establish and support a Fire Safety inspection Bureau at the fire department to enhance the enforcement and application of building codes in the village.
- 1.2. The Village of Grafton will provide special rescue and technical training to first responders to minimize the loss of life during disasters, and to facilitate the safe conduct of rescue operations during incidents.
2. The Village of Grafton will harden utility service in the village so that life-sustaining services are not interrupted during storms and disasters.
 - 2.1. The Village of Grafton will install upgrades and updates to the electrical and water supply systems.
 - 2.2. The Village of Grafton will add a redundant water supply source to decrease dependency during disaster upon a single supply.
 - 2.3. The Village of Grafton will install a replacement water tower with the purpose of hardening water supply to residents and businesses during disasters and inclement weather conditions.
 - 2.4. The Village of Grafton will remove old and deteriorated utility systems equipment and facilities with the purpose of decreasing the likelihood of damage to property caused by these structures during a disaster or severe storm.
 - 2.5. The Village of Grafton will identify and implement proactive maintenance procedures to decrease the incidence of failure during disasters and storms.
3. The Village of Grafton will improve emergency and crisis communications systems and interoperability.
 - 3.1. Grafton will improve emergency and crisis communications equipment for the purpose of interoperability with Lorain County and other jurisdictions during large scale and extended emergencies and disasters.
4. The Village of Grafton will reassess, improve, and identify shelters, community gathering rooms, and comfort stations for use during disasters and long-term power outages.
 - 4.1. The Village of Grafton will evaluate and plan for appropriate acquisition and installation of safe rooms as funding becomes available for those residents who live in mobile homes, homes built on concrete slabs, or those who live in buildings that lack subsurface shelters.
5. The Village of Grafton will inform residents about disaster preparedness.
 - 5.1. Grafton will conduct a public education campaign to educate the residents about disaster preparedness and response, including natural and transportation disaster risks.
6. The Village of Grafton will be prepared to handle emergency consequences of disasters that involve correctional facilities adjacent to the village.

- 6.1. Grafton will assess and analyze the risk of disaster related to correctional facilities within and adjacent to the village, and will establish a plan to mitigate those problems during natural disasters and emergencies caused by natural circumstances.
7. The Village of Grafton will protect properties from flooding through acquisition, demolition, and relocation projects to eliminate flood losses where property owners are willing and funds exist to complete such projects

VILLAGE OF KIPTON

1. The Village of Kipton will improve notification and warning systems for residents of Kipton.
 - 1.1. Kipton will support and advocate for use of a countywide emergency notification system that utilizes various forms of technology to notify residents of impending danger or inclement weather.
2. The Village of Kipton will minimize the losses from flooding.
 - 2.1. Kipton will identify repetitive or severe loss structures for acquisition and demolition and relocation for the occupants and by applying for and using funds to complete these projects.
 - 2.2. The Village of Kipton will support and participate in a countywide storm water assessment and implementation of a countywide plan to manage storm water to minimize flooding across the county.
3. The Village of Kipton will support improvement to individual sheltering options during severe storms in the village.
 - 3.1. Kipton will work to establish safe rooms for households that lack basements or other appropriate shelter during severe storms such as tornadoes.

VILLAGE OF LAGRANGE

1. Lagrange will support and maintain land use planning efforts that lessen the effects of natural disasters on the properties located in the village.
 - 1.1. Lagrange will continue its contractor registration process to ensure high quality services are provided after storms have damaged properties.
 - 1.2. Lagrange will maintain residential and commercial building codes, zoning regulations, flood plain regulations, and other standards intended to protect and preserve high quality construction, renovation, and repair.
2. Lagrange will support and maintain warning and notification systems.
 - 2.1. Lagrange will maintain a notification system that advise residents and workers of dangerous or critical situations, and that communicate weather alerts in a timely fashion.
3. Lagrange will support and construct projects that lessen the effects of flooding on the village.
 - 3.1. Lagrange will complete and sustain a storm water improvement project funded through user fees charged to property owners under an assessment program.

- 3.2. Lagrange will identify publically owned locations in the village that flood repeatedly during or after heavy precipitation or runoff, and analyze the effects of that flooding on the community.
- 3.3. Lagrange will develop corrective actions to alleviate flooding that prevents access to specific properties during times of heavy rain or runoff.
- 3.4. Lagrange will participate in acquisition, demolition, and relocation projects for properties that have severe or repetitive flood loss and property owners are willing to take action.
4. Lagrange will identify service facilities for use by residents during storms and disasters.
 - 4.1. Lagrange will establish an approved overnight shelter within the village limits to be used during evacuations, extended power outages, and other emergency situations.
 - 4.2. Lagrange will establish a community comfort station to be used during daytime emergencies for the purpose of feeding and hydration, communication, supply distribution, and social gathering.

CITY OF LORAIN

1. The City of Lorain will improve warning and notification systems that alert residents of impending dangers or inclement weather.
 - 1.1. Lorain will support and participate in a countywide warning and notification system that includes digital notification, social media, and reverse telephone notifications to warn residents about immediate dangers and inclement weather.
 - 1.2. Lorain will assess the need for additional outdoor warning sirens, and will install additional devices in areas where current coverage is minimal or insufficient.
2. The City of Lorain will identify, establish, and utilize protective measures to shelter residents during dangerous weather or other inclement situations.
 - 2.1. Lorain will support the Lorain County EMA and American Red Cross in the identification of, support for and use of shelters during evacuations and extreme weather conditions, power outages, or other disasters.
 - 2.2. Lorain will work with Lorain County to identify and establish comfort stations and service centers to be used to serve residents quickly and efficiently during disasters.
3. Lorain will restore natural habitat in areas prone to flooding, or those that have been developed and would best be returned to natural habitat due to flood risk.
 - 3.1. Lorain will work with conservancy and soil conservation groups to develop and implement practices to conserve topsoil, prevent erosion, and to maintain natural habitats for the purpose of reducing flood and erosion/beachfront erosion during weather incidents.

4. The City of Lorain will lessen damages to property during floods and times of heavy or rapid precipitation.
 - 4.1. Lorain will acquire and demolish repetitive loss structures and relocate the families housed in those structures.
 - 4.2. Lorain will improve storm sewers systems to more adequately handle runoff water and thus prevent/lessen flooding in residential and/or commercial properties.
 - 4.3. Lorain will construct retention ponds and vegetative buffers in areas of new development, or in areas that habitually flood during heavy rainfall.
5. The City of Lorain will enforce, support, and enhance building codes, zoning regulations, and other land use regulation where disaster losses can be prevented by such actions.
 - 5.1. Lorain will improve and sustain a contractor registration process for work done inside the city with the purpose of preventing inadequate and improper construction practices during disaster response and recovery, and as a way to insure compliance with current land use and building regulations.
 - 5.2. Lorain will develop a comprehensive land use plan for the city, including sustainment of regulations that lessen the negative effects of disasters.
6. The City of Lorain will maintain, improve, and sustain adequate power lines, utility lines, and other infrastructure to prevent extreme losses during inclement weather and disasters.
 - 6.1. Lorain will utilize fees and assessments to property owners to fund the improvements to infrastructure for the purpose of constructing more resilient utilities.
 - 6.2. Lorain will bury utilities in new neighborhoods or commercial developments.
7. The City of Lorain will improve location identification and communication for emergency responders.
 - 7.1. Lorain will improve GIS mapping and addressing in the city to facilitate rapid location and assistance to residents and businesses by public safety and public works during disasters, thus decreasing the loss and casualty occurrences during those incidents.
8. The City of Lorain will improve services to special populations during disasters to minimize loss of life and injuries.
 - 8.1. Lorain will work to identify, analyze, and establish critical services for the children of the city who are economically disadvantaged or considered in need of assistance for safety and security needs.

CITY OF NORTH RIDGEVILLE

1. The City of North Ridgeville will minimize the negative effects of flooding on its residents and properties.
 - 1.1. North Ridgeville will educate and advocate to property owners good regular maintenance practices that result in preventing excessive damages to structures during

storms, such as ditch bank maintenance, trimming trees, and clearing excessive vegetation from streams and waterways.

- 1.2. North Ridgeville will support the construction of retention ponds to hold runoff waters during periods of heavy precipitation.
- 1.3. North Ridgeville will improve storm sewer systems to more adequately manage runoff water for all areas and thus prevent/lessen flooding in residential and/or commercial properties.
- 1.4. North Ridgeville will construct new storm sewers to adequately handle runoff and drainage loads where development, wear and tear, or lack of structures makes flooding likely.
- 1.5. North Ridgeville will reduce the impact of natural hazard by preserving or restoring natural areas and their mitigation functions through erosion and sediment control of waterways.
- 1.6. North Ridgeville will work with other conservancy and soil conservation groups to develop and implement practices to conserve topsoil, prevent erosion, and maintain natural habitats for the purpose of reducing flood and erosion risks.
- 1.7. North Ridgeville will participate in acquisition, demolition, and relocation projects for properties that have severe or repetitive losses and property owners are willing to participate.
2. North Ridgeville will improve warning and notification systems and will improve general communication with residents during disasters to more effectively recover from disasters.
 - 2.1. North Ridgeville will investigate and identify communication tools such as text messages, phone call systems, and others, perhaps as part of a countywide system, to effectively notify the community of impending danger and/or inclement weather risks.
3. North Ridgeville will conduct preparedness outreach and education programs for residents of the city.
 - 3.1. North Ridgeville will educate the community about evacuation procedures and how to identify shelter locations, comfort stations, and service centers during disasters.
4. The City of North Ridgeville will identify, establish, and utilize protective measures to shelter residents during dangerous weather or other inclement situations.
 - 4.1. North Ridgeville will support the Lorain County EMA and American Red Cross in the identification of, support for and use of shelters during evacuations and extreme weather conditions, power outages, or other disasters.
 - 4.2. North Ridgeville will work with Lorain County to identify and establish comfort stations and service centers to be used to serve residents quickly and efficiently during disasters.

CITY OF OBERLIN

1. The City of Oberlin will reduce the negative effects of flooding on city residents and properties.
 - 1.1. Oberlin will support progressive storm water management by facilitating widespread development of countywide storm water planning to help prevent downstream flooding.
 - 1.2. Oberlin will strive to install vegetative buffer zones and natural habitat restoration in areas that flood on a repeated basis, especially along Plum Creek, and will work with property owners to facilitate those conservation measures.
 - 1.3. Oberlin will support residential and commercial building code enforcement, floodplain management, and zoning regulations in an attempt to minimize flooding and property loss due to flooding.
 - 1.4. Oberlin will use, when funding is available, acquisition, relocation, and demolition projects for structures that incur repeated flooding and/or are located in a high-risk flood zone.
2. Oberlin will work to harden utilities within the city to foster rapid recovery from disasters.
 - 2.1. Oberlin will continue to search for a means to provide alternate power supplies for all critical facilities within the city to insure the continuation of life-saving services during severe weather, disasters, and long periods of power outages and other storms.
3. Oberlin will improve sheltering and protective measures available to residents during severe storms.
 - 3.1. Oberlin will support a countywide program for identification of safe rooms for residents and visitors in wind-resistant shelters.
4. Oberlin will improve emergency communications within the city and with all entities in Lorain County to lessen the loss of life and property during disasters.
 - 4.1. Oberlin will participate in a countywide interoperable communications system that includes tactical frequencies for public safety as well as city administration and other important service providers.
 - 4.2. Oberlin will support the maintenance of its current notification system, and will consider support of a countywide emergency notification system that includes text messaging, mobile apps, emails, and other digital and social media
5. Oberlin will identify and plan for emergency operations with all populations in order to protect the life and safety residents, visitors, and workers during natural disasters.
 - 5.1. Oberlin will strive to clarify and coordinate emergency efforts with special populations and groups so that those who reside in multi-family housing are adequately served during emergencies and disasters.

VILLAGE OF ROCHESTER

1. The Village of Rochester will improve rapid warning and notification systems.

- 1.1. Rochester will support and a countywide emergency notification system that utilizes various forms of technology to notify residents of impending danger or inclement weather.
2. The Village of Rochester will decrease the impact of flooding on village residents.
 - 2.1. Rochester will identify repetitive or severe loss structures for acquisition and demolition and relocation for the occupants and by applying for and using funds to complete these projects.
3. The Village of Rochester will support countywide flood mitigation studies.
 - 3.1. Rochester will participate in a countywide storm water assessment and implementation of a countywide plan to manage storm water to minimize flooding across the county.

VILLAGE OF SHEFFIELD

1. Sheffield will advocate and educate officials and residents about the need to develop countywide storm water management planning and regulation.
 - 1.1. Sheffield will participate in storm water study in Lorain County, and will develop retention ponds, detention structures, and vegetative buffers to lessen flooding in downstream areas.
 - 1.2. Sheffield will establish and support economic development standards that utilize current building codes, zoning standards, and other land use planning regulations that take into consideration the effect of development on storm water and flooding effects.
2. The Village of Sheffield will reduce the negative effects of flooding on village residents and properties.
 - 2.1. Sheffield will advocate for the proper maintenance of streams, ditches, and rivers to reduce debris and vegetation that causes water to back up and flood areas inside the city and upstream from the city.
 - 2.2. Sheffield will advocate for property owners in floodplains to carry flood insurance as a way to protect and mitigate flood losses.
 - 2.3. Sheffield support current FEMA floodplain mapping by federal, state, and local agencies.
 - 2.4. Sheffield will identify, establish, and maintain erosion control measures along streams, ditches and rivers, as well as along the shoreline of Lake Erie.
 - 2.5. Sheffield will implement the proper maintenance of storm sewers and water lines to minimize flooding and maximize the ability for the city to manage storm runoff.
 - 2.6. Sheffield will identify and complete projects that acquire, relocate, and demolish repetitive flood loss structures.

- 2.7. Sheffield will create retention ponds, vegetative buffer zones, natural habitats, and barriers where flooding waterways cause repeated damages to properties that cannot feasibly be relocated or otherwise protected.
3. The Village of Sheffield will improve warning and notification for residents.
 - 3.1. Sheffield will participate in the development of warning and notification systems that include digital methods of contact including text messaging, emails, as well as outdoor sirens to warn residents and workers of immediate dangers and inclement weather conditions.
4. The Village of Sheffield will improve protective actions available during severe storms.
 - 4.1. Sheffield will provide safe room programs for residents who live in congregate housing developments and mobile homes without shelters for tornadoes and other severe wind incidents.
5. The Village of Sheffield will harden utility services during storms and disasters.
 - 5.1. Sheffield will collaborate with utility providers to improve and harden utility services by burying utility lines in new and renovated residential areas, and by replacing old worn supply lines in older neighborhoods.
6. The Village of Sheffield will conduct public outreach and education programs to minimize the loss of life and property during disasters.
 - 6.1. Sheffield will conduct educational programs for children and families regarding flood safety, fire safety and prevention, and weather awareness and safety during storms and disasters.
 - 6.2. Sheffield will create information to be posted electronically for resident and worker safety during and after an earthquake.
 - 6.3. Sheffield will educate the public about heat and cold emergencies and how to be safe and secure during those times as a way to minimize the emergency needs of the city during temperature extremes, and to minimize how badly safety forces are overwhelmed during those times.

CITY OF SHEFFIELD LAKE

1. The City of Sheffield Lake will educate the community about the notification systems that warn them of impending disasters and the actions they should take immediately to protect themselves and their property.
 - 1.1. Sheffield Lake will investigate and identify communication tools such as text messages, phone call systems, and others, perhaps as part of a countywide system, to effectively notify the community of impending danger and/or inclement weather risks.
 - 1.2. Sheffield Lake will improve the communication systems between first responders and other critical resources in the event of an emergency or disaster.

- 1.3. Sheffield Lake will develop partnerships with Lorain County Emergency Management and other agencies to develop information dissemination capabilities that might include 2-1-1 and other community agencies, and would enhance the community's ability to communicate with all populations, including those with functional and special needs.
- 1.4. Sheffield Lake will effectively identify and communicate with special populations within the jurisdiction as it relates to disasters, warning and notification, and response.
- 1.5. Sheffield Lake will educate the community about evacuation procedures and how to identify shelter locations, comfort stations, and service centers during disasters.
2. The City of Sheffield Lake will improve protective options for residents during severe storms and disasters.
 - 2.1. Sheffield Lake will establish sites to be used as shelters, comfort stations, and service centers during disasters, and will strive to equip these sites with the features necessary to adequately serve the community during storms, power outages, and other disasters.
3. The City of Sheffield Lake will identify and implement a water supply plan for emergency purposes that support, supplement, or serve in place of a municipal or county water supply during large fires.
 - 3.1. Sheffield Lake will construct ponds with the capability of being used as an alternate water supply, and that are equipped with dry hydrants.
4. The City of Sheffield Lake will conduct public outreach and education for property owners to reduce the effects of disasters.
 - 4.1. Sheffield Lake will educate about and advocate to property owners good regular maintenance practices that result in preventing excessive damages to structures during storms, such as ditch bank maintenance, trimming trees, and clearing excessive vegetation from streams and waterways.
5. The City of Sheffield Lake will develop projects to lessen the damages to property from flooding.
 - 5.1. Sheffield Lake will use acquisition and demolition projects to remove repetitive loss structures and prevent further losses.
 - 5.2. Sheffield Lake will construct retention ponds to hold runoff waters during periods of heavy precipitation.
 - 5.3. Sheffield Lake will improve storm sewer systems to more adequately manage runoff water for all areas and thus prevent/lessen flooding in residential and/or commercial properties.
 - 5.4. Sheffield Lake will identify and develop elevation options for roadways, streets, and other infrastructure that is negatively affected by flooding on a regular basis.

6. The City of Sheffield Lake will work with utility providers to harden utility services and to prevent excessive outages during storms and inclement weather.
 - 6.1. Sheffield Lake will bury power and utility lines in new neighborhoods, homes, and businesses.
 - 6.2. Sheffield Lake will replace aging and deteriorating power, water, sewer, and other utility distribution systems.
 - 6.3. Sheffield Lake will develop protective actions to prevent or lessen the likelihood of damage to water treatment and/or distribution systems during disasters and inclement weather.
 - 6.4. Sheffield Lake will work with wireless service providers to establish dependable and resilient wireless service within the jurisdiction to improve the capability to communicate during inclement weather and disasters.
7. The City of Sheffield Lake will improve location identification capability to lower response times and increase accuracy in response.
 - 7.1. Sheffield Lake will improve GIS mapping and addressing within the community so that first responders and service providers can more easily locate and assist victims at particular residences and businesses.
8. The City of Sheffield Lake will improve recovery times by more effectively managing storm clean up.
 - 8.1. Sheffield Lake will identify and approve disposal sites for disaster debris, including segregated solid waste such as construction materials, wood and combustible waste, masonry and concrete waste, metal waste, paper and general garbage, and hazardous waste.

VILLAGE OF SOUTH AMHERST

1. The Village of South Amherst will support effective notification and warning systems.
 - 1.1. South Amherst will maintain an emergency notification system that utilizes various forms of technology to notify residents of impending danger or inclement weather.
2. The Village South Amherst will minimize the losses from flooding.
 - 2.1. South Amherst will identify repetitive or severe loss structures for acquisition and demolition and relocation for the occupants and by applying for and using funds to complete these projects.
3. The Village of South Amherst will participate in a countywide storm water assessment.
 - 3.1. South Amherst will participate in countywide planning to assess and manage storm water to minimize flooding across the county.
4. The Village of South Amherst will harden utility supplies during disasters.
 - 4.1. South Amherst will bury utility lines for all new construction.

- 4.2. South Amherst will make improvements to the storm sewer system in the village to lessen flooding by facilitating good and rapid drainage capabilities.
- 4.3. South Amherst will develop a redundant water supply for the village with the purpose of lessening water outages when intake is impeded by extremely cold weather.
5. The Village of South Amherst will support improvements and clarity to emergency communications components.
 - 5.1. South Amherst will improve GIS mapping for the village to eliminate confusion when first responders must find specific locations.
 - 5.2. South Amherst will improve communications interoperability between local first responders as well as between village responders and other adjacent and county departments.
6. The Village of South Amherst will improve shelter capacity in the village.
 - 6.1. South Amherst will facilitate placement of safe rooms on properties that lack wind-safe shelter.

CITY OF VERMILION

1. The City of Vermilion will lessen the negative effects of flooding within the city.
 - 1.1. Vermilion will use acquisition and relocation programs for repetitive flood loss properties.
 - 1.2. Vermilion will educate property owners and advocate for flood insurance coverage for properties in locations where flood damage is likely.
 - 1.3. Vermilion will acquire properties prone to flooding, and to restore the properties to a natural state, as appropriate, through cooperation with park and recreations groups, conservation groups, state agencies, and other appropriate resources.
 - 1.4. Vermilion will improve storm sewer systems to more adequately manage runoff water for all areas and thus prevent or lessen flooding in residential and/or commercial properties.
2. The City of Vermilion will insure the availability of potable drinking water for residents during extremely cold periods or extended cold periods.
 - 2.1. Vermilion will identify, design, and implement improvements to water supply intake systems to lessen the negative effect of ice jams on the water supply.
 - 2.2. Vermilion will maintain relationships with water providers such as Erie County, Lorain, and Northern Ohio Rural Water to provide a redundant water supply when intake sources are not operational for the city's normal water system.

3. The City of Vermilion will develop and sustain resilient utility services through communication with property owners that advocate and educate them about responsible property ownership.
 - 3.1. Vermilion will advocate regular and effective tree trimming, debris management, and ditch maintenance for private property owners.
 - 3.2. Vermilion will identify funding for and purchase alternate power supplies for critical facilities within the city.
 - 3.3. Vermilion will identify funding for and purchase at least one large, portable generator to be used to sustain critical services on site during storms or aftermath.
4. The City of Vermilion will maintain public outreach efforts to lessen the effects of natural disasters on the residents of the city.
 - 4.1. Vermilion will maintain their municipal warning and notification system.
 - 4.2. Vermilion will distribute educational materials about evacuation, shelters, and comfort stations to the residents for their use and safety during evacuations and severe storms.

VILLAGE OF WELLINGTON

1. The Village of Wellington will improve warning and notification systems.
 - 1.1. Wellington will expand the outdoor warning siren system to harden and improve warning and notification capabilities. As the geographic footprint of the community has expanded, and development on the periphery of the village has occurred, the current central siren needs to be improved with the installation of outlying sirens to more effectively inform the public. The current system does not have a verbal warning capability, so that will be considered as a feature in a new system.
 - 1.2. Wellington will install additional siren/voice notification nodes at strategic locations to improve warning capabilities.
2. Wellington, through its Electric Department, will create a redundant and separate electrical grid interconnection to harden utility services and to prevent excessive outages during storms and inclement weather.
 - 2.1. Wellington will build a new substation that will be a second interconnection to the grid power supply and will be fed by a separate distribution line from the area electrical transmission company. This will provide redundancy at both the local interconnection level and at the distribution level and should significantly harden the utility to storm impacts.

Assignment of Strategy Objectives within Jurisdictions

The following table assigns a priority and a key strategy leader for each strategy in each jurisdiction. The lead agency/official is NOT the person who necessarily has the authority or power to make a strategy into a project; nor is this person the one who would be held responsible for project completion should the strategy become funded and planned in a specific location. This person IS one who may coordinate the overall effort, may play a key role in getting the

project going, or by default is the person most appropriate to lead project development at the initial stage.

Once a strategy becomes a project, the jurisdiction in charge will likely identify a project manager who may or may not be the same as the lead person prior to project commencement.

Each strategy was assigned to a single entity even though there may be components that are more relevant to another agency. The lead agency or person is simply the entity who takes on leadership to make sure the strategy is considered, kept in active discussion, and implemented if possible during the five year cycle. This person/agency is NOT the only one that would be involved in the project, nor are they the only one involved in keeping the strategy alive. Simply for absolute accountability, the strategy is assigned to a single entity.

Strategy Category	Lead Agency or Person	Start Date	End Date	Funding Source
LORAIN COUNTY				
1.1 Prevention	Floodplain Manager	01-01-15	12-31-19	General Budget
1.2 Prevention	EMA Director	01-01-15	12-31-19	General Budget
1.3 Structurally Engineered Projects	County Sanitary Engineer	01-01-15	12-31-19	General Budget PDM and FMA
1.4 Natural Resource Protection	Soil and Water Conservation	01-01-15	12-31-19	General Budget Private Funding PDM and FMA
1.5 Structurally Engineered Projects	EMA Director	01-01-15	12-31-19	General Budget PDM and FMA
1.6 Property Protection	County Engineer	01-01-15	01-01-20	General Budget PDM and FMA
2.1 Public Information	EMA Director	01-01-15	01-01-20	EMPG HSGP General Budget
2.2 Prevention	GIS Coordinator	01-01-15	01-01-18	General Budget EMPG HSGP
3.1 Property Protection	EMA Director	01-01-15	01-01-20	Private Funding FEMA Safe Room Grants PDM
3.2 Property Protection	EMA Director	01-01-15	12-31-15	Private Funding General Budget
4.1 Public Information	EMA Director	01-01-15	12-31-15	General Budget
4.2 Public Information	EMA Director	01-01-15	12-31-15	General Budget
5.1 Property Protection	County Engineer	01-01-15	01-01-20	General Budget Private Funding
5.2 Property Protection	County Engineer	01-01-15	01-01-20	Private Funding
5.3 Property Protection	County Engineer	01-01-15	01-01-20	Private Funding
5.4 Property Protection	County Engineer	01-01-15	12-31-15	Private Funding Special Assessments
5.5 Property Protection	County Engineer	01-01-15	12-31-15	General Budget Private Funding
6.1 Public Information	EMA Director	01-01-15	12-31-16	General Budget

				EMPG HSGP
6.2 Public Information	EMA Director	01-01-15	12-31-16	General Budget EMPG HSGP
6.3 Public Information	EMA Director	01-01-15	12-31-16	General Budget
7.1 Administration	EMA Director	01-01-15	12-31-19	General Budget
CITY OF AMHERST				
1.1 Prevention	City Manager	01-01-15	12-31-19	General Budget
1.2 Natural Resource Protection	City Manager	01-01-15	12-31-19	General Budget Private Funding PDM and FMA
1.3 Natural Resource Protection	City Manager	01-01-15	12-31-19	General Budget
1.4 Prevention	City Manager	01-01-15	12-31-19	General Budget PDM and FMA
1.5 Prevention	City Manager	01-01-15	12-31-19	PDM and FMA
2.1 Public Information	City Manager	01-01-15	12-31-16	HSGP EMPG
2.2 Public Information	City Manager	01-01-15	12-31-15	General Budget
3.1 Prevention	Fire Chief	01-01-15	12-31-16	General Budget
3.2 Prevention	Police Chief	01-01-15	12-31-16	General Budget
4.1 Public Information	City Engineer	01-01-15	12-31-17	Private Funding
4.2 Public Information	City Manager	01-01-15	12-31-17	General Budget
5.1 Property Protection	City Manager	01-01-15	12-31-17	General Budget Private Funding
CITY OF AVON				
1.1 Property Protection	City Engineer	01-01-15	12-31-15	General Budget
1.2 Property Protection	City Engineer	01-01-15	12-31-17	General Budget
1.3 Prevention	City Manager	01-01-15	12-31-19	General Budget PDM and FMA
1.4 Structurally Engineered Projects	City Engineer	01-01-15	12-31-19	PDM and FMA
2.1 Public Information	City Manager	01-01-15	12-31-16	General Budget
3.1 Property Protection	City Manager	01-01-15	12-31-19	PDM FEMA Safe Room Grants
4.1 Public Information	Fire Chief	01-01-15	12-31-15	General Budget

4.2 Public Information	City Manager	01-01-15	12-31-15	General Budget
4.3 Public Information	City Manager	01-01-15	12-31-15	General Budget
5.1 Prevention	City Engineer	01-01-15	12-31-18	Private Funding General Budget
CITY OF AVON LAKE				
1.1 Public Information	City Manager	01-01-15	12-31-15	General Budget
1.2 Natural Resource Protection	City Engineer	01-01-15	12-31-18	General Budget ODNR, ODA, PDM
1.3 Property Protection	City Building Official	01-01-15	12-31-17	General Budget
1.4 Property Protection	City Building Official	01-01-15	12-31-19	General Budget
1.5 Property Protection	City Building Official	01-01-15	12-31-19	General Budget
1.6 Property Protection	City Building Official	01-01-15	12-31-19	General Budget
1.7 Property Protection	City Building Official	01-01-15	12-31-17	General Budget
2.1 Prevention	City Building Official	01-01-15	12-31-19	General Budget PDM
2.2 Structurally Engineered Projects	City Engineer	01-01-15	12-31-19	PDM and FMA General Budget Private Funding
2.3 Prevention	City Engineer	01-01-15	12-31-18	General Budget
2.4 Property Protection	City Engineer	01-01-15	12-31-18	PDM and FMA General Budget
3.1 Public Information	City Manager	01-01-15	12-31-16	General Budget
3.2 Prevention	Fire Chief	01-01-15	12-31-16	General Budget HSGP, EMPG, FEMA
3.3 Public Information	City Manager	01-01-15	12-31-15	General Budget
3.4 Public Information	City Manager	01-01-15	12-31-15	General Budget
3.5 Public Information	City Manager	01-01-15	12-31-15	General Budget
4.1 Property Protection	City Manager	01-01-15	12-31-19	PDM FEMA Safe Room Grants
5.1 Prevention	City Engineer	01-01-15	12-31-18	General Budget Private Funding
5.2 Property Protection	City Engineer	01-01-15	12-31-19	Private Funding General Budget
5.3 Property Protection	City Engineer	01-01-15	12-31-16	General Budget
5.4 Prevention	City Manager	01-01-15	12-31-15	General Budget

6.1 Prevention	City Building Official	01-01-15	12-31-16	General Budget
7.1 Property Protection	City Manager	01-01-15	12-31-16	General Budget
8.1 Prevention	City Engineer	01-01-15	12-31-16	General Budget
8.2 Property Protection	Fire Chief	01-01-15	12-31-17	General Budget ODAg/ODNR Private Funding
CARLISLE TOWNSHIP				
1.1 Prevention	Township Trustees	01-01-15	12-31-17	General Budget
1.2 Prevention	Township Engineer	01-01-15	12-31-19	General Budget
1.3 Structurally Engineered Projects	Township Engineer	01-01-15	12-31-19	General Budget
1.4 Prevention	Township Trustees	01-01-15	12-31-19	General Budget
1.5 Prevention	Township Trustees	01-01-15	12-31-19	Local Funding PDM
1.6 Natural Resource Protection	Township Trustees	01-01-15	12-31-17	General Budget
2.1 Prevention	Township Trustees	01-01-15	12-31-19	General Budget Private Funding
2.2 Prevention	Township Trustees	01-01-15	12-31-16	General Budget
2.3 Prevention	Township Engineer	01-01-15	12-31-17	General Budget
2.4 Prevention	Fire Chief	01-01-15	12-31-15	HSGP, EMPG General Budget
2.5 Prevention	Township Zoning Official	01-01-15	12-31-16	Private Funding
3.1 Prevention	Fire Chief	01-01-15	12-31-16	General Budget
3.2 Public Information	Fire Chief	01-01-15	12-31-16	General Budget
3.3 Prevention	Fire Chief	01-01-15	12-31-16	General Budget
3.4 Public Information	Fire Chief	01-01-15	12-31-16	HSGP, EMPG General Budget
3.5 Public Information	Fire Chief	01-01-15	12-31-15	Private Funding
3.6 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
4.1 Public Information	Township Trustees	01-01-15	12-31-15	General Budget
5.1 Prevention	Township Trustees	01-01-15	12-31-16	General Budget
5.2 Prevention	Township Trustees	01-01-15	12-31-16	General Budget
6.1 Property Protection	Fire Chief	01-01-15	12-31-19	PDM FEMA Safe Room Grants
6.2 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
6.3 Public Information	Fire Chief	01-01-15	12-31-15	General Budget

7.1 Property Protection	Township Engineer	01-01-15	12-31-15	General Budget
CITY OF ELYRIA				
1.1 Public Information	Safety Service Director	01-01-15	12-31-16	General Budget HSGP and EMPG
1.2 Public Information	Safety Service Director	01-01-15	12-31-19	General Budget
1.3 Public Information	Safety Service Director	01-01-15	12-31-18	General Budget
1.4 Public Information	Safety Service Director	01-01-15	12-31-19	PDM and FMA General Budget
1.5 Public Information	Safety Service Director	01-01-15	12-31-19	PDM and FMA
2.1 Property Protection	Parks and Recreation Director	01-01-15	12-31-17	General Budget
2.2 Prevention	City Planning Director	01-01-15	12-31-19	General Budget
2.3 Property Protection	Safety Service Director	01-01-15	12-31-16	General Budget PDM
2.4 Prevention	City Engineer	01-01-15	12-31-15	General Budget
2.5 Property Protection	City Building Official	01-01-15	12-31-17	General Budget
2.6 Natural Resource Protection	Parks and Recreation Director	01-01-15	12-31-18	General Budget
3.1 Property Protection	City Engineer	01-01-15	12-31-19	General Budget
3.2 Structurally Engineered Projects	City Engineer	01-01-15	12-31-19	General Budget PDM and FMA
3.3 Structurally Engineered Projects	City Engineer	01-01-15	12-31-18	General Budget PDM and FMA
3.4 Structurally Engineered Projects	City Planning Director	01-01-15	12-31-19	General Budget PDM and FMA
3.5 Prevention	City Building Official	01-01-15	12-31-19	Private Funding PDM and FAMP General Budget
4.1 Property Protection	City Engineer	01-01-15	12-31-19	General Budget
4.2 Property Protection	City Engineer	01-01-15	12-31-18	General Budget
4.3 Public Information	Safety Service Director	01-01-15	12-31-18	General Budget
4.4 Property Protection	City Building Official	01-01-15	12-31-18	General Budget
5.1 Property Protection	City Engineer	01-01-15	12-31-19	General Budget
5.2 Public Information	Safety Service Director	01-01-15	12-31-15	General Budget
5.3 Property Protection	Safety Service Director	01-01-15	12-31-15	General Budget HSGP, EMPG, and PDM
5.4 Public Information	Safety Service Director	01-01-15	12-31-15	General Budget

5.5 Property Protection	Safety Service Director	01-01-15	12-31-16	General Budget
5.6 Property Protection	City Engineer	01-01-15	12-31-16	General Budget
VILLAGE OF GRAFTON				
1.1 Prevention	Fire Chief	01-01-15	12-31-15	General Budget
1.2 Prevention	Fire Chief	01-01-15	12-31-16	General Budget HSGP EMPG
2.1 Property Protection	Village Administrator	01-01-15	12-31-18	General Budget
2.2 Prevention	Village Administrator	01-01-15	12-31-18	General Budget
2.3 Property Protection	Village Administrator	01-01-15	12-31-18	General Budget
2.4 Prevention	Village Administrator	01-01-15	12-31-16	General Budget
2.5 Property Protection	Village Administrator	01-01-15	12-31-15	General Budget
3.1 Prevention	Village Administrator	01-01-15	12-31-16	General Budget
4.1 Property Protection	Village Administrator	01-01-15	12-31-19	PDM
5.1 Public Information	Village Administrator	01-01-15	12-31-15	General Budget
6.1 Prevention	Police Chief	01-01-15	12-31-15	General Budget
7.1 Prevention	Village Administrator	01-01-15	12-31-19	PDM and FMA
VILLAGE OF KIPTON				
1.1 Public Information	Mayor	01-01-15	12-31-16	General Budget
2.1 Prevention	Mayor	01-01-15	12-31-19	General Budget PDM and FMA
2.2 Prevention	Mayor	01-01-15	12-31-18	General Budget
3.1 Property Protection	Mayor	01-01-15	12-31-19	PDM and FMA FEMA Safe Room Grants
VILLAGE OF LAGRANGE				
1.1 Prevention	Village Administrator	01-01-15	12-31-19	General Budget
1.2 Prevention	Village Administrator	01-01-15	12-31-19	General Budget
2.1 Public Information	Fire Chief	01-01-15	12-31-16	General Budget
3.1 Structurally Engineered Project	Village Administrator	01-01-15	12-31-18	Special Assessments General Budget
3.2 Prevention	Village Administrator	01-01-15	12-31-16	General Budget
3.3 Prevention	Village Administrator	01-01-15	12-31-18	General Budget Private Funding
3.4 Prevention	Village Administrator	01-01-15	12-31-9	General Budget PDM and FMA

4.1 Prevention	Fire Chief	01-01-15	12-31-15	General Budget
4.2 Prevention	Fire Chief	01-01-15	12-31-15	General Budget
CITY OF LORAIN				
1.1 Public Information	City Manager	01-01-15	12-31-16	General Budget
1.2 Public Information	City Manager	01-01-15	12-31-16	General Budget
2.1 Property Protection	City Manager	01-01-15	12-31-15	General Budget
2.2 Property Protection	City Manager	01-01-15	12-31-15	General Budget
3.1 Natural Habitat Protection	City Engineer	01-01-15	12-31-18	General Budget PDM and ODNR
4.1 Prevention	City Manager	01-01-15	12-31-19	PDM and FMA
4.2 Prevention	City Manager	01-01-15	12-31-18	General Budget PDM and FMA
4.3 Natural Resource Protection	City Engineer	01-01-15	12-31-18	General Budget PDM and FMA
5.1 Property Protection	City Building Official	01-01-15	12-31-19	General Budget
5.2 Prevention	City Manager	01-01-15	12-31-18	General Budget
6.1 Property Protection	City Manager	01-01-15	12-31-17	General Budget Local Assessments
6.2 Property Protection	City Engineer	01-01-15	12-31-18	Private Funding General Budget
7.1 Prevention	City Engineer	01-01-15	12-31-16	General Budget
8.1 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
CITY OF NORTH RIDGEVILLE				
1.1 Property Protection	Mayor	01-01-15	12-31-15	General Budget
1.2 Structural Engineered Projects	City Engineer	01-01-15	12-31-18	PDM and FMA General Budget
1.3 Prevention	City Engineer	01-01-15	12-31-18	General Budget
1.4 Prevention	City Engineer	01-01-15	12-31-19	General Budget
1.5 Natural Resource Protection	City Engineer	01-01-15	12-31-18	General Budget
1.6 Natural Resource Protection	Mayor	01-01-15	12-31-17	General Budget
1.7 Prevention	Mayor	01-01-15	12-31-19	PDM and FMA
2.1 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
3.1 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
4.1 Property Protection	Fire Chief	01-01-15	12-31-15	General Budget
4.2 Property Protection	Fire Chief	01-01-15	12-31-15	General Budget

CITY OF OBERLIN				
1.1. Prevention	Director of Planning and Development	01-01-15	12-31-18	General Budget
1.2 Natural Resource Protection	City Manager	01-01-15	12-31-18	General Budget
1.3 Property Protection	City Manager	01-01-15	12-31-19	General Budget
1.4 Prevention	City Manager	01-01-15	12-31-19	General Budget PDM
2.1 Prevention	City Manager	01-01-15	12-31-17	General Budget
3.1 Property Protection	Director of Planning and Development	01-01-15	12-31-19	PDM and FMA FEMA Safe Room Grants
4.1 Prevention	Fire Chief	01-01-15	12-31-16	HSGP and EMPG General Budget
4.2 Public Information	Fire Chief	01-01-15	12-31-16	General Budget
5.1 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
VILLAGE OF ROCHESTER				
1.1 Public Information	Mayor	01-01-15	12-31-16	General Budget
2.1 Prevention	Mayor	01-01-15	12-31-19	PDM and FMA General Budget
3.1 Property Protection	Mayor	01-01-15	12-31-15	General Budget
VILLAGE OF SHEFFIELD				
1.1 Property Protection	Village Administrator	01-01-15	12-31-18	General Budget
1.2 Property Protection	Law Director	01-01-15	12-31-18	General Budget
2.1 Property Protection	Village Administrator	01-01-15	12-31-15	General Budget
2.2 Property Protection	Village Administrator	01-01-15	12-31-15	General Budget
2.3 Prevention	Village Administrator	01-01-15	12-31-19	General Budget
2.4 Property Protection	Village Administrator	01-01-15	12-31-17	General Budget
2.5 Property Protection	Village Administrator	01-01-15	12-31-17	General Budget
2.6 Prevention	Village Administrator	01-01-15	12-31-19	General Budget FEMA PDM
2.7 Structurally Engineered Projects	Village Administrator	01-01-15	12-31-18	General Budget PDM and FMA
3.1 Public Information	Fire Chief	01-01-15	12-31-16	General Budget
4.1 Property Protection	Village Administrator	01-01-15	12-31-19	PDM and FMA FEMA Safe Room Grants
5.1 Property Protection	Village Administrator	01-01-15	12-31-18	Private Funding

6.1 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
6.2 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
6.3 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
CITY OF SHEFFIELD LAKE				
1.1 Public Information	Fire Chief	01-01-15	12-31-16	General Budget
1.2 Prevention	Fire Chief	01-01-15	12-31-16	General Budget
1.3 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
1.4 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
1.5 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
2.1 Prevention	Services Director	01-01-15	12-31-15	General Budget
3.1 Prevention	Fire Chief	01-01-15	12-31-18	General Budget Private Funding
4.1 Prevention	Services Director	01-01-15	12-31-15	General Budget
5.1 Prevention	Services Director	01-01-15	12-31-19	PDM and FMA General Budget
5.2 Structurally Engineered Projects	Services Director	01-01-15	12-31-18	PDM and FMA General Budget
5.3 Property Protection	Services Director	01-01-15	12-31-18	General Budget PDM and FMA
5.4 Property Protection	Services Director	01-01-15	12-31-19	General Budget PDM and FMA
6.1 Property Protection	Services Director	01-01-15	12-31-18	Private Funding
6.2 Prevention	Services Director	01-01-15	12-31-19	General Budget
6.3 Prevention	Services Director	01-01-15	12-31-17	General Budget
6.4 Public Information	Fire Chief	01-01-15	12-31-15	General Budget
7.1 Prevention	Services Director	01-01-15	12-31-16	General Budget
8.1 Prevention	Services Director	01-01-15	12-31-15	General Budget
VILLAGE OF SOUTH AMHERST				
1.1 Public Information	Mayor	01-01-15	12-31-16	General Budget
2.1 Prevention	Mayor	01-01-15	12-31-19	General Budget PDM and FMA
3.1 Prevention	Mayor	01-01-15	12-31-18	General Budget
4.1 Prevention	Mayor	01-01-15	12-31-18	Private Funding
4.2 Prevention	Mayor	01-01-15	12-31-17	General Budget
4.3 Prevention	Mayor	01-01-15	12-31-15	General Budget

5.1 Prevention	Mayor	01-01-15	12-31-16	General Budget
5.2 Public Information	Fire Chief	01-01-15	12-31-16	General Budget
6.1 Prevention	Mayor	01-01-15	12-31-19	General Budget FEMA Safe Room Grants
CITY OF VERMILION				
1.1 Prevention	City Administrator	01-01-15	12-31-19	PDM and FMA PDM
1.2 Public Information	City Administrator	01-01-15	12-31-15	General Budget
1.3 Prevention	City Administrator	01-01-15	12-31-19	PDM and FMA General Budget
1.4 Prevention	City Engineer	01-01-15	12-31-18	General Budget
2.1 Prevention	City Engineer	01-01-15	12-31-16	General Budget
2.2 Prevention	City Engineer	01-01-15	12-31-16	General Budget
3.1 Prevention	City Administrator	01-01-15	12-31-15	General Budget
3.2 Prevention	City Engineer	01-01-15	12-31-17	General Budget Private Funding
3.3 Prevention	City Engineer	01-01-15	12-31-16	HMGP, EMGP
4.1 Public Information	City Administrator	01-01-15	12-31-15	General Budget
4.2 Public Information	City Administrator	01-01-15	12-31-15	General Budget
VILLAGE OF WELLINGTON				
1.1 Public Information	City Administrator	01-01-15	12-31-16	General Budget HMGP and EMPG
1.2 Public Information	City Administrator	01-01-15	12-31-16	HMGP and EMPG General Budget
2.1 Prevention	City Administrator	01-01-15	12-31-18	General Budget Private Funding

The time lines and funding sources established in the previous chart are estimations of when a part of the mitigation strategies can realistically be implemented. These time lines and funding sources may change as availability of staff and funding changes, and as other critical projects are fast-tracked, eliminated, or modified to meet community needs. At the time this plan was written, the deadlines and funding sources logically fit within community resources and support programs. As Lorain County reviews this mitigation plan each year, those deadlines and funding sources will be reviewed, adjusted, and modified as needed.

While the hard information in this chart may change, the exercise of assigning time lines caused the HMCC to look at current resources and support programs to determine how to best lessen the effects of disaster. Public information campaigns, plan

enhancements, and establishment of emergency protective measures was the highest priority and oftentimes was not significantly expensive. Upgrading of communication and notification/warning systems was second 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, would take longer to accomplish goals because it involved a two-phase action plan. Last on the completion list were structural project due to design time requirements, budget needs, and dependence upon outside funding sources through applications.

The priorities of life safety first, situation containment second, and property conservation combined with budget and procurement needs were major factors in time line development. The time line may or may not reflect the prioritization of the strategies elsewhere in the plan.

Priority Chart for Strategies

Each jurisdiction prioritized the mitigation strategies based upon their local ability to carry out the objective, the presence or absence of current funding to conduct the activity, and the degree to which the objective, if achieved, would save lives and conserve property. Every objective was rated against the other, with a point awarded to the more important/more feasible objective. The objective with the most points achieved first priority status, and on down through the number of objectives that particular community developed.

The following chart shows the objectives and the priority rating for each.

LORAIN COUNTY	
1. Lorain County will reduce the damages caused by flooding in all areas across the county.	3
2. Lorain County will implement timely and effective pre-incident warning and notification of dangerous weather and emergency incidents, as well as timely dissemination of updated information during an incident.	1
3. Lorain County will identify and utilize protective facilities that enable residents and others to take shelter from severe weather, including storms that include rotational or straight-line winds, and other life threatening conditions such as hail, heavy precipitation, and dust.	4
4. Lorain County will facilitate, support, and at times conduct public awareness campaigns about disaster preparedness, safety, response, and recovery to mitigate losses and casualties because of disasters.	5
5. Lorain County will harden utility service and supply to residents and businesses, especially during extreme heat or cold that intensifies dependency upon utility services.	7
6. Lorain County will improve communications between all first responders and first receivers during disasters and emergencies.	6
7. Lorain County will sustain mitigation efforts.	2
CITY OF AMHERST	
1. Amherst will reduce the negative effects of flooding on the residents and properties in Amherst.	4
2. Amherst will improve and expand its public warning and notification systems for the purpose of preventing casualties and damages by natural disasters.	1
3. Amherst will enhance and improve communications between responders and others to effectively communicate before, during, and after incidents.	2
4. Amherst will conduct a public information campaign directed at property owners to lessen the damages, including utility outages, due to storms.	3
5. Amherst will decrease utility outages during disasters.	5
CITY OF AVON	
1. Avon will reduce the negative effects of flooding on its residents and properties.	1
2. Avon will support improvements to notification and warning systems.	3
3. Avon will improve storm shelter options for residents of the city.	5
4. Avon will improve public awareness and education outreach for its residents regarding warning, notification, and information sharing.	4
5. Avon will improve utility services' reliability during storms.	2
CITY OF AVON LAKE	
1. Avon Lake will build community-wide resiliency by minimizing the negative effects of all natural disasters on the city's property and residents.	5
2. Avon Lake will develop projects to lessen the damages to property from flooding.	2
3. Avon Lake will educate the community about the notification systems that warns them of impending disasters and the action they should take immediately to protect themselves and their property.	8

4. Avon Lake will establish sites to be used as shelters, comfort stations, and service centers during disasters, and will strive to equip these sites with features necessary to adequately serve the community during storms, power outages, and other disasters.	6
5. Avon Lake will work with utility providers to harden utility services and to prevent excessive outages during storms and inclement weather.	1
6. Avon Lake will improve structure identification systems in the city.	4
7. Avon Lake will improve GIS mapping and addressing within the community so that first responders and service providers can more easily locate and assist victims at particular residences and businesses.	3
8. Avon Lake will develop a solid waste management plan to facilitate rapid storm clean up.	7
CARLISLE TOWNSHIP	
1. Carlisle Township will work to minimize the effects of flooding on residents and properties in the township.	4
2. Carlisle Township will improve and harden utility services and infrastructure to improve the city's ability to manage storms, disasters, and other catastrophes without unnecessary loss.	3
3. Carlisle Township will develop, improve, and sustain effective communications during disasters for the purpose of saving lives and preserving property.	2
4. Carlisle Township will inform and advocate preventive and sustainable actions of property owners to decrease the damages to property during disasters, and to foster rapid recovery from storms and floods.	7
5. Carlisle Township will develop a comprehensive plan for land use within the township, taking into account the consequences of development and the effect on existing properties and businesses, as well as consequences on communities downstream.	1
6. Carlisle Township will develop storm shelters, community rooms, and other protective measures for residents and visitors during severe storms.	5
7. Carlisle Township will develop improved debris management to make recovery faster and more effective.	6
CITY OF ELYRIA	
1. The City of Elyria will develop, improve, and sustain effective communications during disasters for the purpose of saving lives and preserving property	1
2. The City of Elyria will engage in property and natural resources mitigation	2
3. The City of Elyria will work to mitigate flood consequences.	3
4. The City of Elyria will protect utilities as part of the mitigation efforts.	4
5. The City of Elyria will take other actions to promote disaster mitigation and lessen damages due to storms and natural hazards.	5
VILLAGE OF GRAFTON	
1. Grafton will maintain residential and commercial building codes to include a regular inspection program and contractor registration for work within the village.	5
2. Grafton will harden utility service in the village so that self-sustaining services are not interrupted during storms and disasters.	2
3. Grafton will improve emergency and crisis communications systems and interoperability.	3
4. Grafton will reassess, improve, and identify shelters, community gathering rooms, and comfort stations for use during disasters and long-term power outages.	1
5. Grafton will inform residents about disaster preparedness.	6
6. Grafton will be prepared to handle emergency consequences of disasters that involve correctional facilities adjacent to the village.	4
VILLAGE OF KIPTON	
1. Kipton will improve notification and warning systems for residents.	1
2. Kipton will minimize the losses from flooding.	3

3. Kipton will support improvement to individual sheltering options during severe storms in the village.	2
VILLAGE OF LAGRANGE	
1. LaGrange will support and maintain land use planning efforts that lessen the effects of natural disasters on the properties located in the village.	4
2. LaGrange will support and maintain warning and notification systems.	1
3. LaGrange will support and construct projects that lessen the effects of flooding on the village.	3
4. LaGrange will identify service facilities for use by residents during storms and disasters.	2
CITY OF LORAIN	
1. Lorain will improve warning and notification systems that alert residents of impending dangers or inclement weather.	7
2. Lorain will identify, establish, and utilize protective measures to shelter residents during dangerous weather or other inclement situations.	5
3. Lorain will restore natural habitat in areas prone to flooding, or those that have been developed and would best be returned to natural habitat due to flood risk.	8
4. Lorain will lessen damages to property during floods and times of heavy or rapid precipitation.	6
5. Lorain will enforce, support, and enhance building codes, zoning regulations, and other land use regulations where disaster losses can be prevented by such actions.	3
6. Lorain will maintain, improve, and sustain adequate power lines, utility lines, and other infrastructure to prevent extreme losses during inclement weather and disasters.	1
7. Lorain will improve location identification and communication for emergency responders.	4
8. Lorain will improve services to special populations during disasters to minimize loss of life and injuries.	2
CITY OF NORTH RIDGEVILLE	
1. North Ridgeville will minimize the negative effects of flooding on its residents and properties.	1
2. North Ridgeville will improve warning and notification systems and will improve general communication with residents during disasters to more effectively recover from disasters.	2
3. North Ridgeville will conduct preparedness outreach and education programs for residents of the city.	4
4. North Ridgeville will identify, establish, and utilize protective measures to shelter residents during dangerous weather or other inclement situations.	3
CITY OF OBERLIN	
1. Oberlin will reduce the negative effects of flooding on city residents and properties.	5
2. Oberlin Will work to harden utilities within the city to foster rapid recovery from disasters.	4
3. Oberlin will improve sheltering and protective measures available to residents during severe storms.	3
4. Oberlin will improve emergency communications within the city and with all entities in Lorain County to lessen the loss of life and property during disasters.	1
5. Oberlin will identify and plan for emergency operations with all populations in order to protect the life and safety of residents visitors, and workers during natural disasters.	2
VILLAGE OF ROCHESTER	
1. Rochester will improve rapid warning and notification systems.	1
2. Rochester will decrease the impact of flooding on village residents.	3
3. Rochester will support countywide flood mitigation studies.	2
VILLAGE OF SHEFFIELD	
1. Sheffield will advocate and educate officials and residents about the need to develop countywide storm water management planning and regulation.	2
2. Sheffield will reduce the negative effects of flooding on village residents and properties.	1
3. Sheffield will improve warning and notification for residents.	5

4. Sheffield will improve protective actions available during severe storms.	4
5. Sheffield will harden utility services during storms and disasters.	3
6. Sheffield will conduct public outreach and education programs to minimize the loss of life and property during disasters.	6
CITY OF SHEFFIELD LAKE	
1. Sheffield Lake will educate the community about the notification systems that warn them of impending disasters and the actions they should take immediately to protect themselves and their property.	4
2. Sheffield Lake will improve protective options for residents during severe storms and disasters.	6
3. Sheffield Lake will identify and implement a water supply plan for emergency purposes that support, supplement, or serve in place of a municipal or county water supply during large fires.	1
4. Sheffield Lake will conduct public outreach and education for property owners to reduce the effects of disasters.	8
5. Sheffield Lake will develop projects to lessen the damages to property from flooding.	2
6. Sheffield Lake will work with utility providers to harden utility services and to prevent excessive outages during storms and inclement weather.	3
7. Sheffield Lake will improve location identification capability to lower response times and increase accuracy in response.	7
8. Sheffield Lake will improve recovery times by more effectively managing storm clean up.	5
VILLAGE OF SOUTH AMHERST	
1. South Amherst will support effective notification and warning systems.	4
2. South Amherst will minimize the losses from flooding.	5
3. South Amherst will participate in a countywide storm water assessment.	6
4. South Amherst will harden utility supplies during disasters.	3
5. South Amherst will support improvements and clarity to emergency communications components.	2
6. South Amherst will improve shelter capacity in the village.	1
CITY OF VERMILION	
1. Vermilion will lessen the negative effects of flooding within the city.	1
2. Vermilion will insure the availability of potable drinking water for residents during extremely cold periods or extended cold periods.	2
3. Vermilion will develop and sustain resilient utility services through communication with property owners that advocate and educate them about responsible property ownership.	3
4. Vermilion will maintain public outreach efforts to lessen the effects of natural disasters on the residents of the city.	4
VILLAGE OF WELLINGTON	
1. Wellington will improve warning and notification systems.	1
2. Wellington, through its Electric Department, will create a redundant and separate electrical grid interconnection to harden utility services and to prevent excessive outages during storms and inclement weather.	2

Implementation

The Lorain County EMA Director will monitor the implementation of the mitigation strategies. This process is defined further in the Plan Maintenance and Update section of this plan.

These strategies are general actions that can potentially be taken to lessen the negative effects of disasters and large-scale emergencies. In order to become actionable items, they must be converted to specific projects with specific action steps, time lines, and project goals. Funding must be identified, achieved, and allocated. For example, if a repeated loss home is to be acquired and demolished, and the family relocated to another residence, that project must begin

with determination of funding sources for the project. The specific family must agree to accept the buy-out and use the money to buy another home. The jurisdiction must accept its share of cost, planning responsibility, and project management roles.

The EMA Director will monitor the implementation of these strategies through communication with other county officials, departments, agencies, and individuals. When funding opportunities arise, efforts will be made to apply for and receive funding. When funding is obtained, a project timeline and actionable steps will be taken to complete the work. After the project is complete, its effectiveness will be evaluated and findings will be used for future projects.

In each jurisdiction, a position within the city or village government structure has been listed as the primary one responsible for the objective. This can be changed at the will of the jurisdiction, as can the source of funding for that strategic objective. The value in the chart is that it shows each jurisdiction thought about what would be the best assignment of responsibility and how would the objective be funded. This information is NOT intended to be absolute. It is also intended to establish a “lead” person for accountability reasons, but is not intended that the person named is exclusively the one who will complete all the associated tasks.

The beauty, and usefulness, of these strategies is in the thought process, knowledge, and reasoning put into their development. In order to do that, a realistic and accurate comprehensive look at hazards and risks had to be completed. Committee members had to engage with those risks and predict where and how damages would occur, and how those damages could be decreased. The solutions, or potential projects coming from the strategies, had to be evaluated and modified to maximize benefits and minimize costs. Only when a strategy met that test did it become a part of this mitigation plan.

Ultimately, Lorain County has a plan of well-considered, relevant and effective solutions to problems that are likely to arise locally. As they all sat around the tables considering how to solve potential problems, they built a collaborative spirit among them to solve a community-wide problem. These strategies were their ideas, their solutions, and their dreams.

Given availability of funds, personnel, and support, Lorain County will go forth and implement strategies to the best of their ability and to the best degree that they have the resources to accomplish those goals. Whatever is achieved will be well thought out, logical, and reasonable due to the hazard mitigation planning process.