

### 3.0 MITIGATION STRATEGIES

The County's planning team and stakeholders developed mitigation goals and strategies, the intent was to address the identified risks and vulnerabilities for the county and each jurisdiction. As a result, the mitigation strategies in this plan are more informative than our previous plan.

### 3.1 STATUS OF PAST MITIGATION PROJECTS

In the 2008 Auglaize County Natural Hazard Mitigation Plan, each jurisdiction identified appropriate and mitigation strategies. The planning committee used the guidance 44 CFR Part 201.6(6)(1) as their guidance. This guidance back then was more to identify actions that would reduce risk and vulnerability in those jurisdictions and in the county. During the current planning process the Auglaize County-wide Emergency Management Cooperative Board reviewed these strategies and their current status with some of the ongoing strategies being incorporated into the current plan or have been deleted. The current status is classified according to this list:

- ❖ **Completed** - 2008 projects that was completed as mentioned in the plan and not included in the new plan.
- ❖ **Ongoing** - 2008 projects that have not be either started or completed in their entirety. These projects are included in the new plan.
- ❖ **Deleted** - 2008 projects that was determined to not be necessary or feasible and no longer exist.

#### 2008 Auglaize County Mitigation Actions

Goal	Mitigation Action	Jurisdiction	Status
<b>Drought</b>			
1.1	Reduce the county's vulnerability to grass fires during extreme dry or drought conditions in the unincorporated areas of the county by installing dry hydrants at ponds and other waterways.	Auglaize County	Completed
1.2 11.1	Increase public awareness as to agricultural effects of a drought, as well as the ramifications to the public water supply	Auglaize County Village of Waynesfield	Deleted
1B1	Encourage residents to water saving measures especially when extra water is needed for irrigation and farming purposes.	Village of Cridersville & Auglaize County	Deleted
<b>Earthquake</b>			
2.1 1E1	Educate the public as to the potential for earthquakes in Auglaize County.	Auglaize County Village of New Knoxville	Ongoing

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2.2	Investigate the impact of effects as a result of an earthquake damage to infrastructure such as pipelines, and the Class 1 Dam at St. Marys	Auglaize County	Complete
<b>Flooding</b>			
3.1	Lesson the flood damage by preserving the natural course of waterways by cleaning the St. Marys and Auglaize River of log Jams and sediment bars.	Village of Buckland and Auglaize County	Ongoing
3.2	Evaluate the need for constructing more retention ponds, catch basins and wetlands	Auglaize County	Ongoing
3.3	Increase public information on flood zones, Locate roadways in high water areas and setup warning signs in those areas.	Auglaize County	Complete
3.4	Conduct a feasibility Study for relocation of the southeast lift station which is currently in a flood zone:	Auglaize County	Deleted
3.5	Install drainage tile to route flood water around Mt. Tabor Cemetery	Auglaize County	Deleted
1C1	Reduce the amount of debris and material that can be swept away.	Village of Minster, Auglaize County	Delete
<b>Severe Thunderstorms</b>			
4.1 1F1	Increase Public awareness that severe thunderstorms are imminent and train weather spotters.	Auglaize County City of St. Marys	On going
4.2	Install NOAA radios in government building	Auglaize County	Complete
4.3	Encourage the use of Emergency Broadcast System (EAS)	Auglaize County	Deleted
4.4	Ensure surge protection and grounding on all electronic equipment the county owned equipment.	Auglaize County	Completed
4.5	Compile a list of CERT members or volunteers that has snowmobiles or 4x4 trucks to help transport medical staff during winter storms	Auglaize County	Deleted
<b>Tornado</b>			
5.1	Coordinate with the NWS for better communications during a warning event.	Auglaize County	Completed
5.2	Install Tornado warning sirens in the county	Auglaize County	Ongoing

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5.4 1H1	Increase the number of certified shelters for county residents	Auglaize County City of Wapakoneta	Ongoing
<b>Winter Weather</b>			
1.D1	Reduce blowing and drifting snow on the roadway by constructing “Living snow fences (rows of trees & vegetations)	Auglaize County	Deleted

### 3.2 RISK PRIORITIES

As the planning process was being discussed the Auglaize County EMA Office reviewed the HIRA assessments for natural hazards in Auglaize County. The HIRA discussed the frequency (probability) and the Severity that each hazard would display upon impact in the county.

The Auglaize County EMA developed an spreadsheet that was sent out to members of the schools, Sheriff, Local Law Enforcement, Local Fire Department, and Local Health Department to have them rank the natural hazards ( Severe Thunderstorms, Floods, Tornadoes, Winds, Winter Storms, Droughts, and Dam Failure). During several meetings the information was gathered and a summary was generated ranking these hazards based on what each agency perspective was. This information then was brought back and is entered into this plan.

As a result of that assessment and analysis of hazards, the Auglaize County Mitigation Planning group established the following hazard priorities, listed from highest hazard to lesser hazards in descending order of threat: Flood, wind, tornado, severe thunderstorm, severe winter storm (or blizzard), drought and extreme heat, earthquake and dam failure.

Flooding is the major concern in Auglaize County. Natural drainage can be slow and dependent upon storm sewer capacity as well as ground capability, especially when heavy rain falls quickly, or significant snow melt occurs rapidly. Sometimes with Ohio’s fluctuation in winter temperatures, both heavy rain and rapid snow melt are simultaneous, and that worsens flooding. In many cases of heavy or extended rainfall, flash flooding occurs because streets don’t drain quickly, storm sewers are either non-existent or they are easily overwhelmed, or low-lying areas cannot drain without sunshine and the evaporation process to aid in removing standing water. The city and villages tend to deal with flooded streets on a regular basis, and homeowners have wet basements at the same time. The floodwaters are usually measured in inches, and damages are, for the most part, not significant when measured against FEMA damage assessment criteria. However, the damages are expensive for homeowners and disruptive for everyone. Flood strategies focus on structural options such as retention and detention of water, elevation of structures, and water management systems and practices. Land use regulation is used to prevent unwise construction inside flood zones. Actions can also include facilitation of drainage through

system improvements and waterway maintenance. Acquisition, demolition, and relocation projects are a likely solution for some structures.

Wind is the second concern. Again, the wide-open expanse of land without great numbers of tree lines, wooded areas, and other windbreaks makes Auglaize County properties prone to wind damage. The countryside is dotted with grain bins, feed silos, elevator legs on grain bins, and barns and storage buildings for farm equipment and livestock. This property is vulnerable to wind damage and is unprotected. Straight line high winds can easily reach 35-50 miles per hour in any given storm, perhaps happening multiple times each year. This kind of wind can topple trees, damage roofs and siding, destroy grain operations, and take out utility poles. Although rare, severe storms can include bursts of wind that are in excess of 50 miles per hour, and the damage can then include downed trees, fallen utility towers and poles, and destruction of farm buildings. Because this wind occurs in western Ohio when weather fronts move into the area, the wind can be associated with extreme changes in temperature, severe thunderstorms and tornadoes, or blizzards. However, a wind event that occurs by itself is not uncommon. Strategies for wind focus on elimination of debris potential, hardening of utility distribution systems, and use of wind-resistant building materials and wind-wise construction practices have been discussed.

Tornado is the third hazard to concern Auglaize County residents. The area experiences unstable storm fronts with changing temperatures ahead of and behind it. This situation can spawn tornadoes. As fronts form in the Midwest and move across Illinois and Indiana into Ohio, rotational winds can develop. Funnel clouds can form and cross Auglaize County, and even touch down in the area. Tornadoes do damage farmsteads, homes, and commercial property. There is rarely damage to sufficient property to declare an emergency and most losses are covered by property owners.

Severe thunderstorms and severe snowstorms were fourth and fifth on the Auglaize County list of threats. When precipitation (rain or snow) combines with wind, and sometimes a tornado or a microburst, the storm can cause a lot of damage to county properties. Severe thunderstorms sometimes include hail that pelts vehicles and buildings and causes damage. A microburst can destroy a large barn, grain operation, or home without widespread consequences.

Severe thunderstorms and blizzards are disruptive and expensive in their worst form. Both cause roads to become impassable. These storms cause accessibility problems across the county, and are especially damaging to the livestock farms that depend upon transportation services daily. Roads are blocked and snow covered, power outages occur due to the ice and/or wind associated with the storms, and farms cannot operate. Livestock operations are dependent upon utilities and transportation support. These storms also bring the damage of high winds and heavy precipitation, sometimes causing flooding and structural damages. Hail can damage roofs and

vehicles, and anything else that is in its path. The storms are damaging because they combine several factors into a comprehensive path of destruction.

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

Drought and extreme heat are possible but do not occur frequently in Ohio. Drought tends to be more of a “dry spell” than an extended drought. Grain crops are more resilient than vegetable and fruit crops when drought strikes.

Mitigation strategies for drought and extreme heat include additional public information, enhanced warning and notification, and hardening of the water supply through emergency planning and capital improvements.

Auglaize County has an extremely low incidence of earthquake activity. There is no historical data of an earthquake epicenter in or near Auglaize County. There are no buildings in the county that are higher than three stories, and there are few of those. Only in the downtown of the cities and a few of the villages are there buildings that have any significant height. Grain operations on county farms are the most likely vulnerable locations should an earthquake strike, and those elevators and conveyors would cause little damage anyhow. Most damage would be to private property, and most of it agricultural grain-storage associated structures. Due to the lack of earthquake history, the planning group felt it was a very low risk, and therefore strategies focused on community awareness.

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

Dam failure is a hazard for those areas in proximity to a dam and spillway or an upground reservoir. The City of St. Marys has one earthen dam on the extreme southwest side of the city. It is located along State Route 364 between State Route 703 and Waesch Rd. The structures in close proximity to the dam are residential, a retirement community and government-owned structures. While total failure, due to the size of the structure, could inundate properties on the southwest side of the city, maintenance of the reservoir is the state’s responsibility. This threat ranked low as far as possibility and low as far as probability.

The other area vulnerable to dam failure is in the City of Wapakoneta. This is a lowhead dam located under the Hamilton Street Bridge on the Auglaize River.

The cities did not include dam failure in their hazards because the upground reservoirs are not close enough to pose significant threats to the cities and they are well maintained, checked for cracks or potential breaches on a regular basis, and have no history of failure. Therefore, due to location, dam failure is included as part of the countywide strategies. Strategies for dam failure focused on community awareness and advocacy for proper maintenance. Mitigation of dam

failure concentrates on monitoring the condition of dams and taking appropriate action if necessary.

The strategies in this plan are intended to provide general options to lessen the vulnerabilities in Auglaize County. During the planning process, the planning team and stakeholders determined what hazards occur most frequently, which cause the most disruption, and which consequences feasibly can be prevented or lessened. With limited money and staff available to conduct mitigation projects, the planning team weighed every potential effort by measuring the benefit against the resources realistically available to conduct the activity. The planning team strived to prioritize strategies that could realistically be accomplished and result in actual reduction in potential and real losses.

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

### 3.3 MITIGATION GOALS AND STRATEGIES

The Auglaize County Wide Emergency Management Cooperative Board worked on developing mitigation goals and strategies for this plan update. This section identifies the mitigation goals and strategies for each of the jurisdiction and the priority level, lead agency, timeline, potential funding source assigned to each action. The Auglaize County-wide Emergency Management Cooperative Board used the naturally occurring events that have impacted the county in the past, and considered the damages should an event of that size occur in a jurisdiction. The board then prioritized those in order and ranked them according to number of occurrences:

- Severe Thunderstorms
- Floods
- Tornados
- Wind
- Winter storms
- Droughts
- Dam Failure

#### 3.3.1 Auglaize County

As the Auglaize County-wide Emergency Management Cooperative Board has a representative from every city, village Auglaize County Commissioners, and a citizen at large that has equal input, it was felt that this was the best way for representation for the approach to writing this

plan. Through the Auglaize County-wide Emergency Management Board they will work to ensure that jurisdictions are fulfilling their responsibilities to enforce and comply with land use regulations and building codes. The Auglaize County-wide Emergency Management Cooperative Board is not new and was formed back in 1993 and is the statutory governing board for the EMA. By having this Board set up this way under the Ohio Revised Code 5502.27 it allows all jurisdiction to have equal representations. This new Hazard Mitigation plan shows this collaboration of efforts. Many lengthy discussion over the ranking and why certain project would be funded by the Hazard Mitigation Grant and why others would not be is still a struggle. The majority of the jurisdiction felt that mitigation funds would be better spent cleaning the rivers and creeks of storm debris and log jams so that the water could flow through the county better.

### 2018 Auglaize County Mitigation Goals and Strategies

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>Goal 1- Tornado- Auglaize County will reduce the damages suffered from tornados</b>					
1. Auglaize County will advocate and support the creation of safe rooms for vulnerable locations, including single and multi-family homes without basement.					
1.1	Property Protection	Auglaize EMA	10-1-18	12-31-23	Local PDM
<b>Goal 2- Flood- Auglaize County will work to lessen flooding and flooding damage in the county</b>					
2. Auglaize County will review and reinforce existing land use regulations (zoning rules, and building codes to insure wise development in areas with flood vulnerability					
2.1	Prevention	Floodplain Manager	10-1-18	12-31-23	Local
3. Auglaize County will use federal and state grant programs to fund mitigation efforts, especially mitigation and planning.					
3.1	Prevention	EMA Director	10-1-18	12-31-23	PDM HMGP
4. Auglaize County will require the use of retention and detention ponds where new or expanded construction of parking lots, streets, or other developments that may cause flooding to occur as a result of increased runoff.					
4.1	Engineering	County Engineer	10-1-18	12-31-23	Local PDM
5. Auglaize County will encourage residence in flood prone areas to mitigate flood loss through the use of sand bagging and other preventative measures to buildings and property.					
5.1	Prevention	EMA Director	10-1-18	12-31-23	Local

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6. Auglaize County will continue to clean storm debris from the Auglaize River and St. Marys River so that water will continue to flow easily through the county.					
6.1	Prevention	County Engineer	10-1-18	12-31-23	Local HMGP Other
<b>Goal 3- Severe Thunderstorm- Auglaize County will lessen the damages suffered from severe thunderstorms, hail, wind, heat and winter weather.</b>					
7. Auglaize County will identify location and establish MOU with the owners for facilities to be used as shelters, and community warming and cooling centers during severe weather events.					
7.1	Public Information	EMA Director	10-1-18	12-31-23	Local
8.. Auglaize County will expand and improve its public warning and notification capability through installation of addition outdoor warning sirens					
8.1	Pubic Information	EMA Director	10-1-18	12-31-23	EMPG PDM

### 3.2.2 Auglaize County Municipalities

The following strategies apply to the entire county villages and Cities.

(Villages: Buckland, Cridersville, Minster, New Bremen, New Knoxville, and Waynesfield.)

Cities: St. Marys and Wapakoneta)

Priority	Action Type	Lead Agency	Start Date	End Date	Funding
<b>Goal 4-Flood- The Cities and Villages will work to lessen flooding and property damage from flooding.</b>					
1. The Villages and Cities will review and reinforce existing land use regulations (zoning, building code) to facilitate development, especially in areas with flood vulnerability.					
1.1	Property Protection	Mayor	10-1-18	12-31-23	Local
2. The Villages and Cities will establish and maintain NFIP participation and will support other federal flood mitigation programs that help the county reduce losses associated to flooding.					
2.1	Prevention	Mayor	10-1-18	12-31-23	Local
3. The City of St. Marys will acquire 13 plus residential structures along McLain and Hackney Streets to remove these structures and connect this land with existing park.					
3.1	Prevention	City Engineer	10-1-18	12-31-23	HMGP PDM Local



4. City of Wapakoneta will have the AmVet building that always floods removed and the existing land turned in to grass. The AmVet's will rebuild on another site outside of the floodplain.					
4.1	Prevention	City Administrator, Amvet Officer	10-1-18	12-31-23	HMGP PDM Local
<b>Goal 5- Severe Thunderstorm- The Cities and Villages will lessen the damages suffered from severe thunderstorms, hail, wind, heat and winter weather.</b>					
5. The Villages and cities will expand and improve their public warning and notification capability through installation of addition outdoor warning sirens					
5.1	Pubic Information	Mayor	10-1-18	12-31-23	EMPG PDM

### 3.3. Strategy Descriptors

Each strategy developed is assigned a priority, action type, lead agency, timeline, and potential funding source. These elements are described below. While specific information in this chart may change prior to the implementation of a strategy, the exercise of assigning timelines required stakeholders to evaluate current resources and support programs to determine how to best reduce the effects of disaster. Officials are both paid employee and volunteer in many cases. Public information campaigns, plan enhancements, and the establishment of emergency protective measures were the highest priority and generally not significantly expensive. Last on the completion list were structural projects due to design time requirements, budget needs, and dependence upon outside funding sources through applications. The priorities of life safety, incident containment, and property conservation combined with budget and procurement needs were major factors in determining the priority of goals and strategies.

#### ***Priority***

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

#### ***Action Type***

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

- Natural Resource Protection – Reduce the impacts of natural hazard by preserving or restoring natural areas and their mitigation functions
- Prevention – Avoid hazard problems or stop impact from worsening
- Property Protection – Protect structures by modifying or strengthening building to withstand impact.

#### ***Lead Agency***

The lead agency is the entity charged with championing the strategy and ensuring that jurisdiction officials consider opportunities to implement the strategy over the five-year planning cycle. This agency may not have the authority or power to make a strategy into a project, nor

would they necessarily be responsible for project oversight or completion should the strategy develop into an actionable and funded project. Rather, the lead agency is responsible for coordinating the overall effort, plays a key role in championing the project, or, by default, is the entity most appropriate to lead project development at the initial stage. If the strategy becomes a feasible project, this agency is not the only entity that would be involved in its execution, nor is it the only entity involved in keeping the strategy on the jurisdiction's radar. For accountability purposes, the strategy is assigned to a single entity. When the strategy becomes a project, the jurisdiction would identify a project manager who may or may not represent the lead agency assigned in this plan.

### ***Timeline***

The timeline identifies the time frame in which a mitigation strategy could realistically be implemented. The actual time frame may vary from what is described in this plan, depending on funding, grant opportunities, or changes in priorities as other critical activities are adjusted to meet evolving community needs. At the time of plan development, these timelines fit logically within each jurisdiction's resources and support programs. As Auglaize County reviews this mitigation plan annually, the timelines will be reviewed, adjusted, and modified as appropriate. Depending on the type and cost of the project, different funding sources will be available and appropriate.

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

## **3.4 IMPLEMENTATION**

The EMA will monitor the implementation of these strategies through ongoing communication with officials and stakeholders. When grant opportunities arise, reasonable efforts will be made to secure funding. For strategies that must be funded through local budgets, jurisdictions will work diligently to identify local funding sources that can be used to address disaster vulnerability. When funding is secured, a detailed project timeline will be developed and actionable steps taken to complete the project. Upon completion, effectiveness will be evaluated

by the jurisdiction and findings shared with the EMA and planning team for consideration in developing future projects.

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

### 3.5 PLANNING MECHANISM INCORPORATION

Effective mitigation is achieved when hazard awareness and risk management approaches and strategies become an integral part of public activities and decision-making. Within the county there are many existing plans and programs that support hazard risk management, and thus it is critical that this hazard mitigation plan integrate and coordinate with, and complement, those existing plans and programs. Some jurisdictions are taking a more active role in green infrastructure, disaster planning after review of the planning mechanism and the HVA.

Planning Mechanism Incorporation	
Emergency Planning	<p>Plan will be added / referenced as an appendix to Auglaize County Emergency Operations Plan.</p> <p>Hazard vulnerability risk assessment data (HVA) included in this plan will be reviewed during other planning meetings such as School Emergency Response Plans and for the Hospital Response plan to help with their updates.</p>
Annual Budgets	Mitigation actions will be considered when setting the annual budgets within participating jurisdictions.
Plans and Programs	<p>Hazard Mitigation Plan information will be considered by each participating jurisdiction during program updates and revisions.</p> <p>Program and plans will be compared to the Hazard Mitigation Plan to ensure that the goals and objectives are consistent among documents.</p>
Grant Applications and other Fundings	<p>Data and maps from the Hazard Mitigation Plan may be used as supporting documentation in grant applications.</p> <p>Mitigation actions included in the plan will be considered during application submission and fund allocations.</p>
Economic Development	Hazard Vulnerability information will be reviewed during local development efforts with each jurisdiction.
Capital Improvements Planning	Future projects will be reviewed for hazard vulnerability to determine design and location of potential projects.