

# Chapter 3 - Mitigation Plan

---

## 3.1 Background on Mitigation Strategies

This section describes the mitigation strategy process and mitigation action plan for the Athens County Hazard Mitigation Plan 2019. This process included a thorough review of the mitigation plan from the 2014 update. Each goal, policy, and action was analyzed to see what has been achieved, what is still relevant, and what needs to be accomplished in an ongoing effort to achieve the goals. The process followed in 2014 was deemed appropriate and there was no need to devise a different method. For the purposes of this Update 2019, it was deemed more important to focus on making the Plan truly multi-jurisdictional rather than devising a new approach to formulate mitigation actions.

The Executive Committee of the larger NHMP 2019 Planning Committee used the STAPLEE Criteria to evaluate each action item. Efforts were made to assess the needs of specific jurisdictions and to customize the actions as much as possible. The County Emergency Management Agency and the Regional Planning Commission will continue to take leadership roles in action plan implementation with the County EMA being the lead agency.

The mitigation strategy recommendations are organized in four levels: foundations, goals, policies, and activities. For the purpose of this plan the following definitions will be used:

**Foundations** – The basis which guides the development of goals, policies and objectives.

**Goal** – The purpose or end that provides general guidelines and direction for community decisions.

**Policies** – Procedures and actions that are used to guide the community.

**Activities** – Specific, attainable, and measurable statements of the actions the community will take to carry out the plan.

### 3.1.1 Foundations

The basis and purpose of this plan includes pursuing resilience and encouraging partnerships between County and local governments, businesses, and community service providers. Resilience is a key foundation because the ability to survive a hazard without debilitating consequences is crucial to small, rural communities. Jurisdictions with large percentages of land in floodplain areas are particularly at risk and this Plan helps them continue strides towards mitigation and resilience. Establishment of public-private partnerships is the second foundation and is central to the County's hazard mitigation strategy. Governments, businesses, community service agencies, and residents all have a stake in reducing our vulnerability to natural hazards; therefore members of all sectors served on the 2019 Plan Update Planning Committee, were invited and/ or provided responses to the 2019 Update's Key Stakeholder Survey, and stakeholders and the public were invited to review the draft plan online.

### 3.1.2 Goals

Goals were defined for the purpose of this mitigation plan as broad-based statements that:

Represent basic desires of the community;

- Encompass all aspects of the community, public and private;
- Are nonspecific, in that they refer to the quality (not the quantity) of the outcome;
- Are future-oriented, and
- Are time-independent, in that they are not scheduled events.

Goals are stated without regard for implementation. Cost, schedule, and means are not considered. Goals are defined before considering how to accomplish them so that the goals are not dependent on the means of achievement. Goal statements form the basis for objectives and actions that will be used as means to achieve the goals.

The first three goals in the Mitigation Action Plan discuss stakeholder involvement and citizen awareness. Several conclusions can be drawn from Information and feedback provided by the surveys. Action steps involving reaching out to citizens and being receptive to their comments and concerns and also steps involving work with other stakeholders will consider these conclusions derived from the surveys:

- Citizen awareness about hazards and how they can be impacted is fairly high because many have experienced hazards first hand.
- Many citizens have taken personal steps to reduce the impacts of hazards, but many do not have the financial resources to do everything they would like to do. Past power outages lead many people to purchase generators.
- More awareness about having a personal emergency plan and what makes up a personal emergency plan is needed.
- Hazards that are the most concerning are: flooding, high winds, windstorm/blizzard, ice storm, tornado, extreme heat, and extreme cold.
- More education and awareness is needed about flooding frequency, weather and climate science, and that dredging waterways for flood control is not a sustainable action that leads to resiliency.
- Inability to communicate during a disaster is a major concern. Cell service in parts of the County is poor so that need is to be addressed further.
- Many key persons have assets available in the event of an emergency. They are willing to help.
- Leaders recognize that flash flooding has become more of an issue in recent years.
- Effective communication is an ongoing and crucial issue.

### Objectives and Actions

Objectives define strategies to attain the goals and are more specific and measurable. In many hazard mitigations plans specific mitigation “actions” are developed to meet the objectives. The objectives recommended in this Plan were prioritized by the planning team and staff in

accordance with input that has been received throughout the planning process. Hazard characteristics, the vulnerability analysis, the hazard ranking, survey responses and personal experience as well as several other criteria guided the prioritization of the objectives.

The prioritization criteria included the following:

- Objective requires no more technology or technical expertise than what is currently available.
- Objective requires no more staff or governmental resources than what is already available or with the possibility of additional grant requests.
- Objective is expected to have wide political support.
- Objective can be legally implemented by the lead jurisdiction or agency.
- Objective is cost-effective. There is no other effective, cheaper alternative, and there is no other objective that pursues the same specific result.
- Objective makes progress toward sustainability in mitigating impacts of natural hazards.
- Objective makes significant progress toward mitigating natural hazards.
- Objective correlates with vulnerability analysis and problem statements.

The following criteria were used to establish priorities for the activities/tasks:

- Does the activity address a critical need that currently has a population at risk?
- What is the activity's cost in terms of funding and staff time availability?
- Has the activity already been started or will significant work on a similar project make implementation or startup easier?
- Did the activity generate particular interest from committee members or members of the public?

The prioritization also utilized the STAPLEE approach recommended by FEMA. STAPLEE is an acronym representing the following elements that should be considered when evaluating project feasibility:

- Social: Does the measure treat people fairly?
- Technical: Will it work? (Does it solve the problem? Is it feasible?)
- Administrative: Is there capacity to implement and manage the project?
- Political: Who are the stakeholders? Did they get to participate? Is there public support? Is political leadership willing to support the project?
- Legal: Does your organization have the authority to implement? Is it legal? Are there liability implications?
- Economics: Is it cost-beneficial? Is there funding? Does it contribute to the local economy or economic development? Does it reduce direct property losses or indirect economic losses?
- Environmental: Does it comply with environmental regulations or have adverse environmental impacts?

Additional prioritization criteria could include:

- Does the action protect lives or property?
- Does the action address hazards or areas with the highest risk?
- Does the action protect critical facilities, infrastructure or community assets?
- Does the action meet multiple objectives?

STAPLEE Criteria	
<b>S</b> <u>S</u> ocial	Is the action unfair to one section of the community over others? If yes, it is a social cost associated with the action. If the implementation of the action helps achieve a social goal of the community, it is a social <b>benefit</b> associated with the action.
<b>T</b> <u>T</u> echnical	Is the action a good technical solution to the problem? If yes, it is a <b>benefit</b> associated with the action. The better the solution, the higher the <b>benefits</b> .
<b>A</b> <u>A</u> ministrative	Is the action difficult to implement because of the administrative problems associated? If yes, it is an administrative <b>cost</b> .
<b>P</b> <u>P</u> olitical	Is the action politically favored? If yes, it is a <b>benefit</b> . If the action is likely to be politically unacceptable, it is a <b>cost</b> associated with the action.
<b>L</b> <u>L</u> egal	Are there perceived legal problems in implementing the action? If yes, it is a <b>cost</b> associated with the action.
<b>E</b> <u>E</u> conomic	Does implementing the action make economic sense? Are the <b>costs</b> too prohibitive? If yes, it is a cost associated with the action.
<b>E</b> <u>E</u> nvironmental	Does the action have adverse environmental effects? If yes, it is a <b>cost</b> associated with the action.

Table 5 STAPLEE Criteria

## 3.2 Mitigation Matrix

The action plan consists of the specific objectives and activities that are designed to meet the plan's goals. Over time the implementation of these projects will be tracked as a measure of demonstrated progress on meeting the overall goals of the Plan.

The action plan provides a summary of each objective and includes the primary goals addressed, the hazards mitigated, and the relative priority. Many of the mitigation items have been carried from the previous Plan and have been revised to reflect a multi-jurisdictional approach to Natural Hazard Mitigation Planning.

### Mitigation Action Plan 2020-2024

Objective	Activity/Task	Time Frame for Action Implementation					Time/Cost	Funding Source	Responsible Party	Priority	Notes
		2020	2021	2022	2023	2024					
<b>Goal 1: Facilitate and coordinate solutions to multijurisdictional issues that involve government, citizens, stakeholders, and policy makers at all levels.</b>											
1. Efforts will be made to provide information about natural hazards and risk reduction to elected officials and to 100% of the citizens that may be affected.	1. Coordinate a seasonal hazard awareness campaign. Develop brochures and social media spots. Brochures will be designed with checklists. (all hazards and all buildings/infrastructure)						200 hrs. X \$15/hr. = \$3000	In kind	County EMA, RPC, and Mitigation Committee	high	Several focus areas are flood insurance, wildfire defensible space, floodplain rules and permitting, sheltering from a tornado, protecting vulnerable populations, and utilizing weather radios as an advance warning system.
	2. Prepare a county-scale GIS wildfire risk map. OU intern based on any existing maps from ODNr or WNF.						GIS Intern supervised by EMA	In kind	County GIS, County EMA, and County RPC	low	The County EMA Director and County GIS Coordinator will design a map using GIS.
	3. The NHMP shall provide a comprehensive packet of information to each mayor and village council member. These will be presented at a Village Council meeting						10 meetings X 4hrs/meeting=40 hrs.X \$30/hr.= \$1200	In kind	County RPC and mitigation committee	high	The packet will include risk maps, contact information, checklists, and information and expectations about implementation of this Plan.
	4. Provide hazard risk maps on the County GIS page.						8 hrs. for website maintenance=\$240		County GIS and County RPC	high	Maps were produced during the creation of this Update 2019 and will be posted concurrent with Update 2019 approval.
	5. Create a High Road Map for the County that shows evacuation routes and roads affected by the 1%-chance flood as well as flash floods. Print map on road signs and install maps on frequently used flood routes.						GIS Intern supervised by RPC		County GIS, County EMA, County RPC, County Engineer	medium	The County EMA Director and County GIS Coordinator will design a map using GIS. Athens County Engineering Department staff will identify known routes and may assist in mapping.

### Mitigation Action Plan 2020-2024

Objective	Activity/Task	Time Frame for Action Implementation					Time/Cost	Funding Source	Responsible Party	Priority	Notes
		2020	2021	2022	2023	2024					
2. Establish methods to coordinate information sharing with municipalities, townships, Ohio University, Hocking College, the business community, and other agencies or organizations.	1. Keep the natural hazard mitigation committee to implement the Plan.						180 hrs. of county staff time over a 5 yr. period	In kind	RPC and EMA + all participating jurisdictions	high	Meetings will be held quarterly. It is anticipated that there will be one countywide committee for all jurisdictions in order to increase efficiency. Meetings will be held after the regular RPC meeting.
	2. An article will be written annually for the Chambergram.						4 hrs/\$120	In kind	County NHMP Committee	medium	
	3. Invite utilities once per year to one of the quarterly NHMP Committee meetings.						4 hrs/\$120	In kind	Mayors, County EMA & 911	medium	Build on the success of the initial meeting held in 2010. Utilities can be the meeting focus when they attend.
	4. Review notification procedures concerning water releases from the Tom Jenkins Dam.						4 hrs/\$120	In kind	EMA	low	
	5. Coordinate emergency equipment needs and availability.						80 hrs.	In kind	EMA	high	Update list annually.
	6. Improve communications with the business community by ensuring that a Chamber member is invited to sit on the NHMP Committee.						2 hrs/yr	In kind	RPC, Natural Hazard Mitigation Committee, EMA	low	
	7. Ensure that an after-action report is presented to all interested parties whenever the IOC is activated.						16 hrs.	In kind	EMA	medium	
	8. Review emergency preparedness systems for large assemblies of people trapped by a natural disaster.						16 hrs.	In kind	EMA and NHMP Committee	high	

### Mitigation Action Plan 2020-2024

Objective	Activity/Task	Time Frame for Action Implementation					Time/Cost	Funding Source	Responsible Party	Priority	Notes
		2020	2021	2022	2023	2024					
<b>Goal 2: Minimize human, economic, and environmental disruption from natural hazards.</b>											
1. Improve the County's ability to notify every citizen of an impending natural hazard and to improve citizen safety during and after a hazard event.	1. Promote weather radio useage in Athens County. The NHMP should seek grant funding and establish priorities for weather radio placement.						40 hrs.	PDM, In-kind	EMA, NHMP Committee, all jurisdictions	medium	Ideally, every household and business in the county will have a weather radio.
	2. The NHMP will support the Red Cross and 9-1-1 with efforts to keep data about vulnerable populations current. NHMP will work to provide information about how neighbors can help protect vulnerable populations during a disaster.						80 hrs.	In-kind	County EMA and 911	high	Additional information will be provided through Municipalities utility billing programs. Buckeye Hills Regional Development District has a lot of info as an Area Agency on Aging.
	3. Utilize vulnerable population maps to formulation Emergency Action Plans for hazard events. Potentially create more detailed maps for municipalities.						80 hrs.	In-kind	EMA, County GIS	medium	Buckeye Hills Regional Development District has provided vulnerable population maps for Athens County.
	4. Analyze whether existing warning sign program on local roads is adequate or whether additional signage and maintenance is required.						16 hrs.	In-kind	EMA, County Engineer	high	
	5. Analyze existing siren warning systems and see where additional coverage would be beneficial. Apply for grant funding where needed.						40 hrs.	In-kind	EMA, NHMP Committee	high	
	6. Provide information on EMA website concerning tornado and weather alert sirens and what the warnings mean.						8 hrs.	In-kind	EMA, NHMP Committee	high	

### Mitigation Action Plan 2020-2024

Objective	Activity/Task	Time Frame for Action Implementation					Time/Cost	Funding Source	Responsible Party	Priority	Notes
		2020	2021	2022	2023	2024					
	7. Utilize GIS to map flash flood watersheds and identify residents whose homes and property lie within areas that may have flash flooding.						200 hrs.	In-kind	intern with EMA and County GIS	medium	
	8. Prepare a flash flood emergency plan.						200 hrs.	In-kind	intern with EMA and County GIS	medium	
	9. Analyze status and effectiveness of wide area rapid notification systems.						4hrs	In-kind	EMA and 9-1-1	low	
	10. Conduct PSA's via radio for various natural hazards.						10 hrs. per season, 40 hrs. per year	In-kind	EMA and NHMP Committee	high	
	11. Ensure there are enough emergency shelters throughout the county. Provide upgrades to existing facilities that could be converted to emergency shelters during or following a hazard event.						10 hrs. per season, 40 hrs. per year	In-kind	EMA, NHMP Committee, and all jurisdictions	high	Athens County DJFS is a large facility, which could double as an emergency shelter with purchase and installation of an appropriate generator. When appropriate pursue grant funding.
	12. Thoroughly assess and compile a list of equipment and training needs of first responders. Ensure first responders have adequate equipment and trainings to obtain necessary or recommended certifications to provide services during natural hazard events such as a flood.						100 hrs. per year	Grants from various sources	Frist Responders, Municipalities, EMA	high	Each fire department, law enforcement, EMS personnel and public land managers (Wayne National Forest & State Parks are within Athens County) have equipment and training needs. If available grant funding will be sought to cover costs of equipment and trainings needed to improve public safety.
2. Utilize data gathered during the mitigation planning process to develop a mitigation project for submittal to OEMA	1. Research eligible projects. Additional mitigation efforts are still needed in several jurisdictions where residents and property are at risk from the flood hazard. Elevation and/or buy-out programs will be researched and proposed for those considered competitive.						40 hrs. consultant and 20 hrs. RPC	In-kind	Consultant, Mitigation Committee and County RPC	high	Project will require a consultant to be paid from a mitigation grant.  In addition to elevation or buyout programs other infrastructure needs and improvements were identified. Such as the Village of Albany's acquisition of a generator to be able to provide an emergency shelter or the City of Nelsonville's need for upgrades to their floodgates. Others are detailed in Key Person Survey responses in Appendix 4.



### Mitigation Action Plan 2020-2024

Objective	Activity/Task	Time Frame for Action Implementation					Time/Cost	Funding Source	Responsible Party	Priority	Notes
		2020	2021	2022	2023	2024					
Goal 3: Improve the disaster resistance of existing buildings, structures, critical facilities, as well as infrastructure whether new construction, expansion, or renovation.											
1. Improve the ability to offer services that were hampered by a natural hazard event.	1. Explore the viability of creating temporary emergency services outside the hazard event area. Insure VFD's receive special training where needed.						20 hrs. Committee and 20 hrs. Red Cross	In-kind	Mayors, Mitigation Committee, and Red Cross	medium	Specialized training should include proper siting of helicopter landing zones.
	2. Assess what services would be impacted by long-term recovery efforts.						16 hrs.	In-kind	Mitigation Committee and Red Cross	medium	Analyze previous table top exercise results. Rehearse various flood scenarios. Pay particular attention to business impacts.
	3. Analyze replacement costs for high priority, critical facilities in the floodplain.						40 hrs.	In-kind	NHMP Committee, all jurisdictions, and County GIS	high	
2. Identify and protect historic resources in hazard zones.	1. Define what historic resources will be included.						20 hrs.	In-kind	RPC, NHMP Committee, and SE Ohio History Center	low	
	2. Use GIS to map the resources.						40 hrs.	In-kind	RPC Intern and SE Ohio History Center	low	
	3. Devise a mitigation plan to protect the resources.						20 hrs.	In-kind	RPC Intern and SE Ohio History Center	low	
3. Design the built and landscaped environment to minimize loss or damage from natural hazards.	1. Invite design professionals to two meetings where experts will discuss designing and building for resilience against hazards.						8 hrs.	In-kind	EMA, RPC, and NHMP Committee	medium	Safe room design, flood proofing, wind resistance, defensible space, landscaping, etc. Provide FEMA brochures that cover the topics.
	2. Update the Homebuyers/Builder's Guide produced by the Athens SWCD.						20 hrs. RPC and 40 hrs. SWCD	In-kind	SWCD	medium	
	3. Exchange information with utility companies at a special meeting of the NHMP Committee designed for such interaction.						8 hrs. EMA and RPC	In-kind	EMA	medium	

### Mitigation Action Plan 2020-2024

Objective	Activity/Task	Time Frame for Action Implementation					Time/Cost	Funding Source	Responsible Party	Priority	Notes
		2020	2021	2022	2023	2024					
Goal 4: Encourage hazard mitigation planning and incorporate that planning into other related plans.											
1. Review and coordinate processes and regulations pertaining to natural hazard planning and risk reduction.	1. Review subdivision regulations to ensure compliance with natural hazard mitigation principles. Provide information to villages about subdivision regulations.						16 hrs.	In-kind	RPC	medium	
	2. Finalize the application for the County to become a Storm Ready community.						16 hrs.	In-kind	EMA	high	
	3. Review the Emergency Operations Plan to ensure compliance with natural hazard mitigation principles.						20 hrs.	In-kind	EMA	high	Reviewed for compliance by OEMA in 2013. Consideration should be given to developing a flow chart to highlight the four core missions of emergency management.
	4. Conduct an annual meeting for floodplain managers to discuss issues and ways to preserve or restore the floodplain.						4 hrs, annually	In-kind	RPC, NHMP Committee, County EMA	medium	This is a higher priority task when there are new Mayors of other municipal staff unfamiliar with NFIP.
	5. Share information on EMA website about what other communities in Athens County do to reduce hazard risk.						16 hrs.annually	In-kind	EMA	medium	
	6. Produce structure and value lists and map floodplain and "at-risk" properties in the villages of Chauncey, Glouster, Jacksonville, and Trimble.						GIS Intern supervised by EMA	HMGP	County GIS, County EMA	high	
	7. Perform a HAZUS flood scenario for Athens County						GIS Intern supervised by EMA	HMGP	County GIS, County EMA, and RPC	high	
	8. Apply for Pre-Disaster Mitigation funding to update this Plan.						20 hrs.	In-kind	EMA	high	