

Chapter 1 – Introduction and the Mitigation Planning Process

1.1 Background for Mitigation Planning

In an effort to improve lives, planning attempts to take what we have learned from the past and apply it to what we think the future will bring. It is taking a long term view to try to minimize risks faced by our citizens. For purposes of this Plan, hazards are limited to those events, such as earthquakes, tornadoes, or floods, not primarily activated by human activity. While human activity may be what turns a natural event into a disaster, Mother Nature, rather than human activity, is what initiates the natural event.

Local governments can take action to protect citizens from natural hazard events such as flooding and tornadoes. This Plan takes a proactive approach to do that. While there are no lives completely safe from all the hazards that exist in the world, it is possible to take a reasoned planning approach to minimize risk to citizens as much as possible. Every year flood waters, earthquakes, tornadoes, wildfires, and other natural disasters destroy homes, stall economic progress, and displace families. To reduce vulnerability, communities can develop a natural hazard mitigation plan that will promote resiliency from disasters.

According to the Ohio Emergency Management Agency, a hazard mitigation plan is a strategic/guidance document used by an entity to reduce future risk to life and property. A hazard mitigation plan has the following elements:

- A public participation process for bringing together diverse stakeholders in the jurisdiction(s) to provide an array of input into the plan,
- A risk assessment to identify the hazards, determine the people and property subject to those hazards, and estimate vulnerability,
- A mitigation strategy that contains goals, objectives and an action plan to implement priority mitigation actions that reduce risk,
- A maintenance process to ensure the plan is reviewed, updated and does not sit idly, and
- An adoption requirement to ensure the participating jurisdictions support the plan.

A community that has undertaken a comprehensive set of natural hazard mitigation activities and measures for sustainability gains multiple benefits. Essential services can reach people in need. Devastating property damage and community disruption are minimized. Business can resume

Mitigation: Sustained actions taken to reduce or eliminate long-term risk to life and property from hazards.

more quickly or continue as usual in the face of hazardous events. Homes and schools can avoid costly repairs. Local governments can meet their mandate to ensure the health, safety, and welfare of their citizens, even in the face of natural disasters. In addition, the residents of such a community enjoy a stronger economy and a better quality of life.

1.2 Purpose

The purpose of this Plan is to develop a comprehensive strategy to reduce the impacts of natural hazards in Athens County. Since 2005 the County has had policies and programs in place that enable individuals, groups, and communities to plan for and manage the effects of natural hazards. The Disaster Mitigation Act of 2000 (DMA2K) requires communities to develop and adopt a Natural Hazard Mitigation Plan. The Act requires that a community update its Natural Hazard Mitigation Plan at least once every five years. The municipalities and unincorporated areas are cooperating to create a multijurisdictional Plan. Rather than creating individual plans for each community, efficiencies and cooperation are enhanced with all working together.

1.3 Athens County – Profile

1.3.1 History, Culture, and Physiography

Paleo-Indians roamed the state of Ohio after the last of the glaciers receded about 12,000 years ago. Evidence of these early people are flint points and scrapers, artifacts used for hunting and food and hide preparation. Later natives, the Archaic Indians, lived in Athens County from approximately 6,000-1,500 B.C. Evidence of their existence is stone points and bone tools, gravesites, skeletal remains, and campsites. These people lived by hunting and fishing and were nomadic. The Adena people, sometimes called the Early Woodland culture, came after the Archaic and lived from approximately 1,000 B.C.-100 A.D. These were the builders of the many mounds that still exist in Athens County. Many more of these mounds have been destroyed by modern peoples. Excavation of Adena mounds has revealed pottery shards, pipes, blades, gorgets, and copper bracelets and beads. A different culture, the Hopewell, existed in the area from about 100 A.D.-700 A.D. It is not known for certain whether the Adena culture assimilated into this new culture but evidence suggests that both cultures existed at the same time for several hundred years. The Hopewell culture had more elaborate customs and artifacts than the Adena and evidence shows they had an elaborate system of trade. The decline of the Hopewell culture lead to a simpler culture, referred to as the Late Woodland. The Late Woodland people existed from 700 A.D. to the first contact with European settlers when records were kept. The Late Woodland people were the first to use bow and arrow. They also cultivated fields with a variety of tools made of antlers, stones, sticks, shells, and bones.¹

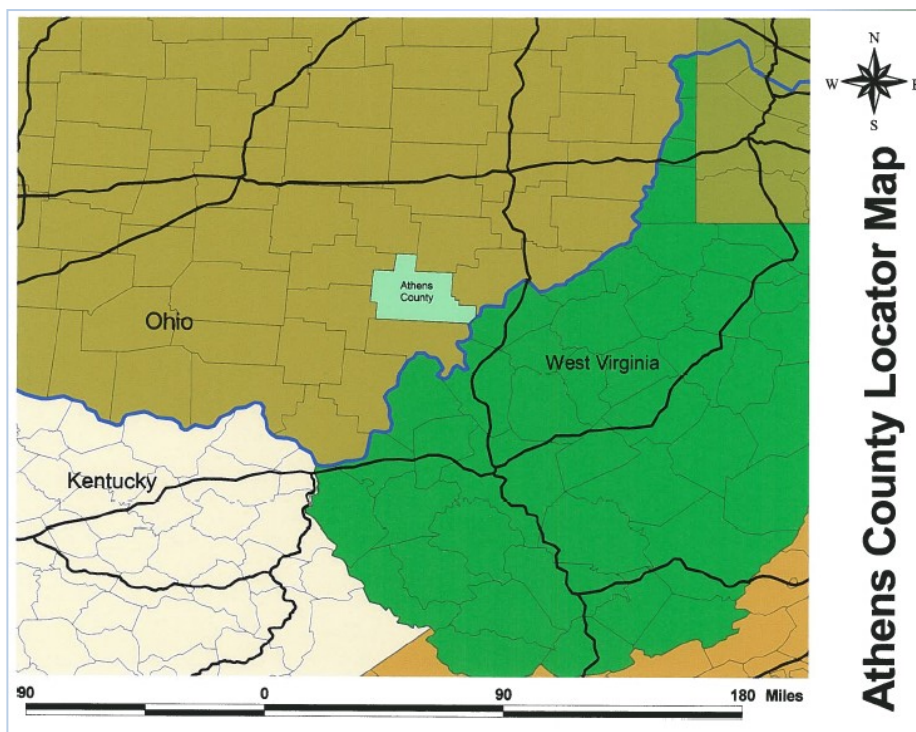
Many of Athens County's early migrant settlers came from New England. Athens County was part of the Ohio Company of Associates Land Purchase of 1787. Its first settlement was at Marietta and many of the early settlers of the County travelled upstream on the Hocking River to

¹ Beatty, Elizabeth Grover and Marjorie S. Stone, Getting to Know Athens County, 1984, pp. 11-15.

reach what became townsites and homesites. Two townships were set aside as university lands and Ohio University became the first institution of higher learning in the Northwest Territory.

The area was rich in natural resources. Forests provided needed wood for shelters, boats, and firewood. Waterways provided fish, fresh water, and power for mills. Many years after initial settlement, coal was discovered to be a valuable source of heat and a commodity for export to growing industrial cities in Ohio. These natural resources influenced settlement patterns and had an influence on where and how people lived. Locations near the waterways provided flat ground for farming, power, transportation, and buildings. Locations near coal deposits became mining towns and eventually railroad stops. The area is underlain with shale deposits and weathered sandstone and limestone. The hilly terrain of Athens County presents a challenge for building and one of the issues is that some of the soils are very unstable, particularly when saturated. These settlement patterns and the inherent attributes of these natural resources have had a profound influence with the hazards of flooding, land subsidence, and land slippage.

“Of course, flooding is always a threat to the lowlands and Athens County has had many floods—in 1847, 1853, 1883, 1907, 1913, 1937, 1964, and 1968, to mention the most destructive. The flood of 1883 put the forty-year-old canal out of business between Athens and Nelsonville. It also closed for good the salt wells at Salina, Armitage, and west of Chauncey, and the coal shaft which had been sunk to get coal with which to boil water to make salt. The 1907 flood was probably the most destructive of human life, however. Seven people lost their lives and fourteen Carnegie Hero Medals were awarded to Athenians, some posthumously.²



Athens County is located in southeastern Ohio approximately 75 miles southeast of Columbus, the state capitol. The County is comprised of 14 townships, 2 cities, and 8 villages contained in an area of approximately 504 square miles. About 484 square miles are unincorporated. The County's population in unincorporated areas is 29,933 and there are 13,977 housing units in this area according to

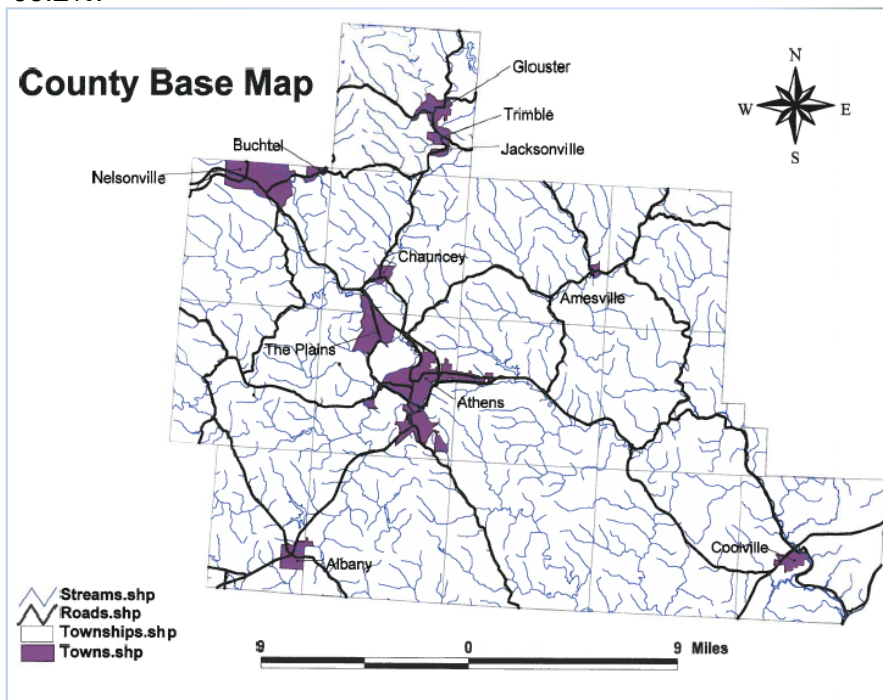
Map 1 Athens County

² Ibid. p2.

the 2010 census. The population density of this rural area is 61.8 residents per square mile and the housing density is 28.8 units per square mile. For comparison, Ohio's population density is 258 residents per square mile and its housing density is 114.4 units per square mile. The same numbers for the City of Columbus are, respectively, 3,529.3 and 1,663.5. The 2018 population estimate for the entire county is 65,818, an increase of 1,061 from the 2010 census population of 64,757. Additional County census data can be found in Appendix 1.

Athens County is located in a rural setting comprised of the rugged topography that makes up the unglaciated Allegheny Plateau region. The landscape is comprised of hills, narrow ridges, and narrow stream valleys. Elevations in the County range from a low of slightly less than 600 feet to a high of approximately 1060 feet. The Hocking River, with an overall watershed of 1,200 square miles, drains most of the County and travels through it for a distance of over 40 miles. The south central portion of the County is drained by the Shade River system. A small portion of Bern Township in the northeast drains into the Wolf Creek drainage. A small portion in southern Lee Township drains into the Leading Creek drainage. Western parts of Lee, Waterloo, and York Townships drain into the Raccoon Creek watershed. The Ohio River borders on the southeastern corner of the County for several miles.

Athens County is located in Ohio's Appalachian region. While much of Appalachia lags behind the state economically, Athens County is the home of Ohio University which provides the county's major employment opportunity. Athens County's unemployment figures are lower and per capita income is higher than most of the Appalachian Ohio region. In 2010, the total employment for all industries in Athens County was 26,193 with government claiming the largest portion at about 33.2%.



Map 2 County Base Map

Major transportation arteries are U.S. Route 50 and State Routes 32, 56, and 550 traveling in an east-west direction and U.S. Route 33 and State Routes 13, 144, 329, and 681 traveling in a north-south direction. A Norfolk-Southern railroad line operated by a smaller carrier traveling between Charleston, West Virginia and Toledo, Ohio bisects the county in a north-south direction.

1.4 Overview of Natural Hazards Mitigation Planning

1.4.1 General Plan Requirements and Process

The Disaster Mitigation Act of 2000 is the law that requires preparation of state and local mitigation plans before state and local governments can receive federal assistance in the event of a Presidentially-declared disaster. The Mitigation Branch of the Ohio Emergency Management Agency, a section of the Ohio Department of Public Safety, is the branch of Ohio government responsible for coordinating mitigation planning in the state of Ohio. The mission of the Mitigation Branch is "...to integrate hazard mitigation principles in a variety of ways to make Ohio communities more sustainable and citizens more resilient in the face of future disaster events."

The contents of a Plan, per Federal Emergency Management Agency standards must include:

- How the Plan was prepared and who was involved in the planning process.
 - Public involvement is essential. Various outreach approaches shall be described.
 - Multi-jurisdictional plans need to show each communities capabilities for accomplishing hazard mitigation and reducing vulnerability.
- A risk assessment
 - Identification of the hazards likely to affect the area, noting data limitations and providing an explanation for eliminating hazards from further consideration.
 - A discussion of past events and a description of their severity and resulting effects.
 - A description of the local vulnerability to the described hazards in terms of the types and numbers of buildings, infrastructure, and critical facilities located in the jurisdiction.
 - A description of the potential dollar losses to the vulnerable structures identified and a description of the methods used to calculate the estimate.
 - A description of the vulnerability in terms of land use and development so that mitigation options can be considered in future land-use decisions.
- A hazard mitigation strategy describing:
 - Goals to reduce or avoid long-term vulnerabilities to the identified hazards.
 - A range of specific mitigation actions and projects to be considered, with particular emphasis on new and existing buildings and infrastructure.
 - An action plan identifying how the actions will be implemented and administered by the local jurisdiction. Prioritization must include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs. For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA's approval of the plan.
 - Provisions for reviewing, monitoring and evaluating progress of the Plan's implementation. The Plan must also be updated at least every five years and reapproved.
- Adoption by the local governing body.
 - The Plan must include documentation that the local governing body has formally adopted it.

- In a multi-jurisdictional Plan, all participating local units of government seeking plan approval must individually adopt the Plan, with the exception of unincorporated units of government. Townships fall under the County's jurisdiction in this effort and are not required to adopt the Plan individually.

When a Plan is completed in draft form, the Ohio Emergency Management Agency performs an initial review and provides feedback so the Plan can be revised. Approximately one in four Plans is sent to the Federal Emergency Management Agency for its review and comment. Any suggested changes to the Plan are then made and the Plan certified by the County Commissioners and the individual cities and villages.

Resilient: The characteristic of an individual or society to recover after a disaster strike.

1.4.2 Previous Natural Hazard Mitigation Plans

Mitigation planning per the requirements of Disaster Mitigation Act of 2000 began in 2002 when Athens County and other local units of government collaborated in a planning effort to develop Natural Hazard Mitigation Plans. Five separate plans were adopted, starting in 2003, with the Village of Amesville, the City of Athens, the Village of Trimble, and Athens County adopting separate plans. The City of Nelsonville and the Villages of Albany, Buchtel, Chauncey, Coolville, Glouster, and Jacksonville adopted a multi-jurisdictional plan. All these Plans were approved by 2005 and are referred to as the 2005 Plans.

Each jurisdiction that prepared an individual Plan worked within its political boundaries. Mayors headed up a committee of council members, citizens, and business people to prepare the elements of their Plans. These planning groups designed the planning process, identified the scope of the Plan, reviewed the risk assessment, helped form and refine mitigation strategies, and assisted with the prioritization of objectives. Even before the Plans were finalized and officially approved, the benefits of a multijurisdictional approach became obvious. Working under the umbrella of one Plan eliminates inefficiencies, allows opportunity for collaboration, and keeps everyone involved.

With the spirit of cooperation and an interest in efficiency, an update to the original 2005 Plans was started in 2009. To seek support for updating the existing mitigation plans, the Athens County Regional Planning Commission and Emergency Management Agency focused on the resources needed to update the existing hazard mitigation plans. Essential steps included identifying, organizing and re-assembling members of the community as well as technical expertise required during the plan update process.

As a result, the Athens County Regional Planning Commission and Emergency Management Agency sought support and information from various jurisdictions, business, industry, non-profit organizations, other interested organizations and individuals. Obtaining the support of community and organizational leaders was the best foundation for the plan update effort. Pending federal approval, the County and its participating jurisdictions intended to formally adopt this Plan by passing a resolution or ordinance.

The Mitigation Planning Team was formed by notifying and assembling individuals and organizations that previously served on the team when the 2005 Plans were first drafted:

County Organizations

Athens County Commissioners
Athens County Regional Planning Commission
Economic Development Committee
Ohio State University Extension
Athens County Engineer
Floodplain Manager

The major employers, academia, non-profit organizations and other interested parties invited to participate were:

Major Employers

Diagnostic Hybrids Inc.
ED MAP Inc.
Rocky Boot Company
Sunpower Inc.
Wal-mart Stores Inc.

Colleges and Universities

Hocking College
Ohio University

Non-Profit Organizations

Federal Valley Watershed Group
Friends of the Hocking River (FOHR)
Hocking River Commission
Monday Creek Restoration Project
Raccoon Creek Partnership
Sunday Creek Watershed Group

Although representatives of these organizations were invited, none chose to participate.

The contiguous counties to Athens County were also invited to attend and participate. These counties are:

Ohio

Hocking County
Meigs County
Morgan County
Perry County
Vinton County
Washington County

West Virginia

Wood County

Although representatives of these counties were invited, none chose to participate as most were conducting the same processes to update their mitigation plans.

As a result of assessing community support and inviting a comprehensive range of resources, the following team was assembled in 2009 to update the Athens County Natural Hazard Mitigation Plan:

ORGANIZATION
Southern Ohio Chapter of the Red Cross
Athens County Regional Planning Commission
City of Athens
Village of Amesville
Village of Buchtel
Athens County Engineer
Athens County Commissioners
Athens County EMA
Ohio State University Extension
Ohio University
Athens County 911
Athens City-County Health Department
City of Nelsonville

Additionally, each of the political jurisdictions were engaged as participants and given many chances to provide input to affect the plan's content. These opportunities were usually demonstrated during scheduled and special meetings, but also included conference calls, e-mail and correspondence by postal service. As a result, the jurisdictions' representatives presented the views of their communities during the update of the hazard analysis, risk assessment, and vulnerability analyses. For the mitigation strategy, the representatives examined and evaluated mitigation goals and objectives from the perspective of the jurisdiction and offered what actions may be taken. They also presented the status of each mitigation action from the 2005 plans. Below is a summary of each participating jurisdiction and their representative:

Participating Jurisdictions

COMMUNITY	Position / Title
Athens County	Commissioner
City of Athens	Mayor and Planner
City of Nelsonville	Code Director
Village of Buchtel	Mayor
Village of Albany	Mayor
Village of Glouster	Mayor
Village of Coolville	Mayor
Village of Jacksonville	Mayor
Village of Chauncey	Mayor
Village of Trimble	Mayor
Village of Amesville	Mayor

This planning effort took the form of a multi-jurisdictional plan based on what had been learned from the preparation of the 2005 Plans. A multi-jurisdictional approach:

- enables comprehensive approaches to mitigation of hazards that affect multiple jurisdictions;
- allows economies of scale by: leveraging individual capabilities; sharing costs and resources; avoids duplication of efforts; and
- imposes an external discipline on the process.

Surrounding jurisdictions were invited to participate in the planning process. Adjacent County EMA Directors and other county officials were invited to participate in the Natural Hazard Planning Committee, however, none chose to participate. Invitations were extended to Hocking, Meigs, Morgan, Perry, Vinton and Washington

Counties in Ohio, as well as Wood County in West Virginia.

Engaging the Public

Public participation and input to the planning process was first announced through a press release to news media outlets. Copies were also available in the public libraries. Comment forms were available for the public to complete and to be picked up by Athens County representatives. Comments that were received by the public were accepted and implemented into the plan as appropriate. Throughout the plan development phase, the public was invited to attend and participate in Mitigation Planning Team meetings. Meeting locations, dates and times were made available to the public and announcements were posted at meeting locations. After the planning process was finished, the public had the opportunity to review and comment on the revised plan. The Plan was approved and adopted in 2014.

1.5 The Planning Process for 2019

1.5.1 Background

The methods of mitigation planning are constantly being updated as science provides better data, as analysis tools are improved, as people's opinions change, as we learn from our firsthand experiences with natural disasters, and as emergency management agencies refine techniques for review and evaluation. Based on review comments from previous planning efforts, this 2019 Plan attempts to do the following:

- Provide improved outreach opportunity with the use of two online surveys, one for the general public and one for key persons.
- Interact with individual jurisdictions on a more personal level by attending several council meetings to provide information and answer questions.
- Perform a thorough review of previous action items to ascertain progress and formulate new and improved approaches to mitigation.

Based upon the previous success with a multi-jurisdictional format, all local governments in the County decided to utilize this approach for the 2019 update. The Athens County Regional Planning Commission took the lead in organizing this effort. Using the multi-jurisdictional approach, the County is able to identify certain elements in this Plan that are common to all government units. These include overall process, common hazards, general goals, collaborative actions, and maintenance. Although this Plan was prepared using the multi-jurisdictional approach, it is important to note that not all areas of the county face the same natural hazards or to the same extent. Due to the unique topography, river systems, varied land cover and settlement patterns and past human activity, some natural hazards are a greater threat in certain areas. Different jurisdictions also have different levels of administrative and response capability. This Plan recognizes these differences and provides policies and guidelines that are unique for each jurisdiction. Some areas of the Plan that are unique to the individual cities and villages include geographically specific hazards, risks, and specific goals and actions. The County's geographic information system was utilized more than in previous hazard mitigation planning efforts. This allowed better planning that accommodates the unique attributes of each participating jurisdiction.

1.5.2 Organizing

An invitation to participate was mailed to the individuals and organizations listed in Appendix 2. Of these invitees 28 individuals elected to serve on the Athens County Multi-jurisdictional Natural Hazard Mitigation 2019 Plan Update (members indicated in appendix 2) Planning Committee. Efforts were made to include local, state, and federal governmental agencies, the private sector, Ohio University and Hocking College, and non-profit organizations. Mayors and a City Manager were all invited to represent their respective jurisdictions. An executive committee was formed to be a working group that could take care of the day-to-day needs of a large scale planning effort. The executive committee was comprised of the EMA Director, the Athens City Planner, an undergraduate intern with the City Planner, the Emergency Response Coordinator with the Athens City-County Health Department, the Planning Director for Athens County, and a planning consultant hired by Athens County.

1.5.3 Outreach

The NHMP approved in 2014 had relied on a public survey conducted in 2010. Therefore, in order to maximize public input and reflect current opinion, several online surveys were conducted. The first survey (survey and results in Appendix 3) was intended for the general public and was made available on the websites of the County Planner, the Health Department, the City of Athens, and the Emergency Management Agency. The second survey (survey and results in Appendix 4) was aimed at people in positions of authority and who have awareness of natural hazards through some aspect of their work. These individuals included the members of the NHMP

Committee and others who can speak for private businesses, business groups, non-profit organizations, and governmental organizations. This second survey was intended to fill any gaps that may exist in the representation on the full NHMP Committee, particularly with the private sector.

There were 129 responses to the public survey and 36 responses to the key person survey. Responses were insightful and every effort has been made to incorporate these results into the mitigation planning effort. A brief discussion of the results is therefore a part of Chapter 3, Mitigation Plan, and results are also included in a summary of results in Appendix 5.

In order to inform the public about the Plan update, a press release (see Appendix 6) was issued to three local newspapers and three radio stations. The newspapers were The Athens Messenger, The Athens News, and The Post. The radio stations were WATH, WOUB, and WYNO.

Additionally, a member of the 2019 Multi-Jurisdictional Natural Hazard Mitigation Plan Update Executive Planning Committee publicly presented at each municipality. These presentations discussed the plan's purpose, the update process, and created opportunity for dialog and public comment. Presentations included the proposed hazard ranking per municipality, requested information about public assistance received and or changes to critical facilities since the 2014 plan, discussed mitigation items and requested any and all proposed actions be submitted to the planning team, announced the public survey available and encouraged municipal outreach. Below is the schedule of municipal presentations.

Table 1 Athens County Natural Hazard Mitigation Plan Outreach by Jurisdiction

Jurisdictional Public Outreach Natural Hazard Mitigation 2019 Plan Update Executive Planning Committee Presentation		
Municipality	Executive Planning Committee Member	Date of Public Meeting
Village of Buchtel	Bob Eichenberg, Consultant	Village Council August 1, 2019
Village of Glouster	Bob Eichenberg, Consultant	Village Council August 5, 2019
Village of Trimble	Donald Gossel, EMA Director	Village Council August 12, 2019
Village of Coolville	Bob Eichenberg, Consultant	Village Council August 13, 2019
Village of Chauncey	Donald Gossel, EMA Director	Village Council August 20, 2019
Village of Chauncey	Jessie Powers, Co. Planning Director	Village Council September 18, 2019
Village of Jacksonville	Donald Gossel, EMA Director	Village Council August 21, 2019
Village of Albany	Donald Gossel, EMA Director	Village Council August 22, 2019
City of Athens	Paul Logue, City Planning Director	City Council August 26, 2019
City of Nelsonville	Jessie Powers, Co. Planning Director	City Council September 9, 2019
Village of Amesville	Donald Gossel, EMA Director	Village Council September 11, 2019

1.6 Relationship to other community, regional, and state plans

1.6.1 Community Overview and Capabilities by Jurisdiction

Community capability presents itself in the form of:

- Planning and regulatory
- Administrative and technical
- Financial
- Education and outreach

Due to their relatively small populations and a lack of industrial tax base, most of the jurisdictions participating with this Plan struggle to meet all the needs of their citizens. In spite of a lack of resources, all communities actively strive to keep citizens safe in the event of a natural hazard.

Some of the jurisdictions in Athens County utilize some form of comprehensive land use or master planning, zoning, and building codes to guide and control local building and land development. The purpose of hazard mitigation planning is to identify community policies, actions, and tools for implementation over the long term that will result in a reduction in risk and potential for future losses community-wide.

Common to all jurisdictions is a police force. Of course, the level of sophistication varies by community with most villages relying on a village marshal working in cooperation with the Athens County Sheriff's Department. Ohio University, within the City of Athens, also has its own police force. Hocking College, within the City of Nelsonville, also has its own police force. The Ohio State Highway Patrol Post is located on the eastern end of the City of Athens and serves all of Athens County. The same can be said for fire departments with the Cities of Athens and Nelsonville having separate departments and the remainder of the incorporated and unincorporated areas relying on volunteer departments. Municipalities obtain utilities through various means and several operate their own utilities, thus indicating a higher level of sophistication.

Table 2 illustrates the various planning documents within the different jurisdictions. When coordinated with other community planning, a mitigation plan will yield the most cost-effective and efficient results, optimal use of limited resources, and also serve to protect lives, property and natural resources. As comprehensive plans are reviewed and updated, and after mitigation strategies are developed, mitigation policies and activities should be incorporated into any of the Plan elements.

Table 2 Planning and Land Use Documents by Jurisdiction

Table						
Municipality	Zoning	Subdivision Regulations	Housing Codes	Comprehensive Plan	Land Use/ Land Development Ordinances	Flood Plain Ordinance
Albany	X	X				
Amesville						X
Athens	X	X	X	X	X	X
Buchtel						X
Chauncey						X
Coolville						X
Glouster						X
Jacksonville						X
Nelsonville	X	X	X	X	X	X
Trimble						X
Unincorp. Athens County		X		X		X

Table 6 in Chapter 4 shows the current status of NFIP compliance for the various jurisdictions. A willingness to uphold the NFIP standards indicates a commitment and capability to enforce planning law and to think to the future. Villages do not have the administrative capabilities of the cities or county and therefore must rely on elected officials and employees who have many other responsibilities to enforce the rules that go with being NFIP compliant. Several municipalities and unincorporated areas have administered mitigation projects, thus showing a higher level of capacity. Those with flood and landslide mitigation capacity include Athens County, Amesville Village, Athens City, Glouster Village, and Trimble Village. Knowledge and understanding was gained from the mitigation program implementation.

1.6.1.1 Albany

The Village of Albany, located in Lee and Alexander Townships, is the only village in Athens County to adopt zoning. This was a large and admirable step for a small municipality and shows the ability of the Village to administer a land use process that will provide for a better future for its residents. The Village has its own wastewater system and buys water in bulk from the Leax Water District. The Village is the only jurisdiction that does not have any mapped floodplain area within its boundary. Albany employs a village marshal and within its borders is the Albany volunteer fire department.

1.6.1.2 Amesville

The Village of Amesville is located on Federal Creek in Ames Township and employs a village marshal. The Village has a history of flooding and has been a strong advocate for NFIP compliance and became involved in an acquisition, elevation, and dry floodproofing program that has resulted in the removal or improvement of many floodprone properties in the Village.

1.6.1.3 Athens City

The City of Athens has a number of professional staff that make it the most capable municipality for coping with natural hazards as they arise. The City employs a full time Mayor, a Service-Safety Director and Assistant Director, a City Planner, a City Engineer and Assistant Engineer, a police chief, a fire chief, and a Code Director with a full-time staff.

The Hocking Conservancy District operates within the City limits. The Conservancy is responsible for maintenance of the flood control project that was built in the early 1970's to control the frequent flooding that had occurred throughout the decades, but particularly in the 1960's when Ohio University sustained a heightened level of property damage. The Hocking River was channelized through the City as a result. Funds for maintenance are paid from an assessment of properties that benefit from the flood control. The majority of the fund is paid by Ohio University.

In December 2009 the City of Athens adopted a new version of Athens City Code Title 25, Flood Damage Prevention. The stated purposes of Title 25 are to protect human life and health; minimize expenditure of public money for costly flood control projects; minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; minimize prolonged business interruptions; minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in areas of special flood hazard; help maintain a stable tax base by providing for the proper use and development of areas of special flood hazard so as to protect property and minimize future flood blight areas; ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; minimize the impact of development on adjacent properties within and near the flood prone areas; ensure that the flood storage and conveyance functions of the floodplain are maintained; minimize the impact of development on the natural, beneficial values of the floodplain; prevent floodplain uses that are either hazardous or environmentally incompatible; and meet community participation requirements of the National Flood Insurance Program.

To draft the new ordinance, an ad hoc committee that included local developers, engineers, university officials, planners, and business interests was convened in 2008. This committee was tasked with drafting a new ordinance that was both compliant with Athens participation in the NFIP and that adopted higher standards with the goal of reducing future damage. In order to reduce future damage, the city's ordinance includes a series of higher standards that exceed the minimum standards of the NFIP. These higher standards include requirements for compensatory storage in the 50 and 20-year floodplains, cumulative accounting of substantial damage and improvements, and requirements that critical facilities not be located in the 20-year floodplain.

Compensatory Storage

The City of Athens hired a local professional engineer to map the boundaries of both the 50-year and 20-year floodplains. This mapping was done utilizing hydraulic and hydrologic study methods that are consistent with Army Corps of Engineer modeling methodologies. Once the 50 and 20-year floodplains were mapped, the city was able to adopt compensatory storage requirements that put limits on the amount of fill dirt that can be imported into these areas without providing on site water storage areas of equal amounts. This requirement exceeds NFIP regulations and is

intended to reduce the amount of fill imported into the floodplain and make property owners responsible for the impacts of flooding on their property, rather than making greater impacts on other land owners.

Substantial Improvements

Many structures in the City of Athens were built prior to the adoption of a flood damage prevention ordinance and issuance of FIRM maps in 1980. NFIP guidelines permit these structures to remain non-compliant unless the property owner wishes to improve a structure to the extent that the cost of improvements exceeds 50% of the structure's value. The City of Athens higher standard for substantial improvements extends the 50% threshold to a rolling 5-year basis that is tracked through permitting. This requirement means that if a series of improvements over a 5-year period exceed 50% of the structure's value then it must come into compliance.

Critical Facilities

New critical facilities are prohibited on the 5% annual chance (20-year) floodplain. Existing facilities are allowed to perform any maintenance necessary to continue operation, but are prohibited from expanding unless the facility has direct access to a driveway or roadway whose surface elevation is not less than the flood protection elevation and such escape route leads directly out of the floodplain area.

1.6.1.4 Athens County Unincorporated

The unincorporated portion of Athens County is overseen by the Athens County Commissioners. The Commissioners have responsibility for all residents, including in municipalities, however the municipalities exercise direct control in their jurisdictions through the Mayor/Council form of government. No unincorporated regions of the County are zoned with exception of floodplain zoning. A portion of an unincorporated area known as The Plains is being considered for zoning. The Athens Township Trustees appointed a 5-member Zoning Commission to prepare a map and zoning resolution for consideration by voters in the November 2020 election. The County actively enforces its floodplain regulations through the office of the County Planner. The County Planning Director reports to the County Commissioners and an active Regional Planning Commission with broad representation. In addition to floodplain management, the Planning Director oversees subdivision regulations, comprehensive plan updates, and a variety of other planning initiatives.

Athens County employs a County Engineer, a County Sheriff, a 9-1-1 Coordinator, an Emergency Management Director, and a GIS Coordinator, all of whom are critical figures with mitigation planning. The Athens City-County Health Department also employs an Emergency Response Coordinator.

Athens County relies on a variety of providers for all utilities. While American Electric Power provides most of the electricity, there are several rural electric cooperatives in operation. Most of the County is rural and unsewered. Plans are underway for the City of Nelsonville to construct a new wastewater treatment plant that will be regional in scope. It will pick up currently unsewered areas in York Township, northern Athens County. Potable water is delivered by several rural water districts.

The current Athens County Comprehensive Plan contains some elements which include principles of natural hazard mitigation planning. These should be strengthened in the Comprehensive Plan update. The Comprehensive Plan provided the opportunity for mapping of critical facilities, including schools and shelters. The chapter on Land Use discusses proper site planning that takes natural hazards into account. To strengthen Plan connectivity, natural hazards should be considered in more detail in the chapters on Transportation, Economic Development, Utilities and Infrastructure, Housing, Heritage, and Community Facilities. The Comprehensive Plan discussed the problem of invasive species. Therefore, the 2019 NHMP recognizes this problem by listing it as one of the natural hazards in the Plan.

Athens County, through the County Commissioner's office, participated with a floodplain mitigation project that included acquisition and dry floodproofing. Athens County, through the York Township Trustees, participated with another mitigation program involving acquisition.

1.6.1.5 Buchtel

The Village of Buchtel employs a village marshal and a village administrator. It obtains its potable water and sanitary sewer service from the City of Nelsonville, its neighbor to the west.

The Village of Buchtel is located on Snow Fork, a branch of Monday Creek. A lack of funding has prevented FEMA from providing a detailed Flood Insurance Rate Map and the Village only has approximate A-zones. For years it was generally assumed that the Village's flood mapping was inadequate by showing too small an area as floodplain. The new Flood Insurance Rate Maps for the Village (effective date 12/18/2009) now show a much larger area in the floodplain and are being questioned as perhaps including too large an area. Some investigation is underway locally to see if there may have been a modeling error with the A-zone elevations for Snow Fork.

1.6.1.6 Chauncey

The Village of Chauncey employs a village administrator. The Village has its own public water and sanitary sewer systems. The Village has a history of flood-related problems and repetitive losses. The Village is not in compliance with the NFIP. A number of property owners have made property improvements that are in violation of NFIP standards. There has not been any resolution for most of these properties. Production of a structure and value list and mapping these properties is an activity in the County's five year natural hazard mitigation plan.

1.6.1.7 Coolville

The Village of Coolville employs a village marshal. It purchases bulk water from the Little Hocking Water District and recently had its own sewer system constructed. The Village has only a small portion of its land in the 1% chance floodplain and no structures in the floodplain and chooses not to participate in the NFIP.

1.6.1.8 Glouster

The Village of Glouster is the largest village in Athens County and has its own police force. It employs a full time village administrator. It purchases bulk water from the Sunday Creek Water District and is part of the wastewater treatment system that serves Glouster, Trimble, Jacksonville, and surrounding areas. Glouster is unique among municipalities in that it has its own electric

company, purchasing bulk power and distributing it on lines that it owns. The Village has been active with its floodplain management and has participated with a mitigation buyout program.

1.6.1.9 Jacksonville

The Village of Jacksonville is considering once again employing a village marshal. It purchases bulk water from the Sunday Creek Water District and is part of the wastewater treatment system that serves Glouster, Trimble, Jacksonville, and surrounding areas.

1.6.1.10 Nelsonville

The City of Nelsonville is the only municipality in Athens County that operates with the City Manager form of government. The City employs a full time City Manager, police chief, fire chief, and code officer. Nelsonville has its own water and wastewater treatment plants. Nelsonville has actively enforced its floodplain regulations and recently participated with a flood mitigation program involving acquisition of floodprone structures.

Through updating their land use codes, the City of Nelsonville has made strides to provide additional protection against natural hazards for its residents. Nelsonville adopted higher than minimum standards for floodplain regulations with the passage of Ordinance 55-09, one foot freeboard and no inoperable vehicles in the floodway. See below for these standards:

Residential Structures

New construction and substantial improvement of any residential structure, including manufactured homes, shall have the lowest floor, including basement, elevated to or above the flood protection elevation. "Flood Protection Elevation (FPE)": The Flood Protection Elevation is the base flood elevation plus one (1) foot of freeboard. In areas where no base flood elevations exist from any authoritative source, the flood protection elevation can be historical flood elevations, or base flood elevations determined and/or approved by the floodplain administrator.

Recreational Vehicles

All other vehicles stored in the open or in an enclosed building below the base flood elevation shall be operable and capable of independent propulsion in the event of flooding. Junk, inoperable and/or unlicensed motor vehicles or recreational vehicles shall be specifically prohibited from being located, stored or permitted to remain in the floodway.

Additional ordinances and regulations regarding mitigation in Nelsonville can be found in Appendix 7.

1.6.1.11 Trimble

The Village of Trimble recently participated with a flood mitigation program involving acquisition of floodprone structures and is partnering with the Athens County Land Reutilization Corporation or Land Bank for demolition of dilapidated structures on the properties. It purchases bulk water from the Sunday Creek Water District and is part of the wastewater treatment system that serves Glouster, Trimble, Jacksonville, and surrounding areas. The Village has been active with its floodplain management and has participated with a mitigation buyout programs over the years.

1.6.2 Buckeye Hills Regional Council

The regional planning agency for southeastern Ohio is the Buckeye Hills Regional Council. According to its website:

“Buckeye Hills Regional Council is a council of governments dedicated to improving the lives of residents in southeast Ohio.

By working collaboratively with elected officials across Athens, Hocking, Meigs, Monroe, Morgan, Noble, Perry, and Washington counties, we grow strong communities through our five divisions: Aging & Disability, Community Development, Mapping & Data, Population Health, and Transportation Planning.

We are designated as:

- an Area Agency on Aging
- the District 18 Liaison for the Ohio Public Works Commission
- an Economic Development District
- a Local Development District
- a Regional Transportation Planning Organization
- the Southeast Ohio Aging & Disability Resource Network”

While no program at Buckeye Hills Regional Council specifically deals with hazard mitigation planning, all programs are interrelated with local mitigation planning. The five divisions assist local governments with planning efforts, provide mapping and data which can include hazards mapping and can work to improve critical facilities, particularly transportation and environmental infrastructure. As one of Ohio’s Area Agencies on Aging, the Regional Council is in a unique position to provide information on a vulnerable population during hazard events. Emergency response systems are listed for each county in southeastern Ohio. All nursing homes and other housing locations for elders are listed.

Buckeye Hills Regional Council’s Development Director sits on the Athens County NHMP 2019 Committee and will offer input and advice throughout the planning process. Because most natural hazard events go beyond the geographic boundaries of individual counties, regional cooperation is imperative and needs to be strengthened. Additionally, Buckeye Hills provided maps of vulnerable populations living within Athens County, located in Appendix 8. Vulnerable populations are often the most heavily impacted by natural hazards and include persons with disabilities, those living in poverty, zero car households, minorities, and seniors.

1.6.3 State of Ohio Draft Hazard Mitigation Plan 2019

The State of Ohio has prepared and adopted a Hazard Mitigation Plan. The Plan was last updated in draft form in 2019. This plan is in accordance with the Disaster Mitigation Act of 2000 which requires that a state must update its hazard mitigation plan every three years. Currently, the State of Ohio Hazard Mitigation Plan is considered a "Standard Plan" that also meets the Severe Repetitive Loss Program addendum requirements. According to the state, this means:

Ohio communities are eligible for the Hazard Mitigation Grant Program which makes available an amount equal to 15% of the Federal disaster costs for mitigation projects.

Ohio communities are eligible for the Public Assistance (PA) program after a Federal disaster declaration. PA funds are utilized by communities to reimburse for certain costs incurred as a result of a disaster.

Ohio communities receive a more favorable cost share under the Severe Repetitive Loss and Flood Mitigation Assistance Programs than would otherwise be available.

The State of Ohio Hazard Mitigation Plan (SOHMP) identifies how Ohio has successfully implemented many hazard mitigation programs to improve the state's resilience in the face of future disasters, and identifies work remaining to be done. An overall purpose of the state's plan is to provide a framework for actions by state agencies, local governments, business and industry, and citizens to ensure that adequate mitigation planning activities are being completed, that hazard mitigation actions are based on factual, scientific information, and that mitigation actions are not only appropriate for the particular situation, but are also wise investments of taxpayer funds.

For planning purposes, the state divides itself into three planning regions and Athens County is in Region 3, the Appalachian region of Ohio.