CHAPTER 17: MITIGATION STRATEGIES

17.1 Goals and Objectives

The goals and objectives presented herein help to guide Allegany County and its municipalities in identifying and selecting mitigation strategies to address hazard vulnerabilities. The actions address the vulnerabilities discussed in the hazard profile chapters by identifying measures that will help the County and municipalities avoid, prevent, or otherwise reduce damage and downtime resulting from hazards.

This chapter identifies goals, objectives, and specific mitigation actions that address the risk and vulnerabilities identified in the natural hazard chapters of this plan. Mitigation strategies have been developed with county and municipal capabilities and gaps in mind, which were identified in Chapter 14: Community Capabilities. Table 17-1 defines goals, objectives, and action items.

	Table 17-1: Goals, Objectives, and Mitigation Projects
Goal	Goals are general guidelines that explain what you want to achieve. They are
Guai	usually broad policy-type statements, long-term and represent global visions.
Objective	Objectives define strategies or implementation steps to attain the identified
Objective	goals. Unlike goals, they are specific and measurable.
Mitigation Projects	Are the specific steps (projects, policies, and programs) that advance a given
& Action Items	objective. They are highly focused, specific, and measurable.

The goals and objectives from the 2018 hazard mitigation plan were reviewed by stakeholders during the Mitigation Workshop held on August 31, 2023. Hazard Mitigation Planning Committee (HMPC) members in attendance at the meeting revised the goals and objectives as necessary and created additional goals and objectives for inclusion in the 2024 Plan Update. Revisions made to the goals and objectives are documented in the meeting notes for the mitigation workshop (see *Appendix B: HMPC Meeting Notes*). These goals and objectives represent Allegany County's vision for reducing damage caused by natural hazards identified within the plan for the next five years and beyond.

Goals and objectives have been categorized into **four broad categories:**

- **1. Local Planning and Regulations (LPR)**: Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation, and storm water management regulations.
- **2. Structure and Infrastructure Projects (SIP)**: Actions that involve the modification of existing critical and public facilities, buildings, structures, and public infrastructure to

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protect them from hazards. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and infrastructure modification.

- **3. Education and Awareness Programs (EAP)**: Undertake actions to inform and educate citizens, elected officials, and property owners about potential ways to mitigate hazards that can occur in the County and its municipalities. Such actions include outreach programs, projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
- **4. Natural Systems Protection (NSP)**: Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural protection systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration preservation.

Note: goals and objectives added in this plan update are in green, and the modified portions of goals and objectives are shown in orange.

Goal #1: Maintain and enhance Allegany County's Department of Emergency Service's capacity to continuously make Allegany County less vulnerable to hazards, specifically for those hazards rated as medium-high and high.

<u>Objectives:</u>

- 1.1 Institutionalize hazard mitigation
- 1.2 Improve organizational efficiency.
- 1.3 Maximize utilization of best technology.

1.4 Ensure a well-funded GIS Office to enable Allegany County DES to maximize utilization of GIS software and applications.

- 1.5 Maximize use of hazard vulnerability data, such as Hazus Risk Map products.
- 1.6 Keep current with changing science related to climate change threats.

Goal #2: Build and support municipal capacity and commitment to become continuously less vulnerable to hazards.

<u>Objectives:</u>

2.1 Increased awareness and knowledge of hazard mitigation principles and practice among local and municipal public officials.

2.2 Aid municipal officials and municipalities obtain funding for mitigation planning and project activities.

2.3 Prepare technical reports for critical facilities as necessary.

Goal #3: Improve coordination and communication with other relevant organizations. <u>Objectives:</u>

- 3.1 Establish and maintain lasting partnerships.
- 3.2 Streamline policies to eliminate conflicts and duplication of effort.

3.3 Incorporate hazard mitigation into activities of other organizations.

Goal #4: Increase public understanding, support, and demand for hazard mitigation.

<u>Objectives:</u>

4.1 Identify hazard specific issues and needs.

4.2 Heighten public awareness of natural hazards.

4.3 Publicize and encourage the adoption of appropriate hazard mitigation actions.

4.4 Within 2 years, increase the number of businesses that have developed a business risk reduction plan.

4.5 Within 3 years, increase by 10% the proportion of businesses and residences that have flood insurance.

4.6 Increase the total number of NFIP policyholders outside the 1 percent-annualchance FEMA flood zone.

4.7 Prioritize vulnerable populations when conducting public hazard mitigation outreach.

4.8 Increase public awareness and preparedness specific to emerging infectious diseases, always utilizing data and information from verified and trustworthy public health sources.

Goal #5: Protect existing and future properties (residential, commercial, public, and critical facilities).

<u>Objectives:</u>

5.1 Utilize the most effective approaches to protect buildings from flooding, including acquisition and elevation.

5.2 Enact and enforce regulatory measures to ensure that new development will not increase hazard threats from flooding, steep slope failure and the threat of wildfire at the urban/forest interface.

5.3 With exception to buildings damaged/blighted from previous flooding, within 5 years reduce by 20% the number of houses in the floodplain that are subject to repetitive losses from flooding.

5.4 Within 5 years, increase by 25% the number of critical facilities that have carried out mitigation measures to ensure their functionality in a 100-year flood event, winter storm or high wind event.

5.5 Review Building Codes to ensure that manufactured housing, including mobile homes, are constructed and installed in a manner to minimize wind damage.

5.6 Encourage existing high risk residential structures to utilize retrofitting techniques to mitigate repetitive flooding.

Goal #6: Ensure that public funds are used in the most efficient manner.

Objectives:

- 6.1 Prioritize new mitigation projects, starting with sites facing the greatest threat to
- life, health, and property.
- 6.2 Use public funding to protect public services and critical facilities.
- 6.3 Maximize the use of outside funding sources.
- 6.4 Encourage property-owners self-protection measures.

Goal #7: Promote sustainable development to improve the quality of life.

<u>Objectives:</u>

- 7.1 Establish open space parks and recreational areas in flood hazard areas.
- 7.2 Provide for the conservation and preservation of natural resources.

7.3 Limit additional housing (especially elderly and high density) in areas of high hazard risk.

7.4 Prioritize forest conservation and tree planting to mitigate extreme temperatures and to provide stormwater benefits. Consider potential for carbon offset program.

Goal #8: Prevent destruction of forests and structures in the Urban Wildland Interface. <u>Objectives:</u>

8.1 Development of communications protocol and management between municipal and County emergency management and law enforcement personnel.

8.2 Identify specific high hazard areas in the Urban Wildland Interface and notify residents of measures to protect their property from wildfire damage.

8.3 Develop evacuation procedures to enable residents near forested areas to evacuate safely.

8.4 Continue to work with the Maryland Department of Natural Resources to develop Community Wildfire Protection Plans, which promote safe urban-wildland interface.

Goal #9: Protect public infrastructure.

<u>Objectives:</u>

9.1 Upgrade or replace public roads and stormwater management features to include mitigation into the project design and construction.

9.2 Improve routes utilized in flood hazard events to mitigate life-threatening road conditions and road closures.

9.3 Mitigate problem road sections within the County and municipalities.

9.4 Encourage and ensure to the greatest extent possible continuous power supply to critical and public facilities.

Goal #10: Integrate plans and policies across disciplines and agencies within the County through the consideration of potential hazards and future development. Objectives:

10.1 Integrate hazard mitigation into areas such as land use, transportation, climate change, natural and cultural resource protection, water resources, and economic development.

10.2 Solicit participation and offer opportunities for various departments to work together on a regular basis.

10.3 Clearly define roles of, and improve intergovernmental coordination between planners, emergency managers, engineers, and other staff, and municipal and regional partners in improving disaster resiliency.

10.4 Integrate the new 2024 Hazard Mitigation Plan into existing plans, policies, codes, and programs that guide development.

17.2 Mitigation Action Item Update

Mitigation strategies from the 2018 plan were reviewed as part of the 2024 plan update. Status updates were provided by members of the HMPC. *Appendix F: Mitigation Action Progress Report* details the process implemented to gather feedback and updates to action items from the 2018 Hazard Mitigation Plan.

The HMPC determined that twenty two (22) mitigation action items would be carried forward into the 2024 plan update. Of these action items, fourteen (14) were identified as "delayed" and eight (8) were identified as "on schedule". These items were reviewed and updated to reflect current conditions within Allegany County. In addition to these action items, new action items were developed by stakeholders throughout the plan update process. During the mitigation workshop held on August 31, 2023, HMPC members were given the time and opportunity to review newly recommended action items and modify them as needed.

Notes for this meeting, as well as other HMPC meetings, are available in *Appendix B: HMPC Meeting Notes* and on the project website: <u>www.alleganymdhazards.org</u>. In addition to the expertise and guidance of stakeholders, results from the public survey (see *Appendix H: Public Survey Summarized Results*) were considered in the development of mitigation action items. The public indicated a strong desire for the following types of mitigation projects:

- 1. Replace inadequate or vulnerable bridges.
- 2. Work on improving damage resistance of utilities (electricity, communications, water/sewer, etc.)
- 3. Retrofit and strengthen essential facilities such as police, fire, emergency medical services, hospitals, schools, etc.
- 4. Retrofit infrastructure, such as elevating roadways and improving drainage systems.
- 5. Assist vulnerable property owners with securing funding to mitigate impacts to their property.

17.3 Mitigation Action Items

Upon completing the review of the goals and objectives established during the 2024 planning process, the HMPC members attending the mitigation workshop reviewed the four broad categories of mitigation action items. These mitigation categories, as identified in section 17.1, include (1) Local Planning and Regulations, (2) Structure and Infrastructure Projects, (3) Natural Systems Protection, and (4) Education and Awareness Programs. Workshop attendees were placed into small working groups based on these four identified mitigation categories. To the greatest extent possible, attendees were grouped based upon their professional position and individual expertise. Mitigation ideas were discussed and identified throughout the plan update process and during the review of draft hazard chapters by stakeholders.



Pictures (left and right): Participants attend the Mitigation Workshop held on August 31, 2023, at the County's Emergency Operations Center. They worked in 3 small groups to review goals and objectives and develop new mitigation strategies. Source: SP&D.

Mitigation action items address the goals and objectives developed by the HMPC. These action items form the core of the 2024 Allegany County Hazard Mitigation Plan Update. In total, the three working groups reviewed thirty seven (37) action items and created two new action items.

There are forty (40) total action items included in this plan update. These action items are included in Table 17-2, following. For each action item, associated goals and objectives, hazards, locations, timeframe for implementation (i.e., ongoing, short-term (1-3 years), midterm (3-5 years), and long-term (5+ years)), responsible entity, and primary impacted community lifeline are identified. According to FEMA, "a lifeline enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security." Lifelines are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function. Projects associated with action items are denoted in orange. Additionally, action items which count for Community Rating System (CRS) credit are indicated with "CRS".

	Table 17-2. Mitigation Action Items										
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline			
		LC	OCAL PLANNI	NG AND REGULA	TIONS	·					
LPR-1	Consider development restrictions for vacant parcels located in identified flood hazards areas. Note: This action item is associated with a mitigation project (Project B).	7 10	7.3 10.1	Flood	Vacant parcels in Allegany County and Municipalities (all)	Short term/ Ongoing	Allegany County Land Development Services	Safety and Security			
LPR-2	Some areas in the County experience repetitive hazard issues – therefore, implementing a critical hazard area overlay zone within the zoning ordinance would be helpful for these locations. This critical overlay zone could include portions of property parcels that have multiple hazards. Such as the 1 percent-annual-chance flood zone, severe erodible soils, slopes 25% or greater, hydric soils, and wetlands. <i>Note: This action item is associated with a</i> <i>mitigation project (Project C).</i>	1 5 6 10	1.4 5.1; 5.2 6.1 10.1; 10.3	Flood, Severe Weather, Soil Movement	Parcels in locations that are in multiple hazard zones (both County and Municipal)	Short term	Allegany County Planning Services	Safety and Security			
LPR-3	Due to steep slope flooding, specifically in the Georges Creek area, consider modifying the steep slope ordinance from 25% to 15%.	5 10	5.2 10.1	Flood, Severe Weather, Soil Movement	Westernport, Barton, Lonaconing, Midland, Frostburg	Short term	Allegany County Land Development Services	Safety and Security			
LPR-4	Utilize GIS based solutions for damage assessments and to collect information for mitigation projects, specifically for flood related damage that includes high water mark elevation and picture. Note: This action item is associated with a mitigation project (Project D).	1 5	1.3; 1.4 5.1	Flood	Allegany County, City of Cumberland, City of Frostburg	Short term	Allegany County Geographic Information Systems Office	Safety and Security			
LPR-5	Review previous damage assessment reports, then geocode to visualize areas of repetitive loss.	1 5 6	1.3; 1.4 5.1	Flood	Allegany County	Long term	Allegany County Geographic	Safety and Security			

		Та	ble 17-2. M	itigation Action	Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	Note: This action item is associated with a mitigation project (Project D).		6.1; 6.3; 6.4; 6.5				Information Systems Office	
LPR-6	Explore the CRS (Community Rating System), which reduces insurance costs within the county. Currently, Allegany County is not enrolled in the CRS. As of August 2023, there are 104 NFIP policies in force in Allegany County with \$123,039 being paid in insurance premiums. On average, Allegany County policy holders pay \$1,183 per year in flood insurance premiums. By participating in the CRS, policy holders could potentially save between \$59 (5%) to \$532 (45%) per year on their flood insurance policies.	1 2 3 4 6 10	1.1 2.1 31; 3.3 4.1; 4.3 6.5 10.2; 10.3	Flood	Allegany County, Westernport, Lonaconing, Midland, Cumberland, Barton	Long term	Floodplain Manager	Safety and Security
LPR-7	 Work with Maryland Department of Natural Resources to complete Community Wildfire Protections Plans for at-risk communities. Currently, Little Orleans and Bowman's Addition are the only communities with a Wildfire Protection Plan. a) Vulnerable populations are taken into consideration and incorporated into wildfire protection plans. These groups in Allegany County as identified in Chapter 10 Wildfire include: infants, young children, pregnant women, older adults, and those with additional medical or mobility needs. 	8	8.1; 8.2; 8.3; 8.4	Wildfire	Allegany County and Municipalities (All)	Long term	Emergency Services	Safety and Security
LPR-8	Conduct a new Hazardous Materials Commodity Flow Study as an update to the last study completed in 2014.	1 2	1.5; 2.3	HazMat Transportation	Allegany County, City of Cumberland	Short term	Emergency Services	Hazardous Materials

		Та	able 17-2. M	itigation Action	Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	Note: This action item is associated with a mitigation project (Project G).							
LPR-9	Update Allegany County's 2015 Hazardous Materials Emergency Response Plan.	1 3	1.2; 1.5	HazMat Transportation, Rail Accident	Allegany County	Short-term	Emergency Services/LEPC	Hazardous Materials
LPR-10	Develop a Local Strategic Highway Safety Plan as encouraged by the State to work towards a goal of zero highway fatalities. Local Strategic Highway Safety Plans (LSHSP) can be developed in coordination with the Maryland Highway Safety Office.	1 3 4 9	1.4; 1.5; 3.3; 4.1; 9.3	HazMat Transportation	Allegany County with input from municipalities (all)	Mid Term	Planning and Zoning in cooperation with Transit Department	Transportation
LPR-11	Aggressively pursue any and all funding opportunities to support mitigation actions outlined in this hazard mitigation plan.	1 2 6	1.1; 2.2; 6.1; 6.4	All-hazards	Allegany County	Ongoing	Emergency Services	Safety and Security
LPR-12	 Develop an Extreme Heat Emergency Plan that identifies triggers, surveillance, and actions. a) Populations vulnerable to extreme heat, as identified in Chapter 9, include: populations 65 years of age and older and populations 17 years of age or younger (particularly small children and infants). 	1 7	1.1; 7.4	Extreme Heat and Drought	Allegany County	Short term	Emergency Services	Health and Medical
LPR-13	Protect critical infrastructure from power outages via the development of a microgrid system in the City of Frostburg. Note: This action item is associated with a mitigation project (Project H).	2 4 5 6 9	2.2; 4.3; 5.4; 6.1; 6.2; 6.4; 9.4	Severe Weather, Winter Storm, Tornado, Flood (hazards that potentially impact power utilities)	City of Frostburg	Mid term	City of Frostburg	Energy

		Та	ble 17-2. Mi	itigation Actior	n Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
LPR-14	Development of a County-Municipal workshop to provide an overview of the roles of local government in emergency management. FEMA staff could be invited to present information from the Local Elected and Appointed Officials Guide: Roles and Resources in Emergency Management or other relevant guides. Note: This action item is associated with a mitigation project (Project I).	1 2 3	1.2; 1.2; 2.1; 3.1; 3.2; 3.3	All-hazards	Allegany County, Municipalities	Short term	Emergency Services	Communications
LPR-15	Ensure that evacuation plans, plans for flood fighting, or community response plans to include in the floodplain management plan are developed for the following high hazard potential dams owned by the County or municipalities: Koontz Run Reservoir Tanks, Lonaconing Reservoir, Midland-Gilmore Reservoir, Dry Run Detention Dam and Culvert, Upper Potomac Industrial Park Levee	2 5	2.1; 2.2; 5.1; 5.2	Dam Failure	Allegany County, Cumberland, Lonaconing	Long term	Dam Owners	Safety and Security
		STRU	TURE AND IN	FRASTRUCTURE	PROJECTS			
SIP-1	CRS Acquire/demolish and relocate the Town Halls of Lonaconing and Westernport. Both Town Halls are located within the 100-year floodplain, and both have experienced first floor flooding in 1996. Note: This action item is associated with a mitigation project (Project E).	5 6 7	5.1; 5.4 6.1; 6.3; 6.4 7.1	Flood	Town of Lonaconing and Westernport	Long term	Land Development Services	Safety and Security
SIP-2	CRS Acquire/demolish and relocate the following Fire Departments that have been identified by the FEMA HAZUS Model as susceptible to first floor flooding. Fire Departments include: Corriganville VFC,	5 6 7	5.1; 5.4 6.1; 6.3; 6.4 7.1	Flood	Allegany County, Town of Midland, Town of Westernport	Long term	Land Development Services	Safety and Security

		Та	ble 17-2. M	itigation Actior	1 Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	Midland Fire Company, Potomac Fire Company and Baltimore Pike VFC.							
SIP-3	CRS Review the following schools for flooding susceptibility. The FEMA HAZUS Model has identified these schools as being susceptible to first floor flooding. The Schools include: Calvary Christian Academy and Flintstone Elementary. Note: This action item is associated with a mitigation project (Project E).	5 6 7	5.1; 5.4 6.1; 6.3; 6.4 7.1	Flood	Allegany County (Cresaptown and Flintstone)	Long term	Land Development Services	Safety and Security
SIP-4	CRS Consider retrofitting the following WWTPs for flooding. These WWTPs have been identified by the FEMA HAZUS Model as susceptible to flooding damage. These include: Little Orleans Campground, Oldtown and Rawlings.	5 6 7	5.1; 5.4 6.1; 6.3; 6.4 7.1	Flood	Allegany County (Little Orleans, Oldtown, Rawlings)	Long term	Public Works	Water Systems
SIP-5	Prioritize the following water Pump Stations (PS) in need of a generator: Rolling Oaks PS and Homewood PS (Corriganville/Ellerslie). Apply for grant funding to purchase and install a generator that ensures continued power at these water pump stations. Continue identifying new pump stations in need of upgrades for the future. Note: This action item is associated with a mitigation project (Project F).	5 6 9	5.4 6.1; 6.2; 6.4 9.4	Flood, Winter Storm, Severe Weather, Tornado	Allegany County (Corriganville, Ellerslie)	Short term	Public Works	Water Systems
SIP-6	CRS Perform a detailed analysis of structures in the floodplain for all municipalities and determine first floor elevation for mitigation project purposes. Note: This action item is associated with a mitigation project (Project D).	1 2 4 5	1.3 2.3 4.1 5.1	Flood	Cumberland, Westernport, Barton, Lonaconing, Midland, Frostburg, Luke	Long term	Allegany County Geographic Information Systems Office	Safety and Security

		Та	ble 17-2. M	itigation Actior	n Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
SIP-7	CRS Identify older homes and Pre-FIRM residential structures in the floodplain that need mitigation measures in order to bring them into compliance when funding is available. Parcel layer is needed within GIS to adequately identify.	1 2 4 5	1.3; 1.4 2.3 4.1 5.1	Flood	Allegany County and Municipalities (all)	Long term	Allegany County Geographic Information Systems Office	Safety and Security
SIP-8	 Assess all shelters and their ability to sustain damage for specific hazard types and identify retrofitting projects based on this assessment. a) Shelters predominantly serve vulnerable populations who are displaced after a hazard event. Shelters are seeing an increase of adults needing their services who are older, have a disability, or come from an unsheltered location. 	1 3 5	1.3 3.3 5.2	All-Hazards	Allegany County	Long term	Public Works	Food, Hydration, Shelter
SIP-9	Update the County's flood buyout list with most up to date repetitive loss properties data.	5 6	5.1; 5.3 6.1; 6.3; 6.4	Flood	Allegany County	Long term	Land Development Services	Safety and Security
SIP-10	Prioritize and continue to purchase properties on the flood buyout listing. Currently there are 61 properties on the listing, however inclusion of the repetitive loss properties, the total number of properties would be 82. The County is currently prioritizing the Garden City project.	5 6 7	5.1; 5.3; 5.4 6.1; 6.3; 6.4 7.1	Flood	Allegany County	Long term	Land Development Services	Safety and Security
SIP-11	Identify and prioritize essential and critical facilities or shelters that may need a generator. Based upon the assessment, apply for grant funding to purchase and install an emergency generator that ensures continued power of essential facilities and shelters. One	5 6 9	5.4 6.1; 6.2; 6.4 9.4	All-Hazards	Allegany County, City of Cumberland	Short term	Public Works, Emergency Services	Food, Hydration, Shelter

		Та	ble 17-2. M	itigation Actior	n Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	identified critical facility in need of a generator is the Cumberland County's Road Garage.							
SIP-12	 For the eight (8) essential facilities (listed below with depth of flooding) that have a high vulnerability to flooding and identified by the planning committee as a high priority, a technical report should be completed to provide information on first floor elevation and the base flood elevation. Mitigation alternatives and a detailed benefit/cost analysis should be completed. Tri Towns Rescue Squad – 2.4' Potomac Fire Company #2 – 2.0' Corriganville Volunteer Fire Department – 3.8' Georges Creek Ambulance Service – 4.1' Midland Fire Company – 1.5' Baltimore Pike Volunteer Fire Department – 1.1' Flintstone Elementary School – 5.9' Calvary Christian Academy – 7.1' Note: This action item is associated with a mitigation project (Project E). 	2 5 6	2.3 5.4 6.2; 6.4	Flood, Winter Storm	Allegany County, Midland, Westernport, Lonaconing	Long term	Land Development Services	Safety and Security
SIP-13	Continue moving mobile homes in the floodplain in the Trade Wind and Garden City Mobile Home Parks located in LaVale. The mobile home parks are co-located and vulnerable to the 100-year flood event. Out of 75 mobile homes, 40 are within the 100- year floodplain.	4 5 6	4.3 5.1; 5.3; 5.6 6.1; 6.3	Flood	Allegany County (LaVale)	Long term	Land Development Services	Safety and Security

		Ta	able 17-2. M	itigation Action	Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	 a) Vulnerable populations are directly impacted by this continued buyout. Populations include low income, aged 65 years and older, and those with disabilities. Removing these mobile homes from the floodplain will be an overall benefit to reduce repetitive flooding. 							
SIP-14	For high hazard potential county-owned dams (i.e., Upper Potomac Industrial Park Levee) determine the feasibility of the installation of an early warning system in the event of dam failure.	4 5	4.2	Dam Failure	Allegany County	Long term	Allegany County	Safety and Security
			NATURAL SY	STEMS PROTECT	TION			
NSP-14	CRS Continue maintaining the forested buffer and promoting natural growth habitat along identified repetitive flood roadways to reduce flood impacts. These roads are identified in Tables 4-11 & 4-12 in Chapter 4: Flood. a) Prioritize repetitive flooded roadways that are also within highly socially vulnerable census tracts as identified by the SVI. These roads include: Waterside Street (Barton), Railroad Street (Lonaconing), Jackson Mountain Road (Lonaconing), Bowling Green Area, and Milnor Avenue to Moss Avenue.	4 6 9	4.1; 4.3 6.2 9.1; 9.2; 9.3	Flood	Cumberland, Frostburg, Barton, Westernport, Lonaconing	Ongoing	Public Works	Transportation
NSP-15	Prioritize the removal of blighted structures within designated hazard areas such as the special flood hazard area and the Wildland Urban Interface.	5 8	5.2; 8.2; 8.4	Flood, Wildfire	Allegany County and Municipalities (all)	Long term	Land Development Services	Safety and Security

		Та	ble 17-2. Mi	tigation Action	Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	 a) Specifically, structures that are both within the SFHA or WUI should be prioritized if they are also within socially vulnerable census tracts, as identified by the SVI in Chapter 5 Winter Storm. Tracts that are highly socially vulnerable and within the SFHA include the municipality of: Cumberland, Lonaconing, Barton, Westernport, and Luke. 							
NSP-16	Continue to implement low impact development techniques in areas where stormwater is an issue. These techniques could include infiltration trenches, vegetated swales, buffer strips. Presently, all new development projects and maintenance/repair projects utilize low impact development practices.	9	9.1	Flood	Allegany County	Long term	Public Works, Land Development Services	Safety and Security
NSP-17	Identify and prioritize locations along roadways throughout the County and its municipalities where the maintenance or removal of vegetation such as dead trees or branches would be useful in mitigating potential impacts to utility lines, properties, or residents prior to a winter storm, high wind, or thunderstorm event. a) The County and municipal Public Works should continue working with, and possibly expand, partnerships with utilities and power companies to review current standards for debris	9	9.2; 9.3	Severe Weather, Winter Storm, Tornado	Allegany County and Municipalities (all)	Ongoing	County and Municipal Public Works	Transportation

		Та	able 17-2. M	itigation Actior	Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	management in order to identify areas for improvement.							
NSP-18	Assess county-owned critical facilities for suitability/space for stormwater BMP projects with the goal of lessening impervious surfaces at these locations, and planting projects to reduce the urban heat island effect.	5 7 9	5.1; 7.4; 9.1	Flood, Severe Weather, Extreme Heat	Allegany County	Short term	Land Development Services, GIS Department	Water Systems
		EDU	CATION AND	AWARENESS PR	OGRAMS			
EAP-1	CRS Consider purchasing repetitive loss properties in the county when funding becomes available. Update the volunteer buy-out program letter of interest and distribution listing. The current properties on the list have been prioritized to make the best use of federal dollars to remove vulnerable homes out of the flood zone. Note: This action item is associated with a mitigation project (Project A).	2 4 5 6	2.2 4.3 5.1; 5.3; 5.4 6.3	Flood	Allegany County	Ongoing	Land Development Services	Safety and Security
EAP-2	 Promote the construction and use of tornado safe rooms, including action such as: a) Consider requiring construction of safe rooms in new schools, daycares, and nursing homes. b) As well as in homes and shelter areas of fairgrounds, shopping centers, and/or other vulnerable public structures. c) Encourage builders and homeowners to locate tornado safe rooms inside of/directly adjacent to houses to prevent injuries due to flying debris or hail. 	2 4 5	2.1; 4.2; 4.3; 5.5	Extreme Heat, Severe Weather, Tornado	Allegany County and Municipalities (all)	Ongoing	Emergency Services	Food, Hydration, Shelter

		Та	ble 17-2. M	itigation Actior	Items			
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	 d) Examine the current language of building codes for existing structures in relation to this action to determine what updates are necessary. 							
EAP-3	Obtain and strategically deploy signage for community awareness during all-hazard events. This signage may include flood warning signs with or without flashing lights. Consider, to the extent possible, investing in mobile electronic signage that can be deployed before, during, or after a hazard event in high-visibility areas. <i>Note: This action item is associated with a</i> <i>mitigation project (Project J).</i>	2 4	2.1; 4.2; 4.8	Flood, Dam Failure, All Hazards	Allegany County and Municipalities (all)	Short term	County Roads	Safety and Security
EAP-4	Work with the Allegany County Health Department and existing health equity groups to identify vulnerable populations via an update to the <i>Vulnerable Populations Plan</i> completed by the Health Department in 2014. <i>Note: This action item is associated with a</i> <i>mitigation project (Project K).</i>	4	4.2; 4.7	Emerging Infectious Diseases, All- Hazards	Allegany County	Mid term	Health Department	Health and Medical
EAP-5	Assist vulnerable populations from the impacts of extreme temperatures. Utilize results of the Vulnerable Populations Plan to engage with the populations most at-risk to impacts from extreme temperatures, such as power outages and extreme cold. a) Ensure that vulnerable populations are aware of warming centers available in the County by targeting	4	4.2; 4.7	Extreme Heat, Winter Storm	Allegany County and Municipalities (all)	Ongoing	Emergency Services, Health Department, HRDC	Health and Medical

Table 17-2. Mitigation Action Items								
Action Item #	Action	Goals	Objectives	Hazard	Location(s)	Timeframe	Responsible Entity	Community Lifeline
	 vulnerable pops with flyers or mailers. b) Coordinate with County and Municipal departments and partners who already work with vulnerable populations in the realm of health. c) Educate on personal preparedness and safety measures taken during a hazard event. 							
EAP-6	Recruit Storm Spotters. Establish a program for Allegany County with a goal to encourage more people to become storm spotters; "Storm Spotters Encouragement Program." This could borrow heavily from, or fold into entirely with, the NWS Skywarn Storm Spotter Program.	1 3 6	1.3; 1.5 3.3 6.5	Tornado, Severe Weather, Flood	Allegany County	Ongoing	Emergency Services	Safety and Security
EAP-7	 CRS Promote FEMA Risk Rating 2.0 to the Public a) Understand the community impact of Risk Rating 2.0 and share information with the public to encourage the purchase and/or retention of flood insurance. b) Should the County apply for CRS, this action qualifies for CRS credit, which in turn will lower the cost of flood insurance for policyholders in Allegany County. Note: This action item is associated with a mitigation project (Project L). 	2 4	2.1; 4.1; 4.2 4.3; 4.5; 4.6	Flood	Allegany County	Ongoing	Planning and Zoning, Floodplain Management	Safety and Security

17.4 Mitigation Projects

During the mitigation workshop, each of the three small groups was asked to identify at least three action items that resonated the most with their group. These action items were further developed into mitigation projects during the workshop. HMPC members completed prefilled mitigation project sheets for the action items they identified as resonating the most with them. The groups utilized their local knowledge and expertise to complete the project sheets during the workshop.

Upon completion of the Mitigation Workshop, the information gathered from HMPC members was used to update the twelve project sheets. These updated project sheets were reviewed and prioritized by the HMPC. Prioritization of each mitigation project was completed using a fillable PDF form, Figure 17-1. The form was provided to each HMPC member. The form included project titles, completed project worksheets, and six (6) yes/no/unsure questions as follows:

- Do you think there would be community acceptance/general support for this mitigation action?
- Do you think implementation of this mitigation action will



Figure 17-1. Example of the Mitigation Project Prioritization Form provided to the HMPC.

enhance the health and safety of the community?

- 3. Do you think the County or municipality will be able to sufficiently staff and/or provide technical support to implement this mitigation action?
- 4. Do you think the benefits of this mitigation action will exceed the likely costs?
- 5. Do you think the maintenance requirements for this mitigation action will be affordable and not provide an undue burden on the County or municipality?
- 6. Is this project consistent with environmental goals?

The prioritization form utilized a modified STAPLEE method to rank projects based on benefits and costs. Potential ranks include high, medium, and low. Prioritization results yielded five (5) "high" priority projects, six (6) "medium" priority projects, and one (1) "low" priority project. It should be noted that projects are only ranked in relation to each other, meaning that a "low" priority project is not indicative of an unimportant project overall.

Twelve (12) mitigation projects were developed during the 2023 plan update, including five (5) projects that were carried over from the previous plan with relevant updates (including projects A through E). Table 17-3 below provides an overview of the twelve mitigation projects developed during this plan update to address hazard risk and vulnerability.

Table 17-3. Mitigation Projects					
Project Title	Hazard(s) Addressed	Locations	Priority		
Project A: Flood Acquisitions	Flood	Allegany County	Medium		
Project B: Development Restrictions on Vacant Parcels	Flood	Vacant parcels in flood prone areas (locations identified in project)	Medium		
Project C: Critical Overlay Zone	Flood, Severe Weather, Soil Movement	Parcels in locations that are in multiple hazard zones (both County and Municipal)	Medium		
Project D: GIS Solutions for Damage Assessment and Mitigation Information	Flood	Countywide – damage assessments are site or zone specific.	Medium		
Project E: Essential Facilities Flood Mitigation	Flood, Winter Storm	Essential Facilities identified in the project	Low		
Project F: Pump Station Generators	Flood, Winter Storm, Severe Weather, Tornado	Allegany County; specifically, the pump station's locations identified in the project	High		
Project G: Conduct Updated Commodity Flow Study	HazMat Transportation, Rail Accident	Allegany County (specifically major transportation networks entering and exiting the County, e.g., I-68. Route 51, or U.S. Route 220)	High		
Project H: Development of Small-scale Microgrid Projects for City of Frostburg	Severe Weather, Winter Storm, Tornado, Flood (hazards that potentially impact power utilities)	City of Frostburg	Medium		
Project I: County- Municipal Workshop: Roles and Resources in Emergency Management		Allegany County, All Municipalities	High		

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Table 17-3. Mitigation Projects				
Project Title	Project Title Hazard(s) Addressed Locations			
Project J: Enhance				
Mobile Message Boards	Flood, Dam Failure, Severe	Allegany County, All	Lligh	
for Deployment in All-	Weather, All Hazards	Municipalities	Figh	
Hazards				
Project K: Update the				
County's Vulnerable	Emerging milectious	Allegany County	High	
Population Plan	Diseases, All-fidzarus			
Project L: Promote FEMA	Flood	Allegany County, All	Madium	
Risk Rating 2.0	FIOOd	Municipalities	wedlum	

The mitigation project sheets on the following pages include these components:

- Project Title,
- Applicable Hazards,
- Mitigation Category,
- Location(s),
- Associated Action Items,
- Project Discussion,
- Responsible Entity,

- Partners,
- Cost Estimate,
- Potential Funding,
- Benefits (Losses Avoided),
- Ideas for Integration,
- Timeline, and
- Associated Goals and Objectives

There are a total of twelve (12) mitigation project sheets included on the following pages. Projects ranked as **high priority** are denoted.

MITIGATION PROJECT A				
Project Title:	Flood Acquisitions			
Hazard(s):	Flood			
Mitigation Category:	Education and Awareness			
Location(s):	Allegany County			
Action Item(s):	EA-1: (CRS) Consider purchasing repetitive loss properties in the county when funding becomes available. Update the volunteer buy-out program letter of interest and distribution listing. The current properties on the list have been prioritized to make the best use of federal dollars to remove vulnerable homes out of the flood zone.			
Project Discussion:	This strategy seeks to eliminate or reduce damage to property and the disruption of life caused by repeated flooding. Depending on the severity of flooding at specific locations, damage could be mitigated through the acquisition of flood-prone structures. Acquiring these structures, removing them from the floodplain and returning the area to open space can be a cost effective flood protection measure. It is also a way to convert a problem area into a community asset, such as a park, and obtain environmental benefits including water quality and stream protection. Through the flood buyout program, Allegany County purchased and demolished 172 structures between 1987 and 2006. Additionally, the County's flood buyout listing stated 14 properties were purchased and demolished. To date, this listing contains 61 properties, 3 of which are under review for buyout. During this plan update, the 21 repetitive loss properties were reviewed to determine if any of these properties not on the flood buyout waiting listing. Those repetitive loss properties were reviewed to determine if any of these properties not on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclusion on the flood buyout waiting listing were recommended for inclu			

MITIGATION PROJECT A				
	Additionally, an updated Letter of Interest, in regard to the volunteer buyout program, should be sent to the 21 properties identified as repetitive loss properties. These residents should be the priority for acquisition due to the high probability of a positive benefit/cost ratio analysis, necessary to receive federal funding. Additional letters should be provided to property owners that are located in highly flood-prone areas. These letters should be targeted to residents that have experienced flood damage in the past.			
	Project: Consider the acquisition of the most vulnerable properties within the County. This acquisition process would include: contacting the property owner and determining their willingness to sell, obtaining property assessment information, and the completion of necessary grant funding applications. Once property is acquired and removed, the property returns to open space in perpetuity. Finally, acquisitions of repetitive loss properties should consider if locations of multiple repetitive loss properties (repetitive loss areas) exist in the community. These areas should be prioritized for mitigation efforts.			
Responsible Entity:	Allegany County Land Development Services			
Partners:	Allegany County Department of Planning & Zoning, Allegany County Department of Public Works, Allegany County Department of Emergency Services, Maryland Department of the Environment (MDE), Federal Emergency Management Agency (FEMA)			
Cost Estimate:	Median price of similar properties in the community plus \$10,000-20,000 for additional costs.			
Potential Funding:	 Building Resilient Infrastructure and Communities (BRIC) Hazard Mitigation Grant Program (HMGP) Community Development Block Grant MDE Comprehensive Flood Management Grant Program Pre-Disaster Mitigation Grant 			
Benefits (Losses Avoided):	 Mitigation of repetitive loss properties reduces flood risk. The identification of areas with multiple repetitive loss properties is cost effective, efficient, and is prioritized for mitigation/funding efforts. 			
Ideas for Integration:	 Acquired properties can be considered for parks and recreation or open space opportunities. 			
Timeline:	Ongoing – during the current planning cycle (i.e., next 5 years)			
Associated Goals	Goal 2, Objective 2.2 Goal 4, Objective 4.3 Goal 5, Objectives 5.1, 5.3, and 5.4 Goal 6, Objective 6.3			

MITIGATION PROJECT B				
Project Title:	Development Restrictions on Vacant Parcels			
Hazard(s):	Flood			
Mitigation Category:	Local Planning and Regulations			
Location(s):	Vacant parcels in flood prone areas (locations identified below)			
Action Itom (a).	LPR-1: Consider development restrictions for vacant parcels located in			
Action item(s):	identified hazards areas.			
	Stringent development regulations should be enforced on vacant parcels in flood prone areas. These areas serve as an open space allowing flood water to flow without interference. Additionally, vacant parcels could serve as natural buffers, which absorb water, reducing in-stream channel velocity and volume during storm events. Utilizing Allegany County's Existing Land Use GIS layer, vacant parcels categorized as Low, Medium, or High Density Residential were extracted and overlaid on the 1 percent-annual-chance flood zone. Vacant residential parcels located within this zone were obtained. Concluding this analysis, a total of 110 vacant parcels were located in flood Zone AE, while 78 were in Zone A. Of this total, 31 parcels were located along Georges			
Project Discussion:	Creek, 41 were within the floodplain of Wills Creek and 33 vacant parcels were found along Town Creek and the Lower North Branch. Areas affected by previous flooding events such as these should have greater restraints on future development. Project: Develop and implement stringent regulations for developing vacant parcels located within the 1 percent-annual- chance flood zone. This language should be included in both the Floodplain Management Ordinance and Zoning Ordinance. Another option for these identified properties is to consider them for Program Open Space. The program acquires outdoor recreation and open space areas for public use and administers funds made available to local communities for open and			
Responsible Entity:	Allegany County Land Development Services			
Partners	Allegany County Land Development Services			
	Anegany county Department of Public Works, Municipalities			

MITIGATION PROJECT B			
Cost Estimate:	Annual Operating Budget (staff time)		
Potential Funding:	DNR Program Open Space		
Benefits (Losses Avoided):	 Floodplain ordinances that limit or prohibit development in flood- prone areas helps reduce the number of homes or businesses at risk to flooding. 		
Ideas for Integration:	 Open space considerations specifically would be considered by the County's open space committee. Determine consistency with goals in the County's 2022-2027 Local Land Preservation and Recreation Plan and consider new projects for future updates to this plan. 		
Timeline:	Short-term (1 year)/Ongoing		
Associated Goals	Goal 7, Objective 7.3 Goal 10. Objective 10.1		

MITIGATION PROJECT C				
Project Title:	Critical Overlay Zone			
Hazard(s):	Flood, Severe Weather, Soil Movement			
Mitigation Category:	Local Planning and Regulations			
Location(s):	Parcels in locations that are in multiple hazard zon Municipal)	nes (both County and		
Action Item(s):	LPR-2: Some areas in the County experience repetitive hazard issues – therefore, implementing a critical hazard area overlay zone within the zoning ordinance would be helpful for these locations. This critical overlay zone could include portions of property parcels that have multiple hazards. Such as the 1 percent-annual-chance flood zone, severe erodible soils, slopes 25% or greater, hydric soils, and wetlands.			
Project Discussion:	Creek region (which is highly vulnerable to multip Overlay Zone' should be developed. In the <i>George</i> <i>Comprehensive Plan</i> , a Potential "Critical" Area m provide the location of the following hazards: sev 25% or greater, hydric soils, wetlands, and the vie combined with the 1 percent-annual-chance flood purposes. Areas on the map exhibiting multiple has been been been been been been been been	 Ie hazards), a 'Critical es Creek Regional ap was developed to vere erodible soils, slopes ew shed. This map can be d zone for analysis azards in a concentrated spot should be analyzed for potential "Critical" Area designation. This designation would ensure that no development of any kind would occur. However, large parcels containing sections of developable land could be subdivided. This would protect the Critical Areas, while allowing opportunities for development on suitable land. A Critical Area Overlay Zone could be developed for all areas in the County that experience multiple ordinance. By doing so, would be mitigated. 		

MITIGATION PROJECT C				
	Project: Create a 'Critical Overlay Zone' map which includes the following			
	hazards: the 1 percent-annual-chance flood zone, severe erodible soils,			
	slopes 25% or greater, hydric soils, and wetlands. This map should be			
	generated for all areas in the County known to have repetitive hazard			
	issues. Once created, the Critical Overlay Zone would be implemented			
	within the Zoning Ordinance. This Zone should be enforced when new			
	development is being considered for construction in these high hazard			
	areas. Development should not be permitted in areas that experience			
	issues with multiple identified hazards.			
Responsible Entity:	Allegany County Planning Services			
Destraction	Allegany County Land Development Services, Allegany County Geographic			
Partners:	Information Systems (GIS) Office			
Cost Estimate:	Annual Operating Budget (staff-time)			
	 Building Resilient Infrastructure and Communities (BRIC) 			
Potontial Euroding:	 Hazard Mitigation Grant Program (HMGP) 			
Potential Funding:	Cooperating Technical Partners			
	Map Modernization Management Support			
Ponofita (Lossos	Keeping development away from known hazard prone areas is a			
Avoided):	useful mitigation strategy, especially areas prone to multiple			
Avolueuj.	hazards.			
Ideas for Integration:	 This project recommendation is also made in Allegany County's 			
ideas for integration.	Comprehensive Plan.			
Timeline:	Short-term (1 year)			
	Goal 1, Objective 1.4			
Associated Goals	Goal 5, Objective 5.1 and 5.2			
Associated Goals	Goal 6, Objective 6.1			
	Goal 10, Objective 10.1 and 10.3			

MITIGATION PROJECT D				
Project Title:	GIS Solutions for Damage Assessment and Mitigation Information			
Hazard(s):	Flood			
Mitigation Category:	Local Planning and Regulations, Structure and Infrastructure			
Location(s):	Countywide – damage assessments are site or zone specific.			
Action Item(s):	LPR-4: Utilize GIS-based solutions for damage assessments and to collect information for mitigation projects, specifically for flood related damage that includes high water mark elevation and picture. LPR-5: Review previous damage assessment reports, then geocode to visualize areas of repetitive loss. SIP-6: CRS Perform a detailed analysis of structures in the floodplain for all municipalities and determine first floor elevation for mitigation project purposes.			
Project Discussion:	Currently, the County utilizes damage assessment sheets to compile information when an incident occurs. This process only allows information such as severity of damage, dwelling type, address, location descriptions and so on to be collected. More specific information including first floor elevations cannot be obtained and recorded during the assessment process. This information is pertinent in regard to the 1 percent-annual- chance flood elevations, flood insurance, and to assess potential mitigation implementation measures. Therefore, by utilizing GIS-based software to collect all necessary information, the County can prioritize the mitigation measures that are needed for areas highly susceptible to flooding. ESRI <u>Damage Assessment</u> is a configuration of ArcGIS Online and the Collector for ArcGIS application that supports the collection of structural damage to residential and commercial structures; and damage to public facilities during emergency response activities. The Damage Assessment solution can be configured by emergency management agencies to conduct detailed damage assessments in the field. It can also be used to monitor field assessments and determine whether damage costs exceed State or Federal declaration thresholds. If the County were to utilize this GIS-based solution, all damage assessment information can be obtained and uploaded into GIS for mapping purposes. Additionally, a database is created to monitor field assessments, determine whether damage costs exceed State or Federal declaration threshold, and ultimately assist with the prioritizing of mitigation projects for areas severely affected by flooding. Project: Utilize GIS-based solutions, such as ESRI Damage Assessment or Survey123, for data collection. This software can be utilized for damage assessments as well as completing FEMA project worksheets and ICS forms. All information is useful in determining mitigation project needs. 2023 Update: The HMPC has identified the need to expand this project to			

MITIGATION PROJECT D				
	loss, damage assessment, photos, damage assessment reports, and other			
	related data such as high water marks from field observations. All			
	information associated with any man-made or natural hazard would be			
	added to managed, and then soured from a GIS layer. This GIS database			
	could be cross-referenced with all other GIS data.			
Responsible Entity:	Allegany County Geographic Information Systems Office (Jerrod Cook,			
	County Floodplain Management)			
	Allegany County Department of Emergency Services, Datamark GIS Data			
Partners:	Services, Director of Department of Planning and Zoning, Department of			
	Public Works, County Employees (to manage and utilize the database).			
	Cost is needs and software dependent. For example, Survey123 can be			
	purchased separately or bundled with existing ESRI subscription.			
Cost Estimate:				
	Damage Assessments and database management: annual operating			
	budget (staff time).			
	 Building Resilient Infrastructure and Communities (BRIC) 			
Potential Funding	 Hazard Mitigation Grant Program (HMGP) 			
rotentiarranang.	County in-kind resources			
	 Cooperating Technical Partners 			
	GIS solutions as described in this project can help the County monitor			
Devefite (Lesses	geospatial changes over time to hazard areas, land use, population density,			
Denenits (Losses	infrastructure conditions, and natural resources. Localities can be more			
Avoided):	prepared in the future and can communicate emergency and hazard			
	mitigation information to the public more effectively.			
	As the GIS database is built over time, multiple departments within the			
Ideas for Internation.	County can conduct comprehensive assessments, identify patterns, and			
ideas for integration:	make more well-informed decisions. Data integration improves overall			
	efficiency in data management and information sharing.			
Timeline:	Action Items LPR-4&5: Short-term (1-3 year), SIP-6: Long-term (5+ years)			
	Goal 1, Objective 1.3 and 1.4			
	Goal 2, Objective 2.3			
Associated Goals	Goal 4, Objective 4.1			
	Goal 5, Objective 5.1			
	Goal 6, Objective 6.1, 6.3, 6.4, 6.5			

MITIGATION PROJECT E				
Project Title:	Essential Facilities Flood Mitigation			
Hazard(s):	Flood, Winter Storm			
Mitigation Category:	Structure and Infrastructure			
Location(s):	Essential Facilities identified in the project.			
Action Item(s):	 SIP-2: CRS Acquire/demolish and relocate the following Fire Departments that have been identified by the FEMA HAZUS Model as susceptible to first floor flooding. Fire Departments include: Corriganville VFC, Midland Fire Company, Potomac Fire Company and Baltimore Pike VFC. SIP-3: CRS Review the following schools for flooding susceptibility. These schools have been identified by the FEMA HAZUS Model as being susceptible to first floor flooding. The schools include: Calvary Christian Academy and Flintstone Elementary. SIP-12: For the eight (8) essential facilities listed as having a high vulnerability in the risk assessment and identified by the planning committee as a high priority, a technical report should be completed to provide information on first floor elevation and the base flood elevation. Mitigation alternatives and a detailed benefit/cost analysis should be completed. 			
Project Discussion:	According to the <u>Flood Protection for Critical and Essential Facilities, FEMA</u> <u>2016 (Iowa Floods of 2016 Recovery Advisory)</u> , in numerous instances, critical facilities could not function because essential equipment was placed in basements, sub-basements, or ground floor levels that flooded. In some cases, components of essential systems were elevated well above the floodwaters, while other critical system elements (transformers, transfer switches, fuel tanks, pumps, etc.) were placed at lower levels and therefore were vulnerable to flooding. When those vulnerable critical elements failed, the systems were rendered inoperative, and the functionality of the critical facilities suffered as a result. Furthermore, a critical facility should not be located in a floodplain if at all possible. If a critical facility must be located in a floodplain it should be provided with a higher level of protection (i.e., mitigation) so that it can continue to function and provide services after the flood. Following the review and analysis of information presented herein, flood hazard impacts to Allegany County and its communities is the loss of essential facilities, which would be felt community wide. As such, essential facilities that were found to be at-risk to the 1 percent-annual-chance flood event during the development of the plan are priorities for hazard mitigation. Results from the analysis indicate eight (8) essential facilities are at risk. These facilities include six (6) fire stations and two (2) schools. In order to further assess the flood risk to these essential facilities, the depth of flooding was determined using each structure's lowest adjacent grade, depth of flooding from FEMA flood model, and the digital elevation model.			

MITIGATION PROJECT E	
	Academy, were determined to a have a flood depth exceeding 5 feet of water. Flood depths for each facility are provided below along with the identified facilities.
	 Tri Towns Rescue Squad – 2.4' Potomac Fire Company #2 – 2.0' Corriganville Volunteer Fire Department – 3.8' *2023 Update: The Corriganville VFC has been successfully encouraged to build any additional structures that store equipment and supplies at another location to prevent flood related losses. Georges Creek Ambulance Service – 4.1' Midland Fire Company – 1.5' Baltimore Pike Volunteer Fire Department – 1.1' *2023 Update: This VFC has made substantial improvement to the building in the floodplain. The entire building now meets current floodplain regulations specific to elevation and flood proofing. Flintstone Elementary School – 5.9' Calvary Christian Academy – 7.1'
	*2023 Update: Acquiring and demolishing the identified fire departments has been a topic of conversation. As fire departments have been seeking permits and minor improvements County offices have helped them mitigate potential loss and become compliant with current floodplain regulations.
	Calvary Christian Academy after the June 2014 flood event.Each of the listed schools have been evaluated in a meeting by theDepartment of Public Works and Planning and Zoning to gauge whether or not they would be viable candidates for project action. In conducting these meetings, projects eligible for grant money and the value of the impact were both considered. These projects are a mix of both public and private interest that have lasting value.
	Project: Via the completion of a technical report, provide information and recommendations to improve the functionality of identified essential facilities by reducing the vulnerability of essential systems, equipment, and the overall facility to flooding.
Responsible Entity:	Land Development Services

MITIGATION PROJECT E	
Partners:	Department of Public Works, Planning Services, Department of Emergency
	Services
Cost Estimate	TBD – cost of projects would be dependent upon the site and type of
cost Estimate.	mitigation action required.
	 Building Resilient Infrastructure and Communities (BRIC)
Potential Funding:	 Hazard Mitigation Grant Program (HMGP)
3	FEMA Pre-Disaster Mitigation Grant Program
	 This project would strengthen essential facilities identified herein
Benefits (Losses	by making them less susceptible to flooding.
Avoided):	• CRS credit can be earned for completing/progressing SIP-2 and SIP-
	3 action items.
Ideas for Integration:	The results from the suggested technical report and recommendations, including the BCA, can be used for grant applications. Future hazard
	mitigation plan updates can build on information included in the technical
	report to update existing or develop new mitigation projects.
Timeline:	Long-term (5 years)
	Goal 2, Objective 2.3
Associated Cools	Goal 5, Objective 5.1, 5.4
Associated Goals	Goal 6, Objective 6.1, 6.2, 6.3, 6.4
	Goal 7, Objective 7.1

MITIGATION PROJECT F (HIGH PRIORITY)	
Project Title:	Pump Station Generators
Hazard(s):	Flood, Winter Storm, Severe Weather, Tornado
Mitigation Category:	Structure and Infrastructure
Location(s):	Allegany County; specifically, the pump station's locations identified in the project below.
Action Item(s):	SIP-5: Prioritize the following water Pump Stations (PS) in need of a generator: Rolling Oaks PS and Homewood PS (Corriganville/Ellerslie). Apply for grant funding to purchase and install a generator that ensures continued power at these water pump stations. Continue identifying new pump stations in need of upgrades for the future.
Project Discussion:	According to the Allegany County Department of Public Works, the following water pump stations need generators to ensure service during power outages. Loss of electricity quickly becomes a major challenge during natural disasters and could raise public health concerns. Without backup power for an extended period, many water and wastewater services cannot be provided. However, as demonstrated during incidents such as flood events and winter storms, not all utilities are prepared to get their systems operational again. A generator that is a stand-alone project can be considered for regular Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM) funding if the generator protects a critical facility. Critical facilities may include water and sewer treatment facilities. A generator that is a component of a larger project (e.g., elevation of a pump station) is also eligible for regular HMGP funding and the use of aggregation is permitted. Portable generators are eligible provided that they meet all HMGP requirements as described in 44 CFR Section 206.434. Water pump stations in need of a generator are:
	 Rolling Oaks Pump Station Cresaptown Pump Station Homewood Pump Station (Corriganville/ Ellerslie) Project: Assess each pump station identified to determine the electrical equipment needs, and determine the voltage, phase configuration, and horsepower/ amperage requirements. Apply for grant funding to purchase and install an emergency generator that meets the

MITIGATION PROJECT F (HIGH PRIORITY)	
	needs of the community.
	*2023 Update: Bowling Green Sewer PS was completed. Rolling Oaks Water Booster was completed. Cresaptown Sewer PS was completed. Projects are completed as funding is approved. All the other pump stations have the connection for a portable generator to be utilized.
Responsible Entity:	Allegany County Department of Public Works
Partners:	Allegany County Department of Emergency Services
Cost Estimate:	TBD.
	Building Resilient Infrastructure and Communities (BRIC)
Potential Funding:	 Hazard Mitigation Grant Program (HMGP)
	FEMA Pre-Disaster Mitigation Grant Program
Benefits (Losses	 Project would help ensure continuity of critical services.
Avoided):	 Improves reliability of pumping stations during an emergency
Timeline:	Short term (1-2 years)
	Goal 5, Objective 5.1, 5.4
Associated Goals	Goal 6, Objective 6.1, 6.2, 6.4
	Goal 9, Objective 9.4

MITIGATION PROJECT G (HIGH PRIORITY)	
Project Title:	Conduct Updated Commodity Flow Study
Hazard(s):	HazMat Transportation, Rail Accident
Mitigation Category:	Local Planning and Regulation
Location(s).	Allegany County (specifically major transportation networks entering and
	exiting the County, e.g., I-68. Route 51, or U.S. Route 220)
Action Item(s)	LPR-8: Conduct a new Hazardous Materials Commodity Flow Study as an
	update to the last study completed in 2014.
Project Discussion:	As a result of the increasing concern of hazardous material transportation by way of truck, a number of local jurisdictions have chosen to undertake Hazardous Materials Commodity Flow Studies to provide their local emergency services and LEPC with a better understanding of the type of hazardous materials and associated volumes traveling by truck through their communities. A hazardous materials commodity flow study is an analysis of the hazardous goods that are moving through a particular area. Project: Conduct an update to the 2014 Hazardous Material Commodity Flow Study conducted for Allegany County, which was completed for points along roadways with the highest Annual Average Daily Traffic (AADT) in Allegany County: I-68 and MD 51. This study would provide an updated view of the amount and types of hazmat traveling via truck throughout the County on a daily basis on these routes. Such a study would be helpful to the Department of Emergency Services in preparing for future incidents.
	the Commodity Flow Study.
Responsible Entity:	Allegany County Department of Emergency Services
Partners:	10 control con
Cost Estimate:	sites increases.
Potential Funding:	 Hazardous Materials Emergency Preparedness (HMEP) Grant Community Safety (CS) Grant Other grants as part of the Hazardous Materials Grants Program
Benefits (Losses Avoided):	Results from the CFS can inform future training exercises. For example, the CFS may identify "hazardous materials of greatest concern", which are materials that are considered dangerous and frequently transported throughout the County. Exercises that utilize these results can lead to more effective training for emergency responders. The commodity flow study may also help identify a need for additional resources to increase the County's level of preparedness. Results of the Commodity Flow Study could be integrated into: Hazardous
Ideas for Integration:	Materials Response Plan, future hazmat raining exercises, and future

MITIGATION PROJECT G (HIGH PRIORITY)	
	updates to the Hazard Mitigation Plan.
Timeline:	Short-term (1 year or less)
	Goal 1, Objective 1.5
Associated Goals	Goal 6, Objective 6.1, 6.4
	Goal 9

MITIGATION PROJECT H	
Project Title:	Development of Small-scale Microgrid Projects for City of Frostburg
Hazard(s):	Severe Weather, Winter Storm, Tornado, Flood (hazards that potentially
	impact power utilities)
Mitigation Category:	Local Planning and Regulations, Structure and Infrastructure projects
Location(s):	City of Frostburg
Action Item(s):	LPR-13: Protect critical infrastructure from power outages via the
	Microgrids improve electric reliability, decrease energy costs and act as a
Project Discussion:	climate change solution. Microgrids keep power flowing during an outage by disconnecting from the grid (i.e., "islanding"). The microgrid system's controller seamlessly switches from grid power to the microgrid's local power sources when it senses an outage. Solar, generators, battery energy storage or the microgrid's other distributed energy sources then serve its customers until the grid's power is restored. In addition to providing reliability, a microgrid provides its customers with energy resilience by avoiding power outages in the first place, or quickly recovering if they do occur. In the case of an outage, the microgrid can be programmed to restore power to an entire facility, or just the most critical components. Once grid power is restored, the facility can resume normal operations more quickly because it did not have to shut down completely. Project: The City of Frostburg is interested in developing solar microgrids with battery backup at critical infrastructure points within the City, including at the Police Department, Street Department (snow and equipment access), Water Treatment Plant, and Community Center (used as an emergency shelter or warming/cooling center). As of 2022, Frostburg State University has received \$750,000 in grant funding to build a clean
	energy microgrid and emergency shelter. The City should complete a
Posponsible Entity	reasibility study as a crucial pre-construction planning effort.
Responsible Entity:	Maryland Energy Administration (MEA) Ontimize Renewables (private
Partners:	partner), Frostburg State University, and potential municipal partners such
	as the City of Cumberland.
Cost Estimate:	\$7 million for the City of Frostburg.
Potential Funding:	 Maryland Energy Administration Resilient Maryland Development RMCD Program Microgrid Resiliency Grant Private finances
Benefits (Losses Avoided):	 Power to critical infrastructure stays on during an outage Ability to integrate renewable resources into the grid (i.e., solar) Increases overall resilience of a community
Ideas for Integration:	New critical infrastructure in the City of Frostburg can be added into the microgrid in the future, after initial sites are set up. Additionally, other municipalities may be interested in replicating this project following (or

MITIGATION PROJECT H	
	even alongside) the lead of the City of Frostburg.
Timeline:	Mid-term (3-5 years)
	Goal 2, Objective 2.2
	Goal 4, Objective 4.3
Associated Goals	Goal 5, Objective 5.4
	Goal 6, Objective 6.1, 6.2, 6.4
	Goal 9, Objective 9.4

MITIGATION PROJECT I (HIGH PRIORITY)	
Project Title:	County-Municipal Workshop: Roles and Resources in Emergency
	Management
Hazard(s):	All-hazards
Mitigation Category:	Local Planning and Regulations
Location(s):	Allegany County, Municipalities
Action Item(s):	LPR-14: Development of a County-Municipal workshop to provide an overview of the roles of local government in emergency management. FEMA staff could be invited to present information from the Local Elected and Appointed Officials Guide: Roles and Resources in Emergency <u>Management</u> or other relevant guides.
	Municipalities have identified a need for increased understanding of the roles and responsibilities of all levels of local government during and after a hazard or disaster event occurs.
Project Discussion:	The workshop should serve to identify the roles of the County and municipal staff in emergency management, including the expectations of responsibilities during and after a hazard event as identified in this plan. Topics of the workshop should include, but are not limited to:
	 Who steps up when disaster strikes? Leading before, during, and after disasters Disaster assistance and mutual aid Current plans and procedures in place
Responsible Entity:	Department of Emergency Services
Partners:	All Municipalities, local MDEM and FEMA staff representation, County Department Heads, Police and Fire Departments
Cost Estimate:	This workshop would be a staff training exercise; therefore, staff time would need to be determined individually for each department or representative in attendance.
Potential Funding:	N/A.
Benefits (Losses Avoided):	 Increased understanding of responsibilities of different local government entities during and after a hazard event. Strengthens existing cooperation between levels of government.
Ideas for Integration:	This workshop can be built upon or modified to suit different needs and then repeated in the future, if desired.
Timeline:	Short-term (1-3 years)
Associated Goals	Goal 1, Objectives 1.1, 1.2 Goal 2, Objectives 2.1 Goal 3, Objectives 3.1, 3.2, 3.3

	MITIGATION PROJECT J (HIGH PRIORITY)
Project Title:	Enhance Mobile Message Boards for Deployment in All-Hazards
Hazard(s):	Flood, Dam Failure, Severe Weather, All Hazards
Mitigation Category:	Education and Awareness Projects
Location(s):	Allegany County and Municipalities (all)
Action Item(s):	EA-3: Obtain and strategically deploy signage for community awareness during all-hazard events. This signage may include flood warning signs with or without flashing lights. Consider, to the extent possible, investing in mobile electronic signage that can be deployed before, during, or after a hazard event in high-visibility areas.
Project Discussion:	Mobile variable message boards, or portable traffic message boards, are useful for communicating hazard information to residents and visitors of Allegany County. The signs are designed to be mobile and can be deployed within specific communities in anticipation of a hazard event, or after a hazard event. Many systems are solar operated, custom pre- programmable, and are designed to be transported easily. Electronic messaging serves multiple purposes, primarily of which: it is eye-catching, it can serve multiple purposes (remotely programmable), and it is transportable (on wheels). While existing message boards can be utilized to their fullest capacity by enabling messaging for all hazards, considerations could be made to acquire more electronic message boards if required.
	Project: Fully utilize current dynamic messaging signs capabilities with MDOT SHA and municipal partners by ensuring existing signage is used to the greatest extent possible to notify the public of hazard events (e.g., conveying information related to heat and drought, winter weather advisories, and wildfire risk). Further expand upon this capability by investing in new mobile digital signage for use throughout the County.
Responsible Entity:	County Roads: Allegany County Roads Division, State Roads: Maryland Department of Transportation SHA
Partners:	Emergency Services, Municipalities, Fire Departments, Police Departments
Cost Estimate:	Utilizing existing electronic message boards for all-hazards would cost time and effort. The cost of new matrix message boards (as pictured above) varies on size and functionality, but generally average around \$15,000 per unit, not including upgrades.
Potential Funding:	Hazard Mitigation Assistance Program (HMGP), Building Resilient Infrastructure and Communities (BRIC).

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MITIGATION PROJECT J (HIGH PRIORITY)	
Benefits (Losses Avoided):	 Increased community awareness of hazard conditions (both before and after) Alerts travelers of hazardous conditions, who may not see emergency notifications on their phones while driving. Utilization of existing electronic signs (portable or stationary) makes good use of resources and is therefore cost effective
Ideas for Integration:	 Existing signage can be deployed for hazard mitigation purposes, which is cost effective. Investment in new mobile messaging system provides a wide array of uses – more than just emergency notification.
Timeline:	Short-term (1-3 years)
Associated Goals	Goal 2, Objective 2.1 Goal 4, Objective 4.2 and 4.8

MITIGATION PROJECT K (HIGH PRIORITY)	
Project Title:	Update the County's Vulnerable Population Plan
Hazard(s):	Emerging Infectious Diseases, All-hazards
Mitigation Category:	Education and Awareness Programs, Local Planning and Regulations
Location(s):	Allegany County
	 EA-4: Work with the Allegany County Health Department and existing health equity groups to identify vulnerable populations via an update to the <i>Vulnerable Populations Plan</i> completed by the Health Department in 2014. EAP-5: Assist vulnerable populations from the impacts of extreme temperatures. Utilize results of the Vulnerable Populations Plan to engage with the populations most at-risk to impacts from extreme temperatures, such as power outages and extreme cold.
	 a) Ensure that vulnerable populations are aware of warming centers available in the County by targeting vulnerable pops with flyers or mailers.
	 b) Coordinate with County and Municipal departments and partners who already work with vulnerable populations in the realm of health.
	c) Educate on personal preparedness and safety measures taken during a hazard event
Project Discussion:	Identifying at-risk vulnerable populations prior to a hazard event is critical in reducing risk to these populations. Generally, vulnerable populations are often considered to be the old and the young, due to the increased health or mobility issues. However, other factors such one's level of income and ability to access to healthcare can also affect a population's vulnerability to hazards.
	In 2014, the Allegany County Health Department engaged with dozens of local nonprofits and organizations in an effort to identify the location of vulnerable populations throughout the County and determine their unique needs. The effort led to the development and creation of a Vulnerable Populations Plan, with a focus specific focus on health vulnerabilities. Project: As of 2023, the current plan is approaching 10-years of age and should be updated to make use of new data sets that have been released since, such as 2020 U.S. Census data. Additionally, new guidance provided by FEMA specifically relates to
	expanding access to response, recovery, and resilience programs with respect to race, ethnicity, religion, income, geography, gender identity,

MITIGATION PROJECT K (HIGH PRIORITY)		
	sexual orientation, and/or disability. A vulnerable populations-health equity plan is an ideal planning document to integrate equity and hazard mitigation principles.	
	The CDC identifies strategies for identifying at-risk groups at an individual and population level. At an individual level, suggested phases of plan development include:	
	 Phase 1: Defining At-Risk Groups Phase 2: Locating At-Risk Groups Phase 3: Reaching out to At-Risk Groups 	
	When identifying vulnerable population at a county-level, it is recommended that the County make use of existing data sets that use well studied indicators of social vulnerability, such as the CDC/ATSDR Social Vulnerability Index. This method utilizes existing data, such as census data to identify locations of vulnerable populations at a county or census tract level.	
Responsible Entity:	Allegany County Health Department	
Partners:	Department of Emergency Services, local nonprofits and businesses, contactor.	
Cost Estimate:	\$50,000 or more to update the plan.	
Potential Funding:	 Building Resilient Infrastructure and Communities (BRIC) Program. Public Health Emergency Preparedness Program 	
Benefits (Losses Avoided):	 Identification of the location and needs of vulnerable populations within Allegany County. Identification of these groups prior to a hazard incident leads to better served communities and can save lives. This type of planning often leads to new insight into strengths and weaknesses of the current healthcare system, allowing appropriate changes to be made, 	
Ideas for Integration:	The database that results from this planning process can be integrated with GIS-based platforms or can be developed with GIS in mind. GIS will allow for mapping and visualization of these populations (note: for official use only). Local planning results can be integrated into future updates of this Hazard Mitigation Plan.	
Timeline:	Mid-term (3-5 years)	
Associated Goals	Goal 4, Objective 4.2 and 4.7	

Project Title: Promote FEMA Risk Rating 2.0 Hazard(s): Flood Mitigation Category: Education and Awareness Location(s): Allegany County and Municipalities (all) Action item(s): EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public Action item(s): EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public Action item(s): EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public Action item(s): Should the County apply for CRS, this action qualifies for CRS credit, which in trun will lower the cost of flood insurance for policyholders in Allegany County. Risk Rating 2.0-Equity in Action allevers rates that more accurately reflect flood risk and ensure that the National Flood Insurance Program (NFIP) will last for generations to come. A major part of FEMA's NFIP transformation is Risk Rating 2.0, which fundamentally changes the way FEMA prices insurance and determines an individual property's flood risk. Risk Rating 2.0 focuses on equity in action, with individuals no longer paying more than their share in flood insurance premium based on the value of their homes. An estimated two-thirds of policyholders with older pre-FIRM homes will see a premium decrease. With Risk Rating 2.0, FEMA now has the capability and tools to address rating disparities by incorporating more flood risk variables. These include flood frequency, multiple flood types—rive roverflow, storm surge, coastal erosion, and heavy rainfall and distance to a water source along with property characteristics such as elevation and the cost to rebuild.	MITIGATION PROJECT L		
Hazard(s): Flood Mitigation Category: Education and Awareness Location(s): Allegary County and Municipalities (all) EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public • Action Item(s): EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public • Understand the community impact of Risk Rating 2.0 and share information with the public to encourage the purchase and/or retention of flood insurance. • Should the County apply for CRS, this action qualifies for CRS credit, which in turn will lower the cost of flood insurance for policyholders in Allegary County. Risk Rating 2.0-Equity in Action delivers rates that more accurately reflect flood risk and ensure that the National Flood Insurance Program (NFIP) will last for generations to come. A major part of FEMA's NFIP transformation is Risk Rating 2.0, which fundamentally changes the way FEMA prices insurance and determines an individual property's flood risk. Risk Rating 2.0 focuses on equity in action, with individuals no longer paying more than their share in flood insurance premiums based on the value of their homes. An estimated two-thirds of policyholders with older pre-FIRM homes will see a premium decrease. With Risk Rating 2.0, FEMA now has the capability and tools to address rating disparities by incorporating more flood risk variables. These include flood frequency, multiple flood types—river overflow, storm surge, coastal erosion, and heavy rainfall and distance to a water source along with property characteristics such as elevation and the cost to rebuild. As of Apr	Project Title:	Promote FEMA Risk Rating 2.0	
Mitigation Category: Education and Awareness Location(s): Allegany County and Municipalities (all) EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public • Action Item(s): • Understand the community impact of Risk Rating 2.0 and share information with the public to encourage the purchase and/or retention of flood insurance. • Should the County apply for CRS, this action qualifies for CRS credit, which in turn will lower the cost of flood insurance for policyholders in Allegany County. Risk Rating 2.0-Equity in Action delivers rates that more accurately reflect flood risk and ensure that the National Flood Insurance Program (NFIP) will last for generations to come. A major part of FEMA's NFIP transformation is Risk Rating 2.0, which fundamentally changes the way FEMA prices insurance and determines an individuals no longer paying more than their share in flood insurance premiums based on the value of their homes. An estimated two-thirds of policyholders with older pre-FIRM homes will see a premium decrease. With Risk Rating 2.0, FEMA now has the capability and tools to address rating disparities by incorporating more flood risk variables. These include flood frequency, multiple flood types—river overflow, storm surge, coastal erosion, and heavy rainfall and distance to a water source along with property characteristics such as elevation and the cost to rebuild. Project Discussion: As of April 1, 2023, FEMA has fully implemented the NFIP's Risk Rating 2.0. NFIP policyholders can contact their insurance company or insurance agent to learn more about what Risk Rating 2.0-Equity in Action means to them. The rating	Hazard(s):	Flood	
Location(s): Allegany County and Municipalities (all) EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public Understand the community impact of Risk Rating 2.0 and share information with the public to encourage the purchase and/or retention of flood insurance. Should the County apply for CRS, this action qualifies for CRS credit, which in turn will lower the cost of flood insurance for policyholders in Allegany County. Risk Rating 2.0-Equity in Action delivers rates that more accurately reflect flood risk and ensure that the National Flood Insurance Program (NFIP) will last for generations to come. A major part of FEMA's NFIP transformation is Risk Rating 2.0, which fundamentally changes the way FEMA prices insurance and determines an individual property's flood risk. Risk Rating 2.0 focuses on equity in action, with individuals no longer paying more than their share in flood insurance premiums based on the value of their homes. An estimated two-thirds of policyholders with older pre-FIRM homes will see a premium decrease. Project Discussion: As of April 1, 2023, FEMA now has the capability and tools to address rating disparities by incorporating more flood risk variables. These include flood frequency, multiple flood types—river overflow, storm surge, coastal erosion, and heavy rainfall and distance to a water source along with property characteristics such as elevation and the cost to rebuild. NFIP policyholders can contact their insurance company or insurance agent to learn more about what Risk Rating 2.0-Equity in Action means to them. The rating methodology was implemented in phases from Oct. 1, 2021, through April 1, 2023. Project Discussion: Project the County and its mu	Mitigation Category:	Education and Awareness	
Action Item(s): EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public • Understand the community impact of Risk Rating 2.0 and share information with the public to encourage the purchase and/or retention of flood insurance. • Should the County apply for CRS, this action qualifies for CRS credit, which in turn will lower the cost of flood insurance for policyholders in Allegany County. Risk Rating 2.0-Equity in Action delivers rates that more accurately reflect flood risk and ensure that the National Flood Insurance Program (NFIP) will last for generations to come. A major part of FEMA's NFIP transformation is Risk Rating 2.0, which fundamentally changes the way FEMA prices insurance and determines an individual property's flood risk. Risk Rating 2.0 focuses on equity in action, with individuals no longer paying more than their share in flood insurance premiums based on the value of their homes. An estimated two-thirds of policyholders with older pre-FIRM homes will see a premium decrease. With Risk Rating 2.0, FEMA now has the capability and tools to address rating disparities by incorporating more flood risk variables. These include flood frequency, multiple flood types—river overflow, storm surge, coastal erosion, and heavy rainfall and distance to a water source along with property characteristics such as elevation and the cost to rebuild. As of April 1, 2023, FEMA has fully implemented the NFIP's Risk Rating 2.0. NFIP policyholders can contact their insurance company or insurance agent to learn more about what Risk Rating 2.0 Equity Action means to them. The rating methodology was implemented in phases from Oct. 1, 2021, through April 1, 2023. Project: The County and its municipalities should begin an ongoing outreach effort to p	Location(s):	Allegany County and Municipalities (all)	
 Project Discussion: Project Discussion: Project Discussion: Project Discussion: Project Discussion: A grid to the to include a section with Risk Rating 2.0 the to include a section with Risk Rating 2.0 to counce a set any policy holders on social media and updating the County's website to include a section with Risk Rating 2.0 resources. Resources to promote Risk Rating 2.0 to project by the Association of State Flood policy holders on social media and updating the County's website to include a section with Risk Rating 2.0 to project by the Association of State Flood policy holders on the ralue of the provided and updating the County's website to include a section with Risk Rating 2.0. The County's website and policy holders are a premium decrease. 	Action Item(s):	 EA-7: CRS Promote FEMA Risk Rating 2.0 to the Public Understand the community impact of Risk Rating 2.0 and share information with the public to encourage the purchase and/or retention of flood insurance. Should the County apply for CRS, this action qualifies for CRS credit, which in turn will lower the cost of flood insurance for policyholders in Allegany County. 	
	Project Discussion:	Risk Rating 2.0-Equity in Action delivers rates that more accurately reflect flood risk and ensure that the National Flood Insurance Program (NFIP) will last for generations to come. A major part of FEMA's NFIP transformation is Risk Rating 2.0, which fundamentally changes the way FEMA prices insurance and determines an individual property's flood risk. Risk Rating 2.0 focuses on equity in action, with individuals no longer paying more than their share in flood insurance premiums based on the value of their homes. An estimated two-thirds of policyholders with older pre-FIRM homes will see a premium decrease. With Risk Rating 2.0, FEMA now has the capability and tools to address rating disparities by incorporating more flood risk variables. These include flood frequency, multiple flood types—river overflow, storm surge, coastal erosion, and heavy rainfall and distance to a water source along with property characteristics such as elevation and the cost to rebuild. As of April 1, 2023, FEMA has fully implemented the NFIP's Risk Rating 2.0. NFIP policyholders can contact their insurance company or insurance agent to learn more about what Risk Rating 2.0-Equity in Action means to them. The rating methodology was implemented in phases from Oct. 1, 2021, through April 1, 2023. Project: The County and its municipalities should begin an ongoing outreach effort to promote Risk Rating 2.0 by including engaging with residents and policy holders on social media and updating the County's website to include a section with Risk Rating 2.0 resources. Resources to promote Risk Rating 2.0 are available from FEMA, including a two-page fact sheet. Additionally, an interactive map has been developed by the Association of State Floodplain Managers and Thew Pew Charitable Trusts that breaks down projected premium changes by state and territory. More data is available at a zip code-level for existing single-family homes and all existing NFIP policies.	

MITIGATION PROJECT L		
Partners:	Municipalities (all), Department of Emergency Services, NFIP policyholders	
Cost Estimate:	There is minimal cost associated with this project beyond regular staff	
	time. Promoting information on social media is free outside of a paid	
	targeted ad campaign. In the case of a paid targeted ad/information	
	campaign, cost is highly variable and dependent upon factors such as the	
	time length of the ad campaign (from start to finish) and projected reach.	
Potential Funding:	N/A.	
Benefits (Losses Avoided):	 In Maryland 61% of current policy holders will see a decrease in their monthly flood insurance premiums. Flood insurance premiums will be "fairer" – they now factor in more variables to determine flood risk. An improved flood risk rating system with lower premiums may attract more policyholders. 	
Ideas for Integration:	• This outreach activity can be integrated into existing efforts related to flooding or hazard mitigation.	
Timeline:	Ongoing (1-5 years)	
Associated Goals	Goal 2, Objective 2.1	
	Goal 4, Objective 4.1, 4.2, 4.3, 4.5, and 4.6	