



## MITIGATION ACTIONS SCORING MATRIX

### Purpose

As part of the hazard mitigation planning process, communities are asked to identify specific projects and activities (mitigation actions) that will help their communities achieve the long-term outcomes related to specific hazards. The status of each previously identified mitigation action is reviewed during the Hazard Mitigation Planning Process to determine the progress being made towards the County's hazard-specific goals. New mitigation projects and actions are also identified in this process.

The purpose of the Mitigation Actions Scoring Matrix is to determine which mitigation actions are relevant to each of the communities within Darke County and to develop a corresponding action plan that describes how the mitigation actions will be implemented. Scores collected from this Mitigation Actions Scoring Matrix will be used to decide how the mitigation actions will be prioritized, administered, and incorporated into Darke County's existing planning mechanisms.

### Instructions

To complete this matrix, please review each proposed mitigation action and indicate if it is applicable to your jurisdiction. If it is applicable, score it from 1-5 for each category described below. For each category, a rating of 1 is the lowest score, a rating of 3 is neutral/unsure, and a rating of 5 is the highest score.

1. Applicable to your jurisdiction? – Write Yes or No – to indicate if you think this mitigation action is applicable to your community or jurisdiction. If Yes, fill out the remaining columns; if No, do not fill out the remaining columns.
2. Cost Effective – Rank 1 – 5 – the cost effectiveness of each proposed mitigation action, with 5 being the most cost effective and 1 being the least cost effective.
3. Technically Feasible – Rank 1 – 5 – the feasibility of each proposed mitigation action, with 5 being the most feasible and 1 being the least feasible.
4. Environmentally Sound – Rank 1 – 5 – the proposed mitigation action in terms of how environmentally sound it seems, with 5 being the most sound and 1 being the least sound.
5. Immediate Need – Rank 1 – 5 – whether each proposed mitigation action is needed immediately, with 5 being the most immediate need and 1 being not an immediate need.
6. Risk Reduction – Rank 1 – 5 – the proposed mitigation action on the extent to which it will reduce the total risk of the associated hazard, with 5 being the greatest contribution to risk reduction and 1 being the least contribution to risk reduction.

In addition, if there are any mitigation actions that are not listed that should be included, please add them and score them on the last page. We encourage you to consider regularly occurring problems for each hazard listed below and suggest mitigation actions for these problems. You may also list regularly occurring problems within your community without suggesting a mitigation action.



Each action is associated with the goal of the hazard mitigation plan. These goals are listed below for your reference:

- Minimize property damage, economic loss, injury, and loss of human life – to achieve the Plan’s main goal of reducing the impact of natural and manmade hazards on the County’s economy and the well-being of its citizens.
- Enhance public awareness and education – to widen the public’s understanding of natural and manmade hazards and how they might affect public health and safety, the environment, the local economy, and basic day-to-day operations.
- Coordinate inter-jurisdictional preparedness measures – to encourage and ensure multi-jurisdictional cooperation in County-wide mitigation actions and programs so that they may be implemented efficiently and effectively.
- Provide decision-making tools for interested stakeholders – to formulate a comprehensive, updated analysis of Darke County’s vulnerability to hazards so that decision-makers can better prepare for natural and manmade disasters.



NAME:	POSITION:
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#	Mitigation Action	Status	Applicable to jurisdiction? (Y/N)	Cost Effective (1-5)	Technically Feasible (1-5)	Environmentally Sound (1-5)	Immediate Need (1-5)	Risk Reduction (1-5)
<i>Dam/Levee Failure</i>								
1	Obtain or create inundation maps for at least all high hazard potential dams.	New						
2	Rehabilitate high hazard potential dams, as appropriate.	New						
<i>Drought</i>								
3	Identify local drought indicators, such as precipitation, temperature, surface water levels, soil moisture, etc.	New						
4	Establish a regular schedule to monitor and report conditions (indicators) on a regular basis.	New						
5	Develop criteria or triggers for drought-related actions, such as local drought indicators.	New						
6	Encourage or mandate the use of natural plants in building or design codes.	New						
7	Encourage or mandate the use of permeable surfaces in paved areas.	New						
8	Farmer education program: Encourage the collection and use of rainwater to water plants.	New						



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9	Farmer education program: Encourage the use of crop insurance.	New						
10	Local City and Villages to adopt water conservation measures and standards.	Previous						
11	Provide education opportunities to Darke County farmers on reducing adverse effects of drought.	Previous						
<i>Earthquake</i>								
12	Provide public awareness and safety procedures during and following an earthquake event.	Previous						
<i>Epidemic</i>								
13	Complete a plan with the Public Health Department to better prepare for an epidemic or pandemic.	New						
<i>Extreme Temperatures</i>								
14	Increase tree plantings along public rights-of-way and parking lots to increase shade and reduce the urban heat island effect.	New						
15	Encourage the installation of green roofs.	New						



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16	Ensure that emergency shelters, schools, and other public buildings are equipped with heating and air conditioning.	New						
<i>Flooding</i>								
17	Develop a floodplain management plan and update it regularly.	New						
18	Incorporate the floodplain management plan in other planning efforts, such as development plans, zoning code updates, etc.	New						
19	Pass and enforce an ordinance that regulates dumping in streams and ditching.	New						
20	Establish a “green infrastructure” program to link, manage, and expand existing parks, preserves, greenways, etc.	New						
21	Develop a stormwater committee that meets regularly to discuss issues and recommend projects.	New						
22	Form a regional watershed council to help bring together resources for comprehensive analysis, planning, decision-making, and cooperation.	New						
23	Prohibit or limit floodplain development through regulatory and/or incentive-based measures.	New						



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24	Require that floodplains be kept as open space.	New						
25	Limit the percentage of allowable impervious surface within developed parcels.	New						
26	Require more trees be preserved and planted in landscape designs to reduce the amount of stormwater runoff.	New						
27	Include rain gardens, plantings, green space, and trees in new streetscape planning projects.	New						
28	Use GIS to map areas that are at risk of flooding.	New						
29	Ensure all eligible jurisdictions are actively participating in the National Flood Insurance Program (NFIP).	New						
30	Adopt ordinances that meet minimum Federal and state requirements to comply with NFIP.	New						
31	Use impact fees to help fund public projects to mitigate impacts of land development (e.g., increased runoff).	New						



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32	Perform regular drainage system maintenance, such as sediment and debris clearance, as well as detection and prevention of discharges into stormwater and sewer systems from home footing drains, downspouts, or sewer pumps.	New						
33	Annually distribute flood protection safety pamphlets or brochures to the owners of flood-prone properties.	New						
34	Address flooding issues from the creek. The flooding is getting close to houses.	Previous						
35	Assess flooding past Market Street, middle of 200 block to past 300 block from State Line to alley east of Old Market.	Previous						
36	Assess storm drainage problems.	Previous						
37	Clean out of the Stillwater River that runs through town to create better flow for high water.	Previous						
38	Complete EPA wastewater system.	Previous						
39	Continued maintenance of Scenic River Corridor.	Previous						



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40	Develop bike trail along Greenville Creek Corridor.	Previous						
41	Develop flood mitigation activities to relieve flooding of Duvall Road and Ansonia-Elroy Road east of Beam Road.	Previous						
42	Eliminate crawl space flooding multiple residences - Hollansburg-Sampson Road, Section 31.	Previous						
43	Encourage development of strategies to preserve scenic waterways and open space in and around flood plains. Address tree damage caused by beaver population.	Previous						
44	Evaluate & identify cause of flooding on Lawrence Road from State Line Road to Ft. Recovery Road.	Previous						
45	Evaluate & identify cause of Peters Road flooding - east of state line.	Previous						
46	Evaluate and develop flood mitigation plan for flooding of properties and roadways at Folkerth at Culberson Road.	Previous						
47	Evaluate and develop flood mitigation plan for protection of Greenville Creek Corridor.	Previous						





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48	Flood mitigation activity to relieve flooding at 3 mobile homes on Braffetsville North Road where east fork of the Whitewater River intersects the road.	Previous						
49	Flooding around residence - Horatio-Harris Creek Road - West of 721.	Previous						
50	Flooding at the end of Cucumber Lane into ESS Lake. Poorly constructed drainage tile under street needs replaced.	Previous						
51	Flooding at the North end along US Rt. 127 south of Davis Camper Sales. Tile to the creek drains this area but serious debris has built up in the creek and the tile outlet is now way below the water level. The creek needs dredged and sludge removed to eliminate water problem in the north end of the Village.	Previous						
52	Frequent flooding due to larger county tiles are older and need replaced.	Previous						
53	Identify and analyze repetitive flood properties in Franklin Township.	Previous						
54	Identify areas of repetitive County Road flooding.	Previous						



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55	Identify surface water and drainage tile obstructions.	Previous						
56	Identify surface water/county tile drainage obstructions for unincorporated areas of Darke County.	Previous						
57	Identify tile and surface water drainage obstructions.	Previous						
58	Mitigate flash flooding of property along Billman Road, Section 25, 26.	Previous						
59	Ongoing maintenance of the Wabash Conservancy Lake and Dam.	Previous						
60	Place check valves on Storm Sewer outlets to Stillwater Creek.	Previous						
61	Promote acquisition/demolition of flood prone properties throughout Darke County.	Previous						
62	Protection of Scenic River Corridor.	Previous						
63	Pursue mitigation activities and funding for existing designated flood prone areas.	Previous						
64	Reduce effects of flash flooding of Harvest Field Subdivision and various Village streets.	Previous						



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65	Reduce impact of flooding at Ansonia Elroy Rd. between Beam Rd. and St. Rt. 118, Duvall Rd., Wood Rd., and White Coppess Rd. between St. Rt. 118 and Duncan Rd.	Previous						
66	Reduce impact of flooding of various streets and at the Village Park. Merrie Lane flooding issues with flood water going into garages.	Previous						
67	Remove structures within the 100 year Swamp Creek flood plain.	Previous						
68	Replace back flow preventors to eliminate flooding within Greenville City Park.	Previous						
69	Swamp Creek goes out of its banks after heavy rains and affects Long Road, Murphy Road and Pitsenbarger Road.	Previous						
70	Swamp Creek maintenance.	Previous						
<i>Hazardous Materials</i>								
71	Complete a countywide commodity flow study.	New						
72	Ensure that police, fire, and other first responders have a response plan in place for a hazardous materials spill.	New						



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<i>Landslide and Land Subsidence</i>								
73	Identify and use GIS to map erosion risk areas.	New						
74	Locate utilities and critical facilities outside of identified risk areas.	New						
75	Consider acquiring and demolishing or relocating at-risk buildings and infrastructure and enforcing permanent restrictions on development after land a structure acquisition.	New						
76	Complete an inventory of locations where critical facilities, other buildings, and infrastructure are vulnerable to landslides.	New						
<i>Multiple Hazards</i>								
77	Encourage underground utility placement and tree maintenance programs in public right of ways.	Previous						
78	Establish One-call to serve county and individual needs for various public information purposes.	Previous						
79	Identify and pursue funding options and opportunities to develop and implement local and county natural hazard mitigation activities.	Previous						



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80	Adopt the International Building Code (IBC) and International Residential Code (IRC).	New						
81	For each hazard, identify at-risk populations in the County and create an outreach and response plan. For example, offer a snow removal assistance program for elderly residents.	New						
82	Work with all jurisdictions on filling in gaps and strengthening capabilities in enacting mitigation strategies	New						
83	Assess issues with CSX Train increased rail traffic and the potential for blocked crossing. (Areas most affected are the Villages of Ansonia, Union City and Versailles).	Previous						
84	Develop ways to address law enforcement personnel shortages due to increased demand from opioid epidemic and active shooter events.	Previous						



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85	Increase communication, coordination and collaboration between community leaders, property owners, local and county building regulations, and zoning authorities to address risk and to provide uniformity and consistency in implementing sound mitigation practices.	Previous						
<i>Public Safety</i>								
86	Work with first responders to develop an active shooter response plan.	New						
87	Ensure that all software in use by government offices is continually updated and upgraded.	New						
88	Create paper backups for clerical government data, including but not limited to, continuity of operations plans, emergency contacts, and other critical data.	New						
89	Transition to multi-factor authentication on government networks.	New						
90	Coordinate closely with first responders when organizing a large event, such as a county fair.	New						
91	Create digital backups of all critical data.	New						



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92	Ensure that there is an IT expert on staff to protect government data from cyber terrorism attacks.	New						
<i>Severe Summer Weather</i>								
93	Install lightning protection devices and methods, such as lightning rods and grounding, on communications infrastructure and other critical facilities.	New						
94	Install and maintain surge protection on critical electronic equipment.	New						
95	Post warning signage at local parks, county fairs, and other outdoor venues in regard to hail, wind, lightning, tornadoes, etc.	New						
96	Convert traffic lights to mast arms to be more resistant to severe weather.	New						
<i>Severe Winter Weather</i>								
97	Discourage or prohibit flat roofs to prevent snow build up.	New						
98	Use snow fences or “living snow fences” (e.g., rows of trees or other vegetation) to limit blowing and drifting of snow over critical roadway segments	New						



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99	Create a snow removal plan that includes sidewalks, bikeways, major roadways, and minor roadways.	New						
100	Share pamphlets, social media announcements, etc. about the health dangers of snow shoveling, especially for at-risk populations such as the elderly.	New						
<i>Tornado</i>								
101	Require construction of safe rooms in new schools, daycares, nursing homes, mobile home parks, etc.	Previous						
102	Conduct tornado drills in schools and public buildings, and encourage the practice of tornado drills in private, large occupancy buildings (e.g., factories).	Previous						
103	Complete tornado warning siren program for all incorporated Villages. Provide battery backups.	Previous						
104	Continue yearly tornado drill program at all schools.	Previous						
105	Encourage construction of safe rooms at community parks, large mobile home parks, campgrounds, fairgrounds and for residential properties.	Previous						
106	Install tornado warning siren.	Previous						





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107	Install tornado warning siren. The Village has an old fire siren.	Previous						
108	Safe Room at Community Park.	Previous						
109	Safe room for Olwine's Mobile Home Park.	Previous						
<i>Wildfire</i>								
110	Sponsor local "slash and clean-up days" to reduce fuel loads along the wildland-urban interface.	New						
111	Cut firebreaks into public wooded areas in the wildland-urban interface.	New						
112	Create buffers around residential and non-residential structures through the removal or reduction of flammable vegetation, including vertical clearance of tree branches.	New						



### Additional Mitigation Actions

#	Mitigation Action	Status	Applicable to jurisdiction? (Y/N)	Cost Effective (1-5)	Technically Feasible (1-5)	Environmentally Sound (1-5)	Immediate Need (1-5)	Risk Reduction (1-5)