



Bucks County Hazard Mitigation Plan

Draft Plan Review Meeting

January 13, 2026

Recording Disclosure



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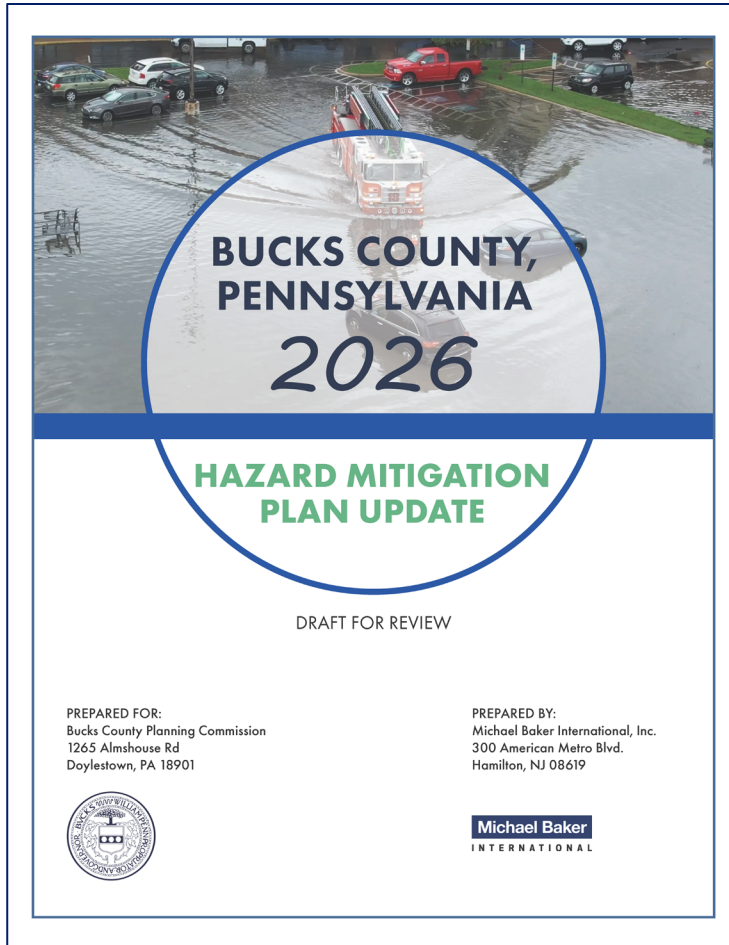
Welcome

Let us know you are here!

- Please submit your name and municipality or organization by:
 1. Using the Teams “Chat” **or**
 2. Emailing **Taylor.Harrington@mbakerintl.com**



Overview



1. Executive Summary
2. Introduction
3. Community Profile
4. Planning Process
5. Risk Assessment
6. Capability Assessment
7. Mitigation Strategy
8. Plan Maintenance
9. Plan Adoption
10. Appendices



Introduction

Includes:

- Background
- Purpose
- Scope
- Authority and Reference



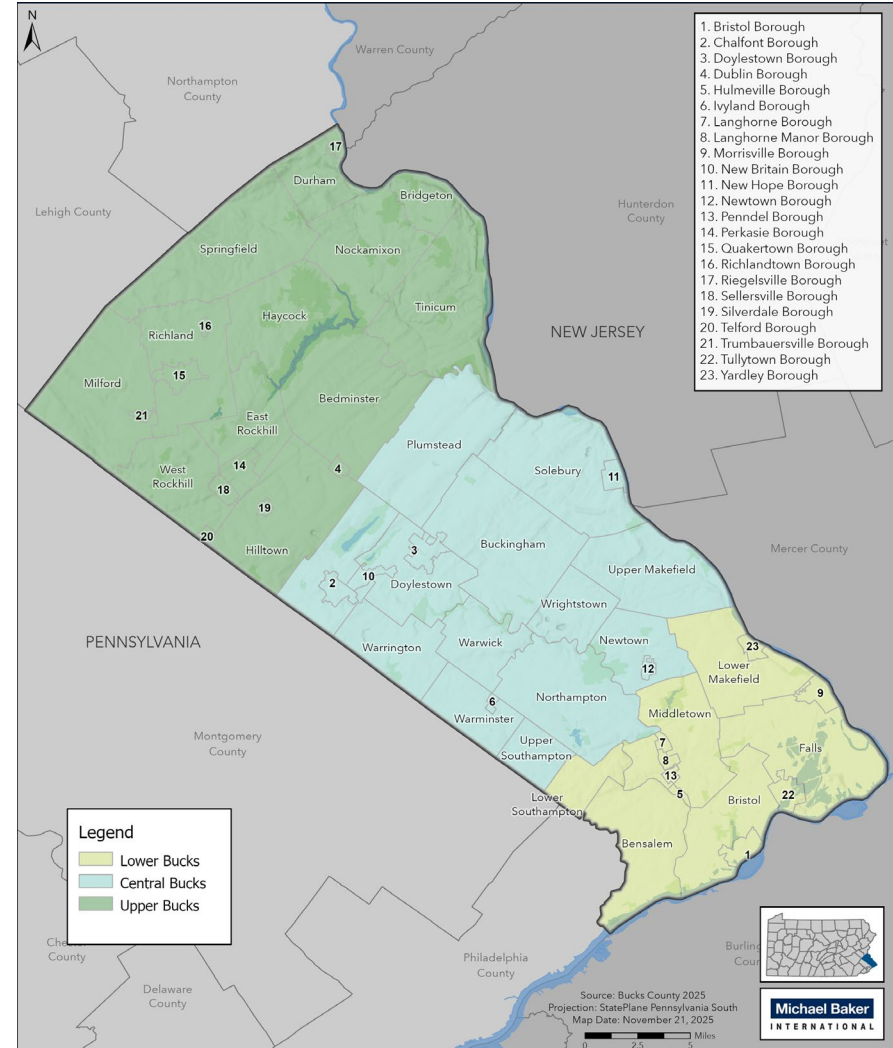
Bucks County's first All-Hazards Mitigation Plan was initially adopted in 2006. Since then, there have been four updates, every five years, in compliance with the Disaster Mitigation Act of 2000.



County Profile

Includes:

- Geography and environment.
- Community facts.
- Population and demographics.
- Land use and development.
- Current and future planning



Planning Process

- Update Process and Participation Summary
- The Planning Team
- Meetings and Documentation
- Public and Stakeholder Participation
- Multi-Jurisdictional Planning



Participant Responsibilities

- Attend meetings.*
- Complete surveys and forms.*
- Inform the risk assessment.
- Inform the capability assessment.
- Develop mitigation goals and actions.
- **Develop and review plan drafts.**

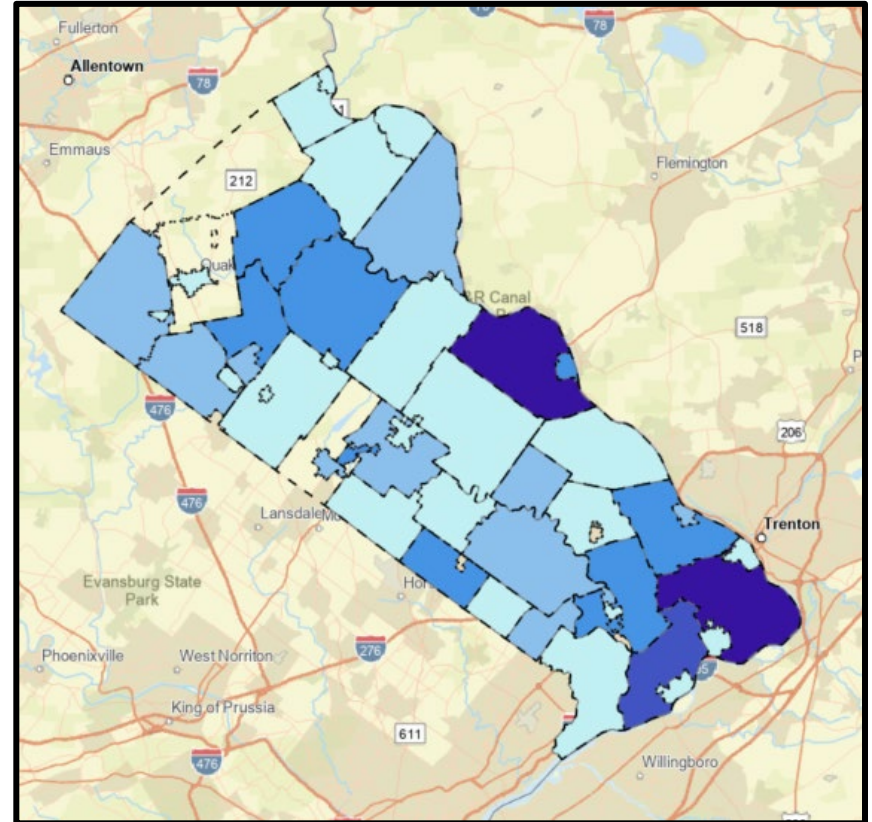
**Municipalities must attend one meeting and complete at least one form to be able to adopt the plan*

Status	#
Municipalities	51
Special Districts	



Public Involvement

- Engaged throughout the life of the plan.
- Opportunities to participate have included:
 - Completing the public survey.
 - Staying informed through the project website.
 - Reviewing the draft plan and providing feedback.



Received 390 responses to the public survey across 45 municipalities.



Public Survey Results

- Municipalities with most respondents:
 - Solebury Township
 - Falls Township
 - Bristol Township
- 92.3% of respondents are homeowners
- 46.67% feel their household is prepared/extremely prepared for future natural hazard events
- Top hazards of concern
 - Flood, Flash Flood, Ice Jam
 - Hurricanes, Tropical Storms, and Nor'easter
 - Drought
 - Tornado and Windstorm
- Lowest ranked hazards
 - Landslide
 - Earthquake
 - Hailstorm
 - Subsidence & Sinkholes



Risk Assessment

- Update Process Summary.
- Hazard Identification.
- Hazard Profiles.
 - Natural.
 - Man Made.
- Hazard Vulnerability Summary.



Risk Assessment Overview

Identifies natural and human-caused hazards



Full hazard profiles analyze:

Location and Extent	Where can the hazard occur in the County? If it occurs, what geographical extent can it cover?
Range of Magnitude	What impacts can we expect if the hazard occurs?
Past Occurrence	When has it occurred before?
Future Occurrence	What is the likelihood it will occur again?
Vulnerability Assessment	If it occurs, who and what is at risk?



2026 Hazards

Natural Hazards

- Drought
- Earthquake
- Extreme Temperature
- Flood, Flash Flood, Ice Jam
- Hailstorm
- Hurricane, Tropical Storm, Nor'easter
- Landslide,
- Lightning Strike
- Pandemic and Infectious Disease
- Radon Exposure
- Subsidence, Sinkhole
- Tornado, Windstorm
- Wildfire
- Winter Storm

Human-Made Hazards

- Building and Structure Collapse
- **Cyber Terrorism**
- Dam Failure
- Environmental Hazards (Hazardous Materials Releases)
- Gas and Liquid Pipelines
- **Substance Use Disorder**
- Terrorism
- Transportation Accident
- Urban Fire and Explosion
- Utility Interruption

Orange denotes newly added or edited hazards.

2026 Critical Facilities

20 Airports

253 Child Care Centers

9 Communication Assets

4 Correctional Facilities

7 Electric Power

2 EOC

82 Fire Station

10 Medical

53 Municipal facilities

42 Nursing Homes

45 Police Stations

15 Rail Stations

26 Rescue Squads

222 Schools

1 Senior Center

49 TRI Facility

16 Waste Water Facilities

4 Water Treatment Plants



Community Lifelines



Equity Considerations

- Equity sections for each hazard profile.
 - Expands on certain socioeconomic factors that may exacerbate impacts to populations
 - Ex: Municipalities with higher concentrations of residents aged 65 and older are more vulnerable to extreme temperature impacts



Vulnerability Assessment

Municipality	Total Structures	Structures in SFHA	PCT Structures in SFHA	Total Population	Population in SFHA	PCT Population in SFHA	Total Critical Facilities	CFs in SFHA	PCT CFs in SFHA
Riegelsville Borough	465	181	39%	847	449	53%	2	0	0%
Yardley Borough	1,350	371	27%	2,605	855	33%	6	0	0%
Bridgeton Township	790	215	27%	1,234	143	12%	3	0	0%
New Hope Borough	1,446	296	20%	2,612	450	17%	8	1	13%
Tinicum Township	2,352	317	13%	3,818	295	8%	10	0	0%
Hulmeville Borough	410	51	12%	982	179	18%	3	0	0%
Durham Township	656	63	10%	1,094	91	8%	1	0	0%



High Risk Hazards

HAZARD NATURAL (N) OR MAN-MADE (M)	RISK ASSESSMENT CATEGORY						RF
	PROBABILITY	IMPACT	SPATIAL EXTENT	WARNING TIME	DURATION	CLIMATE CHANGE IMPACT	
Flood, Flash Flood, Ice Jam (N)	4	3	3	2	3	↑	3.2
Transportation Incident (M)	4	3	1	4	1	↔	2.8
Winter Storm (N)	3	2	4	2	2	↔	2.7
Wildfire (N)	3	3	1	4	3	↑	2.7
Utility Interruption (M)	4	2	1	4	2	↑	2.6



Capability Assessment

- Update Process Summary.
- Capability Assessment Findings.
 - Planning and Regulatory Capability.
 - Administrative and Technical Capability.
 - Financial Capability.
 - Education and Outreach Capability.
 - Socially Vulnerable and Underserved Communities.
 - Plan Integration.



Capability Assessment Feedback

- 25 municipal surveys completed (46.3%)
- 50/54 jurisdictions have a comprehensive plan in place
- High participation in the NFIP; decreases in policies and coverage

Self Assessment Capability Responses:

Capability Type	Limited	Moderate	High
Planning & Regulatory	15%	65%	20%
Administrative & Technical	25%	50%	25%
Fiscal	58%	26%	16%
Education & Outreach	35%	55%	10%



Mitigation Strategy

- Update Process Summary.
- Mitigation Goals and Objectives.
- Identification and Analysis of Mitigation Techniques.
- Mitigation Action Plan



2026 HMP Goals

1. Reduce potential injury, death, and damage due to natural and human-made hazards.
2. Promote hazard mitigation as a public value in recognition of its importance to the health, safety, and welfare of the population.
3. Enhance county mitigation program and support efforts to increase municipal and authority mitigation capabilities and planning.
4. Protect natural resources within hazard areas and use them to reduce risk and losses.
5. Protect people and assets from the potential impacts of High Hazard Potential Dams*

* New this update



Types of Actions



Plans and Regulations



Structure and Infrastructure Projects



Natural Systems Protection



Education and Awareness Programs



Mitigation Action Progress

- Status update on the actions from the 2021 Plan:
 - 8 actions were Completed
 - 70 actions are Ongoing
 - 1 action was Deferred
 - 0 actions were Cancelled



Action Types for High-Risk Hazards

HAZARD (in order of Risk Factor ranking)	MITIGATION TECHNIQUE			
	PLANS AND REGULATIONS	STRUCTURE AND INFRASTRUCTURE	NATURAL SYSTEMS PROTECTION	EDUCATION AND AWARENESS
Flood, Flash Flood, Ice Jam	X	X	X	X
Winter Storm	X	X		X
Extreme Temperatures	X	X		X
Hurricane, Tropical Storm, Nor'easter	X	X	X	X
Environmental Hazards – Hazardous Materials Release	X	X		X
Wildfire	X	X		X
Pandemic And Infectious Disease	X	X		X



Mitigation Action Plan

- Policy requires **each** municipality to have **one or more** mitigation actions for **each** hazard that impacts the community.
 - One action for all high-risk hazards.
 - One action for all medium and low risk hazards where the risk is identified as greater than or equal to the risk of the county.

- 111 actions included in the 2026 Plan
 - 36 Education and Awareness Actions
 - 48 Plans and Regulations Actions
 - 31 Structure and Infrastructure Actions
 - 5 Natural Systems Protection Actions



Goal 1 Action Examples

Reduce potential injury, death, and damage due to natural and human-made hazards.

- Proceed with grant applications to suitably protect repetitive-loss properties 1% annual chance floodplain (for owners interested in FEMA mitigation funding).
- Continue elevating flood prone structures.
- Identify all storage of hazardous materials in floodplains (including non-addressable structures, such as propane tanks).
- Repair two bridges at Allentown Road and Route 663.
- Replace aging sewage pump station to reduce outages and prevent storm damage.
- Routinely clean and repair stormwater drains.



Goal 2 Action Examples

Promote hazard mitigation as a public value in recognition of its importance to the health, safety, and welfare of the population.

- Educate residents regarding the dangers of extreme heat and cold, including identifying symptoms of heat illness and cold injuries, and the steps they can take to protect themselves when extreme temperatures occur.
- Post warning signage at local parks, county fairs and outdoor venues about the risk of lightning strike and hailstorms.
- Secure flood specific signage that warns travelers that barricades are present to prevent them from traveling into floodwater.



Goal 3 Action Examples

Enhance county mitigation program and support efforts to increase municipal and authority mitigation capabilities and planning.

- Review and update countywide datasets and coordinate with municipalities during this update. Identify method for distributing updated data.
- Encourage increasing design wind and/or snow load for future development.
- Continue coordination and planning with local colleges and universities to be partners to mitigate, prepare, and respond to hazards.
- Update local ordinances require minimum and maximum temperatures in codes for housing, critical facilities, community spaces, and other congregate settings.



Goal 4 Action Examples

Protect natural resources within hazard areas and use them to reduce risk and losses.

- Increasing open space in floodplain.
- Build on existing Stormwater Management Planning and encourage implantation of small stormwater mitigation projects on private property (i.e. rain gardens, rain barrels, natural basins).
- Apply soil stabilization measures, such as planting soil-stabilizing native vegetation on steep, publicly-owned slopes near roadways.
- Establish a "green infrastructure" program to link, manage, and expand existing parks, preserves, greenways, etc.



Goal 5 Action Examples

Protect people and assets from the potential impacts of high hazard potential dams.

- Work with Township Public Works, Police, and local Fire Police to evaluate and develop evacuation plan/routes for dam failure.
- Identify and make any and all repairs to existing class A-1 and B-1 dams, as well as any other dams in the County that may be applicable.
- Provide notice of funding opportunity and supporting documentation from the county HMP to EMCs of municipalities with HHPDs to promote rehabilitation and safety in Bucks County.



Plan Maintenance

- No changes from 2021 Plan
- Plan Integration
- Annual Meeting
- Continued public involvement via website



Next Steps and Action Items



Project Schedule



Action Items

■ Public Review Period:

- Review Plan for Accuracy:
 - Review Vulnerability sections of Hazard profiles to ensure data is correct regarding your municipality.
 - Review Mitigation Action Plan for actions you are responsible for.
 - Send comments to Taylor.Harrington@mbakerintl.com
- Disseminate information to residents/other stakeholders.
 - Share plan website

<https://connects.buckscounty.gov/bucks-county-2026-hazard-mitigation-plan>

All comments are
due by **January**
27th



Project Contacts

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