



SECTION C. MEETING DOCUMENTATION

Appendix C includes meeting agendas, sign-in sheets, and minutes (where applicable and available) for meetings convened during the development of the 2024 Burlington County Hazard Mitigation Plan Update.



BURLINGTON COUNTY HAZARD MITIGATION PLAN - UPDATE
Steering Committee Kick-Off Meeting
August 22, 2023 at 10:00 AM

Dial In: +1 617-865-5234, Phone Conference ID: 936 786 912#

Meeting Link: <https://msteams.link/JHFU>

Meeting ID: 284 534 488 128

Passcode: KbMoBZ



- 1 Introductions
- 2 Hazard Mitigation Overview
- 3 Project Organization
- 4 Planning Process Overview
- 5 Project Schedule
- 6 Questions/Next Steps/Discussion

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Steering Committee Kick-Off Meeting | Meeting Minutes**



Purpose of Meeting:	Burlington County Steering Committee Kick-Off Meeting
Location of Meeting:	Teleconference
Date of Meeting:	August 22, 2023 @ 10:00AM

<p>Attendees:</p> <ul style="list-style-type: none"> • Burlington County Division of Emergency Management <ul style="list-style-type: none"> ○ Darryl Williams, OEM Coordinator ○ Kristen Carr, OEM Deputy Coordinator ○ Madison Hoff, Assistant Planner ○ Bob Carr, Fire Marshal • Burlington County Administration <ul style="list-style-type: none"> ○ Todd Wirth, Management Specialist • Burlington County Department of Health <ul style="list-style-type: none"> ○ Herbert Conway, Director ○ Monquie Davis, Assistant Health Officer • Burlington County Department of Public Information <ul style="list-style-type: none"> ○ Dave Levinsky, Public Information Officer • Burlington County Department of Public Works <ul style="list-style-type: none"> ○ Joe Birkley, Director • Burlington County Department of Resource Conservation <ul style="list-style-type: none"> ○ Mary Pat Robbie, Director • Burlington County Division of GIS <ul style="list-style-type: none"> ○ David Rickert, GIS Specialist 2 ○ Merrilee Torres, GIS Specialist 1, GIS Supervisor • Burlington County Division of Solid Waste <ul style="list-style-type: none"> ○ Jerome Sheehan, Director • Burlington County Department of Information Technology <ul style="list-style-type: none"> ○ Kevin Savage, Director ○ Jalen Singleton, Data Specialist • Eastampton (Twp) <ul style="list-style-type: none"> ○ Bob Carr, OEM Coordinator ○ Kim White, Municipal Clerk/Township Manager • Mansfield (Twp) <ul style="list-style-type: none"> ○ Douglas Borgstrom, OEM Coordinator/Fire Official ○ Matthew Konowicz, Township Fire Department • Maple Shade (Twp) <ul style="list-style-type: none"> ○ Susan Danson, Township Manager • Moorestown (Twp) <ul style="list-style-type: none"> ○ Jim Carruthers, OEM Coordinator • Springfield (Twp) <ul style="list-style-type: none"> ○ Andrew Eaton, Deputy Mayor 	<ul style="list-style-type: none"> • American Water <ul style="list-style-type: none"> ○ Gary Gehringer, Environmental Program Lead • Bordentown Regional School District <ul style="list-style-type: none"> ○ Dr. Trudy Atkins, Superintendent • Burlington City Public Schools <ul style="list-style-type: none"> ○ Dr. James Flynn, Director of Planning/Research and Evaluation, Operations, and State & Federal Programs, School Safety Specialist • Burlington Township School District <ul style="list-style-type: none"> ○ Lauren Riedinger, Vice Principal • Holy Cross Preparatory Academy <ul style="list-style-type: none"> ○ David Moffa, Principal • NJOEM <ul style="list-style-type: none"> ○ Kathy Lear, Mitigation Unit ○ Dinan Amin, SHMO ○ Cansu Yerdeleni, Mitigation Unit ○ Christopher Warwick, NJSP NJOEM ERB-South • Northern Burlington County Regular School District <ul style="list-style-type: none"> ○ Matthew Konowicz, Director of Instruction for Agriscience, Applied Technology, Business & Technology, Visual & Performing Arts • Rowan College Burlington County Public Safety <ul style="list-style-type: none"> ○ Andrew Eaton, Director of Public Safety • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, PM ○ Jessica Stokes, Lead Planner
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Agenda Summary: The purpose of the meeting was to introduce the Steering Committee members and contract consultant, provide an overview of the hazard mitigation planning process, identify the 2024 hazards of concern, discuss potential changes to the plan’s goals and objectives, and to begin the information gathering processes.

Item No.	Description	Action item(s):
1	<p>Introductions</p> <ul style="list-style-type: none"> • Chris Huch introduced the Tetra Tech team. • Dinan Amin, State Hazard Mitigation Officer, explained the importance of the planning effort. 	-

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Steering Committee Kick-Off Meeting | Meeting Minutes**



<p>2</p>	<p>Hazard Mitigation Overview</p> <ul style="list-style-type: none"> • Mitigation describes actions taken to help reduce or eliminate the long-term risks/damages cause by hazards • Having an HMP permits eligibility for FEMA pre- and post-disaster grant funding • Must meet FEMA’s new 2023 guidelines, which include an increase in participation, discussions on climate change, outreach to socially vulnerable populations, increased documentation needs, and to show how existing capabilities are integrated into the plan. 	<p>-</p>
<p>3</p>	<p>Project Organization</p> <ul style="list-style-type: none"> • Made up of the Core Planning Team, Steering Committee, Planning Partnership, Stakeholders, and NJOEM • Steering Committee members guide the Planning Partnership through the HMP update process, oversee the planning process from start to finish, and actively contribute, review and provide feedback, identify mitigation actions, etc. 	<p>-</p>
<p>4</p>	<p>Planning Process Overview</p> <ul style="list-style-type: none"> • The risk assessment provides a basis for policy and helps to identify what is most important to address to increase resiliency. <ul style="list-style-type: none"> ○ We will be reviewing and updating the Hazards of Concern, updating assets, assessing impacts, and analyzing risks to assets. • Critical Facilities provide essential services to the community, especially before, during, and after a disaster. • Community Lifelines provide services that allow continuity of operations of critical business and government functions, and crucial to health and safety of residents. • Public outreach will occur continually throughout the planning process through social media posts, surveys, County and municipal websites, and the StoryMap. • Assessing capabilities can lead to the identification of potential mitigation actions, which bolsters the mitigation strategy. • The BAToolSM will be used to review the 2019 mitigation strategy. • Goals and objectives for the 2024 update will be completed by this Steering Committee via a survey. 	<p>Tetra Tech</p> <ul style="list-style-type: none"> • Send Steering Committee goals and objectives survey. <p>Steering Committee</p> <ul style="list-style-type: none"> • Agrees to remove Landslide hazard; incorporate streambank erosion into Flood hazard. • Agrees to move Dam Failure from Flood into its own Hazard of Concern. • Agrees to the incorporation of SLR into Flood hazard. • Agrees to bring the Coastal Erosion hazard into the Flood hazard – discuss wetland loss in Eastern County; riverbank/stream erosion in the Western. • Agrees to include Disease Outbreak as a Hazard of Concern. • Core Planning Team will consider benefits of including Invasive Species as a hazard of concern.
<p>5</p>	<p>Project Schedule</p>	<p>-</p>

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Steering Committee Kick-Off Meeting | Meeting Minutes**



	<ul style="list-style-type: none"> • Kick-Off Meeting – TODAY! • Goals and Finalize Hazards – August 2023 • Risk Assessment – August-September 2023 • Identify Actions – September-November 2023 • Finalize the Plan – December 2023 • Draft Plan Completed – January 2024 • Draft Plan Submitted to NJOEM – February 2024 • Draft Plan Submitted to FEMA – March 2024 	
<p>6</p>	<p>Questions/Next Steps/Discussion</p> <ul style="list-style-type: none"> • <i>Matthew Konowicz</i>: Invasive Species or HazMat as hazards of concern? <ul style="list-style-type: none"> ○ HazMat would not have many funding sources through the FEMA Mitigation sources; they’d have funding more so through other emergency management funding streams. Going to incorporate HazMat as cascading impact of natural hazards. ○ Invasive species have been included in other recent plans but have not reached a point locally where disaster declarations have been declared. Keep in mind, each municipality will need to identify a mitigation action for this hazard if we include it. • <i>Jim Carruthers</i>: How, on local level, do we understand what has been implemented in the past and what the programs were? <ul style="list-style-type: none"> ○ Going to take all information from last plan that is viable and pull into a set of worksheets for communities to review. In terms of actions, we can’t identify too much in knowing what was done, the municipality would need to help us gather that information from the different departments. More information on this will be shared at next week’s Planning Partnership meeting. • <i>Monique Davis</i>: Referenced nobody thought much about tornadoes before, but now we need to with recent events. Will that be folded into the hazards of concern? <ul style="list-style-type: none"> ○ Yes, tornadoes will be included in the severe storm hazard of concern. • <i>Herb Conaway</i>: What would you do with the invasive species, are we going to include those? <ul style="list-style-type: none"> ○ We can work with the County CPT to include this. It comes down to whether each municipality can identify a mitigation action. We could also discuss this as a secondary hazard within each profile, so the information is in there. 	
<p>7</p>	<p>Conclusion</p> <ul style="list-style-type: none"> • The meeting adjourned at 11:01 am. 	



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

Steering Committee Kick-Off Meeting

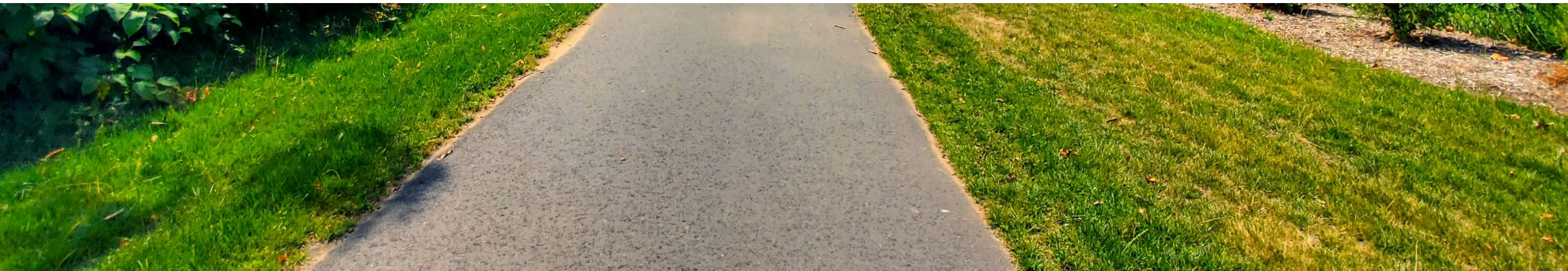
August 22, 2023

While waiting for the meeting to start, please enter your name and department/agency in the chat.



Today's Agenda

1. Welcome and Introductions
2. Hazard Mitigation Planning Overview
3. Project Organization
4. Steering Committee Responsibilities
5. Planning Process Overview
6. Schedule
7. Questions/Next Steps/Wrap Up





Hazard Mitigation Overview

Mitigation planning happens before a disaster strikes. It results in safer, more resilient communities – reducing risk for the residents, businesses, and critical services in Burlington County.

Hazard Mitigation Planning Overview



- ✓ Authorized by the Disaster Mitigation Act of 2000
- ✓ Provides an overview of the impacts of natural hazards on communities
- ✓ Provides a roadmap to reducing the impact of these hazards
- ✓ Requires a FEMA-approved natural hazard mitigation plan to be eligible for Pre-Disaster Mitigation Funding
- ✓ 5-year updates required to maintain eligibility

- What is hazard mitigation?
- Why update the plan?
- What is the process?



What is Hazard Mitigation?

Mitigation is a sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event

-or-

Any action taken to reduce future disaster losses



“provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability...” (CFR).

Why Update?



- The mitigation plan update will:
 - Help prepare for and mitigate hazards
 - Eligibility for pre- and post-disaster mitigation funding
 - Incorporate new FEMA requirements
- What is at risk in Burlington County?
- Which hazard do you think occurred the most since 2019?

January 2019 - April 2023	
Hazard	Occurrences
Blizzard	0
Extreme Cold, Cold/Wind Chill	0
Drought	0
Heat, Excessive Heat	3
Flood/Flash Flood	14
Hail	12
Heavy Rain	0
Hurricane/ Tropical Storm/ Tropical Depression	1
Lightning/ Thunderstorm	49
Tornado/Funnel Cloud	6
Wind	5
Winter Weather	22
Wildfire	2
TOTAL	115

Source: NOAA NCEI Severe Weather Inventory 2023



Differences from the 2019 Planning Process

- Involvement – engaged and actively participating
- Public and stakeholder outreach
- Socially vulnerable and underserved communities
- Climate change
- Mitigation actions for every hazard of concern





Project Organization

Working with individuals, agencies, neighboring jurisdictions, businesses, and other partners for a successful mitigation planning process.

Project Organization



Core Planning Team

Burlington County Office of Emergency Management, Tetra Tech



Steering Committee

Planning Partnership



Stakeholders

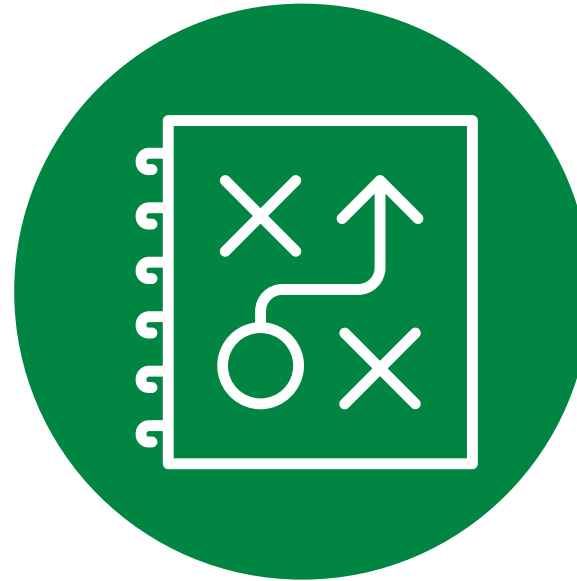


New Jersey Office of Emergency Management (NJOEM)

Steering Committee Role and Responsibilities



Provide Guidance and Leadership



Oversee the Planning Process



Act as Points of Contact for Planning Partners and Stakeholders



Planning Process Overview

A well-defined planning process is essential to the success of Burlington County's HMP Update.

Planning Process Overview



1 Planning Process

2 Risk Assessment

3 Public Involvement Strategy

4 Mitigation Strategy

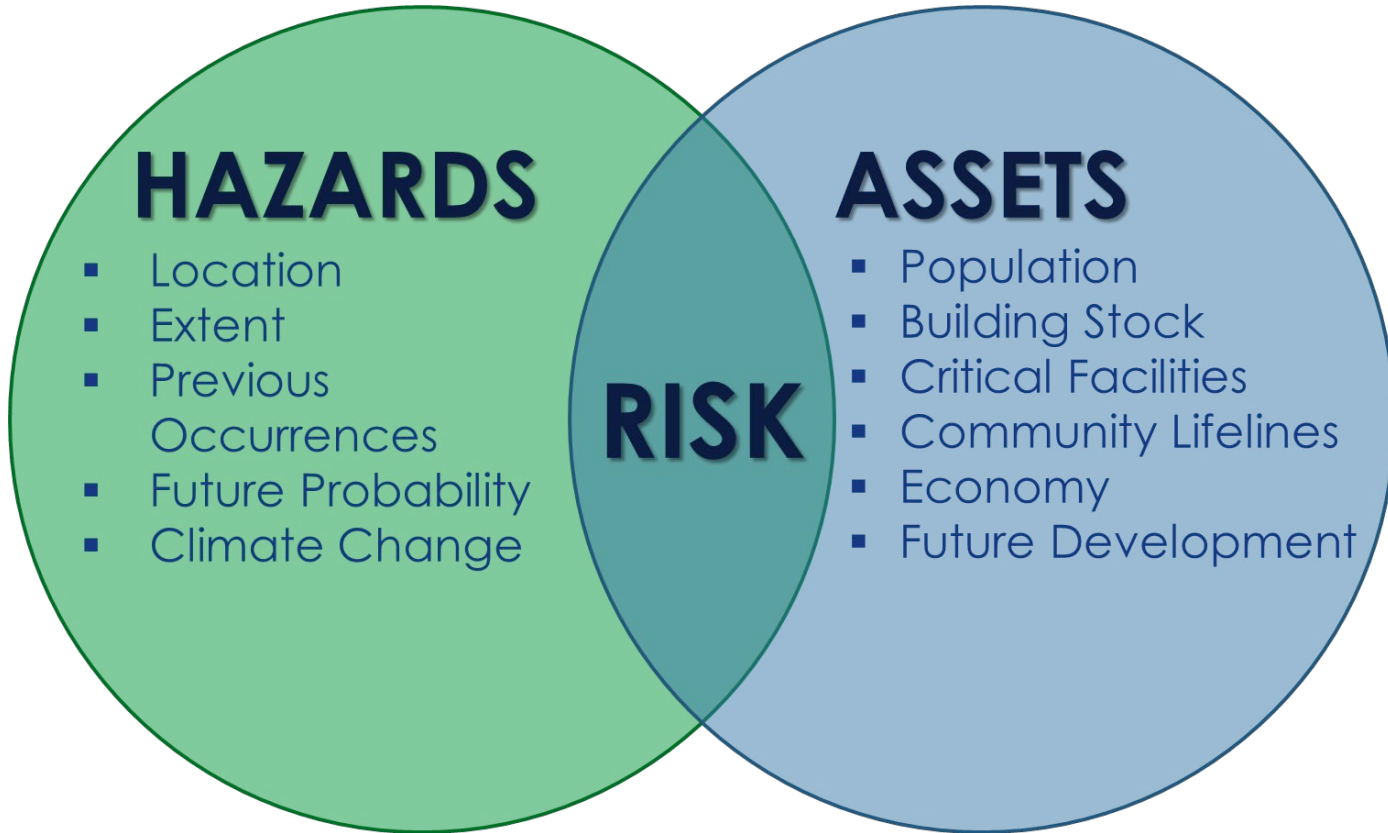
5 Plan Maintenance

6 Plan Update and Deliverables

7 Plan Adoption

8 Project Management and Coordination

Update Risk Assessment



- Update Assets
- Examine Previous Impacts
- Analyze Risks
- Review with Steering Committee
- Risk Assessment Meeting

Hazards of Concern



Coastal Erosion



Drought



Earthquake



Flood



Landslide



Severe Storm



Severe Winter Weather



Wildfire





Critical Facilities and Community Lifelines

- **Critical Facilities** provide essential services to the community, especially before, during, and after a disaster.
- **Community Lifelines** provide services that allow continuity of operations of critical business and government functions, and crucial to health and safety of residents.

A lifeline enables the continuous operation of **critical government** and **business functions** as is essential to **human health** and **safety** or **economic security**.

Critical Facilities and Community Lifelines



Safety and Security

- Correctional
- Dam
- Daycare
- EOC
- Fire/EMS
- Government / Municipal Hall
- Historic Sites
- Library
- Military
- Police
- School



Food, Water, Shelter

- Potable Pump Station
- Shelter
- Wastewater Pump
- Wastewater Treatment Plant
- Water Tower
- Potable Well



Health and Medical

- Medical
- Senior Care Facilities



Energy

- Electric Substation
- Power Lines

Critical Facilities and Community Lifelines



Communications

- Communication Towers



Transportation

- Airport
- County Roads
- State Highways
- Light Rail
- Intermodal Transit



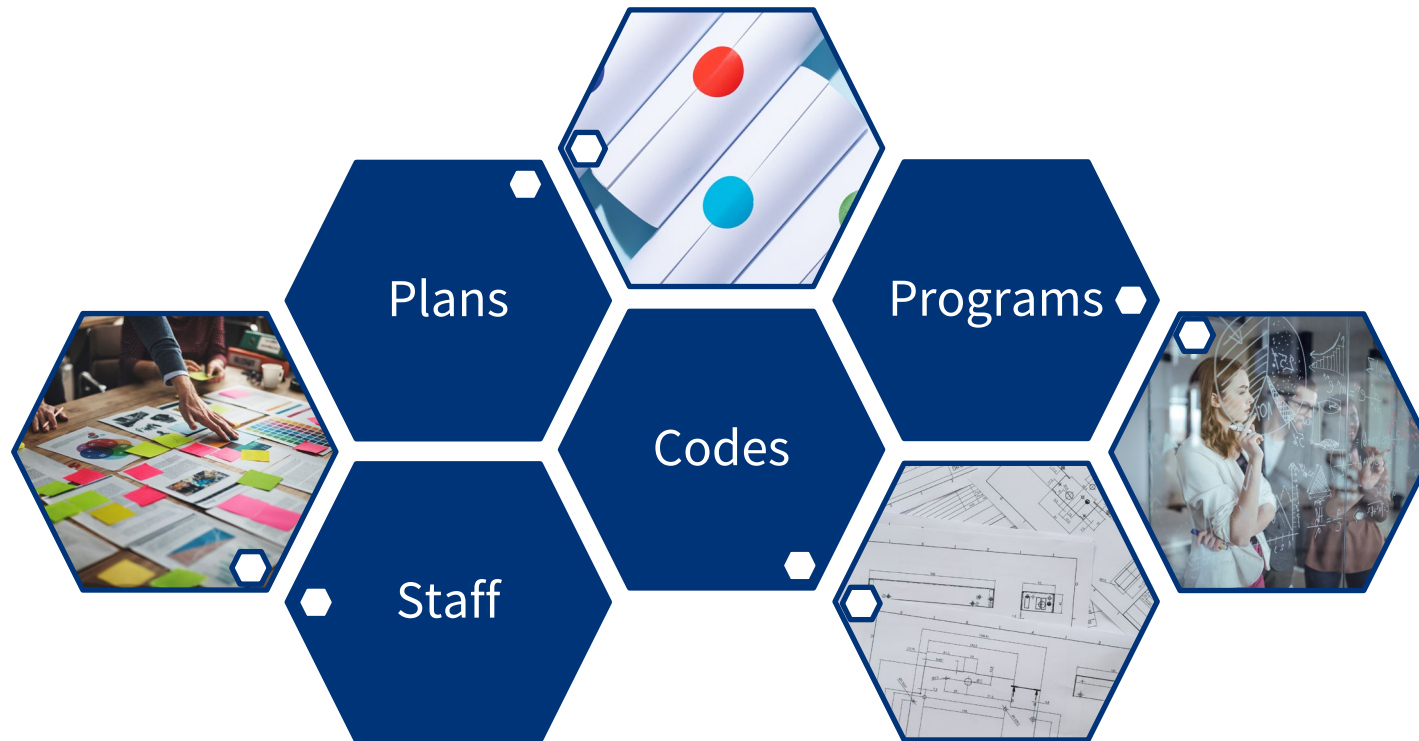
Hazardous Materials

- Tier Facilities
- Chemical

Capability Assessment



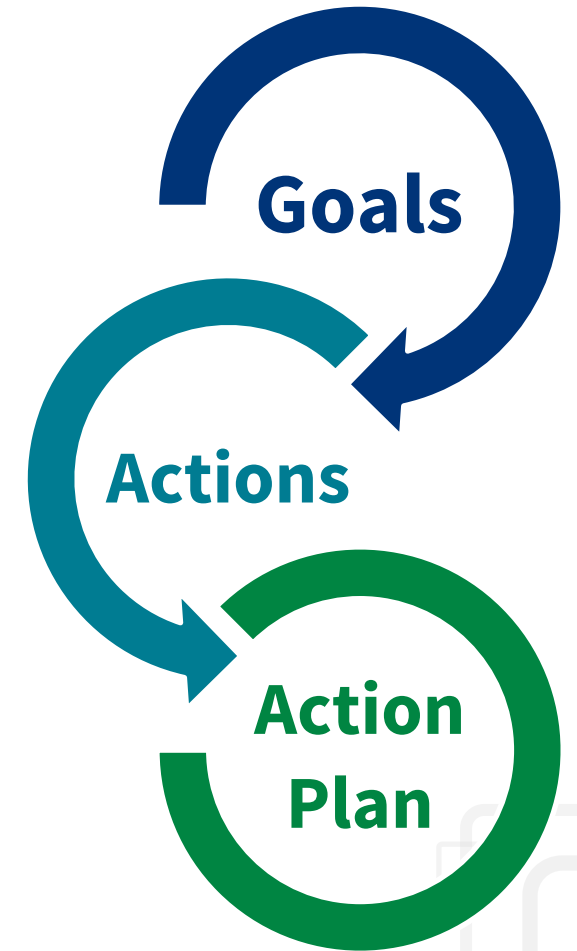
- Capabilities
 - What does your jurisdiction use to reduce risk to hazards?



Mitigation Strategy



- Goals
 - What outcomes do you want to achieve?
- Actions
 - What specific actions will be taken to reduce hazard risk?
- Action Plan
 - How will the actions be prioritized and implemented?

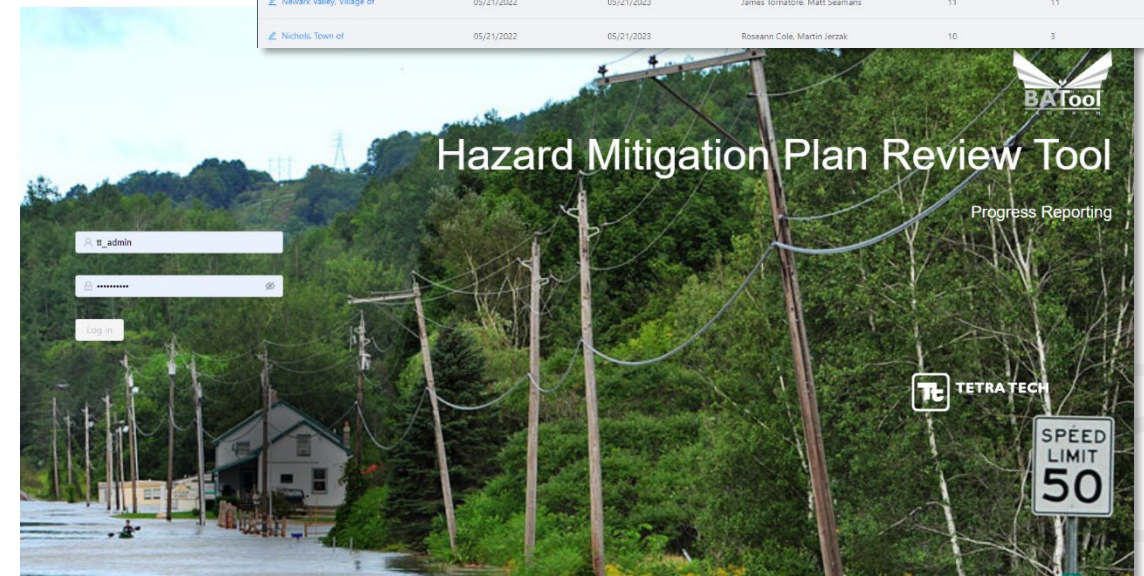
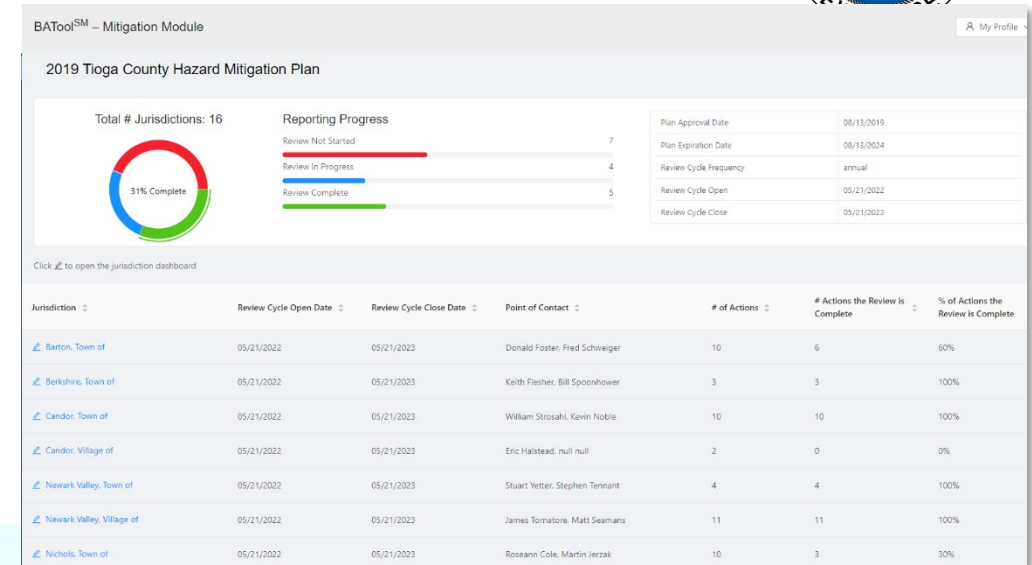


Review Your Previous Mitigation Strategy

BAToolSM Program



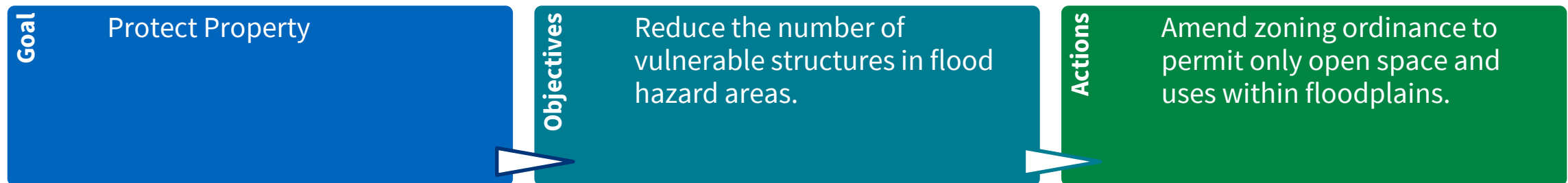
- Update the 2019 mitigation actions through the BAToolSM – less paperwork!
- Refresher training for planning partners
- Populate 2024 mitigation actions



Goals and Objectives – Review and Update



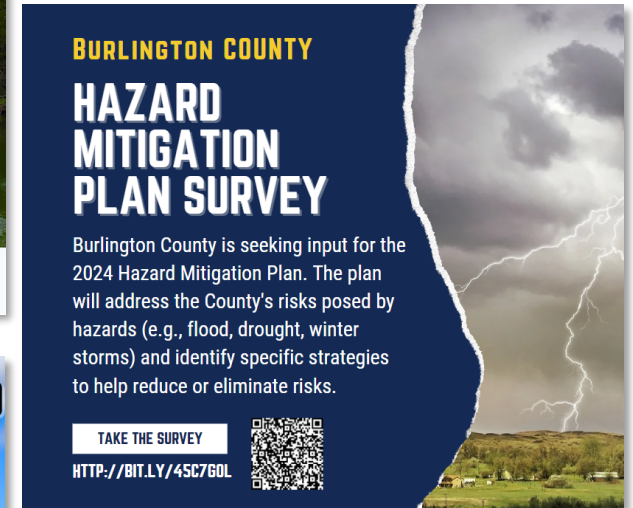
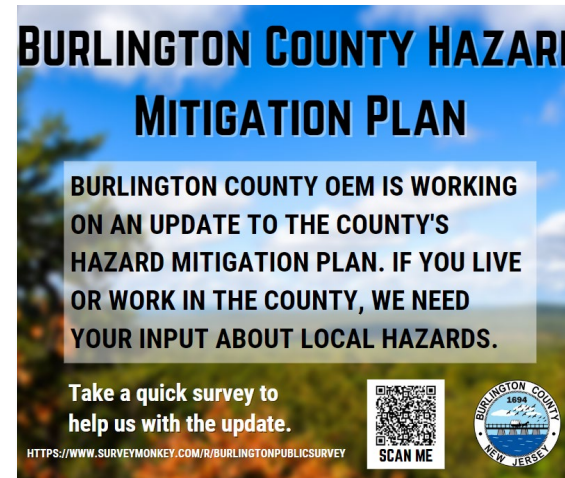
Goal Number	2019 Goal	Modify, Add, or Remove?
G-1	Protect Life	
G-2	Protect Property	
G-3	Promote a Sustainable Economy	
G-4	Protect the Environment	
G-5	Increase Public Awareness	
G-6	Support Continuity of Operations	
Additional Goals?		





Public Outreach Strategy

- Public Outreach Toolkit
 - Social media templates and posts
 - Press release templates
 - Printable materials
- Surveys
 - Stakeholders
 - Neighboring communities
 - Public
- County Website
- StoryMap



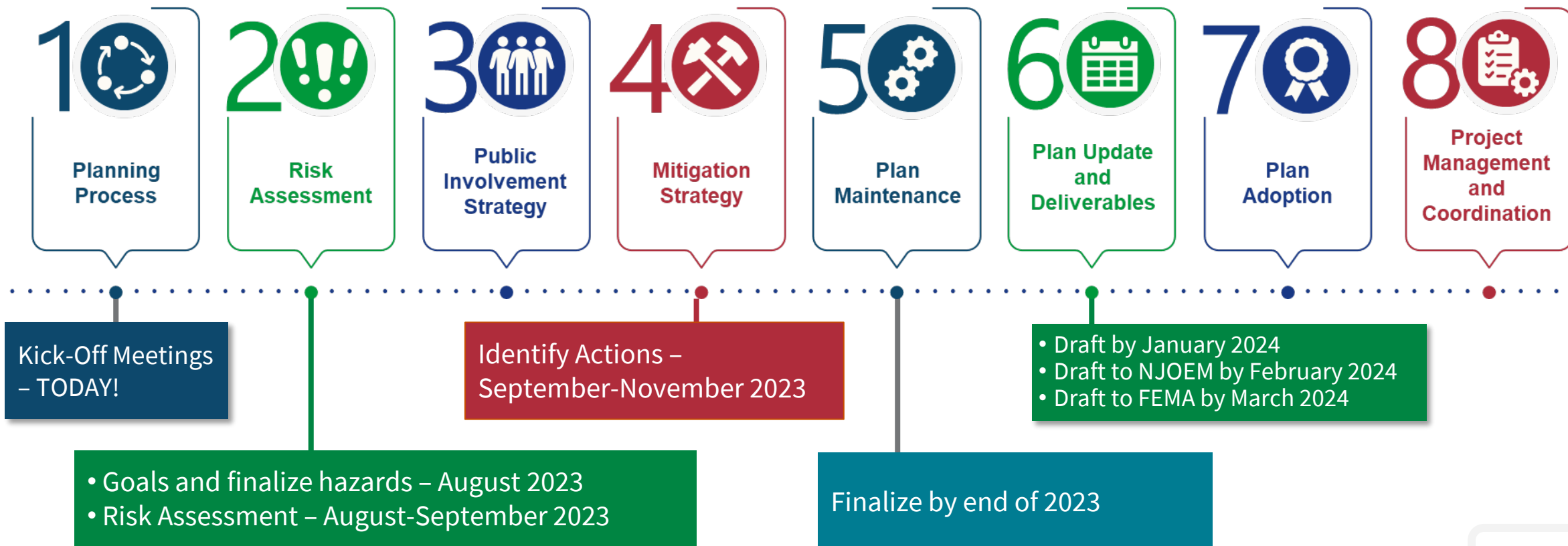


Project Schedule

Upcoming meetings and key milestones throughout the HMP update process



Schedule





Questions?

Burlington County Project Contact

Kristen Carr, Office of Emergency Management
(609) 738-5139 | KrCarr@co.burlington.nj.us

Tetra Tech Project Manager

Chris Huch, CFM
(973) 630-8357 | chris.huch@tetratech.com

Tetra Tech Lead Planner

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetratech.com



Thank
You!



BURLINGTON COUNTY HAZARD MITIGATION PLAN - UPDATE
Planning Partnership Kick-Off Meeting
August 29, 2023 at 10:00 AM

Dial In: +1 617-865-5234, Phone Conference ID: 876 235 641#

Meeting Link: <https://msteams.link/2QOU>

Meeting ID: 251 417 660 892

Passcode: kQotEq



- 1 Introductions
- 2 Hazard Mitigation Overview
- 3 Project Organization
- 4 Planning Process Overview
- 5 Homework
- 6 Project Schedule
- 7 Questions/Next Steps/Discussion

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Planning Partnership Kick-Off Meeting | Meeting Minutes**



Purpose of Meeting:	Burlington County Planning Partnership Kick-Off Meeting
Location of Meeting:	Teleconference
Date of Meeting:	August 29, 2023 @ 10:00 am

<p>Attendees:</p> <ul style="list-style-type: none"> • Burlington County <ul style="list-style-type: none"> ○ Kristen Carr, Burlington County OEM ○ Darryl Williams, Burlington County OEM ○ Madison Hoff, Assistant Planner ○ Todd Wirth, Management Specialist ○ David Levinsky, Burlington County Public Information Office • Bass River (Twp) <ul style="list-style-type: none"> ○ absent • Beverly (C) <ul style="list-style-type: none"> ○ Kevin Richards, OEM ○ Rich Wolbert, Public Safety • Bordentown (C) <ul style="list-style-type: none"> ○ Brian MaGuirie • Bordentown (Twp) <ul style="list-style-type: none"> ○ Nick Buroczi, OEM • Burlington (C) <ul style="list-style-type: none"> ○ Frank Caruso, OEM Coordinator ○ Kenneth Shine ○ Johanna Conyer, Business Administrator ○ Bill Harris, Department of Community Development ○ Allison Iannacone ○ Zoraida Pagan • Burlington (Twp) <ul style="list-style-type: none"> ○ Debbie Painter, OEM • Chesterfield (Twp) <ul style="list-style-type: none"> ○ Rick Bainbridge, OEM ○ Michael Davison, OEM • Cinnaminson (Twp) <ul style="list-style-type: none"> ○ Dean Jerginan, OEM ○ Eric Schubiger • Delanco (Twp) <ul style="list-style-type: none"> ○ Matt Bartlett, OEM ○ Robert Viereck, OEM • Delran (Twp) <ul style="list-style-type: none"> ○ absent • Eastampton (Twp) <ul style="list-style-type: none"> ○ Bob Carr, OEM Coordinator • Edgewater Park (Twp) <ul style="list-style-type: none"> ○ Alyssa Meredith, OEM • Evesham (Twp) <ul style="list-style-type: none"> ○ Carl Bittenbender, OEM • Fieldsboro (B) <ul style="list-style-type: none"> ○ absent • Florence (Twp) <ul style="list-style-type: none"> ○ Phil Drangula, OEM • Hainesport (Twp) <ul style="list-style-type: none"> ○ William Challender, OEM • Lumberton (Twp) <ul style="list-style-type: none"> ○ Colleen Ekey, OEM 	<ul style="list-style-type: none"> • Medford Lakes (B) <ul style="list-style-type: none"> ○ Mark McIntosh • Moorestown (Twp) <ul style="list-style-type: none"> ○ James Carruthers, Emergency Management Coordinator ○ Kevin Abernant • Mt. Holly (Twp) <ul style="list-style-type: none"> ○ absent • Mt. Laurel (Twp) <ul style="list-style-type: none"> ○ Jay Appleton • New Hanover (Twp) <ul style="list-style-type: none"> ○ absent • North Hanover (Twp) <ul style="list-style-type: none"> ○ absent • Palmyra (B) <ul style="list-style-type: none"> ○ Rick Dreby ○ Ron Lindemuth • Pemberton (B) <ul style="list-style-type: none"> ○ absent • Pemberton (Twp) <ul style="list-style-type: none"> ○ Craig Augustoni • Riverside (Twp) <ul style="list-style-type: none"> ○ George Conard, OEM • Riverton (B) <ul style="list-style-type: none"> ○ Chief Andrew Beuschel, Police Department OEM • Shamong (Twp) <ul style="list-style-type: none"> ○ John Lyons, OEM • Southampton (Twp) <ul style="list-style-type: none"> ○ Eamonn Fitzpatrick, OEM • Springfield (Twp) <ul style="list-style-type: none"> ○ absent • Tabernacle (Twp) <ul style="list-style-type: none"> ○ Phyllis Worrell ○ John Harbort, OEM • Washington (Twp) <ul style="list-style-type: none"> ○ absent • Westampton (Twp) <ul style="list-style-type: none"> ○ Lt. Brian Ferguson • Willingboro (Twp) <ul style="list-style-type: none"> ○ James Anderson, OEM • Woodland (Twp) <ul style="list-style-type: none"> ○ absent • Wrightstown (B) <ul style="list-style-type: none"> ○ James Ingling, Borough OEM • NOEM <ul style="list-style-type: none"> ○ Christopher Warwick, NJSP NJOEM ERB-South ○ Cansu Yerdelenli, Mitigation Unit • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch
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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Planning Partnership Kick-Off Meeting | Meeting Minutes**



<ul style="list-style-type: none"> • Mansfield (Twp) <ul style="list-style-type: none"> ○ Douglas Borgstrom ○ George Sanf • Maple Shade (Twp) <ul style="list-style-type: none"> ○ absent • Medford (Twp) <ul style="list-style-type: none"> ○ Robert Dovi 	
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Agenda Summary: The purpose of the meeting was to introduce the Planning Partnership and contract consultant, provide an overview of the hazard mitigation planning process, and to begin the information gathering processes and update the hazards of concern.

Item No.	Description	Action item(s):
1	<p>Introductions</p> <ul style="list-style-type: none"> • Each person on the call was asked to include their name and municipality in the meeting chat. • Chris Huch, Tetra Tech’s project manager welcomed everyone to the meeting. • Daryll Williams, Burlington County OEM thanked everyone for attending. • Cansu Yerdelenli, NJOEM thanked everyone for attending. 	-
2	<p>Hazard Mitigation Overview</p> <ul style="list-style-type: none"> • Mitigation describes actions taken to help reduce or eliminate the long-term risks/damages cause by hazards • Having an HMP permits eligibility for FEMA pre- and post-disaster grant funding <ul style="list-style-type: none"> ○ Must meet FEMA’s new 2023 guidelines, which include an increase in participation, discussions on climate change and socially vulnerable populations, increased documentation needs, and to show how existing capabilities are integrated into the plan. 	-
3	<p>Project Organization</p> <ul style="list-style-type: none"> • Made up of the Core Planning Team, Steering Committee, Planning Partnership, Stakeholders, and NJOEM • Planning Team members must attend meetings, provide requested information, involve the public and stakeholders, develop mitigation projects, and adopt and implement this plan. 	-
4	<p>Planning Process Overview</p> <ul style="list-style-type: none"> • The risk assessment provides a basis for policy and helps to identify what is most important to address to increase resiliency. <ul style="list-style-type: none"> ○ We will be reviewing and updating the Hazards of Concern, updating assets, assessing impacts, and analyzing risks to assets. • Critical Facilities provide essential services to the community, especially before, during, and after a disaster. • Community Lifelines provide services that allow continuity of operations of critical business and government functions, and crucial to health and safety of residents. • Tetra Tech has emailed instructions for review and update of the critical facility database (due back Friday, September 1). • Public outreach will occur continually throughout the planning process through social media posts, surveys, County and municipal websites, and the StoryMap. • Assessing capabilities can lead to the identification of potential mitigation actions, which bolsters the mitigation strategy. 	-

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
 Planning Partnership Kick-Off Meeting | Meeting Minutes**



	<ul style="list-style-type: none"> • Tetra Tech will be sending each municipality homework sheets (due September 25th) to capture information on: <ul style="list-style-type: none"> ○ Previous events ○ Capabilities ○ NFIP administration ○ New development • The BAToolSM will be used to review the 2019 mitigation strategy. • The 2024 HMP will include an annex for each municipality and the County. 	
<p>5</p>	<p>Project Schedule</p> <ul style="list-style-type: none"> • Kick-Off Meeting – Today • Goals and Finalize Hazards – August 2023 • Risk Assessment – August-September 2023 • Identify Actions – September-November 2023 • Finalize the Plan – December 2023 • Draft Plan Completed – January 2024 • Draft Plan Submitted to NJOEM – February 2024 • Draft Plan Submitted to FEMA – March 2024 	<p style="text-align: center;">-</p>
<p>6</p>	<p>Questions/Next Steps/Discussion</p> <ul style="list-style-type: none"> • Johanna Conyer asked for a copy of the presentation. Chris Huch responded that Tetra Tech will send out a copy of the presentation with the emailed worksheets. • Bill Harris asked for a sample of NJDEP’s new flood damage prevention ordinance. Chris Huch responded that NJDEP has the ordinance hosted on their website but updates to municipal ordinances should be made with consultation with NJDEP. 	<p>Tetra Tech</p> <ul style="list-style-type: none"> • Email meeting notes, meeting slides, homework sheets to each municipality <p>Planning Partnership</p> <ul style="list-style-type: none"> • Complete and submit LOIP • Provide edits on critical facilities by Friday, September 1 • Complete and submit homework worksheets by September 25 • Attend BAToolSM refresher training and provide status on previous actions (date TBD)



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update
 Planning Partnership Kick-Off Meeting
 August 29, 2023

While waiting for the meeting to start, please enter your name and department/agency in the chat.

1



Today's Agenda

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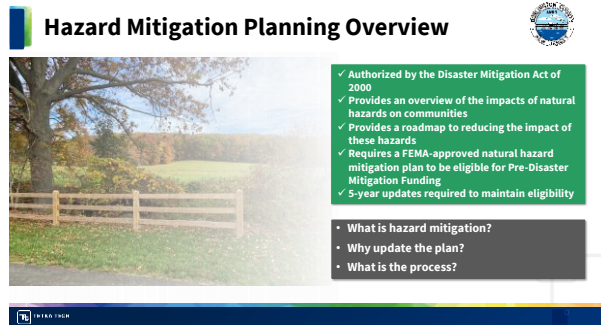
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Hazard Mitigation Overview

Mitigation planning happens before a disaster strikes. It results in safer, more resilient communities – reducing risk for the residents, businesses, and critical services in Burlington County.

3

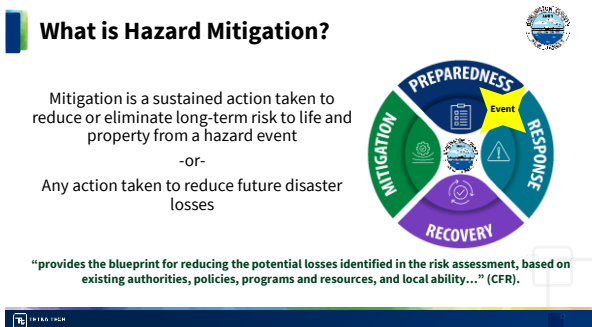


Hazard Mitigation Planning Overview

- ✓ Authorized by the Disaster Mitigation Act of 2000
- ✓ Provides an overview of the impacts of natural hazards on communities
- ✓ Provides a roadmap to reducing the impact of these hazards
- ✓ Requires a FEMA-approved natural hazard mitigation plan to be eligible for Pre-Disaster Mitigation Funding
- ✓ 5-year updates required to maintain eligibility

- What is hazard mitigation?
- Why update the plan?
- What is the process?

4




What is Hazard Mitigation?

Mitigation is a sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event

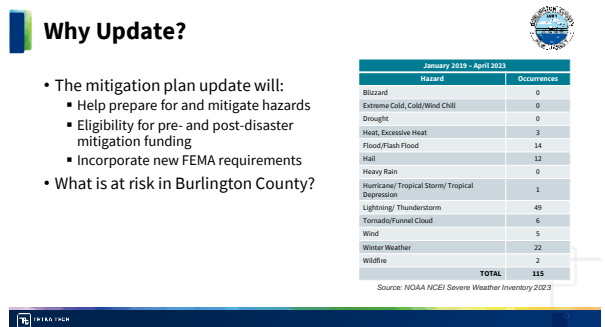
-OR-

Any action taken to reduce future disaster losses

“provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability...” (CFR).



5



Why Update?

- The mitigation plan update will:
 - Help prepare for and mitigate hazards
 - Eligibility for pre- and post-disaster mitigation funding
 - Incorporate new FEMA requirements
- What is at risk in Burlington County?

January 2019 - April 2023	
Hazard	Occurrences
Blizzard	0
Extreme Cold, Cold/Wind Chill	0
Drought	0
Heat, Excessive Heat	3
Flood/Flash Flood	14
Hail	12
Heavy Rain	0
Hurricane/ Tropical Storm/ Tropical Depression	1
Lightning/ Thunderstorm	49
Tornado/Funnel Cloud	6
Wind	5
Winter Weather	22
Wildfire	2
TOTAL	115

Source: NOAA NCEI Severe Weather Inventory 2023

6

Differences from the 2019 Planning Process

- Involvement – engaged and actively participating
- Public and stakeholder outreach
- Socially vulnerable and underserved communities
- Climate change
- Mitigation actions are needed for every hazard of concern



7

Project Organization



Working with individuals, agencies, neighboring jurisdictions, businesses, and other partners for a successful mitigation planning process.

8

Project Organization



9

Planning Partnership Role and Responsibilities

- Actively participate throughout the process –
 - Coordinate and facilitate local efforts
 - Attend meetings
 - Provide information and feedback (e.g., complete municipal worksheets)
 - Involve the public and community stakeholders in the planning process
 - Identify mitigation actions for your community
 - Adopt the plan
 - Implement the plan and monitor its progress
- Return your Letter of Intent to Participate to let the County know you will be participating in the 2024 process



10

Letters of Intent to Participate

Jurisdiction	LOIP Received	Jurisdiction	LOIP Received	Jurisdiction	LOIP Received
Bass River (Twp)		Fieldsboro (B)		Pemberton (B)	X
Beverly (C)		Florence (Twp)		Pemberton (Twp)	
Bordentown (C)		Hainesport (Twp)	X	Riverside (Twp)	
Bordentown (Twp)	X	Lumberton (Twp)	X	Riverton (B)	
Burlington (C)	X	Mansfield (Twp)	X	Shamong (Twp)	X
Burlington (Twp)		Maple Shade (Twp)		Southampton (Twp)	X
Chesterfield (Twp)		Medford (Twp)		Springfield (Twp)	
Cinnaminson (Twp)	X	Medford Lakes (B)		Tabernacle (Twp)	
Delanco (Twp)	X	Moorestown (Twp)		Washington (Twp)	
Delran (Twp)		Mt. Holly (Twp)	X	Westampton (Twp)	
Eastampton (Twp)	X	Mt. Laurel (Twp)		Willingboro (Twp)	
Edgewater Park (Twp)	X	New Hanover (Twp)		Woodland (Twp)	
Evesham (Twp)		North Hanover (Twp)	X	Wrightstown (B)	
		Palmyra (B)			



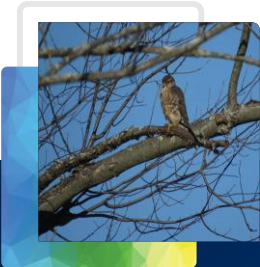
11

How Do You Participate?

- Assist with the update of your jurisdictional annex
- Attend Planning Partnership meetings/workshops – like this one!
- Provide data and information in a timely manner
- Support public and stakeholder outreach in your jurisdiction
- Review and provide feedback on Draft and Final Plan documents
- Facilitate the adoption process – governing body must pass an Adoption Resolution
- Implement and Maintain the Plan



12



Planning Process Overview

A well-defined planning process is essential to the success of Burlington County's HMP Update.


13

Planning Process Overview



14

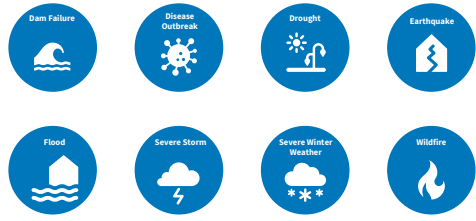
Update Risk Assessment



- Update Assets
- Examine Previous Impacts
- Analyze Risks
- Review with Steering Committee
- Risk Assessment Meeting

15

Hazards of Concern



16

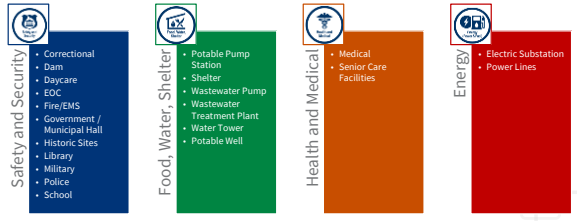
Critical Facilities and Community Lifelines

- **Critical Facilities** provide essential services to the community, especially before, during, and after a disaster.
- **Community Lifelines** provide services that allow continuity of operations of critical business and government functions, and crucial to health and safety of residents.



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Critical Facilities and Community Lifelines



18

Critical Facilities and Community Lifelines

- Communications**
 - Communication Towers
- Transportation**
 - Airport
 - County Roads
 - State Highways
 - Light Rail
 - Intermodal Transit
- Hazardous Materials**
 - Tier Facilities
 - Chemical

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Critical Facilities and Community Lifelines

- OEM contacts and Primary Points of Contact from municipalities that have submitted LOIPs have been asked to review the critical facilities within their municipality.
- Identify necessary edits to existing facilities, remove facilities that no longer exist, and identify new facilities.
- **Review of critical facilities should be completed by close of business on Friday, September 1.**

20

Capability Assessment

- Capabilities
 - What does your jurisdiction use to reduce risk to hazards?

21

Mitigation Strategy

- Goals
 - What outcomes do you want to achieve?
- Actions
 - What specific actions will be taken to reduce hazard risk?
- Action Plan
 - How will the actions be prioritized and implemented?

22

2024 HMP Goals and Objectives

Goal Number	2024 Draft Goal
Goal 1	Protect Life
Goal 2	Protect Property and Environmental Resources
Goal 3	Increase Public Preparedness and Engagement
Goal 4	Develop and Maintain an Understanding of Increased Risk from Climate Change Impacts to Natural Hazards
Goal 5	Enhance Mitigation Capabilities to Reduce Hazard Vulnerabilities
Goal 6	Support Continuity of Operations Pre-, During, and Post-Hazard Events
Goal 7	Reduce the Risk of Natural Hazards Among the Communities with Vulnerable Populations

23

2024 HMP Goals and Objectives

Objective Number	2024 Draft Objective
1	Promote disaster-resistant development.
2	Build and support local capacity to enable the public to prepare for, respond to, and recover from disasters.
3	Reduce the possibility of damages to critical facilities from natural hazards.
4	Reduce the possibility of damage and losses due to natural hazards affecting the county and its municipalities.
5	Educate the public on the risk from natural and man-made hazards and increase their awareness of preparation, mitigation, response, and recovery activities.
6	Increase communications before, during, and after natural hazard events.
7	Retrofit, acquire, or relocate vulnerable property in high hazard areas including those known to be subject to repetitive damages.
8	Utilize the best available information on hazard exposure and vulnerability to support appropriate land use decisions within Burlington County.
9	Increase local government official awareness regarding funding opportunities for mitigation and participating/contributing to future plan updates.
10	Identify, and provide additional resources to, vulnerable and marginalized populations that have reduced capacity to respond to hazards compared with the general population.

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2024 HMP Goals and Objectives

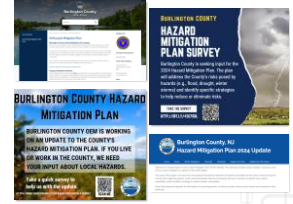


Objective Number	2024 Draft Objective
11	Ensure dam infrastructure is maintained.
12	Support the identification and access to funding to repair/replace dams.
13	Ensure Emergency Action Plans are developed and updated.
14	Acquire and maintain detailed data regarding critical facilities and lifelines such that these sites can be prioritized and risk-assessed for possible mitigation actions.
15	Support increased participation in the National Flood Insurance Program and Community Rating System.
16	Promote sustainable and equitable land development practices that direct future development away from hazard-prone areas.
17	Encourage and support multi-jurisdictional mitigation projects that leverage funding and support from multiple levels of government and community organizations.
18	Strengthen inter-jurisdiction and inter-agency communication, coordination, and partnerships to foster hazard mitigation actions and/or projects.
19	Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit essential facilities, services, and infrastructure.

Public Outreach Strategy



- Public Outreach Toolkit
 - Social media templates and posts
 - Press release templates
 - Printable materials
- Surveys
 - Stakeholders
 - Neighboring communities
 - Public
- County Website
- StoryMap



Plan Adoption & Integration



- Implementing your HMP...
 - Integration –
 - Link to local planning efforts
 - Hazard mitigation principles into your comprehensive or master plan
 - Interagency coordination
 - Projects/Actions –
 - Explore funding options to complete projects
 - Develop grant applications
 - Implement the projects



Homework

Each jurisdiction will need to review and submit information on previous events, capabilities, NFIP administration, recent development, and previous actions.

Homework sheets are due September 25.

Worksheet 1: Previous Events



Event Name	Date	Location	Severity	Impact	Notes

Worksheet 2: Capability Assessment



Capability	Current Status	Assessment	Notes

Worksheet 3: NFIP Administration

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Worksheet 4: New Development

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Review Your Previous Mitigation Strategy

BAToolSM Program

- Update the 2019 mitigation actions through the BAToolSM – less paperwork!
- Refresher training will be held for planning partners
- Populate 2024 mitigation actions

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Project Schedule

Upcoming meetings and key milestones throughout the HMP update process

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Schedule

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Next Steps

- Complete and submit your LOIP
- Provide edits on critical facilities by Friday, September 1
- Complete and submit homework worksheets by September 25
 - Previous Events
 - Capability Assessment
 - NFIP Administration
 - New Development
- Attend BAToolSM refresher training and provide status on previous actions – training date to be announced

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Questions?

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A presentation slide with a background image of a paved path leading through a grassy field under a blue sky. On the left, there is a white text box with contact information. On the right, there is a large white oval containing the text 'Thank You!'.

Burlington County Project Contact
Kristen Carr, Office of Emergency Management
(609) 738-5139 | KcCarr@co.burlington.nj.us

Tetra Tech Project Manager
Chris Huch, CFM
(973) 630-8357 | chris.huch@tetratech.com

Tetra Tech, Lead Planner
Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetratech.com

Thank You!

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Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Burlington County Core Planning Team Meeting | Meeting Minutes



Purpose of Meeting:	Burlington County Core Planning Team Meeting	
Location of Meeting:	Teleconference	
Date of Meeting:	October 11, 2023 @ 11:00 AM	
Attendees:	<ul style="list-style-type: none"> • Burlington County <ul style="list-style-type: none"> ○ Kristen Carr, Deputy OEM Coordinator 	<ul style="list-style-type: none"> • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner

Agenda Summary: Meeting to discuss updates in planning process; schedule upcoming meetings and next steps

Item No.	Description	Action item(s):
1	Status Update	-
2	<p>Participation</p> <ul style="list-style-type: none"> • Are there additional LOIPs that have come in since mid-September? We are still looking for the following: <ul style="list-style-type: none"> ○ Bass River ○ Delran ○ Fieldsboro ○ Maple Shade ○ Riverton ○ Tabernacle ○ Westampton ○ Willingboro ○ Woodland • Municipalities that have not returned their homework: <ul style="list-style-type: none"> ○ Bass River ○ Bordentown Twp ○ Cinnaminson ○ Florence ○ Lumberton ○ Mount Holly ○ Springfield ○ Tabernacle ○ Washington ○ Westampton ○ Willingboro ○ Woodland • What should the approach be to get these non-participants on board? <ul style="list-style-type: none"> ○ Ms. Carr to attempt direct contact this week. 	<p>Tetra Tech</p> <p>Burlington County</p> <ul style="list-style-type: none"> • Ms. Carr to reach out (text/email) to municipalities about LOIP and homework sheets
3	<p>Schedule SC and PP Meetings</p> <ul style="list-style-type: none"> • Original proposal had the draft plan completed in October, public review in November, and draft submittal in December to NJOEM. Fastest potential timeline would now likely be December public review, January submittal to NJOEM. • GIS analysis for risk assessment is nearly complete (will be done next week) • We need to have a SC risk assessment meeting and a PP risk assessment meeting • We could potentially combine the PP risk assessment meeting and the mitigation strategy workshop into a single meeting if you would like. We would set the meetings as 	<p>Tetra Tech</p> <ul style="list-style-type: none"> • Send SC RA Meeting invitation • Send out PP RA and Mitigation Strategy



	<p>in person, two phases in the morning, and take the rest of the day to work with municipalities to complete their annexes and actions.</p> <ul style="list-style-type: none"> • Meetings According to CRS Standards: <ul style="list-style-type: none"> ○ Reminder that all meetings need to be publicly accessible and be advertised by the County. • The following meetings were agreed upon: <ul style="list-style-type: none"> ○ SC Risk Assessment Meeting – Tuesday, October 24 @ 10 am ○ PP Risk Assessment/Mitigation Strategy Workshop – Monday, October 30 @9 am – room booked all day 	<p>Workshop invitation</p> <ul style="list-style-type: none"> • Send press release to County for review <p>Burlington County</p> <ul style="list-style-type: none"> • County to distribute the press release for upcoming meetings
4	<p>Outreach</p> <ul style="list-style-type: none"> • Surveys for public, stakeholders, and neighbors need to be sent out. County has no necessary edits on the surveys. • Based on recent feedback from other plans, we need to have the Steering Committee review the way we are identifying socially vulnerable populations. • Steering Committee will need to help distribute surveys and postings. • Tetra Tech can send over the template social media announcements for your review and county use. <ul style="list-style-type: none"> ○ Tetra Tech would then distribute to the full PP for municipal posting. • We would like to get surveys and social media language out to the PP by the end of this week • 2 virtual public meetings <ul style="list-style-type: none"> ○ 1st meeting should occur soon <ul style="list-style-type: none"> ▪ Public Risk Assessment Meeting – November 9 @ 7pm via Teams ○ 2nd meeting will occur to announce start of public review period • StoryMap development continues 	<p>Tetra Tech</p> <ul style="list-style-type: none"> • Distribute stakeholder and neighbor surveys • Ask SC to help distribute surveys <p>Burlington County</p> <ul style="list-style-type: none"> • County to support postings and distribution of surveys
5	<p>Questions/Discussion</p>	<p>Tetra Tech</p> <ul style="list-style-type: none"> • Send Kristen attendance from previous two meetings
6	<p>Adjourn</p>	



BURLINGTON COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee #2 – AGENDA
MEETING DATE/TIME: October 24, 2023 – 10:00 am – 11:00 am



Virtual Meeting

Dial-In Phone Number: +1 617-865-5234; Conference ID: 234 439 737#

Join by Meeting: <https://msteams.link/R5KR>

- 1. Opening Remarks**
- 2. Project Status - where we are in the process, public outreach, survey discussions**
- 3. Additional Outreach Efforts**
 - **General Public**
 - **Stakeholders**
 - **Neighbors**
 - **Socially Vulnerable Populations**
- 4. Risk Assessment Overview**
 - **Results of risk assessment for each hazard**
 - **Hazards of concern risk ranking**
 - **How will this information be used in the HMP?**
- 5. SWOO**
- 6. Feedback and Input**
- 7. Next Steps**
- 8. Adjournment**

Burlington County Project Contacts

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(609) 738-5139 | krcarr@co.burlington.nj.us

Tetra Tech Project Contacts

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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Steering Committee Risk Assessment Meeting | Meeting Minutes**



Purpose of Meeting:	Steering Committee Risk Assessment Meeting
Location of Meeting:	Teleconference
Date of Meeting:	October 24, 2023 @ 10:00AM

<p>Attendees:</p> <ul style="list-style-type: none"> • Burlington County Division of Emergency Management <ul style="list-style-type: none"> ○ Darryl Williams, OEM Coordinator ○ Kristen Carr, OEM Deputy Coordinator ○ Madison Hoff, Assistant Planner ○ Bob Carr, Fire Marshal ○ Holly Cucuzzella, Health Department ○ Jerome Kilkenny, Transportation Coordinator ○ Michael Patton, Systems Supervisor • Burlington County Department of Health <ul style="list-style-type: none"> ○ Monique Davis, Assistant Health Officer • Burlington County Department of Public Information <ul style="list-style-type: none"> ○ Dave Levinsky, Public Information Officer • Burlington County Department of Public Works <ul style="list-style-type: none"> ○ Joe Birkley, Director • Burlington County Division of GIS <ul style="list-style-type: none"> ○ David Rickert, GIS Specialist 2 ○ Merrilee Torres, GIS Specialist 1, GIS Supervisor • Burlington County Division of Solid Waste <ul style="list-style-type: none"> ○ Jerome Sheehan, Director • Eastampton (Twp) <ul style="list-style-type: none"> ○ Bob Carr, OEM Coordinator ○ Kim White, Municipal Clerk/Township Manager • Mansfield (Twp) <ul style="list-style-type: none"> ○ Douglas Borgstrom, OEM Coordinator/Fire Official ○ Matthew Konowicz, Township Fire Department 	<ul style="list-style-type: none"> • Moorestown (Twp) <ul style="list-style-type: none"> ○ Jim Carruthers, OEM Coordinator • Springfield (Twp) <ul style="list-style-type: none"> ○ Andrew Eaton, Deputy Mayor • American Water <ul style="list-style-type: none"> ○ Gary Gehringer, Environmental Program Lead • Bordentown Regional School District <ul style="list-style-type: none"> ○ Dr. Trudy Atkins, Superintendent • Holy Cross Preparatory Academy <ul style="list-style-type: none"> ○ David Moffa, Principal • FEMA Region 2 <ul style="list-style-type: none"> ○ Meghan Wren, FEMA Region 2 Community Planner, Resilience Branch • NJOEM <ul style="list-style-type: none"> ○ Cansu Yerdeleni, Mitigation Unit • Northern Burlington County Regular School District <ul style="list-style-type: none"> ○ Matthew Konowicz, Director of Instruction for Agriscience, Applied Technology, Business & Technology, Visual & Performing Arts • Rowan College Burlington County Public Safety <ul style="list-style-type: none"> ○ Andrew Eaton, Director of Public Safety • Burlington County Institute of Technology <ul style="list-style-type: none"> ○ Joe Venuto, Principal, Westampton Campus • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner
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Agenda Summary: The purpose of the meeting was to provide an overview of the hazard mitigation planning process, discuss public and stakeholder outreach efforts, review the risk assessment results, including the hazard ranking, and introduce the SWOO exercise to the Steering Committee.

Item No.	Description	Action item(s):
1	Introductions	-
2	<p>Project Status</p> <ul style="list-style-type: none"> • On schedule <ul style="list-style-type: none"> ○ Risk Assessment – October 2023 ○ Identify Actions – September-November 2023 ○ Finalize Plan Maintenance – December 2023 ○ Draft Plan – January 2024 ○ Draft to NJOEM – February 2024 ○ Draft to FEMA – March 2024 • Remaining LOIPs <ul style="list-style-type: none"> ○ Bass River (Twp) ○ Delran (Twp) ○ Fieldsboro (B) ○ Maple Shade (Twp) 	<p>Steering Committee</p> <ul style="list-style-type: none"> • Post links on social media and department/agency websites • Make efforts to reach out to general public, stakeholders, neighbors, and socially vulnerable populations



	<ul style="list-style-type: none"> ○ Westampton (Twp) ○ Willingboro (Twp) ○ Woodland (Twp) ● Public Outreach and Engagement <ul style="list-style-type: none"> ○ Post links on social media and department/agency websites ○ Stakeholder and neighboring municipalities surveys have been distributed ○ Make efforts to reach out to: <ul style="list-style-type: none"> ▪ General Public ▪ Stakeholders ▪ Neighbors ▪ Socially Vulnerable Populations 	
3	<p>Risk Assessment Overview</p> <ul style="list-style-type: none"> ● Risk is defined as a function of : <ul style="list-style-type: none"> ○ Hazard <ul style="list-style-type: none"> ▪ Source of potential danger or adverse condition ○ Exposure <ul style="list-style-type: none"> ▪ Manmade or natural features that are exposed to the hazard ○ Vulnerability <ul style="list-style-type: none"> ▪ Damage susceptibility of the exposed features ○ Adaptive Capacity (or capability) <ul style="list-style-type: none"> ▪ Plans/policies ▪ Response/recovery ▪ Financial resources 	-
4	<p>Preliminary Risk Assessment Results</p> <ul style="list-style-type: none"> ● Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data. 	-
5	<p>Hazard Rankings</p> <ul style="list-style-type: none"> ● The calculated probability of a hazard occurring based on historical data ● <i>Impacts to <u>people</u>, <u>property</u>, and the <u>economy</u></i> based on GIS data and analysis of exposure. ● The degree to which <i><u>climate change</u></i> will affect future occurrences based on best available data. ● The degree to which existing <i><u>capabilities</u></i> (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. ● Ranking: <ul style="list-style-type: none"> ○ High: Severe Weather ○ Medium: Extreme Temperature, Dam Failure, Severe Winter Weather, Disease Outbreak, Drought ○ Low: Flood, Wildfire, Earthquake <p><i>Discussion:</i></p> <ul style="list-style-type: none"> ● Jim Carruthers – Hi Jim Carruthers with more sound OEM and I had a question quick about flood the flood risk, the data that you guys use for that. I know you'd said limited mapping and some of it's outdated. How reliable is that data that you guys looked at to rank flooding at that stage and how can this committee or I guess at this program help? <ul style="list-style-type: none"> ○ Chris Huch – We did use the effective floodplain maps from FEMA. In most instances, those maps aren't too, too old. But again, in the 	-



middle part of the state, the middle part of the county's a lot of the mapping is old. So even if you were to do a very in-depth mapping process there to update everything, you probably wouldn't result in much more information that would impact development that's taking place, because most of those lands are protected in the Pinelands. That being said, with NJDEP updating their inland flood rule, we are anticipating that the state at some point here in the next few years is probably going to go through their own mapping exercise to present a new version of the special Flood Hazard area that reflects where you are required to build these higher standards. In terms of the overall mapping and what we can do right now, if we think that we do have outdated flood maps in our in certain areas of the county, we can always reach out to FEMA. So, a lot of what's going on there is based on limited resources and amount of time, but that's kind of the mapping section here.

- Matthew Konowicz: I see this as on natural disaster. Is there a place to consider "human behavior" as a risk? I am seeing more and more conflict/violence/crime. Is there also place in this risk assessment to consider human behavior and the negative changes in human behavior such as increased crime or violence?
 - Chris Huch: Hazard mitigation planning is primarily focused on natural hazards. In the past few years, we've seen a lot of plans include some more manmade hazards, including things like cyber terrorism, active shooters. We did have discussions about including some of that stuff. The focus was to stick with natural hazards for this plan and use some of the other planning efforts that are out there like emergency operations, plans to kind of deal with those types of hazards in a way that they can more accurately be dealt with. The main reason why is because hazard mitigation planning is about kind of putting projects in place that help reduce overall risk. Those manmade hazards or human behavior hazards are more about typically response.
 - Matthew Konowicz: I'm glad you said it that way because they could also be thought of as if we consider the risks. Maybe we can put attention into mitigating the negative human behaviors. So, while it doesn't fit in this mold, maybe in the very near future it can be considered something that we can get ahead of.
 - Chris Huch: And, you know, emergency operation plans in the state of New Jersey must be updated on a 2-year basis now. It's frequent, so there's always new emerging threats that are coming into that sector. We can always include some notes in the plan to talk about some of the changes that we've seen on.
 - Matthew Konowicz: in my industry of education, I see mental health has changed the way students and adults handle situations, and I think that leads to other risks or risky behavior that affects the communities. but to try to bring it back a little tighter to what you're working on my secondary comment there, which you also referenced his response. So, while these threats are real, I think in an equal threat is the lack of responders we have across the counting across the state. So, I don't know if there's a place to really highlight that in this committee.



	<ul style="list-style-type: none"> ○ Chris Huch: Yeah, that's something that we include. So, when we're talking about capabilities, I'm having adequate staffing is one of the main things that that holds a lot of municipalities back and they'll say, yeah, you know, I could go out and take care of these events pretty easily if I had enough people, I could get my roads cleared from a winter snowstorm. So, keeping that in mind, if there are instances where we feel like, hey, we're understaffed or we don't have the necessary resources to really address some of these events, that is an opportunity to put some work into build up that capability and include that as an action. ○ Matthew Konowicz: That's why I want to make sure that you know, when I'm sure this drives funding decision making and if we don't have enough police just to cover regular shifts where we don't have enough firefighters, EMT's just to do the regular day-to-day emergency response. ● Merilee Torres: Due to the 2004 storm event, FEMA re-mapped Burlington County. I believe the Floodplain/FIRM preliminary data was released in 2016 and made effective December 2017. <ul style="list-style-type: none"> ○ Chris Huch: I see that you are, uh, noting the FEMA remapping effort based on the 2004 event, and that the preliminary data was released in 2016, made effective in 2017. Was that for the entire county or just for specific portions? ○ Merilee Torres: As far as I know, it was the entire county. ○ Chris Huch: OK, great. I'll go back and check to make sure that we've got that fully reflected. ● Chris Huch: Speaking of flood, did anybody have any thoughts about that hazard ranking being low for flood? Do we want to consider moving that up to at least a medium hazard ranking based on past events based on the fact that flooding doesn't necessarily only take place in the floodplain, it can take place on streets, roadways, things like that. <ul style="list-style-type: none"> ○ Darryl Williams: I tend to hear more conversations circling around the flooding, especially in certain areas. In the Mount Holly area, we get information and phone calls from homeowners that are concerned about it more than I tend to hear really about the drought, so you know you know to me flooding tends to be a constant conversation that that we're talking about especially with the dams and then overflow and then how other communities you are affected by that. So again, I haven't heard in my role much conversation circling around drought, but flooding has been an issue. ○ Chris Huch: Yeah, I think the drought focus here largely comes from the agricultural side of drought. You know not that impactful to folks that aren't farmers, but obviously we've got a lot of agriculture taking place in Burlington County. So, I think that's where we ended up having that one sit higher because of economic input. ○ Matthew Konowicz: I am not sure if someone on this call can speak to it, but I hear farmers are hurt more by flooding than drought. ● Meghan: Flood is certainly a high concern in some Burlington communities. it's tough when it must be averaged out. In Delaware River/Route 130 corridor plan endorsement process several communities flagged flooding as their primary concern. 	
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- Jim: What factors are brought in to determine, you know, the risk or the hazard level for a dam? Because I know there's three different types of dams, but I'm not familiar necessarily with the how those statuses are achieved.
 - Chris Huch: So there's three different rankings. The state has a high is the highest level, then there's significant, followed by low, and then there's also a few that are just undetermined, which are usually very, very old. High ranked dams are ones that, if they were to fail, they pose a risk to both life and property. So those are the ones that we're most concerned with when we went through our hazard ranking process here and it's with the local municipalities, it shows up those municipalities that have high ranked dams end up having dam ranked much, much higher than those that do not have high ranked dams. And those municipalities that don't have any dams at all, we're going to be noting that if we're going to work with those municipalities to know, do you have any concerns with dams failing and neighboring municipalities that maybe we are not able to fully understand through the mapping right now? If not, if you've got no exposure, we're going to be able to kind of cross dam failure off the list as a hazard of concern for those municipalities. But the focus here is on those high hazard dams for a couple of reasons. Obviously, the threat to life, but there is a program out there specifically available for funding, for retrofitting of those high hazard dams to the FEMA high hazard potential dam grant program. Given the importance of that program, the funding that's available, and the connection to hazard mitigation action development, we've pulled it out as a standalone hazard. We do factor in climate change, and the one thing to keep in mind here is that most of our dams are based on a hydrograph that is kind of looking back in the past, looking at what are the typical conditions that existed previously that we should be designing for. However, we know that due to climate change, we're likely to see more intense rainfall events and a higher overall level of precipitation is probably going to be heading our way too, which means there's going to be a lot more water flowing and that may result in a higher risk of dam failure as dams get overtopped.
- Monique Davis: My concern is the disease outbreak category and looking at that if we're looking at like the ranking within on the property and the people and the economy, were you kind of focusing in on the number of deaths? Not that 800 plus deaths was minimal, but I think we also need to consider that all of the people who were sick and the research showing this phenomenon known as long COVID. I'm just trying to kind of wrap my head around how within the medium category, how did you arrive at disease outbreak to be the 4th one out of the 5?
 - Chris Huch: We spent time focusing on those sectors of the population that we know are most likely to have severe impacts, such as the elderly. One of the things that really knocked the overall hazard ranking down because we did factor in economy and economic impacts, was probability of occurrence. Again, the fact that we had that event right now, it's fresh in our minds and we're still dealing with some of the stuff from coronavirus. But the fact that it only can probably anticipate an event of that magnitude once every 100 years based upon looking back and you know that's not to say that we

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Steering Committee Risk Assessment Meeting | Meeting Minutes**



	<p>won't see a higher frequency in the future. But just looking at previous occurrences, that's what brought the probability down from a high ranked hazard to a medium ranked hazard.</p> <p>Consensus from the Steering Committee to increase the flood ranking to Medium.</p>	
6	<p>Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)</p> <ul style="list-style-type: none"> • Strengths – what the County and communities do well; things upon which we can capitalize. • Weaknesses – what can be done better; what can be strengthened. • Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues). • Opportunities - actions or projects to mitigate issues or improve resilience. 	<p>Steering Committee</p> <ul style="list-style-type: none"> • Complete SWOO worksheets and return to Chris Huch by 10/27/23
7	<p>Next Steps</p> <ul style="list-style-type: none"> • Share information about the HMP Update via social media, community groups, and networks • Attend the Risk Assessment and Mitigation Strategy Workshop on Monday, October 30 @ 9:00 a.m. at the <ul style="list-style-type: none"> ○ Burlington County Emergency Services Training Center (ESTC) 53 Academy Road, Westampton, New Jersey 08060 • Attend the Public Risk Assessment Meeting on Thursday, November 9 @ 7:00 p.m. via Teams: https://msteams.link/4HOW 	-
8	Questions/Discussion	-



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

Steering Committee Risk Assessment Meeting

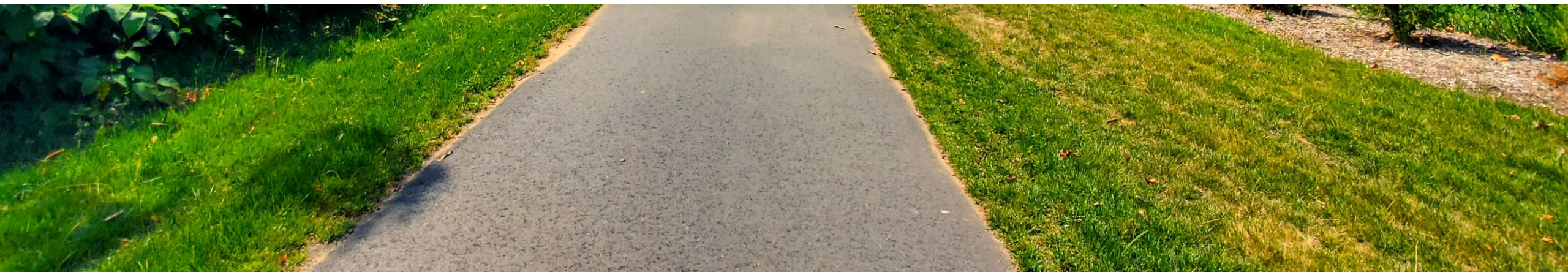
October 24, 2023

While waiting for the meeting to start, please enter your name and department/agency in the chat.



Today's Agenda

1. Welcome and Introductions
2. Project Status
3. Risk Assessment Overview
4. Feedback and Input
5. Next Steps
6. Questions/Wrap Up

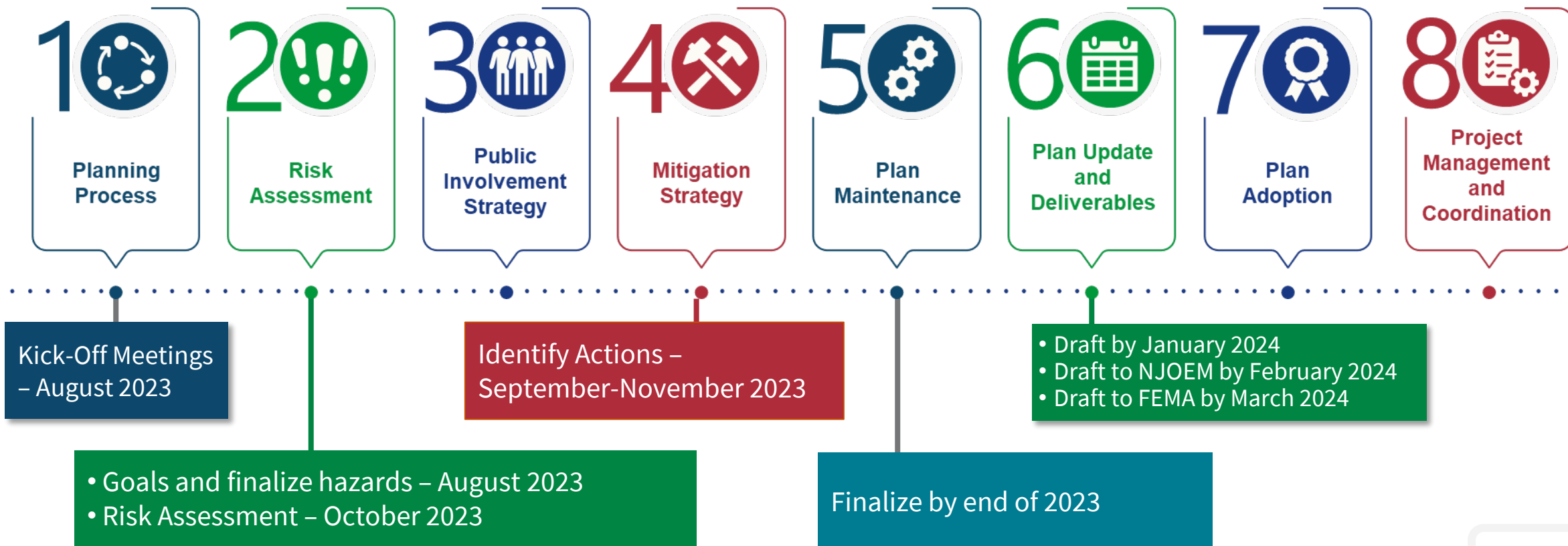




Project Status



Schedule





Municipal Participation Status

- To date, we have received Letters of Intent to Participate (LOIP) from all but seven municipalities.

Status (10/20/2023)		Status (10/20/2023)		Status (10/20/2023)		Status (10/20/2023)	
Municipality	LOIP Received?	Municipality	LOIP Received?	Municipality	LOIP Received?	Municipality	LOIP Received?
Bass River (Twp)		Eastampton (Twp)	X	Medford Lakes (B)	X	Riverton (B)	X
Beverly (C)	X	Edgewater Park (Twp)	X	Moorestown (Twp)	X	Shamong (Twp)	X
Bordentown (C)	X	Evesham (Twp)	X	Mt. Holly (Twp)	X	Southampton (Twp)	X
Bordentown (Twp)	X	Fieldsboro (B)		Mt. Laurel (Twp)	X	Springfield (Twp)	X
Burlington (C)	X	Florence (Twp)	X	New Hanover (Twp)	X	Tabernacle (Twp)	X
Burlington (Twp)	X	Hainesport (Twp)	X	North Hanover (Twp)	X	Washington (Twp)	X
Chesterfield (Twp)	X	Lumberton (Twp)	X	Palmyra (B)	X	Westampton (Twp)	
Cinnaminson (Twp)	X	Mansfield (Twp)	X	Pemberton (B)	X	Willingboro (Twp)	
Delanco (Twp)	X	Maple Shade (Twp)		Pemberton (Twp)	X	Woodland (Twp)	
Delran (Twp)		Medford (Twp)	X	Riverside (Twp)	X	Wrightstown (B)	X



Public Outreach and Engagement

ACTION! Distribute the Public Survey!

- Post links on social media and department/agency websites
- Stakeholder and neighboring municipalities surveys have been distributed
- Make efforts to reach out to:
 - General Public
 - Stakeholders
 - Neighbors
 - Socially Vulnerable Populations

Burlington County Hazard Mitigation Plan Update - Public Survey

Natural Hazard Information

In this section, we are looking for your input on the types of natural hazards that impact Burlington County and its residents. Please answer the following questions to help us understand the concerns throughout the counties.

OK

1. In the last five years, have you experienced any of the following natural hazards?
 Dam Failure
 Disease/Flu

BURLINGTON COUNTY HAZARD MITIGATION PLAN SURVEY

Burlington County is seeking input for the 2024 Hazard Mitigation Plan. The plan will address the County's risks posed by hazards (e.g., flood, drought, winter storms) and identify specific strategies to help reduce or eliminate risks.

TAKE THE SURVEY
[HTTP://BIT.LY/45C7GOL](http://bit.ly/45c7gol)

Risk Assessment Overview





What is Risk?

Risk is defined as a function of :

- Hazard
 - Source of potential danger or adverse condition
- Exposure
 - Manmade or natural features that are exposed to the hazard
- Vulnerability
 - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
 - Plans/policies
 - Response/recovery
 - Financial resources





Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Dam Failure

Dam failures in Burlington County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

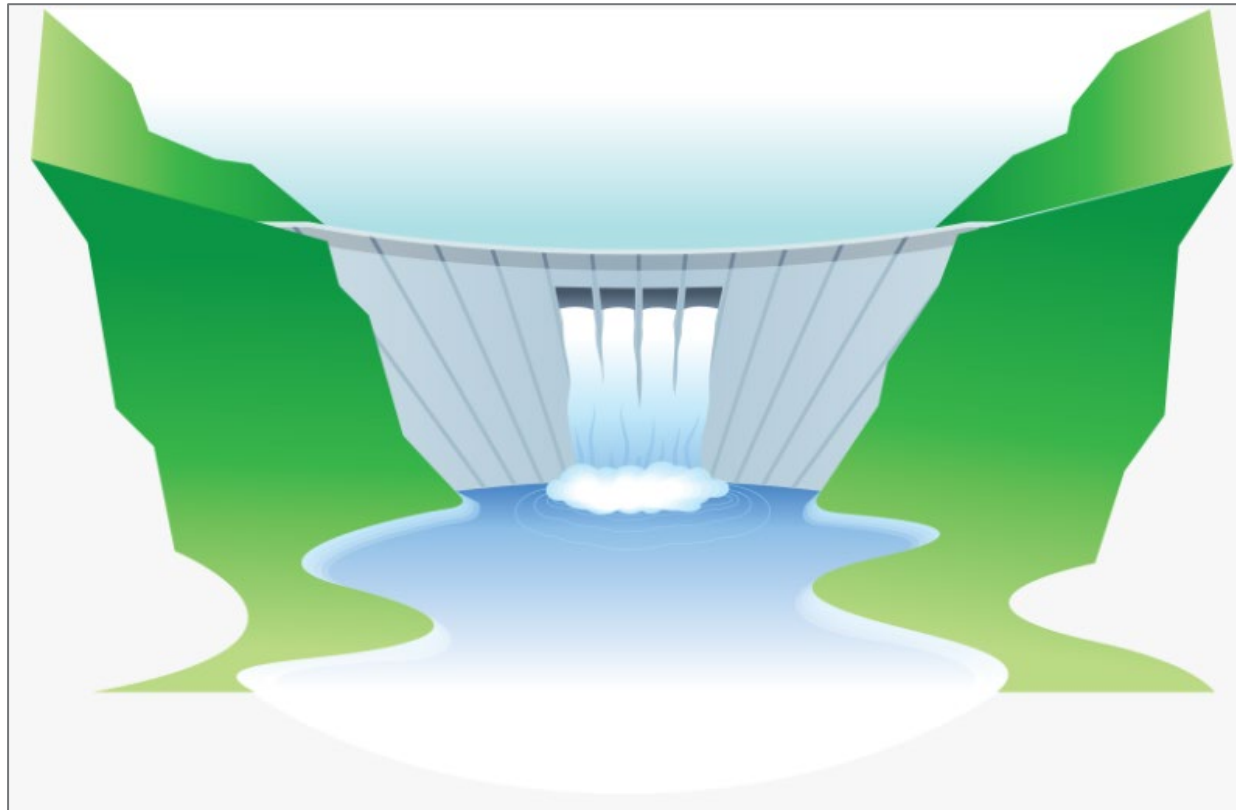
74

- 10 High Hazard
- 40 Significant Hazard
- 24 Low Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding that follows a dam failure can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dam Graphic



Notable Occurrence



On July 12-13, 2004, the Townships of Lumberton and Medford experienced major flooding due to heavy rainfall. Property damage from the flood was estimated at \$50 million. The flooding led to the evacuation of about 760 residents, the complete destruction of seven homes, major flood damage to approximately 200 homes, flood damage to approximately 1,000 homes, the closing of 25 major roads.

Disease Outbreak

Disease outbreaks can impact the entirety of Burlington County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population Exposed

461,860

(100%)

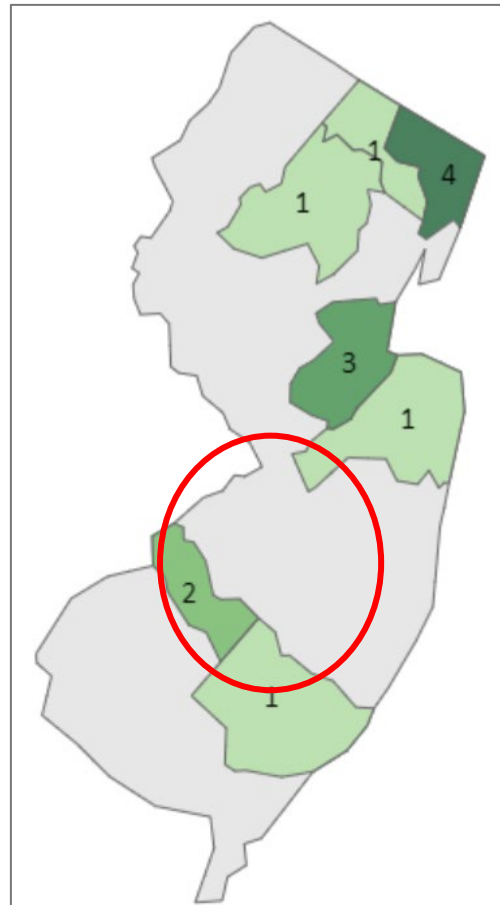
The entire County is susceptible

Notable Occurrences

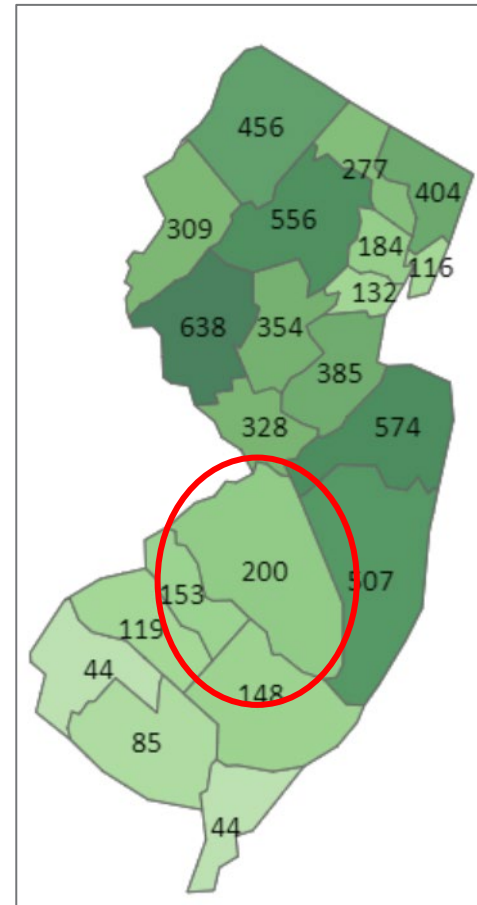


- In 2019, there were 236 confirmed cases of Lyme Disease.
- In 2020, there were 847 confirmed cases of Influenza.
- Since 2020, Burlington County reported 117,710 positive cases of COVID-19 and 681 deaths.

West Nile Virus Cases by County, 2023



Lyme Disease Cases by County, 2023



Hazard Types

- Influenza
- West Nile Virus
- Lyme Disease
- Coronavirus

Drought

Droughts can affect Burlington County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population Exposed

461,860

(100%)

The entire County is susceptible

USDA Declarations

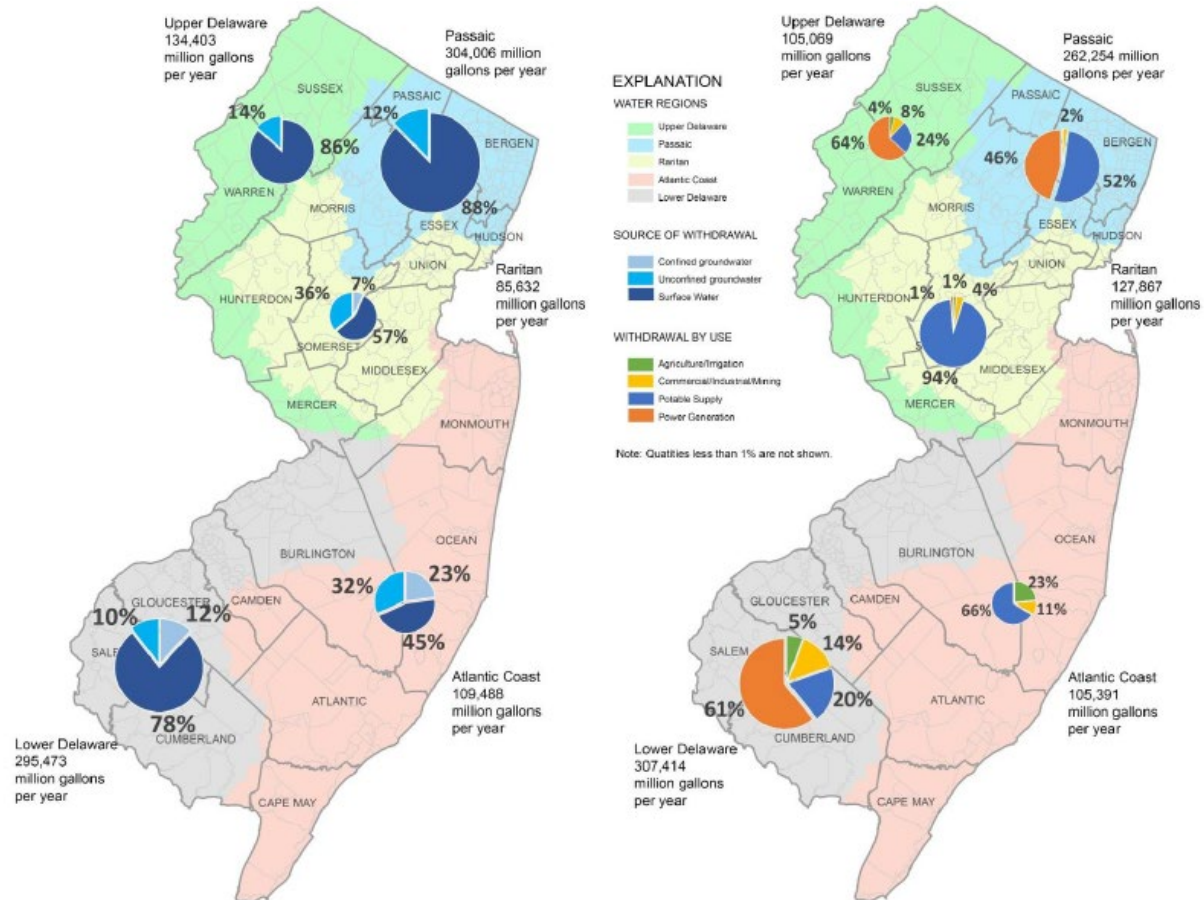
3

- 3 Drought declarations

Climate Change Impacts

It is anticipated that droughts lasting 3 to 6 months and longer may slightly increase in frequency under a low emissions scenario and will significantly increase under a high emissions scenario.

Water Regions, Sources and Withdrawal by Sector in New Jersey



Hazard Types



Meteorological



Hydrological



Agricultural



Socioeconomic

Earthquake



Earthquakes in Burlington County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Population Exposed

461,860
(100%)

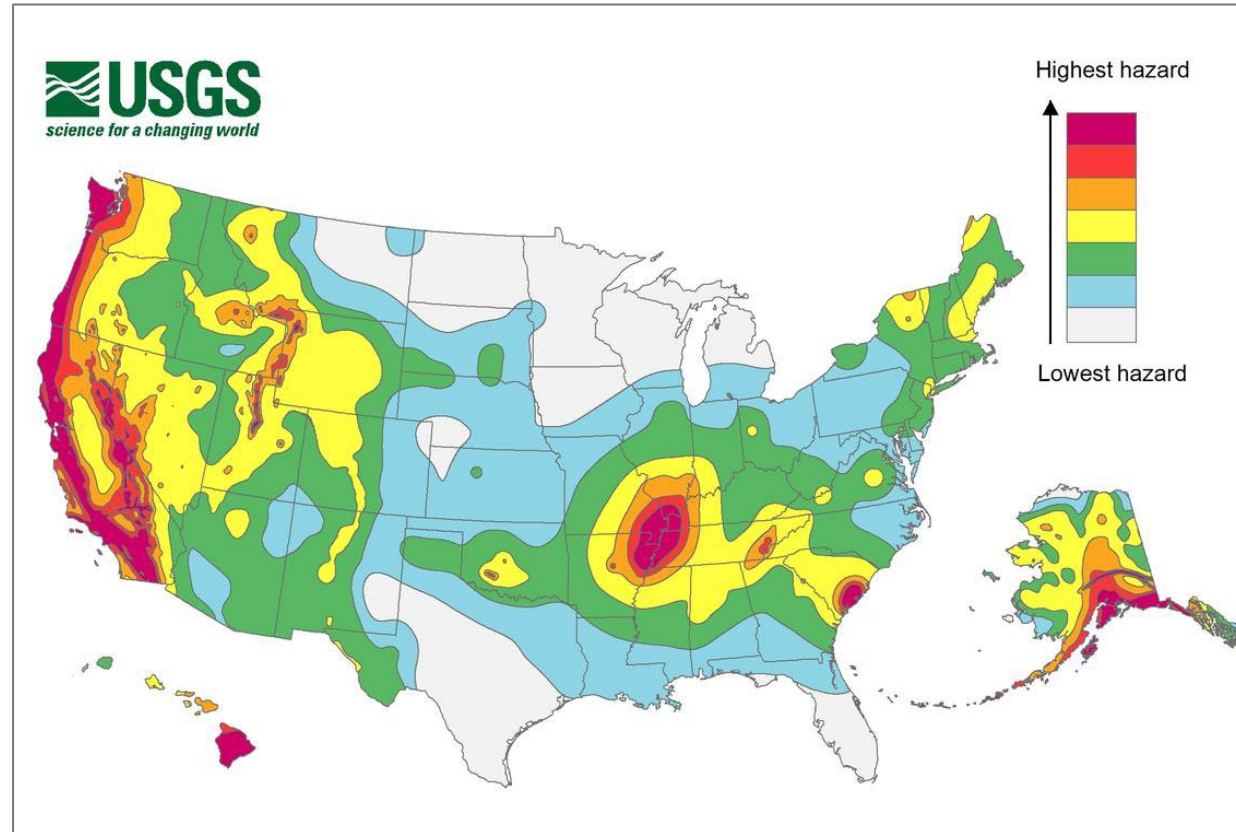
The entire County is susceptible

Notable Occurrences



Small earthquakes may occur several times a year and generally do not cause significant damage. The strongest earthquake with an epicenter in Burlington County was a 3.0 quake in Medford Lakes in 1980.

Location



Hazard Types

- Surface Faulting
- Ground Motion
- Liquefaction
- Tectonic Deformation
- Seiche

Extreme Temperatures

Extreme temperature includes both heat and cold events, which affects the entire County including, human health and commercial/agricultural businesses. Extreme temperature events can have primary and secondary effects on infrastructure.

Population Exposed

461,860

(100%)

The entire County is susceptible

USDA Declarations

2

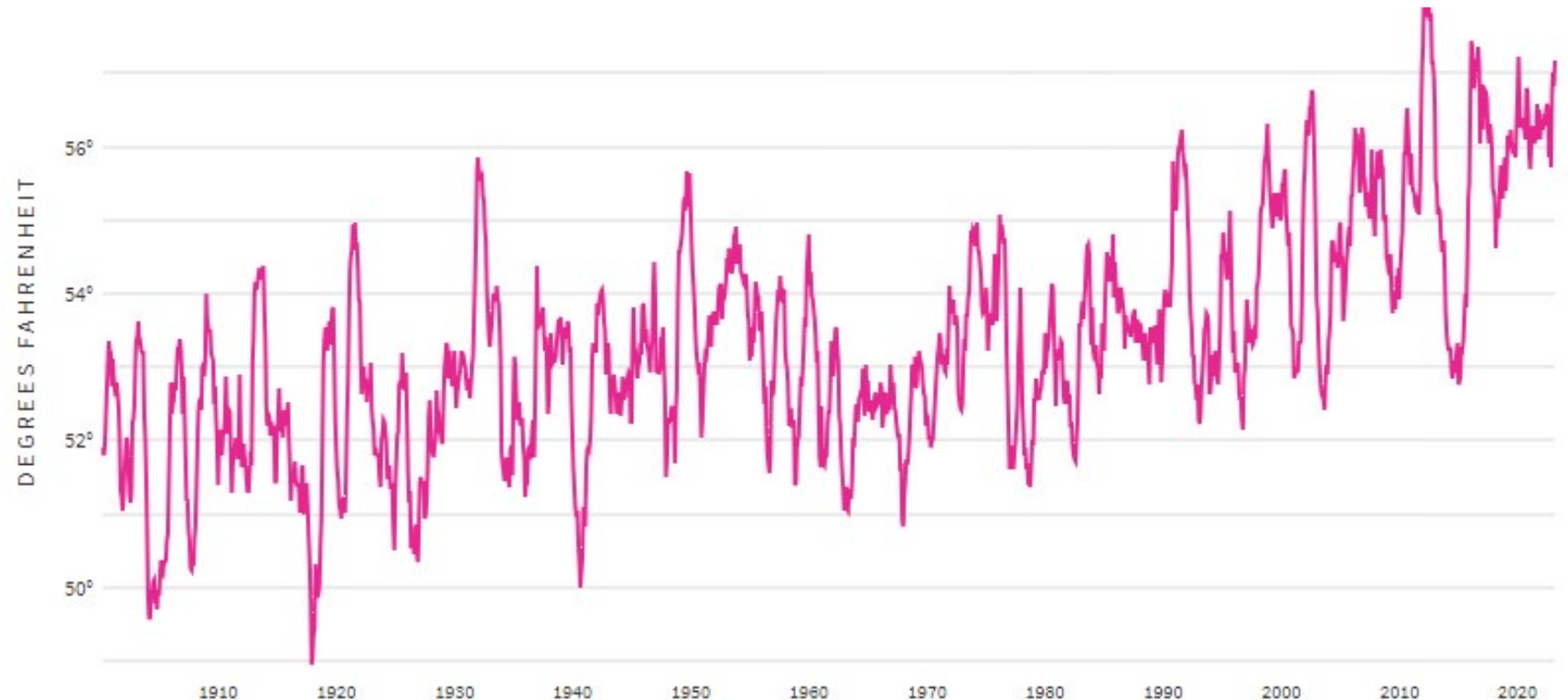
- 2 Excessive Heat declarations

Climate Change Impacts

New Jersey has experienced a 3.5° F (1.9° C) increase in the State's average temperature. By 2050, temperatures in New Jersey are expected to increase by 4.1 to 5.7° F.



12-Month Temperature Averages in Burlington County



Flood

Floods are one of the most frequent and costly natural hazards in Burlington County in terms of human hardship and economic loss, particularly to communities that lie within flood prone areas or floodplains.

Population Exposed

14,583
(3.2%)

In 1% Annual Chance Flood Area

25,026
(5.4%)

In 0.2% Annual Chance Flood Area

Number of Buildings Exposed

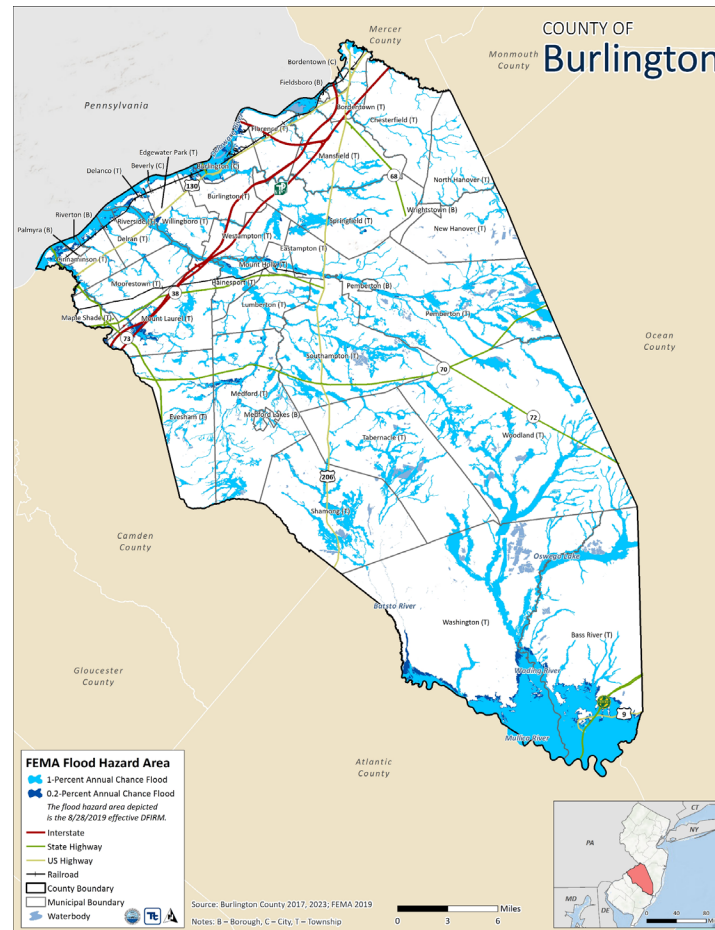
5,163

In 1% Annual Chance Flood Area

8,739

In 0.2% Annual Chance Flood Area

Location



Flood Building Replacement Cost Value

\$9,333,016,825

In 1% Annual Chance Flood Area

\$14,060,945,896

In 0.2% Annual Chance Flood Area



Land Exposed to Flood Hazard

72,903

(14.6%)

Sea Level Rise Impacts

1-Foot Hazard Area

- 225 Persons Located in Hazard Area
- 90 Buildings Located in Hazard Area

3-Foot Hazard Area

- 677 Persons Located in Hazard Area
- 272 Buildings Located in Hazard Area

Hazard Types



Riverine / Inland



Flash Flood



Urban / Stormwater



Coastal



Ice Jam



Erosion



Sea Level Rise

Severe Weather

Severe weather can occur anywhere in the County at any time and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

461,860

(100%)

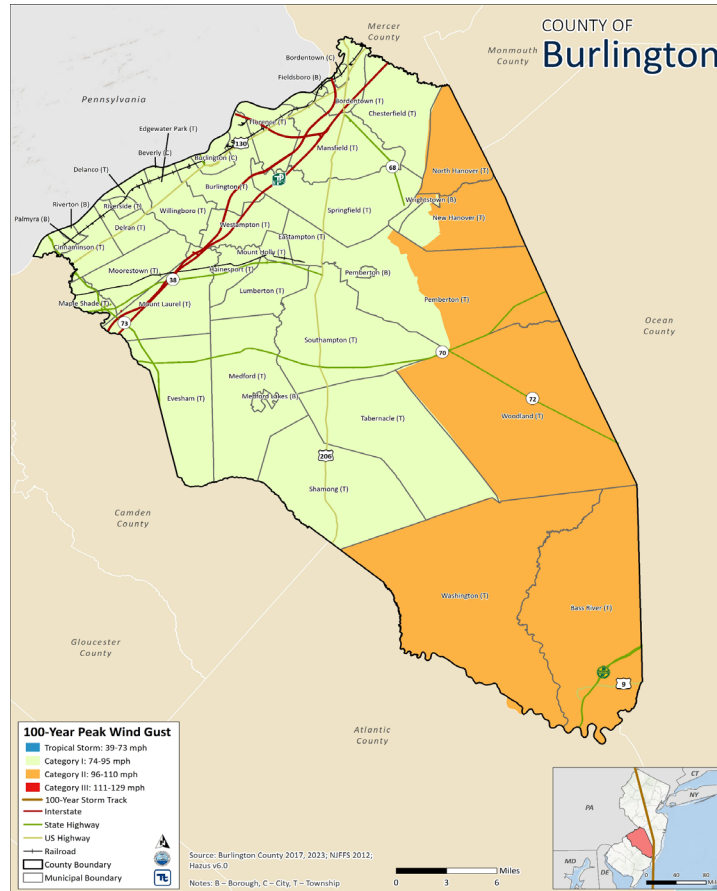
The entire County is susceptible

Notable Occurrences



The remnants of Hurricane Ida resulted in widespread thunderstorms. An EF-1 tornado formed in Burlington Township, near Edgewater Park. Extensive tree damage was reported. Power outages occurred due to damages to powerlines.

Location



Potential Impacts

- Essential Services Interruptions Power Outages
- Traffic Accidents
- Downed Trees
- Property Damage
- Personal Injury / Loss of Life

Hazard Types



Climate Change Impacts

New Jersey has experienced a 3.5° F (1.9° C) increase in the State's average temperature. By 2050, temperatures in New Jersey are expected to increase by 4.1 to 5.7° F. Increases will be more conducive to increased frequency and intensity of severe storms (e.g., thunderstorms, tornadoes).



Severe Winter Weather

Severe winter weather can occur anywhere in the County and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

461,860

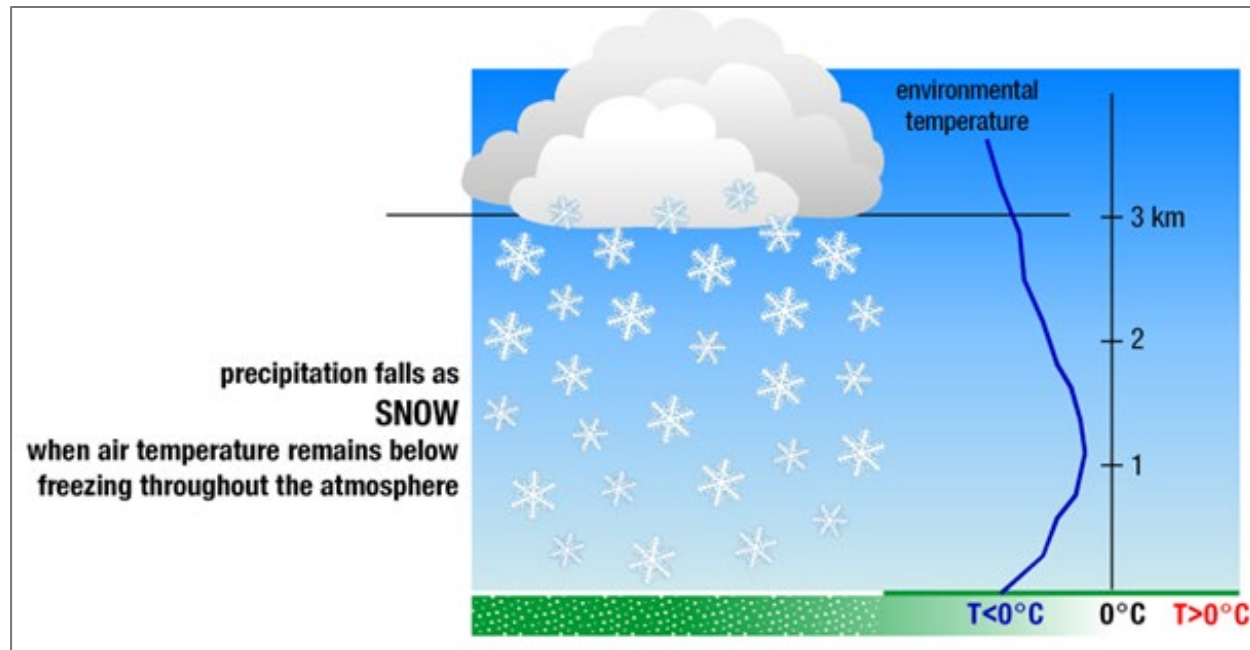
(100%)

The entire County is susceptible

Hazard Types

- Heavy Snow
- Blizzard
- Sleet
- Ice Storm
- Nor'easter

Formation of Snow



Notable Occurrences



The Blizzard of 1996 dropped roughly 30 inches of snow in parts of Burlington County on January 7, 1996. Property damage was in the millions and the storm resulted in one death.

Wildfire events in Burlington County typically occur toward the forested southeastern portions of the County in the Pinelands. Wildfires can have impacts on critical services, utilities, and properties, and may cause injury.

Population Exposed

6,406
(1.4%)

Of the County is susceptible

Building Replacement Cost Value

\$4,963,331,009

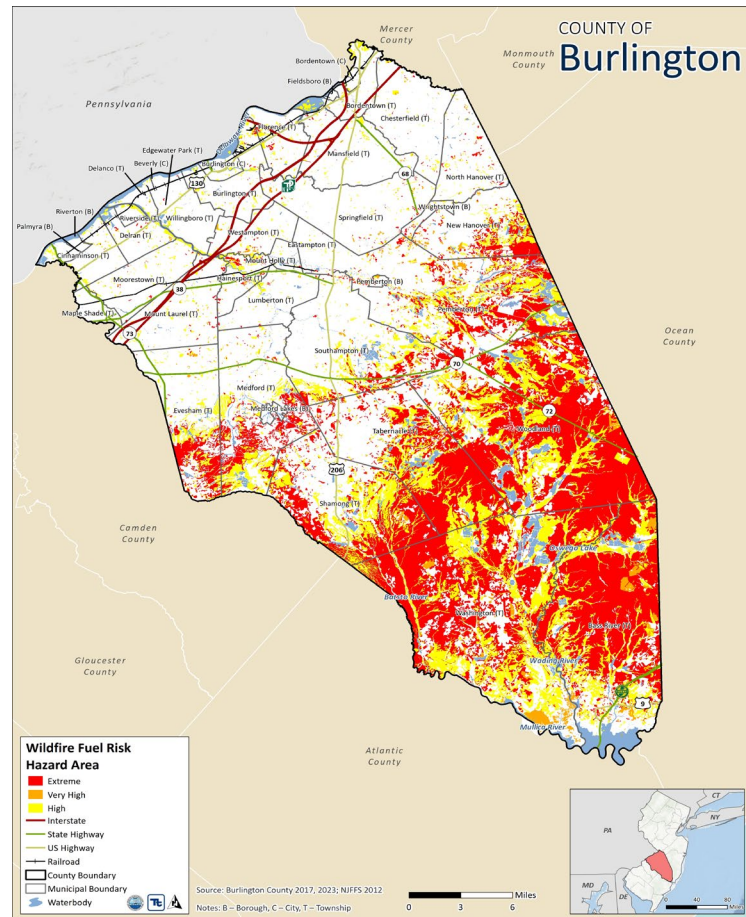
In Extreme, Very High, or High Wildfire Fuel Risk Hazard Area

Number of Buildings Exposed

2,140
(1.4%)

In Extreme, Very High, or High Wildfire Fuel Risk Hazard Area

Location



Notable Occurrences



On June 19-21, 2022 a wildfire was detected in a remote section of the Wharton State Forest in Mullica Twp. Unseasonably dry, windy conditions, combined with difficulty in accessing the initial fire location, led to rapid fire spread. When the fire was fully contained an estimated 14,983 acres had burned. This made it the largest wildfire in New Jersey since 2007.

Climate Change Impacts

Burlington County can expect warmer and drier conditions which may increase the frequency and intensity of wildfires. Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.



Hazard Rankings

Review the calculated hazard rankings and provide your feedback.

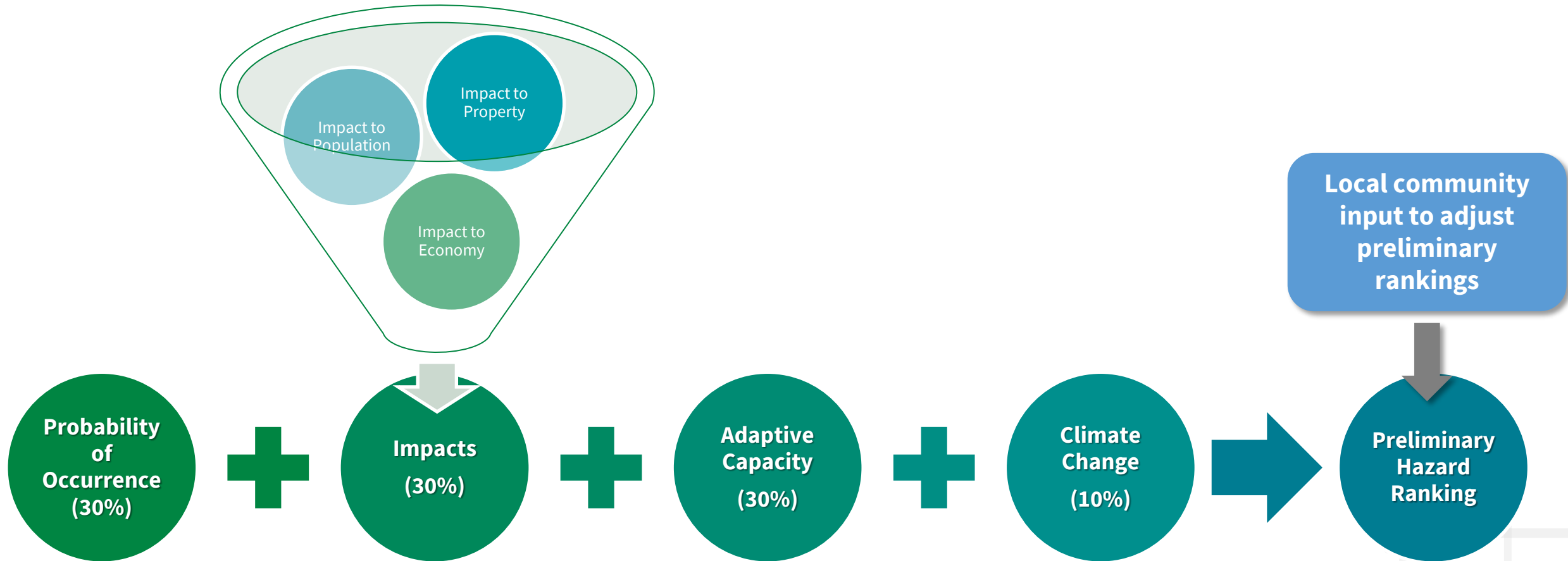
Preliminary Hazard Ranking Methodology



- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which climate change will affect future occurrences based on best available data.
- The degree to which existing capabilities (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.



Preliminary Hazard Ranking Formula





Preliminary Risk Ranking (County)

High

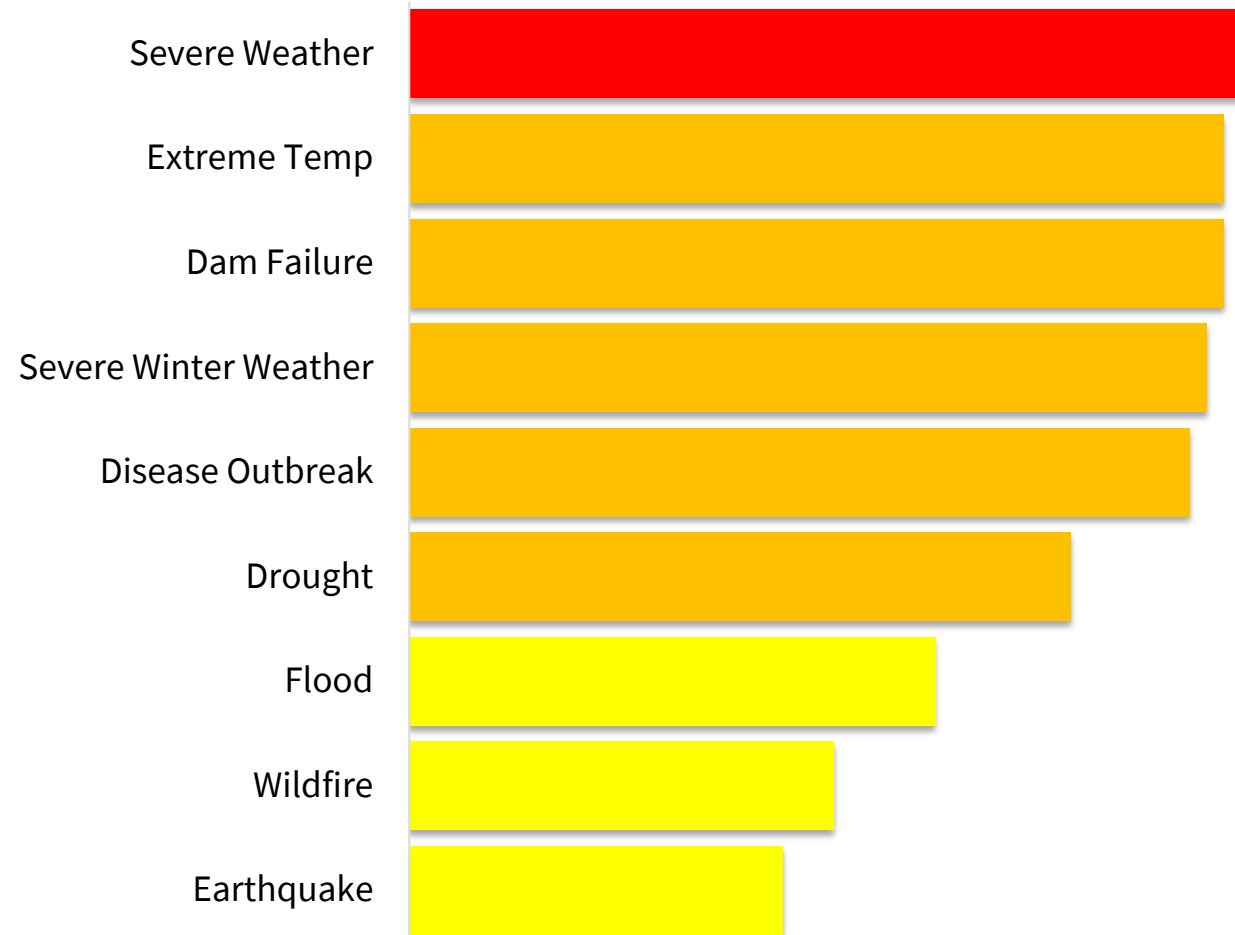
- Severe Weather

Medium

- Extreme Temperature
- Dam Failure
- Severe Winter Weather
- Disease Outbreak
- Drought

Low

- Flood
- Wildfire
- Earthquake





STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)



- The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Burlington County HMP. The results will be used to develop a catalog of potential mitigation actions for use by the County and all jurisdictions. Look at the following for each hazard of concern:
 - Strengths – what the County and communities do well; things upon which we can capitalize;
 - Weaknesses – what can be done better; what can be strengthened;
 - Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
 - Opportunities - actions or projects to mitigate issues or improve resilience.
- Return this sheet to Chris Huch (chris.huch@tetratech.com) at Tetra Tech by the end of this week.



STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)

The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Burlington County Hazard Mitigation Plan. The results will be used to develop a catalog of potential mitigation actions for use by the County and all jurisdictions. The opportunities developed from this process will serve as the basis for our catalog of potential mitigation alternatives. The alternatives will address our risks, meet our planning goals, and fall within our capabilities. We need to look at the following for each hazard of concern:

- **Strengths** – what the County and communities do well; things upon which we can capitalize;
- **Weaknesses** – what can be done better; what can be strengthened;
- **Obstacles** – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
- **Opportunities** - actions or projects to mitigate issues or improve resilience.

Dam Failure
Strengths
Weaknesses
Obstacles
Opportunities

Use the results of this worksheet to assist with the development of your updated mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop.



Questions?

Next Steps



- Share information about the HMP Update via social media, community groups, and networks
- Attend the Risk Assessment and Mitigation Strategy Workshop on Monday, October 30 @ 9:00 a.m. at the
 - Burlington County Emergency Services Training Center (ESTC)
53 Academy Road, Westampton, New Jersey 08060
- Attend the Public Risk Assessment Meeting on Thursday, November 9 @ 7:00 p.m. via Teams: <https://msteams.link/4H0W>

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Tetra Tech Lead Planner

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com



Thank
You!



BURLINGTON COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Partnership #2 – AGENDA
MEETING DATE/TIME: October 30, 2023 – 09:00 am – 10:00 am



In-Person Meeting
Burlington County Emergency Services Training Center
53 Academy Road, Westampton, New Jersey 08060

- 1. Opening Remarks**
- 2. Project Status** - where we are in the process, public outreach
- 3. Risk Assessment Overview**
 - **Results of risk assessment for each hazard**
 - **Hazards of concern risk ranking**
 - **How will this information be used in the HMP?**
- 4. SWOO**
- 5. Feedback and Input**
- 6. Next Steps**
- 7. Questions**
- 8. Break**

Burlington County Project Contacts

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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
 Planning Partnership Risk Assessment Meeting | Meeting Minutes**



Purpose of Meeting:	Planning Partnership Risk Assessment Meeting
Location of Meeting:	Burlington County Emergency Services Training Center (53 Academy Road, Westampton, New Jersey 08060)
Date of Meeting:	October 30, 2023 @ 9:00 A.M.

<p>Attendees:</p> <ul style="list-style-type: none"> • Burlington County <ul style="list-style-type: none"> ○ Kristen Carr, OEM Deputy Coordinator ○ Darryl Williams, OEM Coordinator ○ Madison Hoff, Assistant Planner • Beverly (C) <ul style="list-style-type: none"> ○ Kevin J. Richards, OEM Coordinator • Bordentown (C) <ul style="list-style-type: none"> ○ Brian Maugeri Sr., OEM Deputy Coordinator • Burlington (C) <ul style="list-style-type: none"> ○ Frank S. Caruso, OEM Coordinator ○ Kenneth Shine, City Engineer • Burlington (Twp) <ul style="list-style-type: none"> ○ Scott Hatfield, Township Engineer • Chesterfield (Twp) <ul style="list-style-type: none"> ○ Michael Davison, OEM Deputy Coordinator • Delanco (Twp) <ul style="list-style-type: none"> ○ Beverly Russell, Municipal Clerk • Delran (Twp) <ul style="list-style-type: none"> ○ Joseph Cunningham Jr., OEM Coordinator • Eastampton (Twp) <ul style="list-style-type: none"> ○ Bob Carr, OEM Coordinator • Edgewater Park (Twp) <ul style="list-style-type: none"> ○ Brett Evans, Police Chief • Evesham (Twp) <ul style="list-style-type: none"> ○ Eamonn Fitzpatrick-Ruth, OEM Coordinator • Florence (Twp) <ul style="list-style-type: none"> ○ Philip Drangula, OEM Coordinator ○ Albert Jacoby, OEM Deputy Coordinator • Lumberton (Twp) <ul style="list-style-type: none"> ○ Ryan Engle, OEM Deputy Coordinator • Medford (Twp) <ul style="list-style-type: none"> ○ Robert Dovi, OEM Coordinator ○ Ryan Hofmann, OEM Deputy Coordinator 	<ul style="list-style-type: none"> • Moorestown (Twp) <ul style="list-style-type: none"> ○ Kevin Abernant, Township Manager • Mt. Holly (Twp) <ul style="list-style-type: none"> ○ Glynn Eckart, OEM Coordinator ○ Paul Hardifer, Construction Official • Mt. Laurel (Twp) <ul style="list-style-type: none"> ○ Jay Appleton, OEM Coordinator • New Hanover (Twp) <ul style="list-style-type: none"> ○ Kyle Tuliano, Police Chief • Palmyra (B) <ul style="list-style-type: none"> ○ Ronald Lindemuth, OEM Coordinator • Pemberton (Twp) <ul style="list-style-type: none"> ○ Craig L. Augustoni, OEM Coordinator • Riverton (B) <ul style="list-style-type: none"> ○ Andrew Beuschel, OEM Coordinator • Shamong (Twp) <ul style="list-style-type: none"> ○ John Lyons, OEM Coordinator • Southampton (Twp) <ul style="list-style-type: none"> ○ Eamonn Fitzpatrick-Ruth, OEM Coordinator • Woodland (Twp) <ul style="list-style-type: none"> ○ Michael Huber, OEM Coordinator • Wrightstown (B) <ul style="list-style-type: none"> ○ James Ingling, OEM Deputy Coordinator • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner ○ Heather Apgar, Planner • FEMA Region 2 <ul style="list-style-type: none"> ○ Meghan Wren, FEMA Region 2 Community Planner, Resilience Branch
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Agenda Summary: The purpose of the meeting was to provide an overview of the hazard mitigation planning process, discuss public and stakeholder outreach efforts, review the risk assessment results, including the hazard ranking, and introduce the SWOO exercise to the Planning Partnership.

Item No.	Description	Action item(s):
1	Introductions	-
2	<p>Project Status</p> <ul style="list-style-type: none"> • On schedule <ul style="list-style-type: none"> ○ Risk Assessment – October 2023 ○ Identify Actions – September-November 2023 ○ Finalize Plan Maintenance – December 2023 ○ Draft Plan – January 2024 ○ Draft to NJOEM – February 2024 ○ Draft to FEMA – March 2024 	<p>Planning Partnership</p> <ul style="list-style-type: none"> • Post links on social media and department/agency websites • Make efforts to reach out to general public, stakeholders,



	<ul style="list-style-type: none"> • Remaining LOIPs <ul style="list-style-type: none"> ○ Bass River (Twp) ○ Delran (Twp) ○ Fieldsboro (B) ○ Maple Shade (Twp) ○ Westampton (Twp) ○ Willingboro (Twp) ○ Woodland (Twp) • Public Outreach and Engagement <ul style="list-style-type: none"> ○ Post links on social media and department/agency websites ○ Stakeholder and neighboring municipalities surveys have been distributed ○ Make efforts to reach out to: <ul style="list-style-type: none"> ▪ General Public ▪ Stakeholders ▪ Neighbors • Socially Vulnerable Populations 	<p>neighbors, and socially vulnerable populations</p>
<p>3</p>	<p>Risk Assessment Overview</p> <ul style="list-style-type: none"> • Risk is defined as a function of : <ul style="list-style-type: none"> ○ Hazard <ul style="list-style-type: none"> ▪ Source of potential danger or adverse condition ○ Exposure <ul style="list-style-type: none"> ▪ Manmade or natural features that are exposed to the hazard ○ Vulnerability <ul style="list-style-type: none"> ▪ Damage susceptibility of the exposed features ○ Adaptive Capacity (or capability) <ul style="list-style-type: none"> ▪ Plans/policies ▪ Response/recovery • Financial resources 	<p>-</p>
<p>4</p>	<p>Risk Assessment Results</p> <ul style="list-style-type: none"> • Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data. 	<p>-</p>
<p>5</p>	<p>Hazard Rankings</p> <ul style="list-style-type: none"> • The calculated probability of a hazard occurring based on historical data • <i>Impacts to people, property, and the economy</i> based on GIS data and analysis of exposure. • The degree to which <i>climate change</i> will affect future occurrences based on best available data. • The degree to which existing <i>capabilities</i> (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. • Ranking: <ul style="list-style-type: none"> ○ High: Severe Weather ○ Medium: Extreme Temperature, Dam Failure, Severe Winter Weather, Disease Outbreak, Drought ○ Low: Flood, Wildfire, Earthquake 	<p>-</p>
<p>6</p>	<p>Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)</p> <ul style="list-style-type: none"> • Strengths – what the County and communities do well; things upon which we can capitalize. • Weaknesses – what can be done better; what can be strengthened. 	<p>-</p>

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
 Planning Partnership Risk Assessment Meeting | Meeting Minutes**



	<ul style="list-style-type: none"> • Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues). • Opportunities - actions or projects to mitigate issues or improve resilience. 	
7	<p>Next Steps</p> <ul style="list-style-type: none"> • Share information about the HMP Update via social media, community groups, and networks • Attend the Public Risk Assessment Meeting on Thursday, November 9 @ 7:00 p.m. via Teams: https://msteams.link/4H0W 	-
8	Questions/Discussion	-



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

Planning Partnership Risk Assessment Meeting

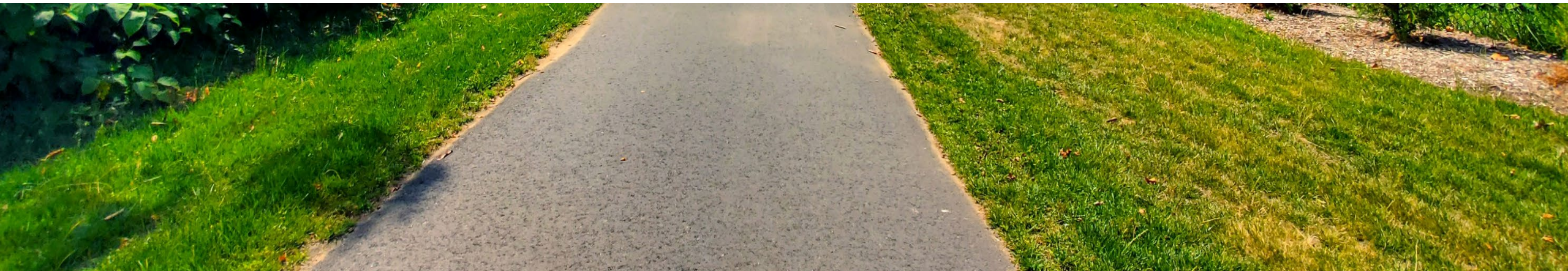
October 30, 2023

While waiting for the meeting to start, please enter your information on the Sign-In Sheet.



Today's Agenda

1. Welcome and Introductions
2. Project Status
3. Risk Assessment Overview
4. Hazard Ranking
5. SWOO
6. Questions/Wrap Up

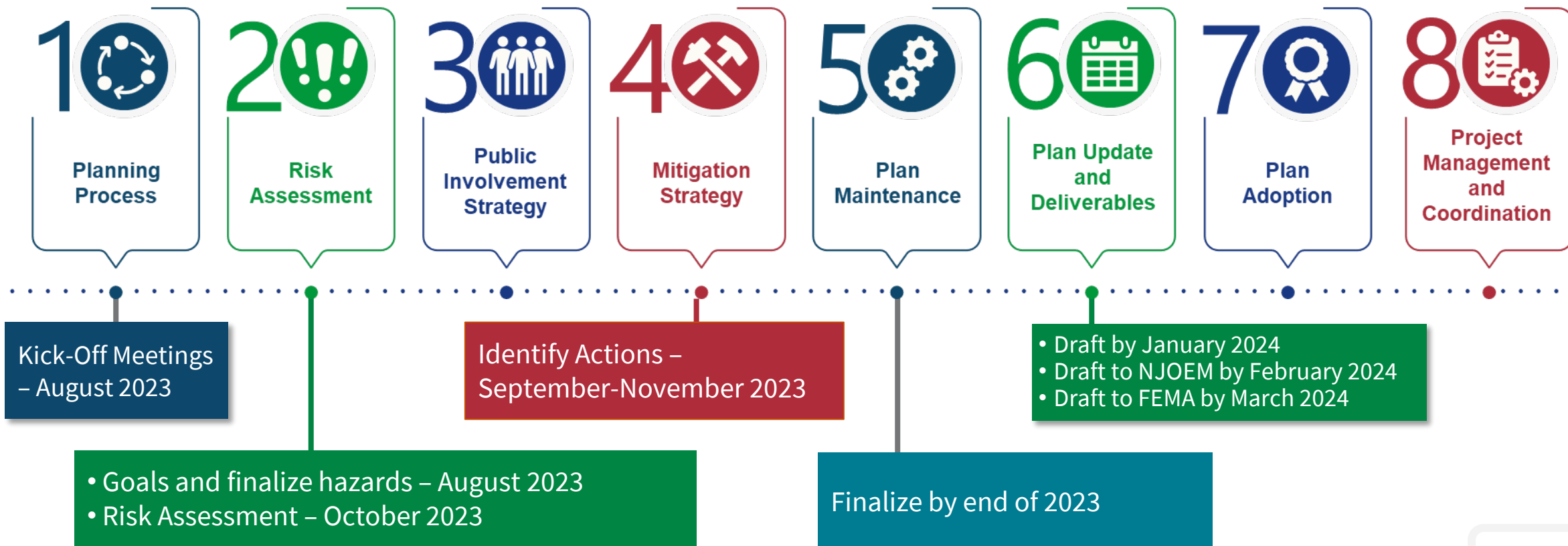




Project Status



Schedule





Municipal Participation Status

- To date, we have received Letters of Intent to Participate (LOIP) from all but seven municipalities.

Status (10/20/2023)		Status (10/20/2023)		Status (10/20/2023)		Status (10/20/2023)	
Municipality	LOIP Received?	Municipality	LOIP Received?	Municipality	LOIP Received?	Municipality	LOIP Received?
Bass River (Twp)		Eastampton (Twp)	X	Medford Lakes (B)	X	Riverton (B)	X
Beverly (C)	X	Edgewater Park (Twp)	X	Moorestown (Twp)	X	Shamong (Twp)	X
Bordentown (C)	X	Evesham (Twp)	X	Mt. Holly (Twp)	X	Southampton (Twp)	X
Bordentown (Twp)	X	Fieldsboro (B)		Mt. Laurel (Twp)	X	Springfield (Twp)	X
Burlington (C)	X	Florence (Twp)	X	New Hanover (Twp)	X	Tabernacle (Twp)	X
Burlington (Twp)	X	Hainesport (Twp)	X	North Hanover (Twp)	X	Washington (Twp)	X
Chesterfield (Twp)	X	Lumberton (Twp)	X	Palmyra (B)	X	Westampton (Twp)	
Cinnaminson (Twp)	X	Mansfield (Twp)	X	Pemberton (B)	X	Willingboro (Twp)	
Delanco (Twp)	X	Maple Shade (Twp)		Pemberton (Twp)	X	Woodland (Twp)	
Delran (Twp)		Medford (Twp)	X	Riverside (Twp)	X	Wrightstown (B)	X



Public Outreach and Engagement

ACTION! Distribute the Public Survey!

- Post links on social media and department/agency websites
- Stakeholder and neighboring municipalities surveys have been distributed
- Make efforts to reach out to:
 - General Public
 - Stakeholders
 - Neighbors
 - Socially Vulnerable Populations

Burlington County Hazard Mitigation Plan Update - Public Survey

Natural Hazard Information

In this section, we are looking for your input on the types of natural hazards that impact Burlington County and its residents. Please answer the following questions to help us understand the concerns throughout the counties.

OK

1. In the last five years, how many times have you experienced the following natural hazards?

Dam Failure

Disease/Pest

BURLINGTON COUNTY HAZARD MITIGATION PLAN SURVEY

Burlington County is seeking input for the 2024 Hazard Mitigation Plan. The plan will address the County's risks posed by hazards (e.g., flood, drought, winter storms) and identify specific strategies to help reduce or eliminate risks.

TAKE THE SURVEY

HTTP://BIT.LY/45C7GOL

Risk Assessment Overview





What is Risk?

Risk is defined as a function of :

- Hazard
 - Source of potential danger or adverse condition
- Exposure
 - Manmade or natural features that are exposed to the hazard
- Vulnerability
 - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
 - Plans/policies
 - Response/recovery
 - Financial resources





Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Dam Failure

Dam failures in Burlington County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

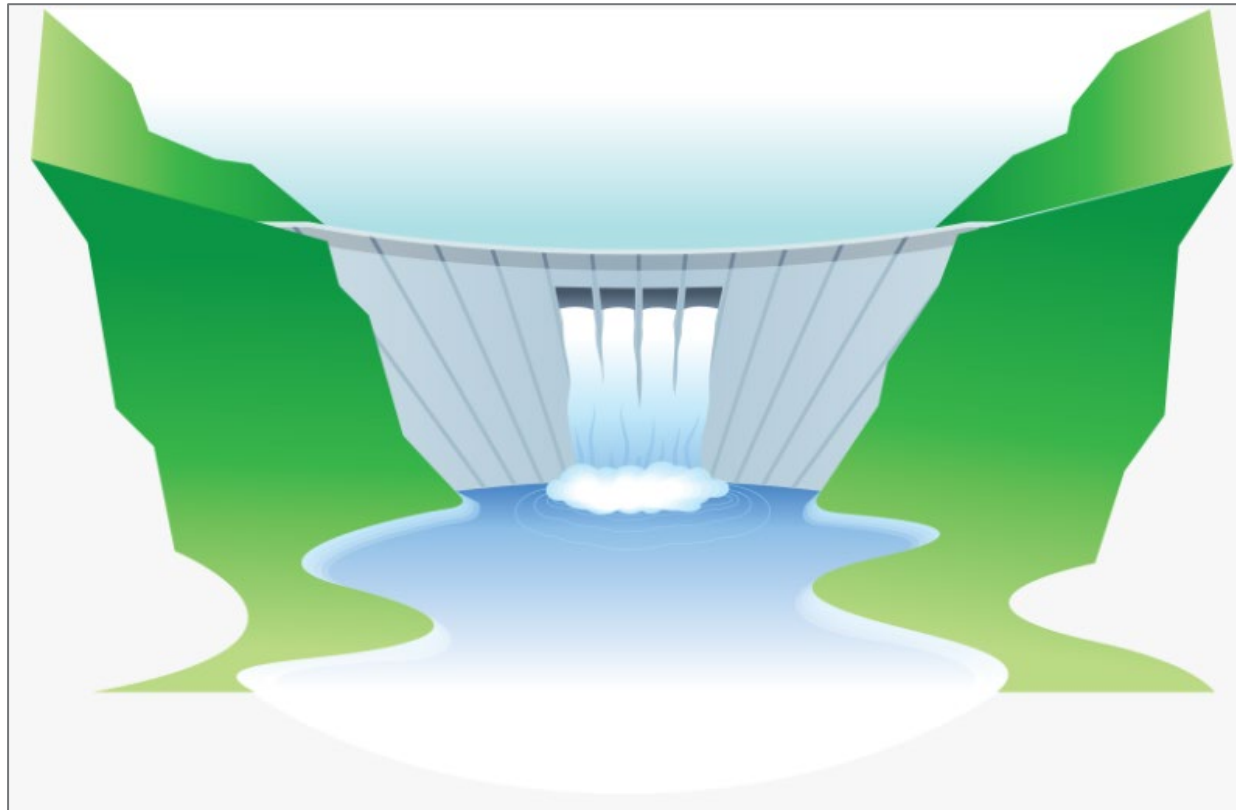
74

- 10 High Hazard
- 40 Significant Hazard
- 24 Low Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding that follows a dam failure can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dam Graphic



Notable Occurrence



On July 12-13, 2004, the Townships of Lumberton and Medford experienced major flooding due to heavy rainfall. Property damage from the flood was estimated at \$50 million. The flooding led to the evacuation of about 760 residents, the complete destruction of seven homes, major flood damage to approximately 200 homes, flood damage to approximately 1,000 homes, the closing of 25 major roads.

Disease Outbreak

Disease outbreaks can impact the entirety of Burlington County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population Exposed

461,860

(100%)

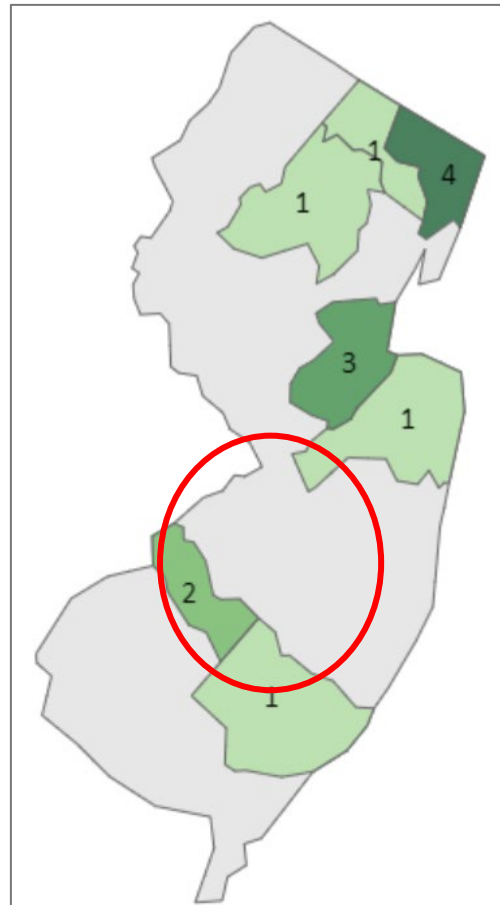
The entire County is susceptible

Notable Occurrences

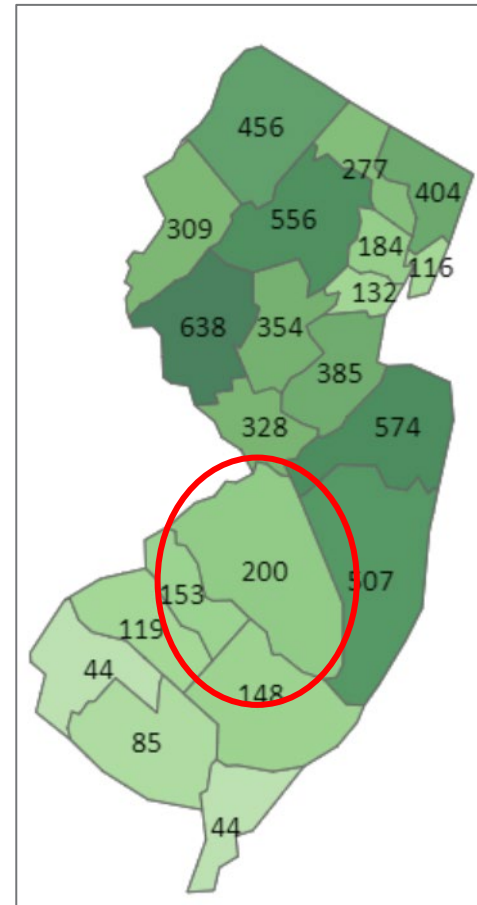


- In 2019, there were 236 confirmed cases of Lyme Disease.
- In 2020, there were 847 confirmed cases of Influenza.
- Since 2020, Burlington County reported 117,710 positive cases of COVID-19 and 681 deaths.

West Nile Virus Cases by County, 2023



Lyme Disease Cases by County, 2023



Hazard Types

- Influenza
- West Nile Virus
- Lyme Disease
- Coronavirus

Drought

Droughts can affect Burlington County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population Exposed

461,860

(100%)

The entire County is susceptible

USDA Declarations

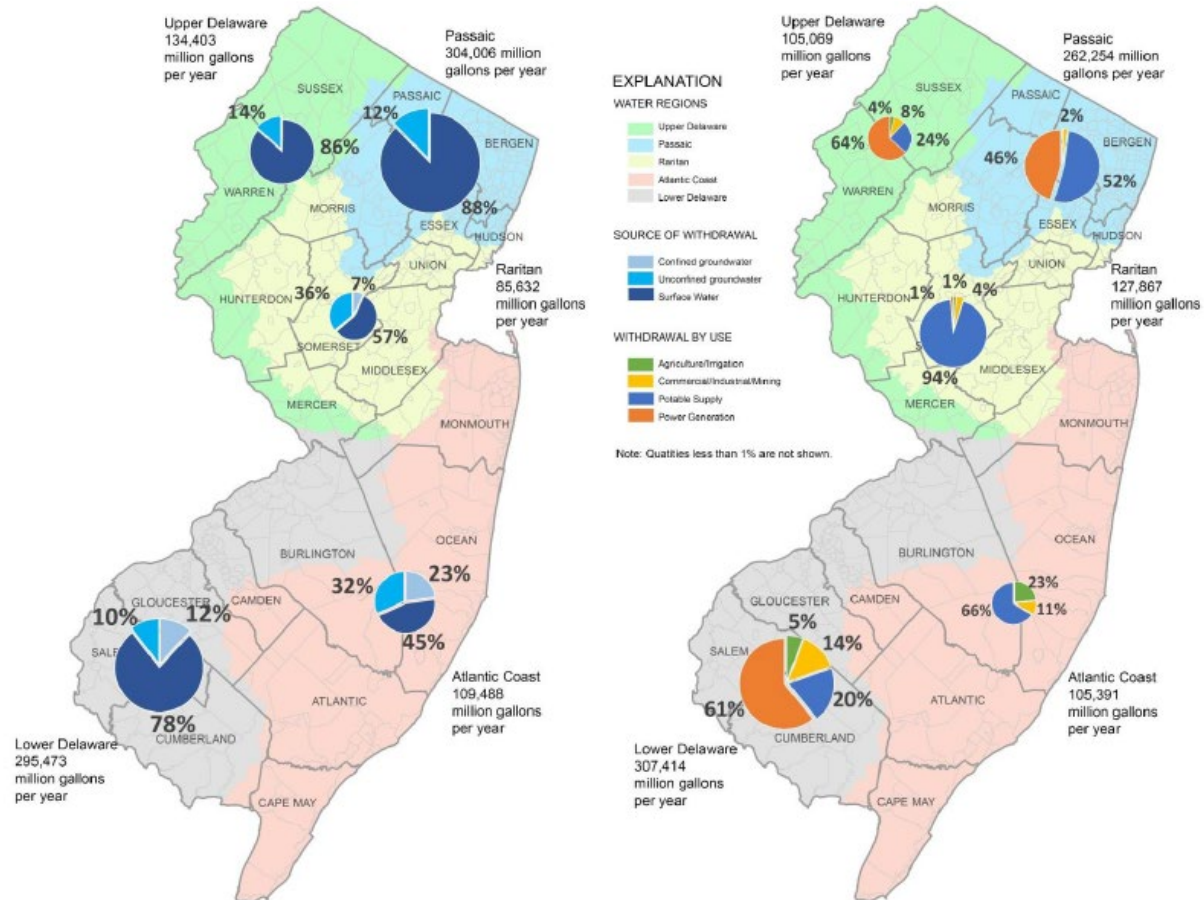
3

- 3 Drought declarations

Climate Change Impacts

It is anticipated that droughts lasting 3 to 6 months and longer may slightly increase in frequency under a low emissions scenario and will significantly increase under a high emissions scenario.

Water Regions, Sources and Withdrawal by Sector in New Jersey



Hazard Types



Meteorological



Hydrological



Agricultural



Socioeconomic

Earthquake



Earthquakes in Burlington County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Population Exposed

461,860
(100%)

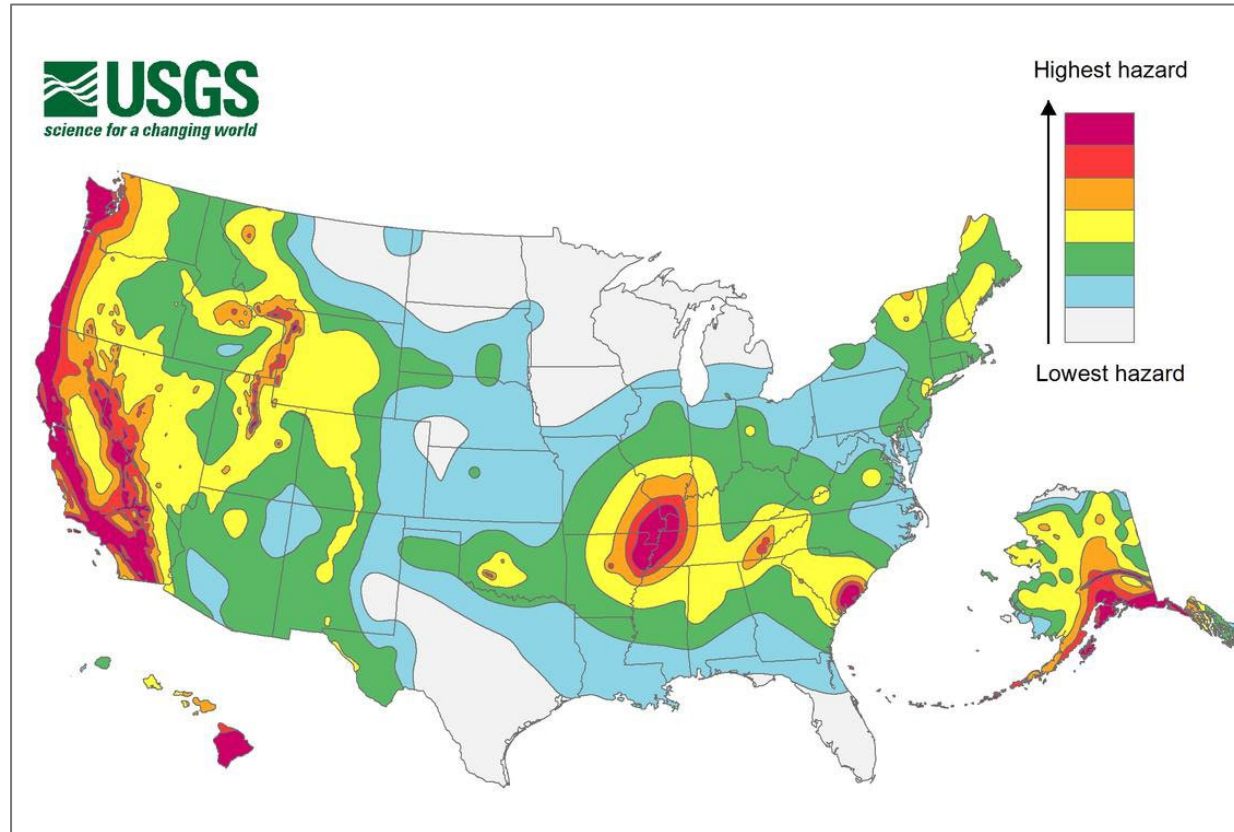
The entire County is susceptible

Notable Occurrences



Small earthquakes may occur several times a year and generally do not cause significant damage. The strongest earthquake with an epicenter in Burlington County was a 3.0 quake in Medford Lakes in 1980.

Location



Hazard Types

- Surface Faulting
- Ground Motion
- Liquefaction
- Tectonic Deformation
- Seiche

Extreme Temperatures

Extreme temperature includes both heat and cold events, which affects the entire County including, human health and commercial/agricultural businesses. Extreme temperature events can have primary and secondary effects on infrastructure.

Population Exposed

461,860

(100%)

The entire County is susceptible

USDA Declarations

2

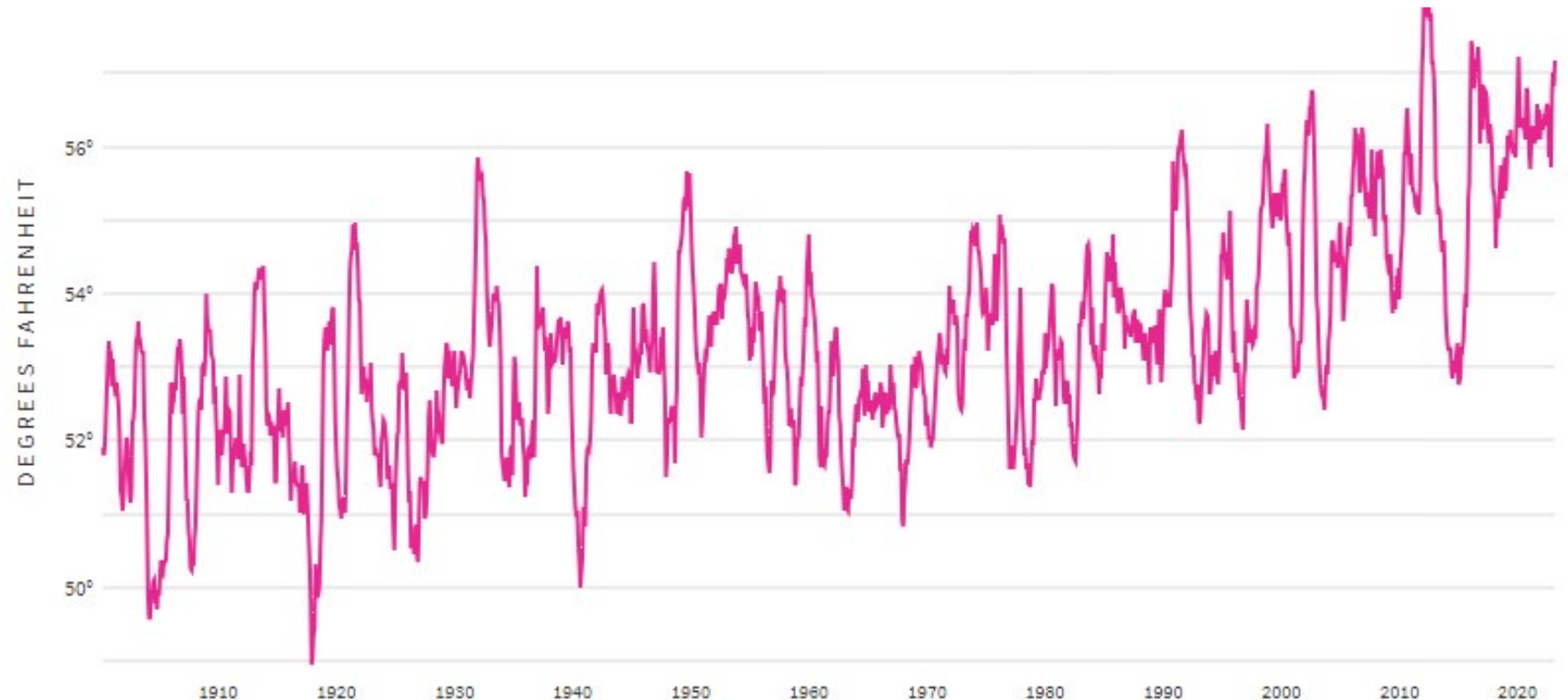
- 2 Excessive Heat declarations

Climate Change Impacts

New Jersey has experienced a 3.5° F (1.9° C) increase in the State's average temperature. By 2050, temperatures in New Jersey are expected to increase by 4.1 to 5.7° F.



12-Month Temperature Averages in Burlington County



Flood

Floods are one of the most frequent and costly natural hazards in Burlington County in terms of human hardship and economic loss, particularly to communities that lie within flood prone areas or floodplains.

Population Exposed

14,583
(3.2%)

In 1% Annual Chance Flood Area

25,026
(5.4%)

In 0.2% Annual Chance Flood Area

Number of Buildings Exposed

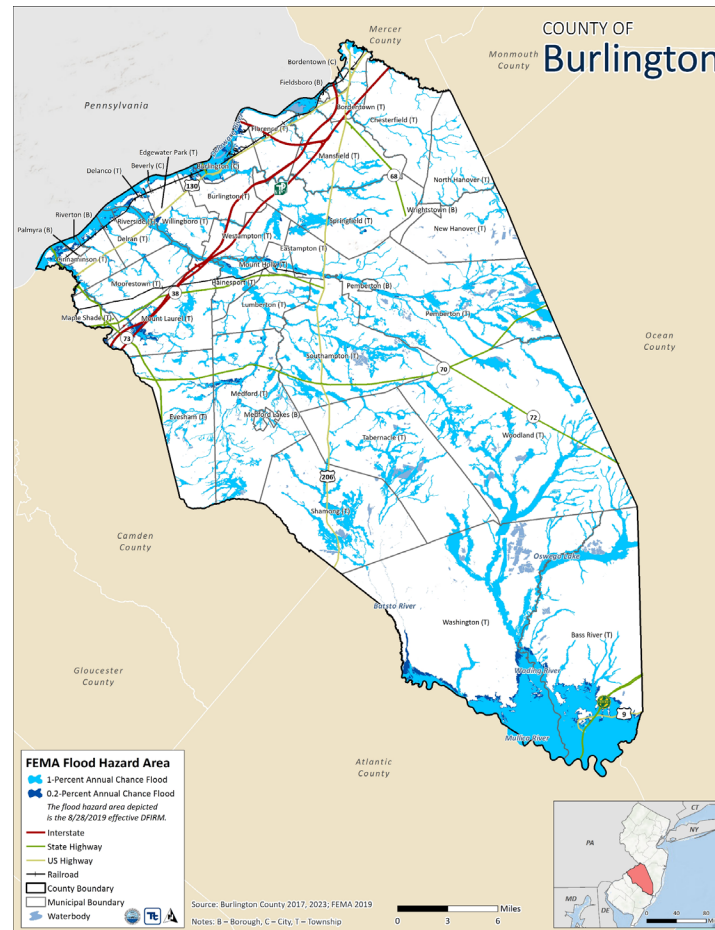
5,163

In 1% Annual Chance Flood Area

8,739

In 0.2% Annual Chance Flood Area

Location



Flood Building Replacement Cost Value

\$9,333,016,825

In 1% Annual Chance Flood Area

\$14,060,945,896

In 0.2% Annual Chance Flood Area



Land Exposed to Flood Hazard

72,903

(14.6%)

Sea Level Rise Impacts

1-Foot Hazard Area

- 225 Persons Located in Hazard Area
- 90 Buildings Located in Hazard Area

3-Foot Hazard Area

- 677 Persons Located in Hazard Area
- 272 Buildings Located in Hazard Area

Hazard Types



Riverine / Inland



Flash Flood



Urban / Stormwater



Coastal



Ice Jam



Erosion



Sea Level Rise

Severe Weather

Severe weather can occur anywhere in the County at any time and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

461,860
(100%)

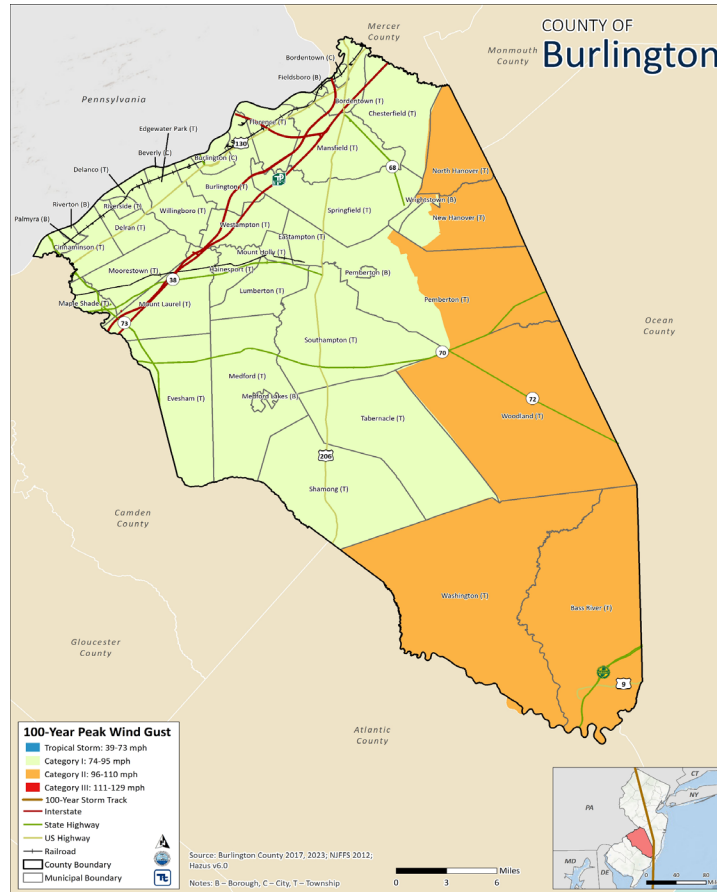
The entire County is susceptible

Notable Occurrences



The remnants of Hurricane Ida resulted in widespread thunderstorms. An EF-1 tornado formed in Burlington Township, near Edgewater Park. Extensive tree damage was reported. Power outages occurred due to damages to powerlines.

Location



Potential Impacts

- Essential Services Interruptions Power Outages
- Traffic Accidents
- Downed Trees
- Property Damage
- Personal Injury / Loss of Life

Hazard Types



Climate Change Impacts

New Jersey has experienced a 3.5° F (1.9° C) increase in the State's average temperature. By 2050, temperatures in New Jersey are expected to increase by 4.1 to 5.7° F. Increases will be more conducive to increased frequency and intensity of severe storms (e.g., thunderstorms, tornadoes).



Severe Winter Weather

Severe winter weather can occur anywhere in the County and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

461,860

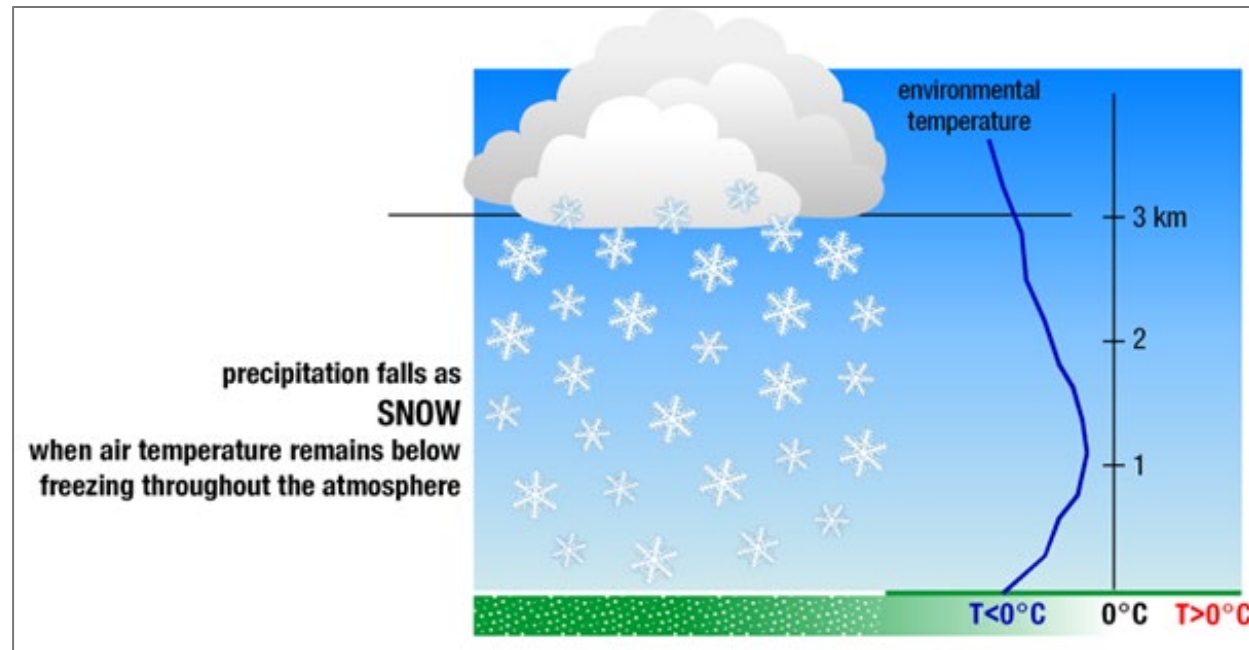
(100%)

The entire County is susceptible

Hazard Types

- Heavy Snow
- Blizzard
- Sleet
- Ice Storm
- Nor'easter

Formation of Snow



Notable Occurrences



The Blizzard of 1996 dropped roughly 30 inches of snow in parts of Burlington County on January 7, 1996. Property damage was in the millions and the storm resulted in one death.

Wildfire events in Burlington County typically occur toward the forested southeastern portions of the County in the Pinelands. Wildfires can have impacts on critical services, utilities, and properties, and may cause injury.

Population Exposed

6,406
(1.4%)

Of the County is susceptible

Building Replacement Cost Value

\$4,963,331,009

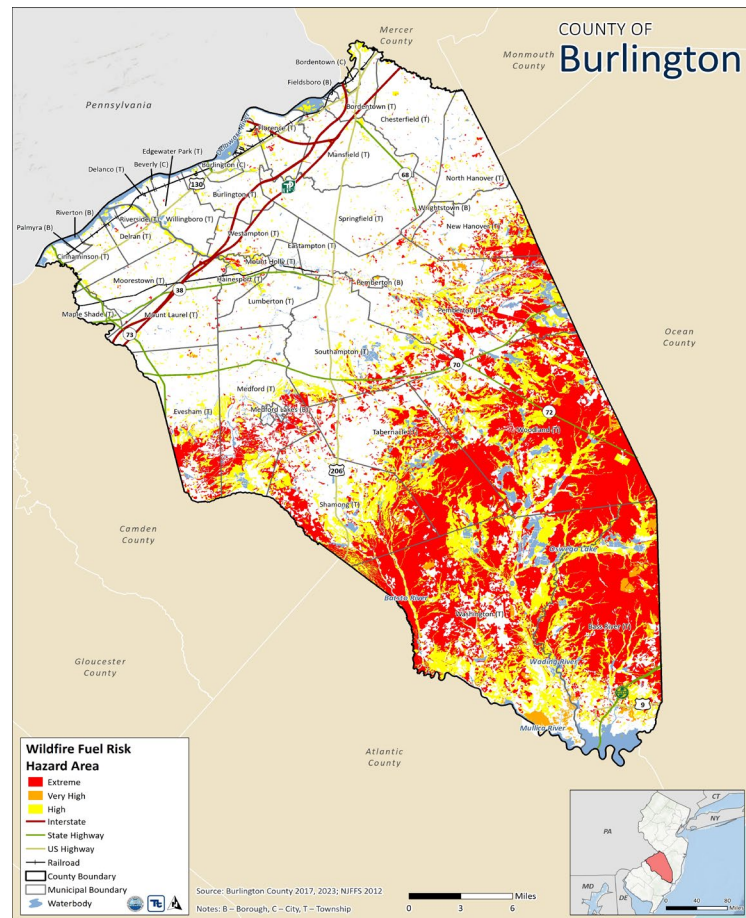
In Extreme, Very High, or High Wildfire Fuel Risk Hazard Area

Number of Buildings Exposed

2,140
(1.4%)

In Extreme, Very High, or High Wildfire Fuel Risk Hazard Area

Location



Notable Occurrences



On June 19-21, 2022 a wildfire was detected in a remote section of the Wharton State Forest in Mullica Twp. Unseasonably dry, windy conditions, combined with difficulty in accessing the initial fire location, led to rapid fire spread. When the fire was fully contained an estimated 14,983 acres had burned. This made it the largest wildfire in New Jersey since 2007.

Climate Change Impacts

Burlington County can expect warmer and drier conditions which may increase the frequency and intensity of wildfires. Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.



Hazard Rankings

Review the calculated hazard rankings and provide your feedback.

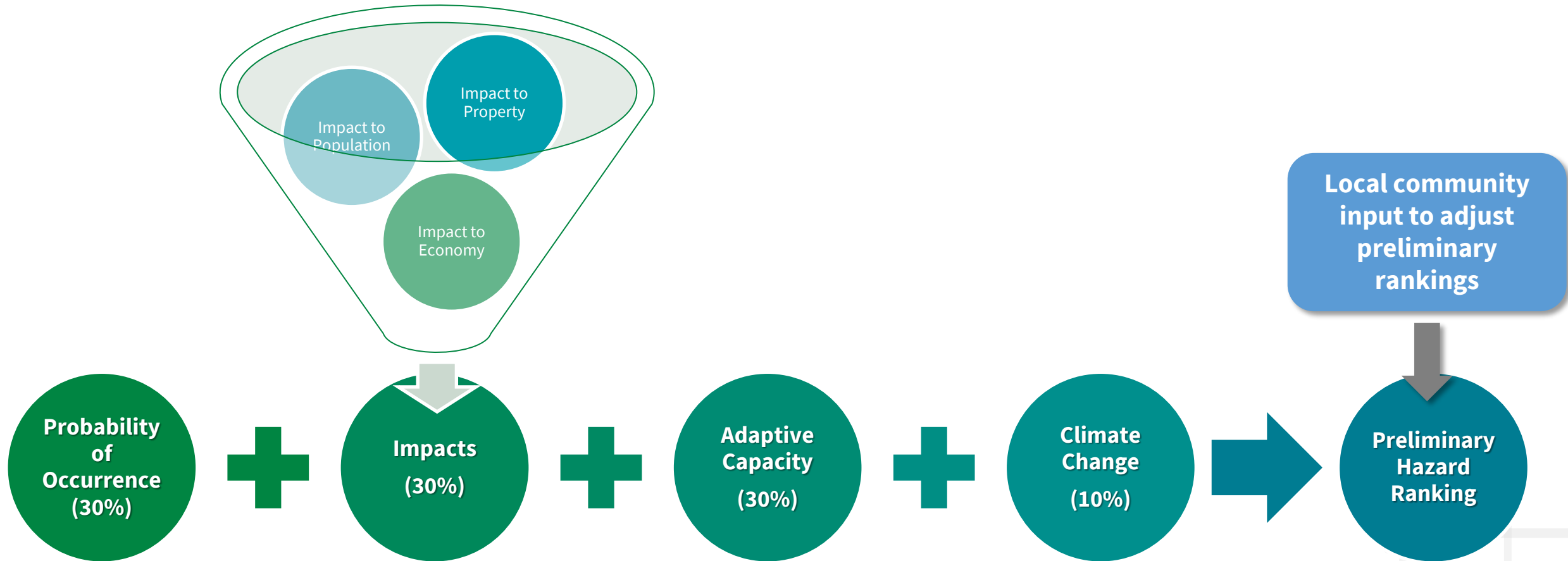
Preliminary Hazard Ranking Methodology



- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which climate change will affect future occurrences based on best available data.
- The degree to which existing capabilities (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.



Preliminary Hazard Ranking Formula



Risk Ranking



High

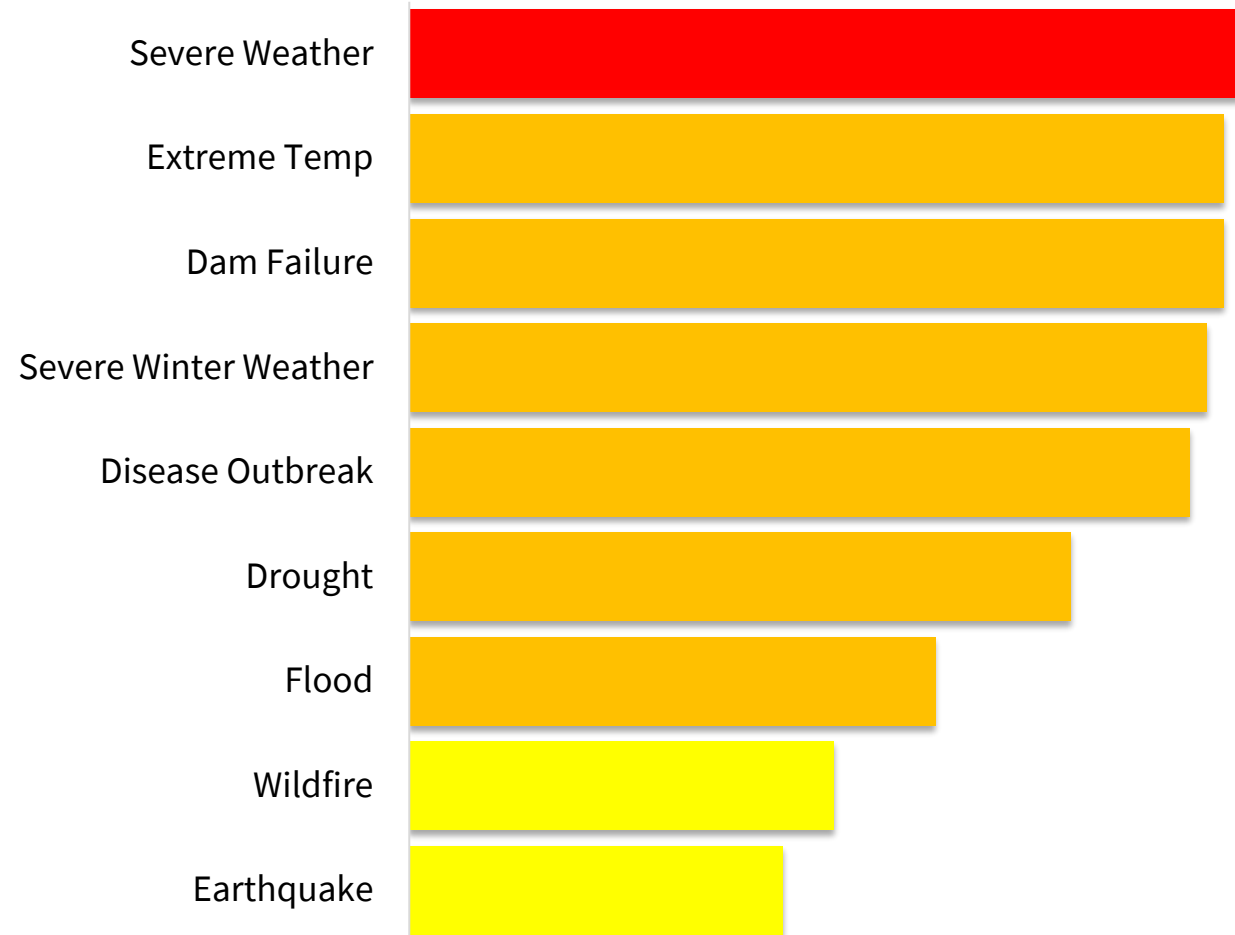
- Severe Weather

Medium

- Extreme Temperature
- Dam Failure
- Severe Winter Weather
- Disease Outbreak
- Drought
- Flood

Low

- Wildfire
- Earthquake





STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)

Fill out your SWOO worksheet to provide more information on capabilities, risks, and potential new actions

Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)



- The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Burlington County HMP. Look at the following for each hazard of concern:
 - Strengths – what the County and communities do well; things upon which we can capitalize;
 - Weaknesses – what can be done better; what can be strengthened;
 - Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
 - Opportunities - actions or projects to mitigate issues or improve resilience.



STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)

The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Burlington County Hazard Mitigation Plan. The results will be used to develop a catalog of potential mitigation actions for use by the County and all jurisdictions. The opportunities developed from this process will serve as the basis for our catalog of potential mitigation alternatives. The alternatives will address our risks, meet our planning goals, and fall within our capabilities. We need to look at the following for each hazard of concern:

- **Strengths** – what the County and communities do well; things upon which we can capitalize;
- **Weaknesses** – what can be done better; what can be strengthened;
- **Obstacles** – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
- **Opportunities** - actions or projects to mitigate issues or improve resilience.

Dam Failure
Strengths
Weaknesses
Obstacles
Opportunities

Use the results of this worksheet to assist with the development of your updated mitigation strategy.

Return this worksheet to Tetra Tech staff at the end of the Mitigation Strategy Workshop.



Questions?



Next Steps

- Complete your risk assessment worksheet including hazard rankings and SWOO
- Take a break and we will reconvene shortly.



Burlington County Project Contact

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Tetra Tech Project Manager

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Tetra Tech Lead Planner

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com



Thank
You!



BURLINGTON COUNTY HAZARD MITIGATION PLAN UPDATE
Mitigation Action Workshop – AGENDA
MEETING DATE/TIME: October 30, 2023 – 11:00 am – 12:30 pm



In-Person Meeting
Burlington County Emergency Services Training Center
53 Academy Road, Westampton, New Jersey 08060

- 1. Opening Remarks**
- 2. Project Status** - where we are in the process, public outreach
- 3. Identifying and Developing Mitigation Strategies** – FEMA and NJOEM
- 4. Review Previous Actions**
- 5. Developing New Potential Actions**
- 6. Next Steps** –continue developing actions and work with Tetra Tech staff to complete your annex prior to leaving today
- 7. Questions**
- 8. Adjournment**

Burlington County Project Contacts

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Tetra Tech Project Contacts

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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
 Planning Partnership Mitigation Strategy Workshop | Meeting Minutes**



Purpose of Meeting:	Planning Partnership Mitigation Strategy Workshop
Location of Meeting:	Burlington County Emergency Services Training Center (53 Academy Road, Westampton, New Jersey 08060)
Date of Meeting:	October 30, 2023 @ 9:00 A.M.

<p>Attendees:</p> <ul style="list-style-type: none"> • Burlington County <ul style="list-style-type: none"> ○ Kristen Carr, OEM Deputy Coordinator ○ Darryl Williams, OEM Coordinator ○ Madison Hoff, Assistant Planner • Beverly (C) <ul style="list-style-type: none"> ○ Kevin J. Richards, OEM Coordinator • Bordentown (C) <ul style="list-style-type: none"> ○ Brian Maugeri Sr., OEM Deputy Coordinator • Burlington (C) <ul style="list-style-type: none"> ○ Frank S. Caruso, OEM Coordinator ○ Kenneth Shine, City Engineer • Burlington (Twp) <ul style="list-style-type: none"> ○ Scott Hatfield, Township Engineer • Chesterfield (Twp) <ul style="list-style-type: none"> ○ Michael Davison, OEM Deputy Coordinator • Delanco (Twp) <ul style="list-style-type: none"> ○ Beverly Russell, Municipal Clerk • Delran (Twp) <ul style="list-style-type: none"> ○ Joseph Cunningham Jr., OEM Coordinator • Eastampton (Twp) <ul style="list-style-type: none"> ○ Bob Carr, OEM Coordinator • Edgewater Park (Twp) <ul style="list-style-type: none"> ○ Brett Evans, Police Chief • Evesham (Twp) <ul style="list-style-type: none"> ○ Eamonn Fitzpatrick-Ruth, EMS Chief • Florence (Twp) <ul style="list-style-type: none"> ○ Philip Drangula, OEM Coordinator ○ Albert Jacoby, OEM Deputy Coordinator • Lumberton (Twp) <ul style="list-style-type: none"> ○ Ryan Engle, OEM Deputy Coordinator • Medford (Twp) <ul style="list-style-type: none"> ○ Robert Dovi, OEM Coordinator ○ Ryan Hofmann, OEM Deputy Coordinator 	<ul style="list-style-type: none"> • Moorestown (Twp) <ul style="list-style-type: none"> ○ Kevin Abernant, Township Manager • Mt. Holly (Twp) <ul style="list-style-type: none"> ○ Glynn Eckart, OEM Coordinator ○ Paul Hardifer, Construction Official • Mt. Laurel (Twp) <ul style="list-style-type: none"> ○ Jay Appleton, OEM Coordinator • New Hanover (Twp) <ul style="list-style-type: none"> ○ Kyle Tuliano, Police Chief • Palmyra (B) <ul style="list-style-type: none"> ○ Ronald Lindemuth, OEM Coordinator • Pemberton (Twp) <ul style="list-style-type: none"> ○ Craig L. Augustoni, OEM Coordinator • Riverton (B) <ul style="list-style-type: none"> ○ Andrew Beuschel, OEM Coordinator • Shamong (Twp) <ul style="list-style-type: none"> ○ John Lyons, OEM Coordinator • Southampton (Twp) <ul style="list-style-type: none"> ○ Eamonn Fitzpatrick-Ruth, OEM Coordinator • Woodland (Twp) <ul style="list-style-type: none"> ○ Michael Huber, OEM Coordinator • Wrightstown (B) <ul style="list-style-type: none"> ○ James Ingling, OEM Deputy Coordinator • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner ○ Heather Apgar, Planner • FEMA Region 2 <ul style="list-style-type: none"> ○ Meghan Wren, FEMA Region 2 Community Planner, Resilience Branch
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Agenda Summary: The purpose of the meeting was to describe the contains within the mitigation strategy, provide an opportunity for jurisdictions to review their previous mitigation actions with assistance from Tetra Tech planners, discuss what makes a good mitigation action, identify potential 2024 mitigation actions.

Item No.	Description	Action item(s):
1	Introductions	-
2	<p>Identifying and Developing Mitigation Strategies</p> <ul style="list-style-type: none"> • The Mitigation Strategy is the County’s roadmap to reduce the risk of hazards identified in the HMP. The strategy is based on hazard impacts, asset vulnerability, and the County’s capabilities. • Mitigation Actions are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk. <ul style="list-style-type: none"> ○ Forward-looking and incorporate changing conditions for the life of the County’s assets 	-



	<ul style="list-style-type: none"> ○ Consider changing demographics, development patterns, impacts of climate change. ○ Examples of actions may include elevating electrical and HVAC equipment to reduce the likelihood of damage from floodwaters or planting trees to lower temperatures exacerbated by pavement. ● What is a Mitigation Strategy? <ul style="list-style-type: none"> ○ A group of projects or actions to reduce the impacts of the hazards of concern on your community <ul style="list-style-type: none"> ▪ Plans and Regulations ▪ Structure and Infrastructure Studies and Projects ▪ Natural Systems Protection Studies and Projects ▪ Education and Awareness Programs ● Terms to describe the <u>Mitigation Strategy</u> include: <ul style="list-style-type: none"> ○ Mitigation Action Plan or Action Plan ○ Mitigation Projects or Initiatives or Actions ● Need a clear connection between vulnerabilities identified in the risk assessment and proposed mitigation actions. ● The capability assessment can provide insight into challenges and opportunities for the mitigation strategy. ● All actions proposed in the mitigation strategy must have a factual basis tied to hazards (<i>this shouldn't be a wish list!</i>) 	
3	<p>Review Previous Actions</p> <ul style="list-style-type: none"> ● Review the mitigation actions your jurisdiction identified in the previous HMP by providing a brief status narrative. Begin by providing the status: <ul style="list-style-type: none"> ○ IN PROGRESS: Started but not complete ○ ONGOING CAPABILITY: An action you now complete on a regular basis (maintenance, annual outreach, etc.). These actions will be included in your capabilities moving forward. ○ NO PROGRESS: Not started ○ COMPLETE: Finished! ● Actions that are COMPLETE or ONGOING will not be carried forward. 	<p>Planning Partnership</p> <ul style="list-style-type: none"> ● Complete Previous Actions Review Worksheet and submit to Jessica Stokes and/or Chris Huch.
4	<p>Developing New Potential Actions</p> <ul style="list-style-type: none"> ● Quality not quantity <ol style="list-style-type: none"> 1. Each action needs detailed information on the why, who, what, and when of the action. ● 2019 projects <ol style="list-style-type: none"> 1. If a project is not finished and still a priority, include in 2024 HMP 2. Remove general projects or make more specific 3. Remove ongoing capabilities like maintenance or annual outreach ● Each hazard needs at least one mitigation action ● If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses) ● Four types of Mitigation Actions <ol style="list-style-type: none"> 1. Plans and regulations 2. Structure and Infrastructure 3. Natural systems protection 4. Education and awareness 	-
5	<p>Next Steps</p>	-

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
 Planning Partnership Mitigation Strategy Workshop | Meeting Minutes**



	<ul style="list-style-type: none"> • Share information about the HMP Update via social media, community groups, and networks • Attend the Public Risk Assessment Meeting on Thursday, November 9 @ 7:00 p.m. via Teams: https://msteams.link/4HOW 	
6	<p>Questions/Discussion</p> <ul style="list-style-type: none"> • Planning Partnership: There are 11 communities involved in the NJDEP Climate Vulnerability Project. Is there an action that can be written for that project? <ul style="list-style-type: none"> ○ Chris Huch: So those 11 communities can use their involvement in the project as a mitigation action. The project will have a robust vulnerability assessment which will be a great capability for those communities. 	-



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

**Planning Partnership Mitigation Strategy
Workshop**

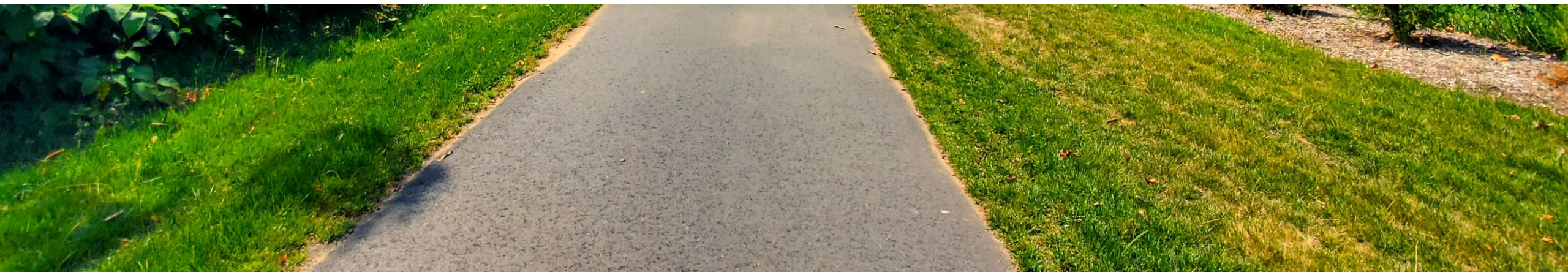
October 30, 2023

Confirm you have signed the Sign-In
Sheet for this meeting.



Today's Agenda

1. Identifying and Developing Mitigation Strategies
2. Review Previous Actions
3. Developing New Potential Actions
4. Workshop to Review Previous Actions, Identify New Actions, Complete Municipal Annexes
- 5. Check in with Tetra Tech staff before leaving**





Identifying and Developing Mitigation Strategies



Purpose of Mitigation Strategy

- The **Mitigation Strategy** is the County's roadmap to reduce the risk of hazards identified in the HMP. The strategy is based on hazard impacts, asset vulnerability, and the County's capabilities.
- **Mitigation Actions** are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk.
 - Forward-looking and incorporate changing conditions for the life of the County's assets
 - Consider changing demographics, development patterns, impacts of climate change.
 - Examples of actions may include elevating electrical and HVAC equipment to reduce the likelihood of damage from floodwaters or planting trees to lower temperatures exacerbated by pavement.
 - ***Actions included in the plan are eligible for certain types of FEMA funding.***

Using Your Mitigation Strategy to Reduce Risk



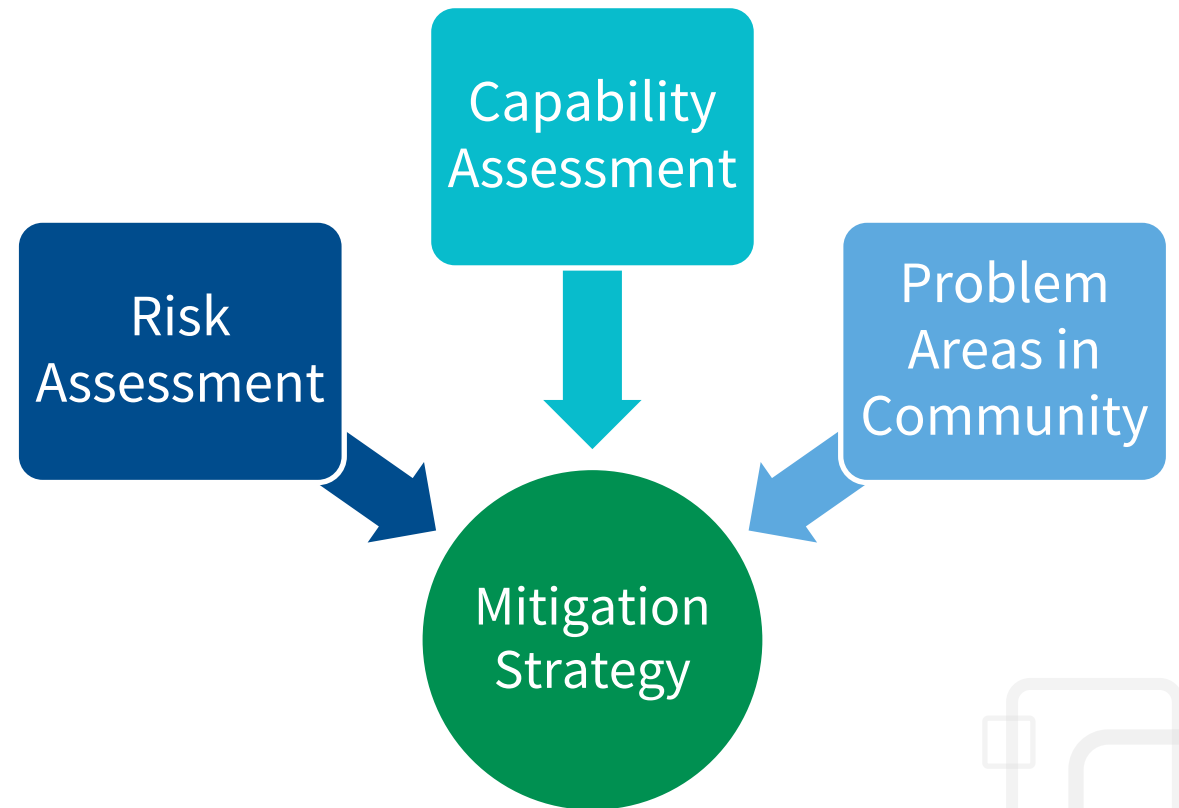
- What is a *Mitigation Strategy*?
 - A group of projects or actions to reduce the impacts of the hazards of concern on your community
 - Plans and Regulations
 - Structure and Infrastructure Studies and Projects
 - Natural Systems Protection Studies and Projects
 - Education and Awareness Programs
- Terms to describe the *Mitigation Strategy* include:
 - **Mitigation Action Plan** or **Action Plan**
 - **Mitigation Projects** or **Initiatives** or **Actions**

Your Mitigation Strategy is included in your annex. Each action will be developed on individual Action Worksheets to include detailed information that can serve as starting points for grant applications



Connecting to the Mitigation Strategy

- Need a clear connection between vulnerabilities identified in the risk assessment and proposed mitigation actions.
- The capability assessment can provide insight into challenges and opportunities for the mitigation strategy.
- All actions proposed in the mitigation strategy must have a factual basis tied to hazards (*this shouldn't be a wish list!*)



Hazards of Concern



Dam Failure

A white icon of a dam with water flowing over it, set against a blue circular background.

Disease Outbreak

A white icon of a virus particle with a central core and radiating spikes, set against a blue circular background.

Drought

A white icon showing a sun, a cracked ground surface, and a faucet with a single drop of water, set against a blue circular background.

Earthquake

A white icon of a house with a jagged crack running through its roof, set against a blue circular background.

Extreme Temperature

A white icon of a thermometer, set against a blue circular background.

Flood

A white icon of a house partially submerged in water, set against a blue circular background.

Severe Storm

A white icon of a cloud with a lightning bolt striking below it, set against a blue circular background.

Severe Winter Weather

A white icon of a cloud with three snowflakes falling below it, set against a blue circular background.

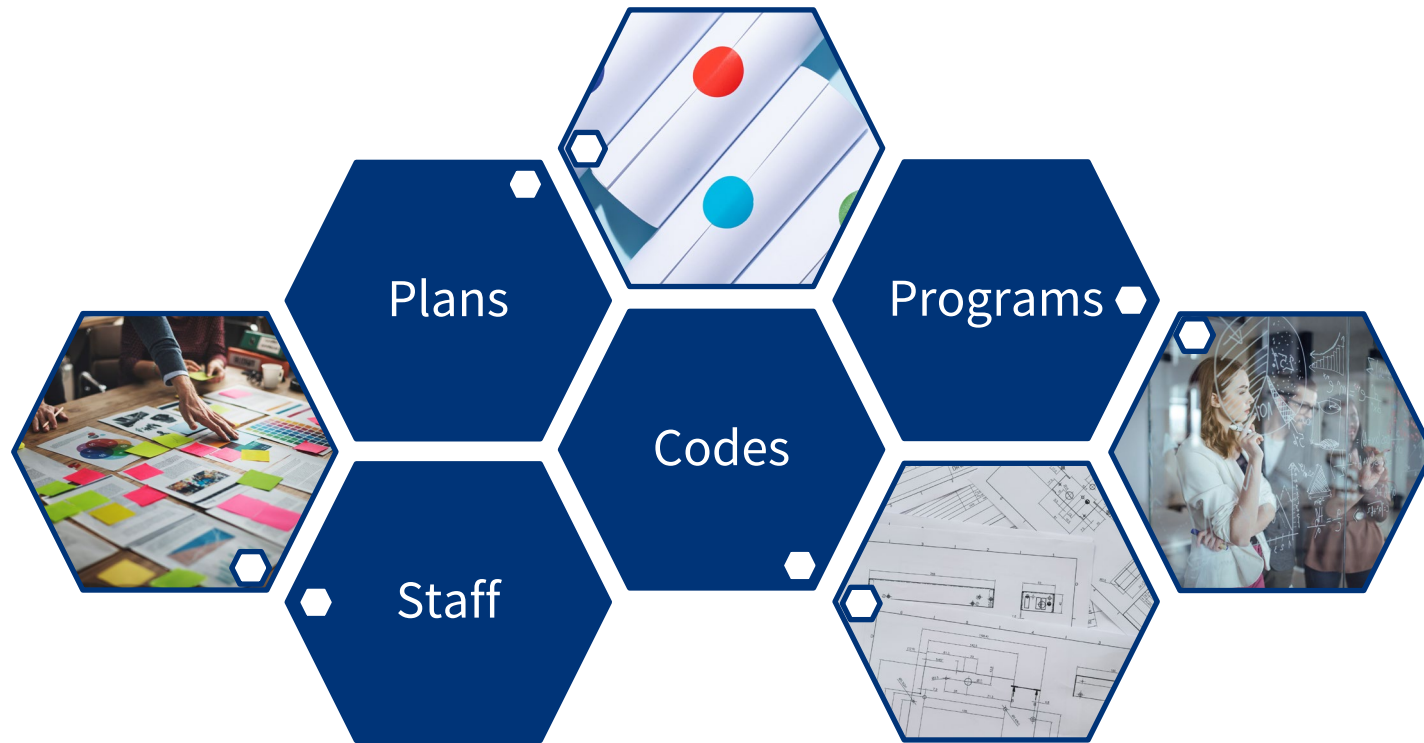
Wildfire

A white icon of a flame, set against a blue circular background.

Capability Assessment



- Capabilities
 - What does your jurisdiction use to reduce risk to hazards?



Mitigation Strategy



- Goals
 - What outcomes do you want to achieve?
- Actions
 - What specific actions will be taken to reduce hazard risk?
- Action Plan
 - How will the actions be prioritized and implemented?





Review Previous Actions

Previous Actions Review



Review the mitigation actions your jurisdiction identified in the previous HMP by providing a brief status narrative. Begin by providing the status:

- **IN PROGRESS:** Started but not complete
- **ONGOING CAPABILITY:** An action you now complete on a regular basis (maintenance, annual outreach, etc.). These actions will be included in your capabilities moving forward.
- **NO PROGRESS:** Not started
- **COMPLETE:** Finished!

Actions that are **COMPLETE** or **ONGOING** will not be carried forward.



Hazard Mitigation Plan 2024 Update
Burlington County, New Jersey
Mitigation Strategy

STATUS OF PREVIOUS MITIGATION ACTIONS

Review the mitigation actions your jurisdiction identified in the previous HMP by providing a brief narrative. Begin by providing a status update for each action listed in your last annex:

- **IN PROGRESS:** Started but not complete
- **ONGOING CAPABILITY:** An action you now complete on a regular basis (maintenance, annual outreach, etc.). These actions will be included in your capabilities moving forward.
- **NO PROGRESS:** Not started
- **COMPLETE:** Finished!

Actions that are **COMPLETE** or **ONGOING** will not be carried forward. Indicate if **NO PROGRESS** or **IN PROGRESS** actions should be carried forward!

Table 3. Status of Previous Mitigation Actions

Project #	Project	Responsible Party	What is the status? (e.g., in Progress, No Progress, Ongoing Capability, or Completed)	If you did not complete the action, should the action be included in the 2024 HMP (i.e., there is still a need, this is still a priority)?		
			Provide details including the funding source, cost, phases completed, obstacles to progress, etc.	Yes/No	If Yes, please describe the original problem (i.e., hazard, location, historic losses), any updates to the action needed.	Hazard(s) of Concern addressed (refer to the hazards on page 1)
T. Delanco - 1	Bogg's Run – Phase implement improvements to increase the capacity of culverts at the Light Rail Line and Burlington Avenue	Lead: USACE, NJ Transit, County, State Support: Municipality				
T. Delanco - 2	Perform seawall repairs on Delaware Riverfront	Township Committee				
T. Delanco - 3	Perform drainage improvements at Hickory St.	Township Committee				
T. Delanco - 4	Purchase new OEM phone system	Township Committee				
T. Delanco - 5	Establish Street Tree Inspection program and implement removal of dangerous trees	Township Committee				



Developing New Potential Actions

Requirements for the Mitigation Strategy Update



- Quality not quantity
 - Each action needs detailed information on the why, who, what, and when of the action.
- 2019 projects
 - If a project is not finished and still a priority, include in 2024 HMP
 - Remove general projects or make more specific
 - Remove ongoing capabilities like maintenance or annual outreach
- **Each hazard needs at least one mitigation action**
- If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses)

Mitigation Action Types



Plans and regulations include government authorities, policies, or codes that encourage risk reduction, such as building codes and state planning regulations. This may also include planning studies.



Structure and infrastructure projects involve modifying existing structures and infrastructure or constructing new structures to reduce the impact of hazards.



Natural systems protection projects minimize losses while also preserving or restoring the function of natural systems.



Education and awareness programs include long-term, sustained programs to inform and educate citizens and stakeholders about hazards and mitigation options. This category could also include training.

Table 1. Mitigation Action Worksheet



Lead Agency:		
Supporting Agencies:		
Hazard(s) of Concern:		
Description of the Problem:		
Description of the Solution:		
Estimated Cost:		
Potential Funding Sources:		
Implementation Timeline:		
Goals Met:		
Benefits:		
Impact on Socially Vulnerable Populations:		
Impact on Future Development:		
Impact on Critical Facilities/Lifelines:		
Impact on Capabilities:		
Climate Change Considerations:		
Mitigation Category:		
CRS Category:		
Priority:		
Alternatives:	Action	Evaluation
	No Action	
	Alternative 1	
	Alternative 2	





Questions?



Workshop

Review previous mitigation actions, identify new actions, complete missing areas in your annex.

Before you leave, check in with Tetra Tech staff!

Burlington County Project Contact

Kristen Carr, Office of Emergency Management
(609) 738-5139 | KrCarr@co.burlington.nj.us

Tetra Tech Project Manager

Chris Huch, CFM
(973) 630-8357 | chris.huch@tetratech.com

Tetra Tech Lead Planner

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetratech.com



Thank
You!



BURLINGTON COUNTY HAZARD MITIGATION PLAN UPDATE
Public Risk Assessment Meeting – AGENDA
MEETING DATE/TIME: November 9, 2023 – 07:00 pm – 8:00 pm



Virtual Meeting

Dial-In Phone Number: +1 617-865-5234; Conference ID: 717 851 532#

Join by Meeting: <https://msteams.link/FS5S>

- 1. Opening Remarks/Introduction**
- 2. Hazard Mitigation Overview**
- 3. Planning Process Overview**
- 4. Risk Assessment Overview**
 - **Results of risk assessment for each hazard**
 - **Hazards of concern risk ranking**
 - **How will this information be used in the HMP?**
- 5. Feedback and Input**
- 6. Next Steps**
- 7. Questions**

Burlington County Project Contacts

Kristen Carr, Deputy OEM Coordinator
Burlington County OEM
(609) 738-5139 | krcarr@co.burlington.nj.us

Tetra Tech Project Contacts

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(973) 630-8357 | chris.huch@tetrattech.com

Jessica Stokes, MSEM, NJCEM
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(973) 630-8017 | jessica.stokes@tetrattech.com

**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Public Risk Assessment Review | Meeting Minutes**



Purpose of Meeting:	Public Risk Assessment Review
Location of Meeting:	Teleconference
Date of Meeting:	November 9, 2023 @ 7:00 pm – 8:00 pm
Attendees:	<ul style="list-style-type: none"> • Burlington County <ul style="list-style-type: none"> ○ Kristen Carr, OEM Deputy Coordinator • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner

Agenda Summary: The purpose of the meeting was to provide an overview of the hazard mitigation planning, the hazard mitigation planning process, review the risk assessment results, including the hazard ranking, and note any public feedback.

Item No.	Description	Action item(s):
1	Introductions	-
2	<p>Hazard Mitigation Overview</p> <ul style="list-style-type: none"> • Mitigation describes actions taken to help reduce or eliminate the long-term risks/damages cause by hazards • Having an HMP permits eligibility for FEMA pre- and post-disaster grant funding • Must meet FEMA’s new 2023 guidelines, which include an increase in participation, discussions on climate change and socially vulnerable populations, increased documentation needs, and to show how existing capabilities are integrated into the plan. 	-
3	<p>Planning Process Overview</p> <ul style="list-style-type: none"> • Hazard mitigation planning is an eight-step process, including: the planning process itself, the risk assessment, public and involvement strategy, mitigation strategy, plan maintenance, plan update and deliverables, plan adoption, and project management and coordination. • The risk assessment is an important element of the plan because it provides a basis for your policy and helps to identify what is most important to address to increase resiliency. • To complete the risk assessment, we need to: <ul style="list-style-type: none"> ○ Review and update the hazards of concern ○ Update assets – critical facilities and community lifelines ○ Look at the impacts of each hazard since the last HMP ○ Analyze the risk to each asset ○ Review the findings 	-
4	<p>Risk Assessment Overview</p> <ul style="list-style-type: none"> • Risk is defined as a function of : <ul style="list-style-type: none"> ○ Hazard <ul style="list-style-type: none"> ▪ Source of potential danger or adverse condition ○ Exposure <ul style="list-style-type: none"> ▪ Manmade or natural features that are exposed to the hazard ○ Vulnerability <ul style="list-style-type: none"> ▪ Damage susceptibility of the exposed features ○ Adaptive Capacity (or capability) <ul style="list-style-type: none"> ▪ Plans/policies ▪ Response/recovery ▪ Financial resources 	-



	<ul style="list-style-type: none"> • The purpose of the Risk Assessment is: <ul style="list-style-type: none"> ○ To get a better understanding of the risks you face ○ View the initial results based on available data ○ Utilize quantitative data (population/structures exposed, structural damages within hazard zones) when available ○ Integrate qualitative community input (such as unmapped flood areas) to adjust results ○ Encourage local community input to adjust relative rankings 	
5	<p>Preliminary Risk Assessment Results</p> <ul style="list-style-type: none"> • Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data. 	-
6	<p>Hazard Rankings</p> <ul style="list-style-type: none"> • The calculated probability of a hazard occurring based on historical data • Impacts to people, property, and the economy based on GIS data and analysis of exposure. • The degree to which climate change will affect future occurrences based on best available data. • The degree to which existing capabilities (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. • Ranking: <ul style="list-style-type: none"> ○ High: Severe Weather ○ Medium: Extreme Temperature, Dam Failure, Severe Winter Weather, Disease Outbreak, Drought, Flood ○ Low: Wildfire, Earthquake 	-
7	<p>Meeting Wrap-Up</p> <ul style="list-style-type: none"> • Do you live in Burlington County? Consider taking the Public Survey! <ul style="list-style-type: none"> ○ https://bit.ly/45c7Gol • Do you work in Burlington County? Consider taking the Stakeholder Survey! <ul style="list-style-type: none"> ○ https://bit.ly/49IUeka 	-
8	<p>Questions/Discussion</p>	-



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

Public Risk Assessment Meeting

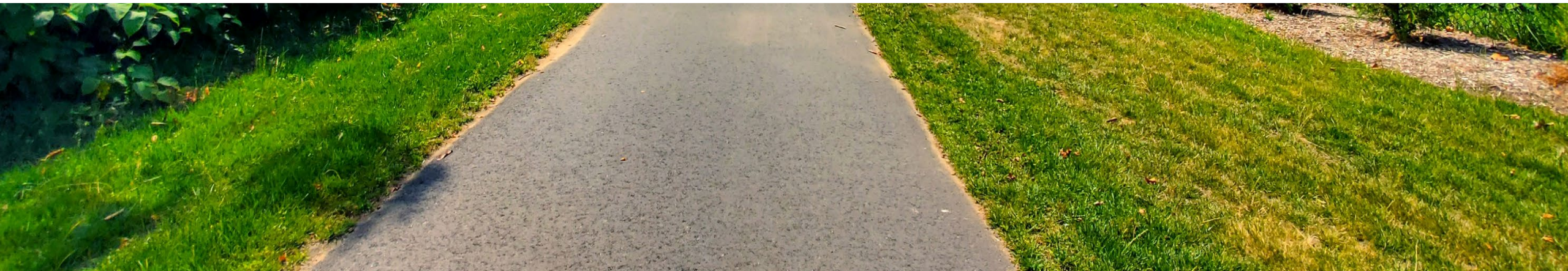
November 9, 2023

While waiting for the meeting to start, please enter your name and which municipality you are from in the chat.



Today's Agenda

1. Welcome and Introductions
2. Hazard Mitigation Planning Overview
3. Planning Process Overview
4. Risk Assessment Overview
5. Hazard Ranking
6. Questions/Wrap Up





Hazard Mitigation Overview

Mitigation planning happens before a disaster strikes. It results in safer, more resilient communities – reducing risk for the residents, businesses, and critical services in Burlington County.

Hazard Mitigation Planning Overview



- ✓ Authorized by the Disaster Mitigation Act of 2000
- ✓ Provides an overview of the impacts of natural hazards on communities
- ✓ Provides a roadmap to reducing the impact of these hazards
- ✓ Requires a FEMA-approved natural hazard mitigation plan to be eligible for Pre-Disaster Mitigation Funding
- ✓ 5-year updates required to maintain eligibility

- What is hazard mitigation?
- Why update the plan?
- What is the process?

What is Hazard Mitigation?



Mitigation is a sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event

-or-

Any action taken to reduce future disaster losses



“provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability...” (CFR).



Planning Process Overview

A well-defined planning process is essential to the success of Burlington County's HMP Update.

Planning Process Overview



1 Planning Process

2 Risk Assessment

3 Public Involvement Strategy

4 Mitigation Strategy

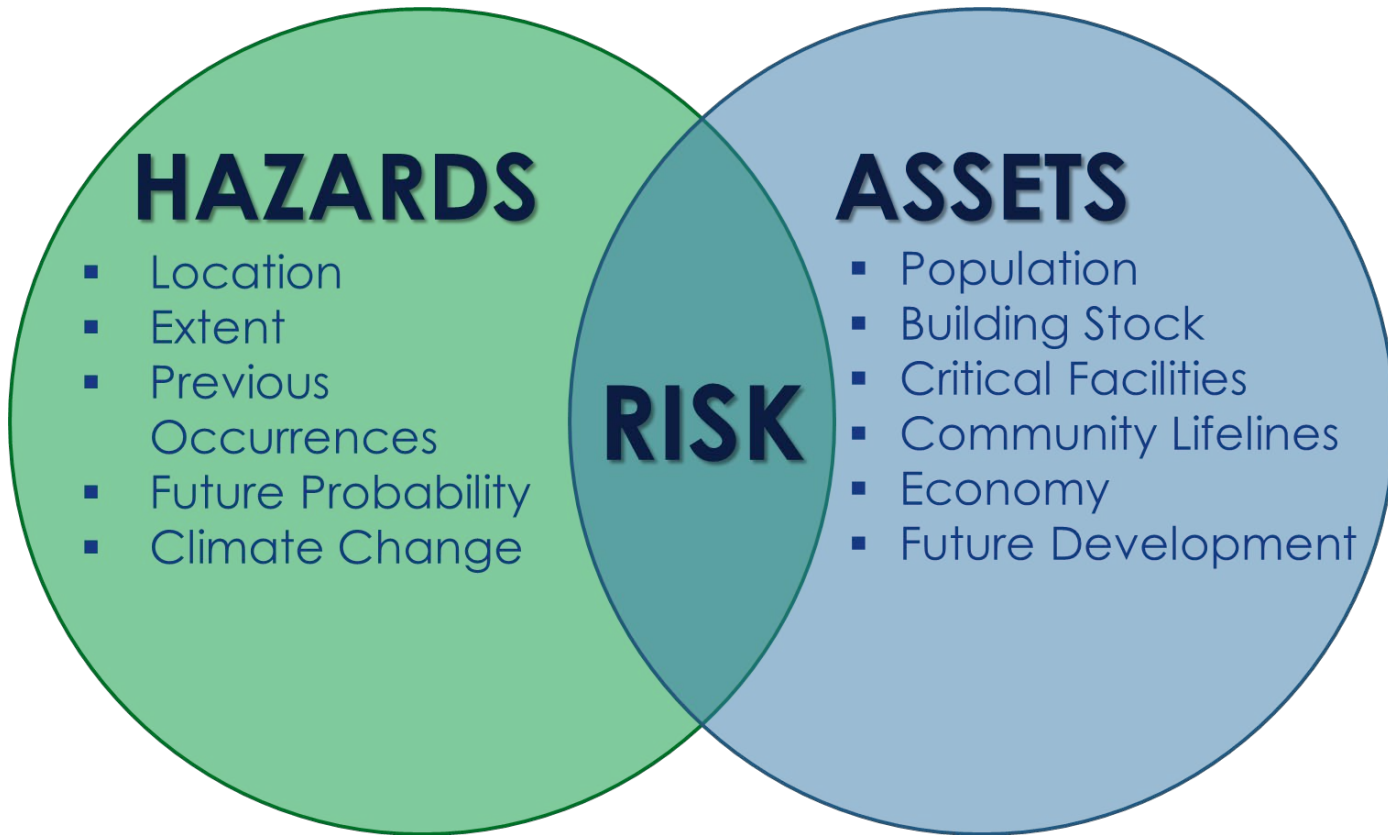
5 Plan Maintenance

6 Plan Update and Deliverables

7 Plan Adoption

8 Project Management and Coordination

Update Risk Assessment



- Updated Assets
- Examined Previous Impacts
- Analyzed Risks
- Reviewed with Steering Committee
- Risk Assessment Meeting (today!)



Hazards of Concern



Dam Failure



Disease Outbreak



Drought



Earthquake



Flood



Severe Weather



Severe Winter Weather



Wildfire





Risk Assessment Overview



What is Risk?

Risk is defined as a function of :

- Hazard
 - Source of potential danger or adverse condition
- Exposure
 - Manmade or natural features that are exposed to the hazard
- Vulnerability
 - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
 - Plans/policies
 - Response/recovery
 - Financial resources





Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Dam Failure

Dam failures in Burlington County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

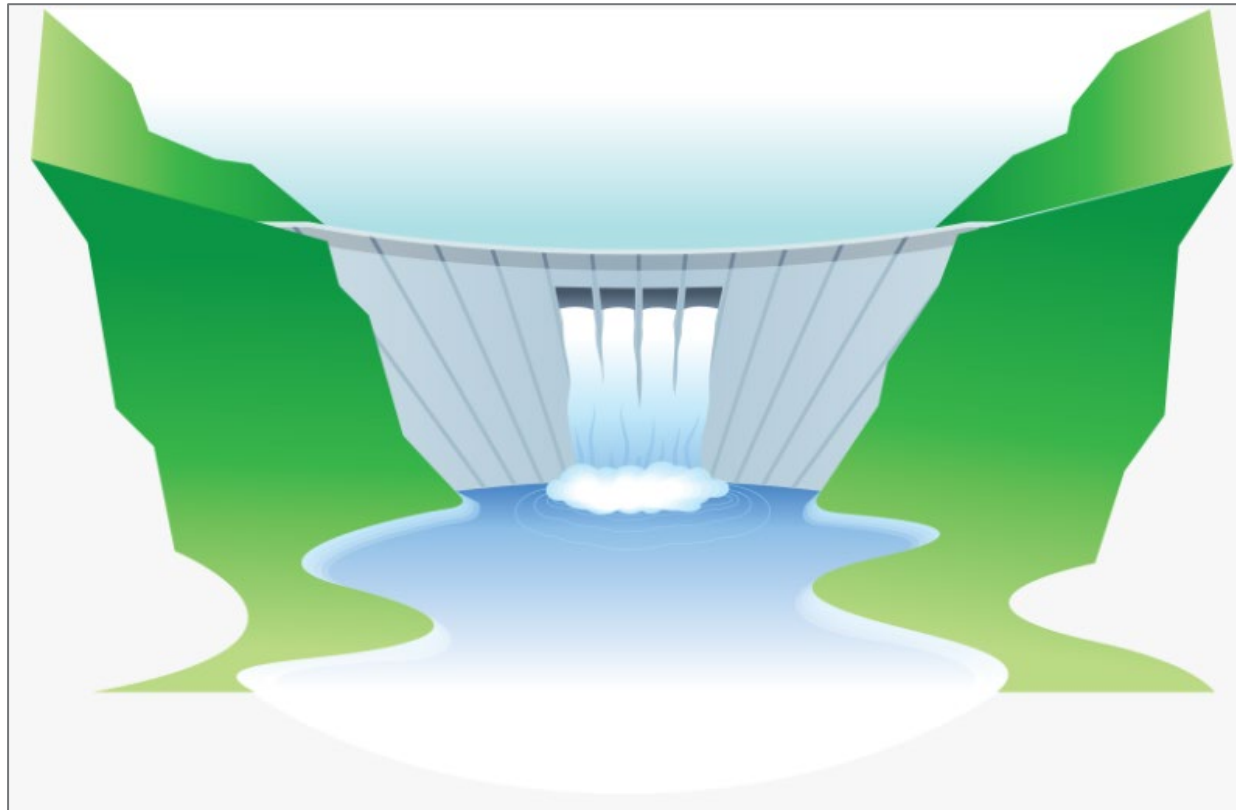
74

- 10 High Hazard
- 40 Significant Hazard
- 24 Low Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding that follows a dam failure can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dam Graphic



Notable Occurrence



On July 12-13, 2004, the Townships of Lumberton and Medford experienced major flooding due to heavy rainfall. Property damage from the flood was estimated at \$50 million. The flooding led to the evacuation of about 760 residents, the complete destruction of seven homes, major flood damage to approximately 200 homes, flood damage to approximately 1,000 homes, the closing of 25 major roads.

Disease Outbreak

Disease outbreaks can impact the entirety of Burlington County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population Exposed

461,860

(100%)

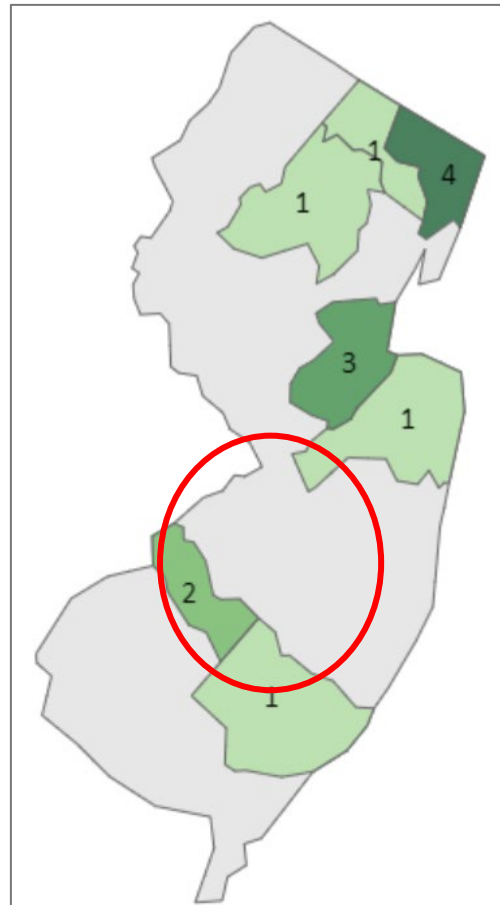
The entire County is susceptible

Notable Occurrences

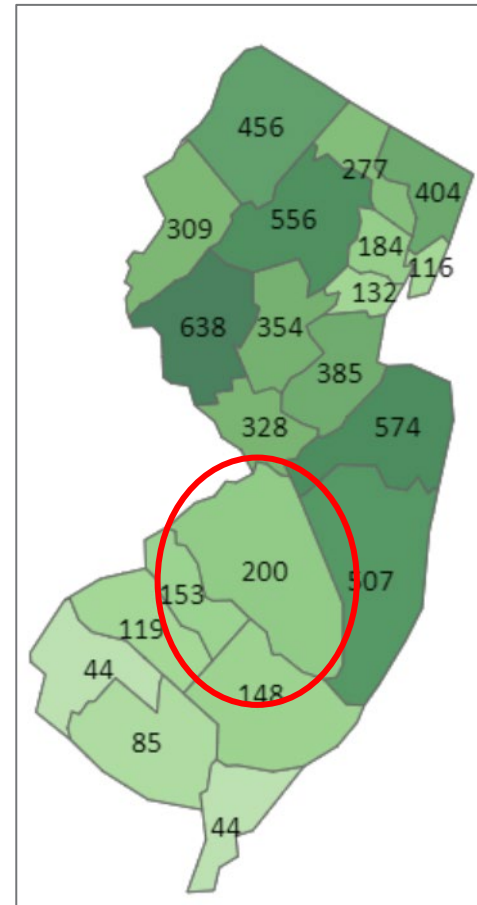


- In 2019, there were 236 confirmed cases of Lyme Disease.
- In 2020, there were 847 confirmed cases of Influenza.
- Since 2020, Burlington County reported 117,710 positive cases of COVID-19 and 681 deaths.

West Nile Virus Cases by County, 2023



Lyme Disease Cases by County, 2023



Hazard Types

- Influenza
- West Nile Virus
- Lyme Disease
- Coronavirus

Drought

Droughts can affect Burlington County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population Exposed

461,860

(100%)

The entire County is susceptible

USDA Declarations

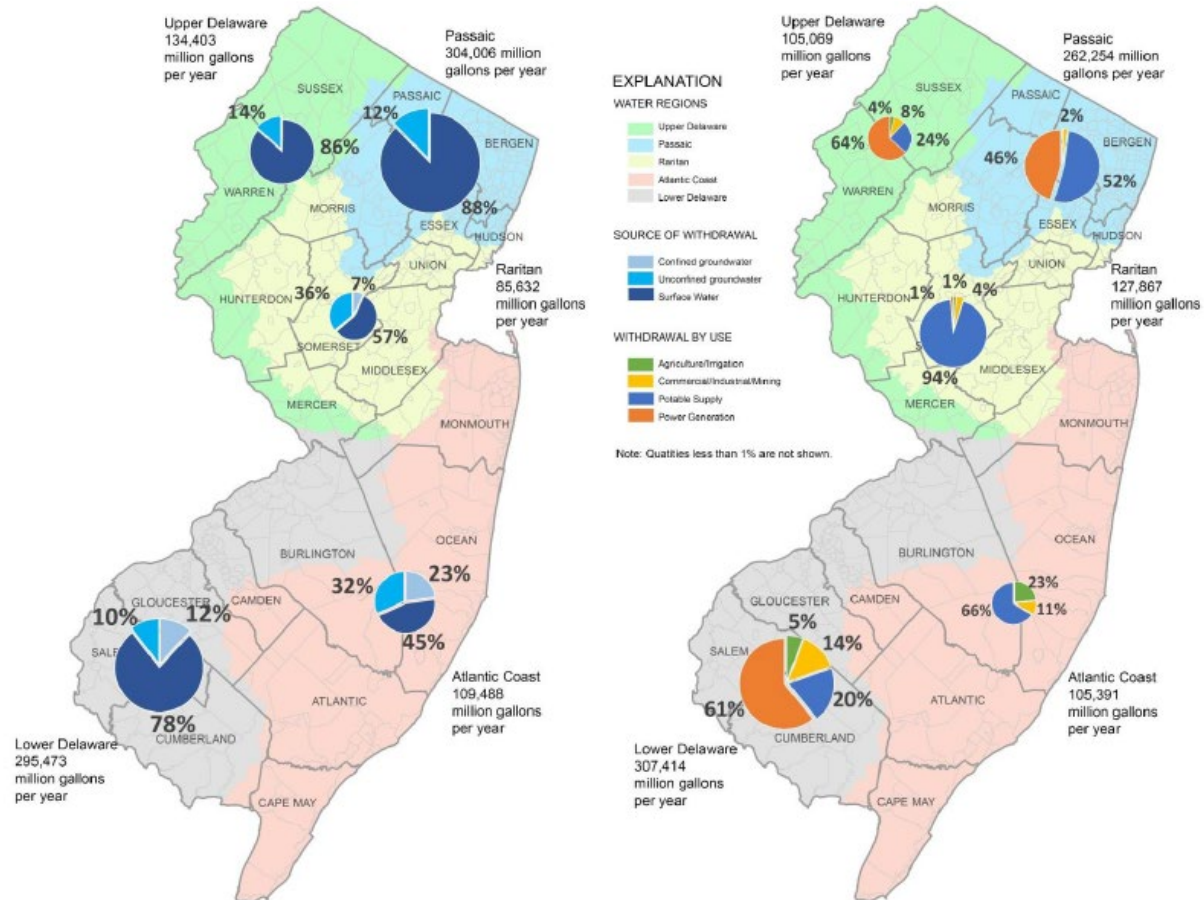
3

- 3 Drought declarations

Climate Change Impacts

It is anticipated that droughts lasting 3 to 6 months and longer may slightly increase in frequency under a low emissions scenario and will significantly increase under a high emissions scenario.

Water Regions, Sources and Withdrawal by Sector in New Jersey



Hazard Types



Meteorological



Hydrological



Agricultural



Socioeconomic

Earthquake



Earthquakes in Burlington County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Population Exposed

461,860
(100%)

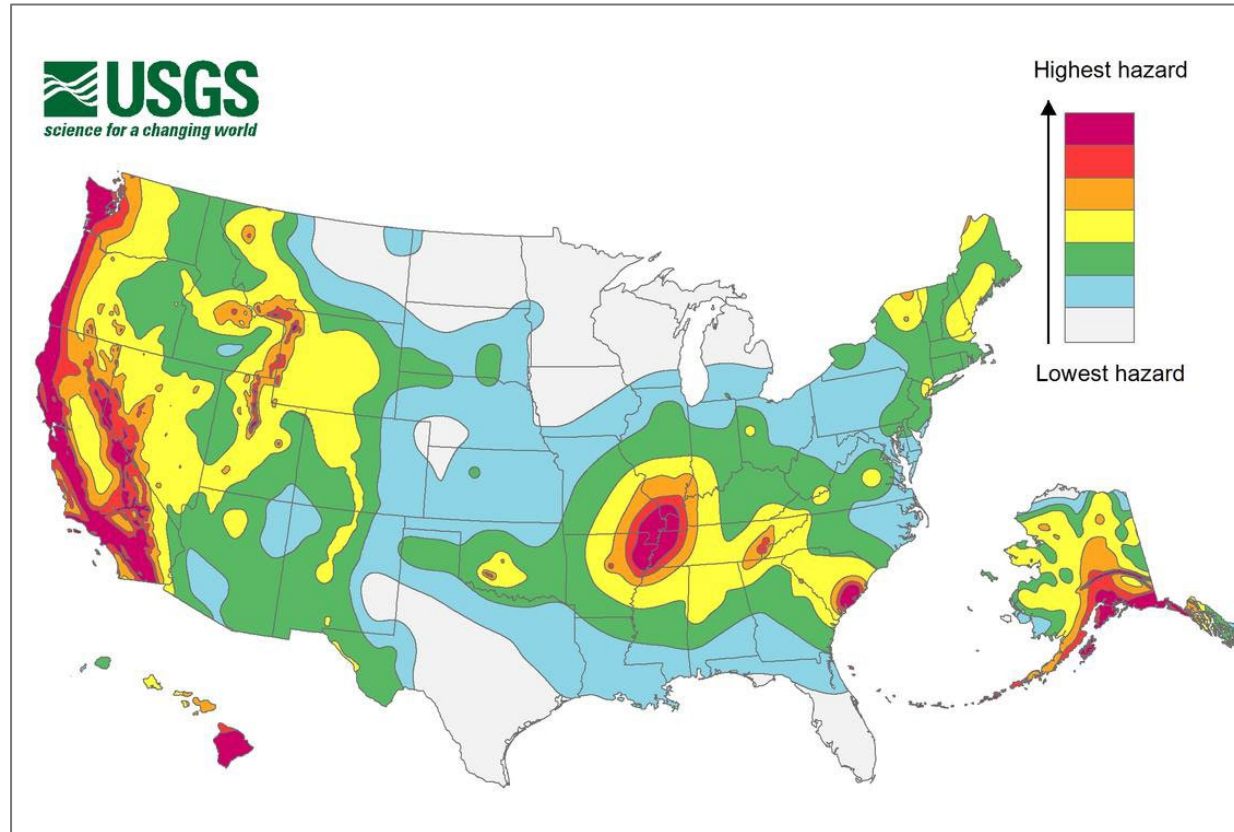
The entire County is susceptible

Notable Occurrences



Small earthquakes may occur several times a year and generally do not cause significant damage. The strongest earthquake with an epicenter in Burlington County was a 3.0 quake in Medford Lakes in 1980.

Location



Hazard Types

- Surface Faulting
- Ground Motion
- Liquefaction
- Tectonic Deformation
- Seiche

Extreme Temperatures

Extreme temperature includes both heat and cold events, which affects the entire County including, human health and commercial/agricultural businesses. Extreme temperature events can have primary and secondary effects on infrastructure.

Population Exposed

461,860

(100%)

The entire County is susceptible

USDA Declarations

2

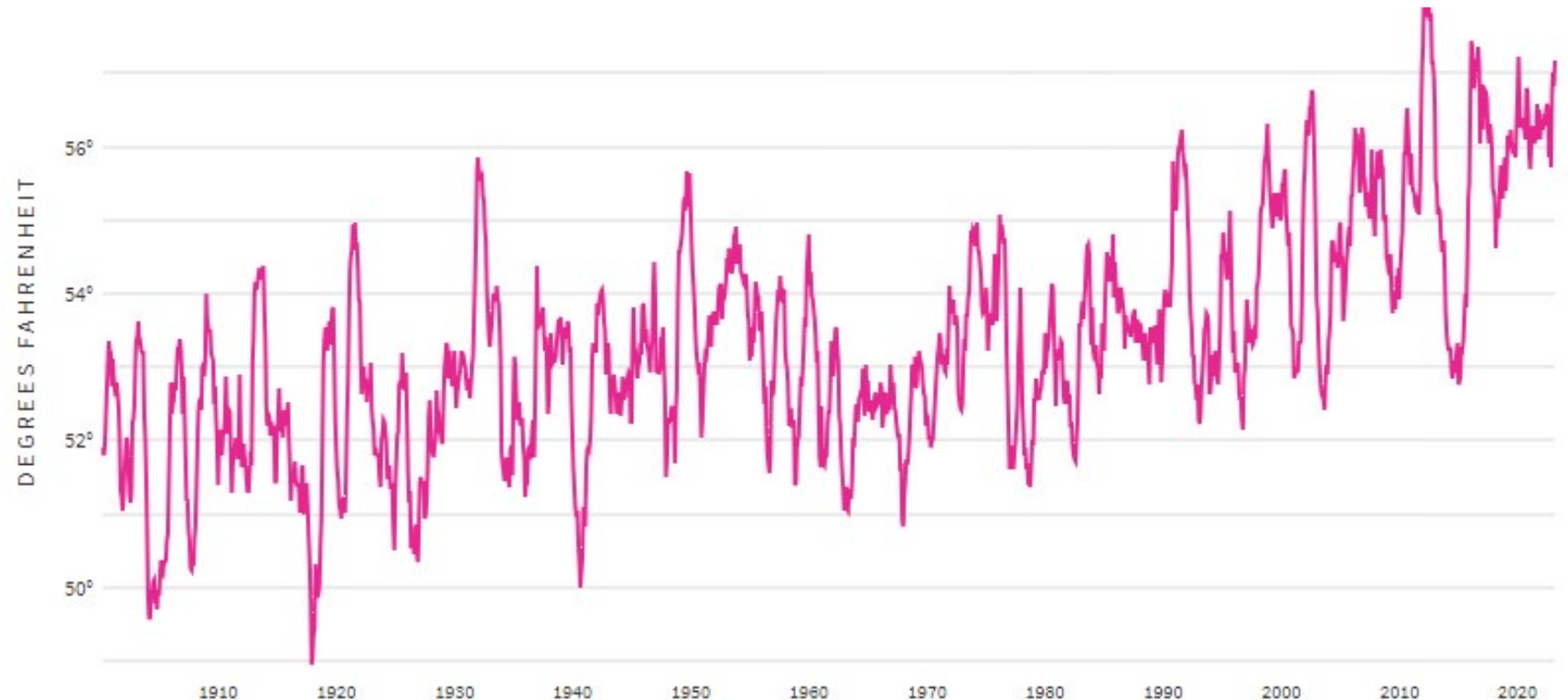
- 2 Excessive Heat declarations

Climate Change Impacts

New Jersey has experienced a 3.5° F (1.9° C) increase in the State's average temperature. By 2050, temperatures in New Jersey are expected to increase by 4.1 to 5.7° F.



12-Month Temperature Averages in Burlington County



Flood

Floods are one of the most frequent and costly natural hazards in Burlington County in terms of human hardship and economic loss, particularly to communities that lie within flood prone areas or floodplains.

Population Exposed

14,583
(3.2%)

In 1% Annual Chance Flood Area

25,026
(5.4%)

In 0.2% Annual Chance Flood Area

Number of Buildings Exposed

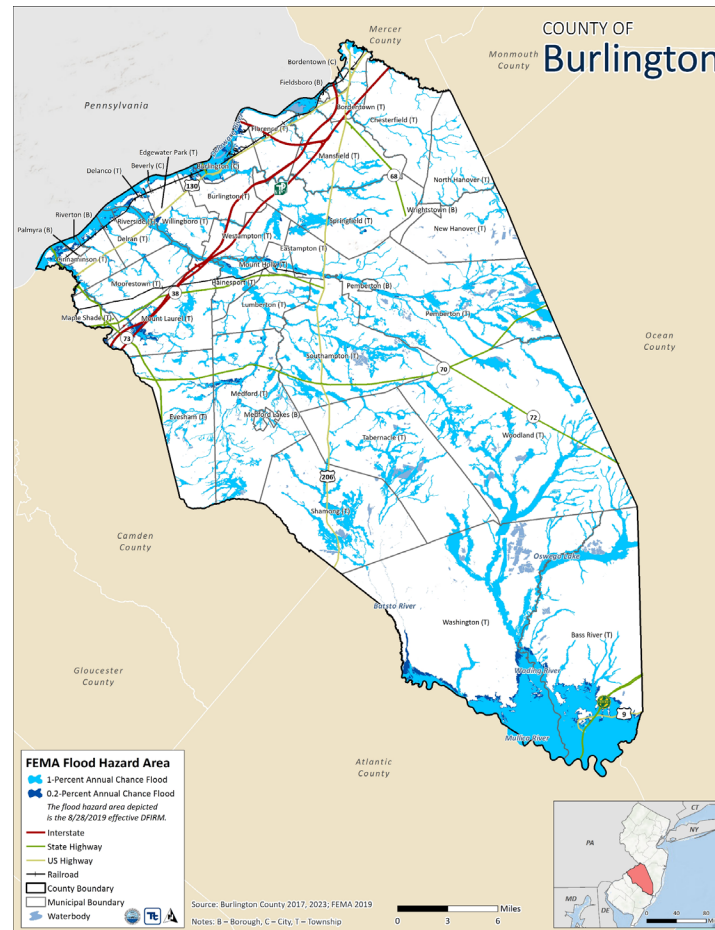
5,163

In 1% Annual Chance Flood Area

8,739

In 0.2% Annual Chance Flood Area

Location



Flood Building Replacement Cost Value

\$9,333,016,825

In 1% Annual Chance Flood Area

\$14,060,945,896

In 0.2% Annual Chance Flood Area



Land Exposed to Flood Hazard

72,903

(14.6%)

Sea Level Rise Impacts

1-Foot Hazard Area

- 225 Persons Located in Hazard Area
- 90 Buildings Located in Hazard Area

3-Foot Hazard Area

- 677 Persons Located in Hazard Area
- 272 Buildings Located in Hazard Area

Hazard Types



Riverine / Inland



Flash Flood



Urban / Stormwater



Coastal



Ice Jam



Erosion



Sea Level Rise

Severe Weather

Severe weather can occur anywhere in the County at any time and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

461,860

(100%)

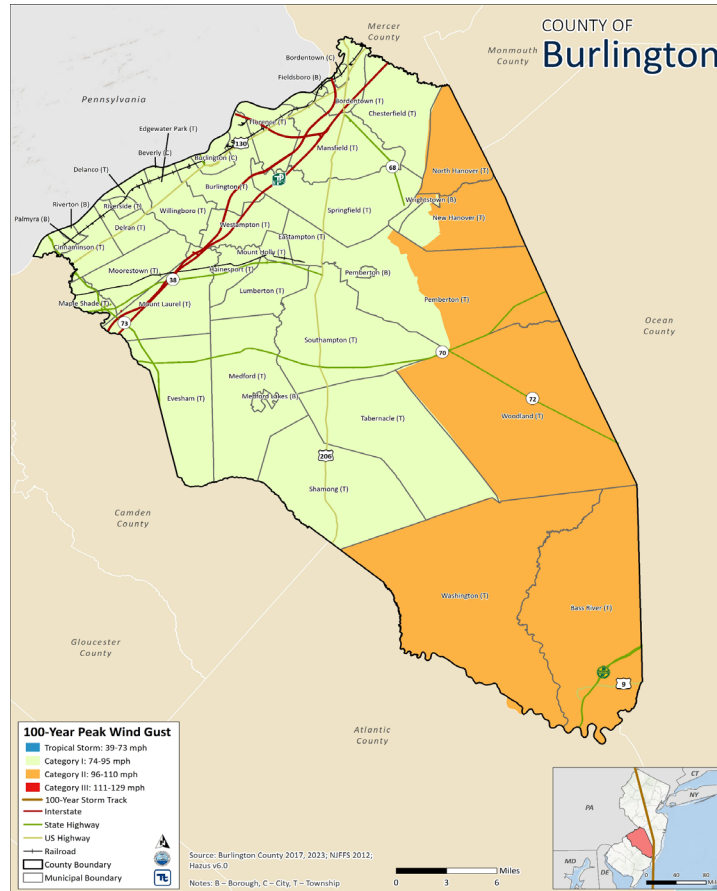
The entire County is susceptible

Notable Occurrences



The remnants of Hurricane Ida resulted in widespread thunderstorms. An EF-1 tornado formed in Burlington Township, near Edgewater Park. Extensive tree damage was reported. Power outages occurred due to damages to powerlines.

Location



Potential Impacts

- Essential Services Interruptions Power Outages
- Traffic Accidents
- Downed Trees
- Property Damage
- Personal Injury / Loss of Life

Hazard Types



Climate Change Impacts

New Jersey has experienced a 3.5° F (1.9° C) increase in the State's average temperature. By 2050, temperatures in New Jersey are expected to increase by 4.1 to 5.7° F. Increases will be more conducive to increased frequency and intensity of severe storms (e.g., thunderstorms, tornadoes).



Severe Winter Weather

Severe winter weather can occur anywhere in the County and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population Exposed

461,860

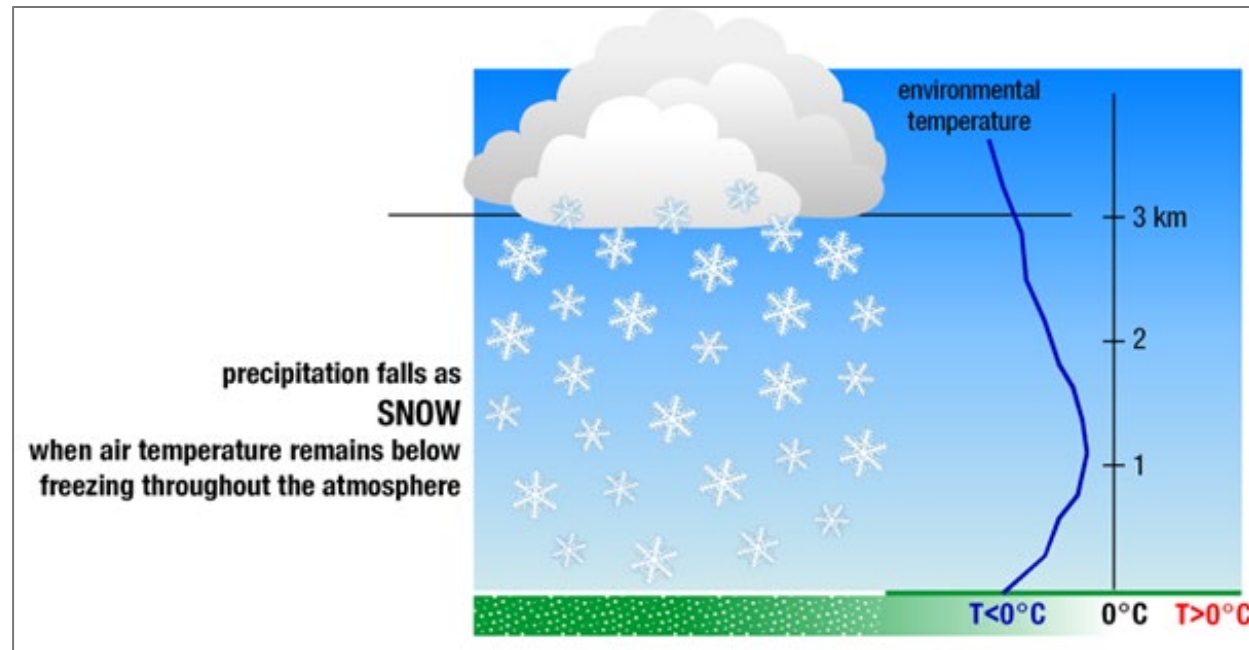
(100%)

The entire County is susceptible

Hazard Types

- Heavy Snow
- Blizzard
- Sleet
- Ice Storm
- Nor'easter

Formation of Snow



Notable Occurrences



The Blizzard of 1996 dropped roughly 30 inches of snow in parts of Burlington County on January 7, 1996. Property damage was in the millions and the storm resulted in one death.

Wildfire events in Burlington County typically occur toward the forested southeastern portions of the County in the Pinelands. Wildfires can have impacts on critical services, utilities, and properties, and may cause injury.

Population Exposed

6,406
(1.4%)

Of the County is susceptible

Building Replacement Cost Value

\$4,963,331,009

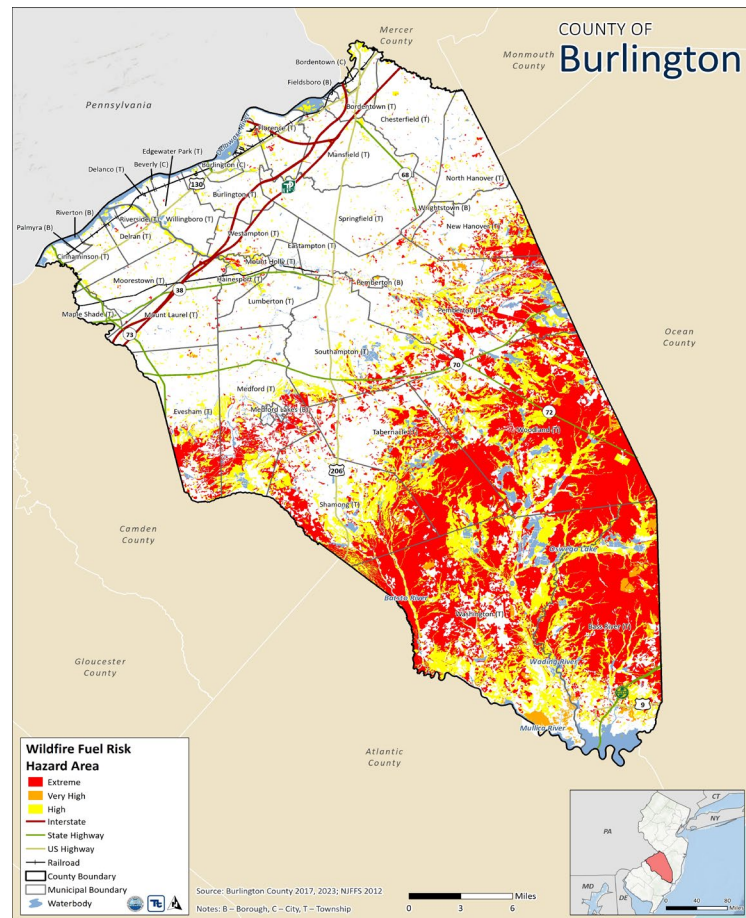
In Extreme, Very High, or High Wildfire Fuel Risk Hazard Area

Number of Buildings Exposed

2,140
(1.4%)

In Extreme, Very High, or High Wildfire Fuel Risk Hazard Area

Location



Notable Occurrences



On June 19-21, 2022 a wildfire was detected in a remote section of the Wharton State Forest in Mullica Twp. Unseasonably dry, windy conditions, combined with difficulty in accessing the initial fire location, led to rapid fire spread. When the fire was fully contained an estimated 14,983 acres had burned. This made it the largest wildfire in New Jersey since 2007.

Climate Change Impacts

Burlington County can expect warmer and drier conditions which may increase the frequency and intensity of wildfires. Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.



Hazard Rankings

Review the calculated hazard rankings and provide your feedback.

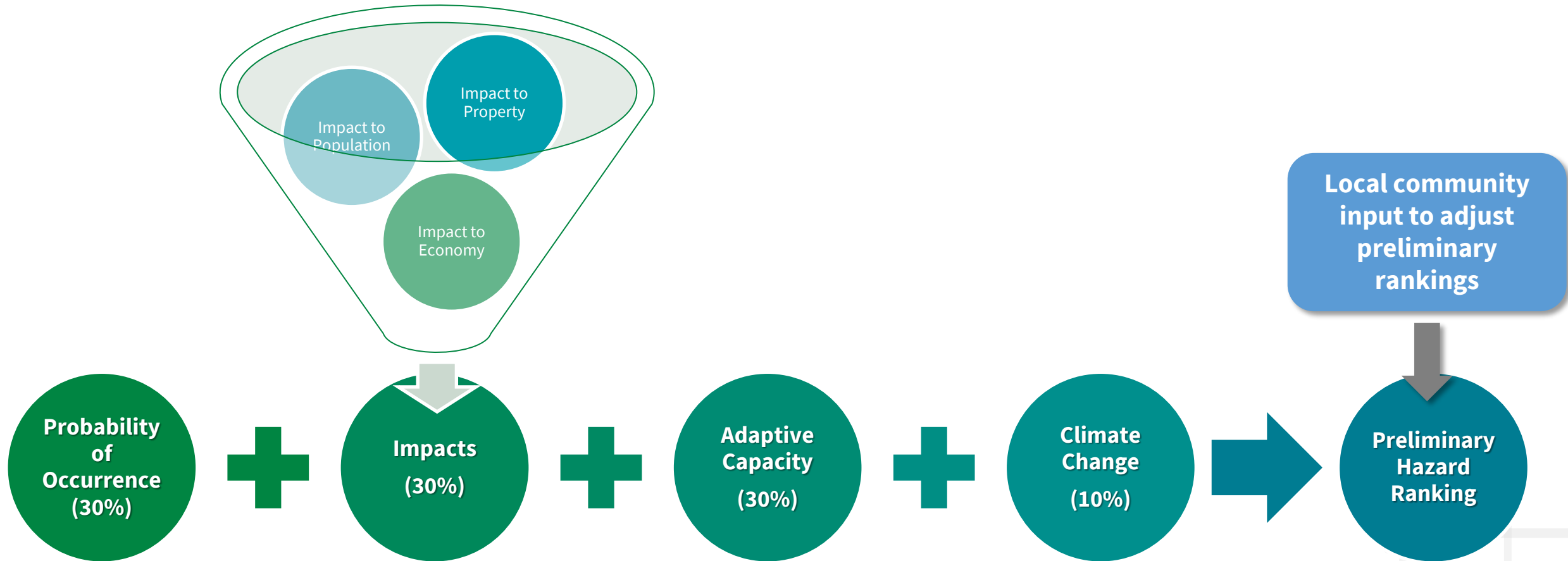
Preliminary Hazard Ranking Methodology



- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which climate change will affect future occurrences based on best available data.
- The degree to which existing capabilities (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.



Preliminary Hazard Ranking Formula



Risk Ranking



High

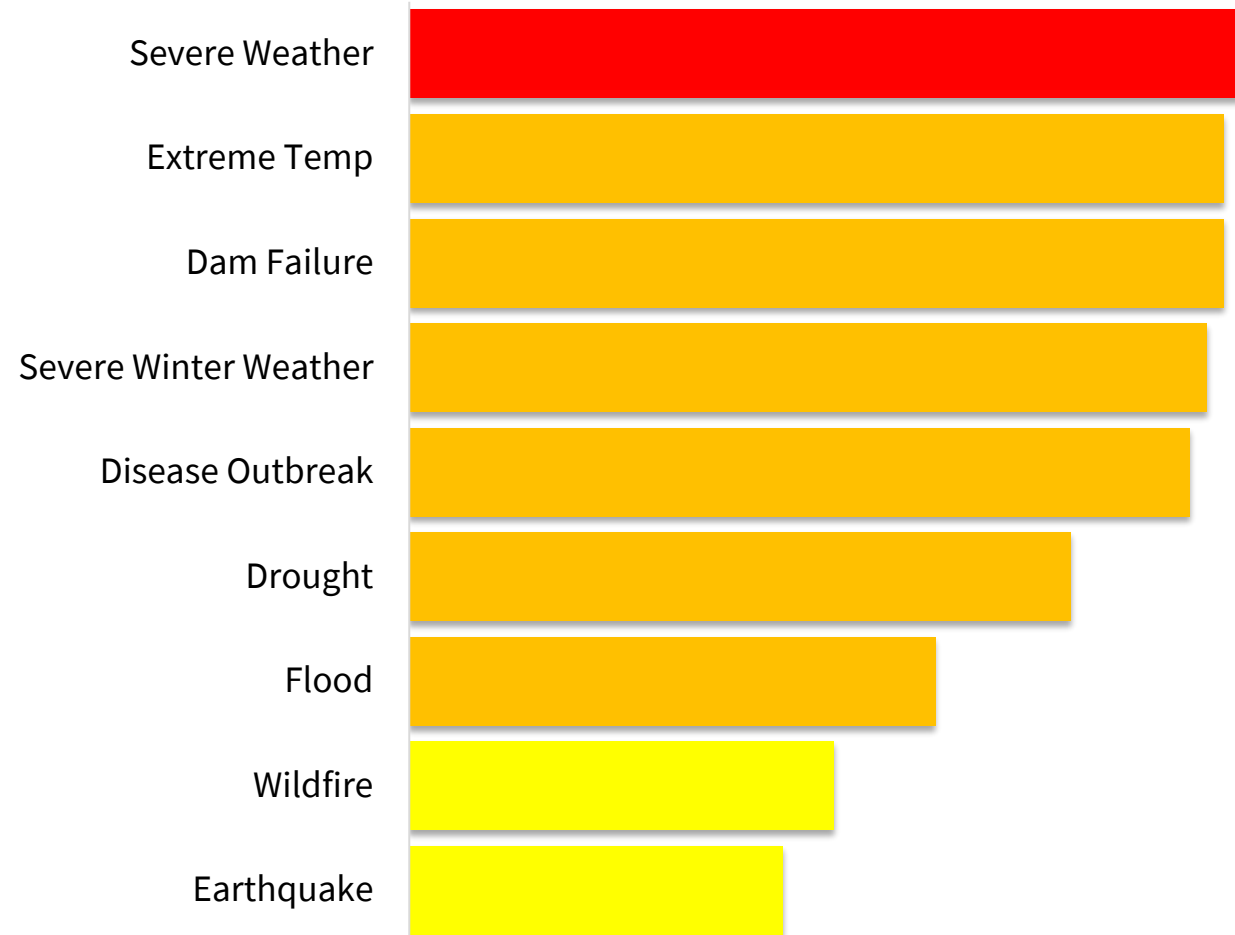
- Severe Weather

Medium

- Extreme Temperature
- Dam Failure
- Severe Winter Weather
- Disease Outbreak
- Drought
- Flood

Low

- Wildfire
- Earthquake



Meeting Wrap-Up



- Do you live in Burlington County? Consider taking the Public Survey!

- <https://bit.ly/45c7Gol>



- Do you work in Burlington County? Consider taking the Stakeholder Survey!

- <https://bit.ly/49lUeka>





Questions?

Burlington County Project Contact

Kristen Carr, Office of Emergency Management
(609) 738-5139 | KrCarr@co.burlington.nj.us

Tetra Tech Project Manager

Chris Huch, CFM
(973) 630-8357 | chris.huch@tetratech.com

Tetra Tech Lead Planner

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetratech.com



Thank
You!



BURLINGTON COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee Draft Plan Review Meeting – AGENDA
MEETING DATE/TIME: February 15, 2024 1:00 P.M. – 2:00 P.M. EST.



Virtual Meeting

Dial-In Phone Number: +1 617-865-5234; Conference ID: 555 226 731#

Join by Meeting: <https://msteams.link/O014>

- 1. Opening Remarks**
- 2. Schedule Review**
- 3. Public and Stakeholder Outreach**
- 4. HMP Draft Review**
 - **What's New?**
 - **2024 Framework**
 - **Review Process**
- 5. Next Steps**
- 6. Adjournment**

Burlington County Project Contacts

Kristen Carr, Deputy OEM Coordinator
Burlington County OEM
(609) 738-5139 | krcarr@co.burlington.nj.us

Tetra Tech Project Contacts

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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Steering Committee Draft Plan Review Meeting | Meeting Minutes**



Purpose of Meeting:	Steering Committee Draft Plan Review Meeting
Location of Meeting:	Teleconference
Date of Meeting:	February 15, 2024 @ 1:00 P.M.

Attendees:	<ul style="list-style-type: none"> • Burlington County Division of Emergency Management <ul style="list-style-type: none"> ○ Darryl Williams, OEM Coordinator ○ Kristen Carr, OEM Deputy Coordinator ○ Jerome Kilkenny, Transportation Coordinator ○ Thomas Stanuikynas, County Planner ○ Todd Wirth, Management Specialist • Burlington County Department of Health <ul style="list-style-type: none"> ○ Monquie Davis, Assistant Health Officer • Burlington County Division of GIS <ul style="list-style-type: none"> ○ David Rickert, GIS Specialist 2 • Mansfield (Twp) <ul style="list-style-type: none"> ○ Matthew Konowicz, Township Fire Department • Moorestown (Twp) <ul style="list-style-type: none"> ○ Jim Carruthers, OEM Coordinator • Springfield (Twp) <ul style="list-style-type: none"> ○ Andrew Eaton, Deputy Mayor 	<ul style="list-style-type: none"> • Burlington County High School <ul style="list-style-type: none"> ○ James Flynn, Principal • NJSP <ul style="list-style-type: none"> ○ Cansu Yerdeleni, Mitigation Unit ○ Kathy Lear, Mitigation Unit ○ Christopher Warwick, NJSP NJOEM ERB-South ○ Brianna Kanabrocki, Disaster Recovery ○ James Buckley, Trooper ○ Jordan Siegel, Trooper • Northern Burlington County Regular School District <ul style="list-style-type: none"> ○ Matthew Konowicz, Director of Instruction for Agriscience, Applied Technology, Business & Technology, Visual & Performing Arts • Rowan College Burlington County Public Safety <ul style="list-style-type: none"> ○ Andrew Eaton, Director of Public Safety • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner
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Agenda Summary: The purpose of the meeting was to provide an update on the planning process and status update, provide an opportunity for the Steering Committee to comment on the draft 2024 Burlington County HMP framework, discuss the Plan Maintenance strategy for the 2024 HMP, review the FEMA Approval Process, discuss next steps, and address any questions or comments.

Item No.	Description	Action item(s):
1	Introductions	-
2	Project Status <ul style="list-style-type: none"> • Finalize Plan Maintenance – December 2023 • Draft Plan – January 2024 • Draft to NJOEM – February 2024 • Draft to FEMA – March 2024 • Public Outreach and Engagement <ul style="list-style-type: none"> ○ Post links on social media and department/agency websites ○ Make efforts to reach out to: <ul style="list-style-type: none"> ▪ General Public ▪ Stakeholders ▪ Neighbors ▪ Socially Vulnerable Populations • Annex Status 	Steering Committee <ul style="list-style-type: none"> • Continue public outreach
3	HMP Draft Review <ul style="list-style-type: none"> • What's New in the 2023 Update? • New FEMA requirements • Updated critical facilities inventory and included community lifelines • Incorporated new hazards of concern and performed new risk analysis • Enhanced the capability assessment for each participating jurisdiction 	-



4	<p>2024 HMP Framework</p> <ul style="list-style-type: none"> • Volume I <ul style="list-style-type: none"> ○ Section 1 Introduction <ul style="list-style-type: none"> ▪ This is the introduction of the HMP, explains the update process, who participated, and what changes have been made since the last plan. ○ Section 2 Planning Process <ul style="list-style-type: none"> ▪ Provides a timeline of how the planning process was done and everything that went into developing the plan. It includes meeting dates, activities, and plan participants. ○ Section 3 County Profile <ul style="list-style-type: none"> ▪ Provides general information for the Planning Area and critical facilities/lifelines located within the area. ○ Section 4 Risk Assessment <ul style="list-style-type: none"> ▪ Provides a foundation for the rest of the planning process – which focuses on identifying and prioritizing actions to reduce risk to hazards. ○ Section 5 Capability Assessment <ul style="list-style-type: none"> ▪ Identifies the primary types of capabilities – planning and regulatory, administrative, and technical, financial, and education and outreach –existing plans, policies, programs, etc. available at the county, state, and federal level to help the County and municipalities accomplish mitigation. ○ Section 6 Mitigation Strategy <ul style="list-style-type: none"> ▪ Gives an overview of the process and then in each annex, we show the projects and procedures you all will do to reduce or eliminate future losses from hazards. ○ Section 7 Plan Maintenance <ul style="list-style-type: none"> ▪ Describes how the County will keep the hazard mitigation plan up to date over the next five years. <ul style="list-style-type: none"> • Utilize County Emergency Management Meetings • Annual process • Utilize BATool for the first year for maintenance • Kristen Carr to be Plan Coordinator for HMP for current and future public comment • Move all plan documentation to County website • Volume II <ul style="list-style-type: none"> ○ Section 8 Planning Partnership <ul style="list-style-type: none"> ▪ Gives an overview of how each jurisdiction participated in the plan and how the annexes are laid out. ○ Section 9 Jurisdictional Annexes <ul style="list-style-type: none"> ▪ Where the individual jurisdictional annexes of the plan are located. It shows us who participated in the plan, gives a general description of the municipality, outlines and summarizes your capabilities at the local level, provides the jurisdictional hazard ranking, includes a status of mitigation actions from 2019 and then includes mitigation actions for the 2024 HMP. • Appendices: This is where you’ll find a draft adoption/resolution for when you need to adopt the plan, tables of who participated in the process and how; meeting documentation (minutes, presentations, etc.), public and stakeholder 	
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	<p>outreach; mitigation strategy data; plan maintenance tools; critical facilities (the list of facilities will not be posted for public review due to their sensitive nature); and linkage procedures for anyone who didn't participate this time around and would like to join the plan in the next 5 years.</p> <ul style="list-style-type: none"> ○ Appendix A Plan Adoption ○ Appendix B Participation Documentation ○ Appendix C Meeting Documentation ○ Appendix D Public and Stakeholder Outreach Documentation ○ Appendix E Mitigation Strategy Supplementary Data ○ Appendix F Plan Maintenance Tools ○ Appendix G Critical Facilities ○ Appendix H Linkage Procedures 	
5	<p>FEMA Approval Process</p> <ul style="list-style-type: none"> ● The plan is made available for public and State review. <ul style="list-style-type: none"> ○ Feedback and comments will be incorporated into a second draft. ● The second draft will be submitted to FEMA for review and approval. <ul style="list-style-type: none"> ○ If FEMA has questions or comments those will be addressed. ○ FEMA will grant the plan 'Approvable Pending Adoption' status, meaning FEMA will approve the plan once it has been locally adopted. ● The County and municipalities will formally adopt the plan. <ul style="list-style-type: none"> ○ Resolution is submitted to FEMA and FEMA grants final approval. 	-
6	<p>Review the Draft Plan</p> <ul style="list-style-type: none"> ● The entire plan will be posted on the Burlington County HMP website for a 30-day review period (starting DATE) <ul style="list-style-type: none"> ○ You can review sections of the plan during the public review, and we will incorporate any applicable revisions into the final deliverable to the State and FEMA ● NJOEM will begin their review after the public review period ● Public feedback to be incorporated as appropriate prior to submittal to NJOEM/FEMA for their review <ul style="list-style-type: none"> ○ If needed, we will hold a brief meeting to discuss public comments and how to incorporate – date TBD 	-
7	<p>Next Steps</p> <ul style="list-style-type: none"> ● Draft Plan Review Meeting – TODAY! ● Any edits to sections of the plan are due March 21, 2024 ● Public Review Period (30 days) – February 20, 2024 ● Submit Draft Plan for NJOEM/FEMA Review by April 2024 & May 2024 ● FEMA approves plan (June/July 2024); begin adoption 	-
8	<p>Questions/Discussion</p> <ul style="list-style-type: none"> ● Chris Huch: Annex sign-off sheets for municipal annexes? <ul style="list-style-type: none"> ○ Kathy Lear: Yes, the State would like to see these. ● Monique Davis: For annual review, will additional stakeholders have opportunity to weigh in. <ul style="list-style-type: none"> ○ Chris Huch: We can incorporate that into the process, would be a great reminder to stakeholders and the public that the plan does exist, and can be awarded the opportunity to provide a chance to participate. 	-



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

Steering Committee Draft Plan Review Meeting

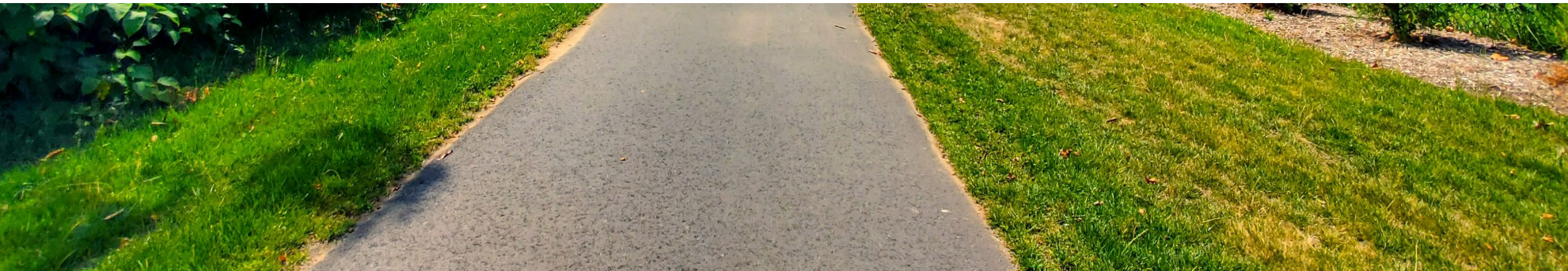
February 15, 2024

While waiting for the meeting to start, please enter your name and department/agency in the chat.



Today's Agenda

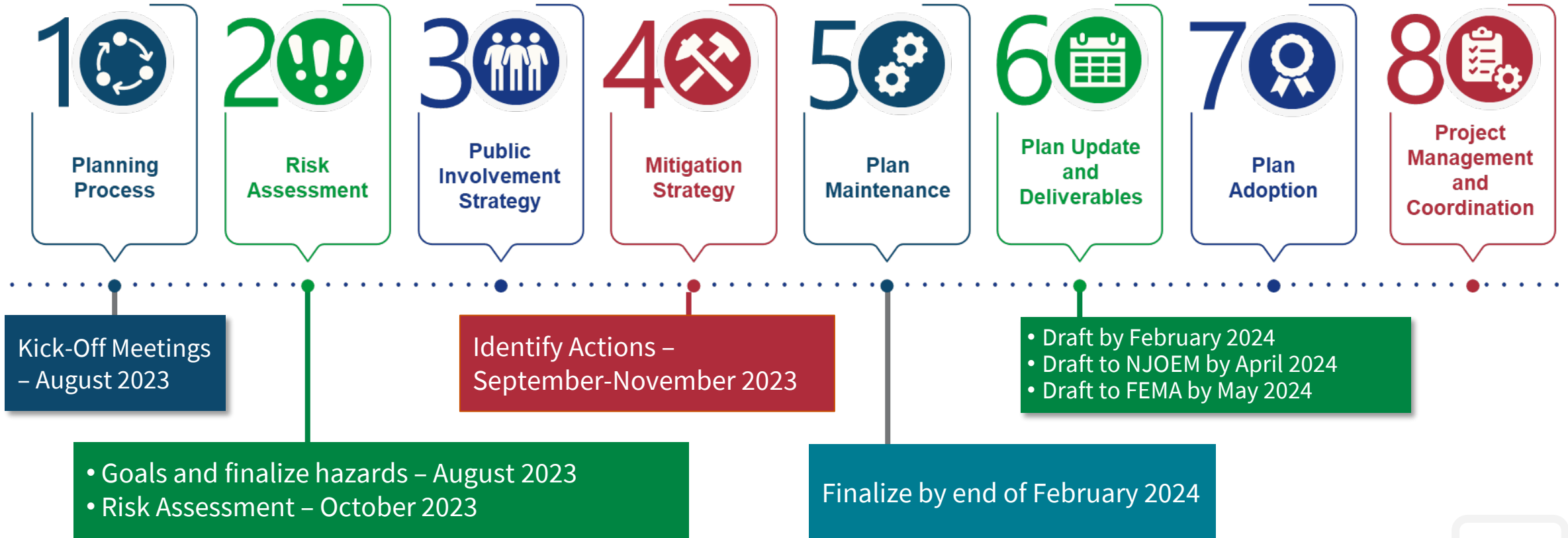
1. Welcome and Introductions
2. Project Status
3. Plan Maintenance Procedures
4. HMP Draft Review
5. Feedback and Input
6. Next Steps
7. Questions/Wrap Up





Project Status

Schedule





Public Outreach and Engagement

- Public Outreach Toolkit –
 - Social media templates and posts
 - Printable materials
- Surveys
 - Input on draft plan
- HMP website
<https://www.burlingtoncountynjhmp.com/>
- Make efforts to reach out to:
 - General Public
 - Stakeholders
 - Neighbors
 - Socially Vulnerable Populations

A screenshot of the survey website. The header reads "Burlington County Hazard Mitigation Plan Update - Public Survey" with the county seal. The main heading is "Natural Hazard Information". The text asks for input on natural hazards. A question is partially visible: "1. In the last five years, how many times have you experienced..." with checkboxes for "Dam Failure" and "Disease/F...". A blue "OK" button is visible. A dark blue banner at the bottom right says "BURLINGTON COUNTY HAZARD MITIGATION PLAN SURVEY" and includes a "TAKE THE SURVEY" button, the URL "HTTP://BIT.LY/45C7GOL", and a QR code. The background of the banner shows a stormy sky with lightning over a landscape.

Annex Progress



Jurisdiction	Status
Bass River (Twp)	Incomplete
Beverly (C)	Incomplete
Bordentown (C)	Incomplete
Bordentown (Twp)	Complete
Burlington (C)	Complete
Burlington (Twp)	Incomplete
Chesterfield (Twp)	Complete
Cinnaminson (Twp)	Complete
Delanco (Twp)	Incomplete
Delran (Twp)	Incomplete

Jurisdiction	Status
Eastampton (Twp)	Incomplete
Edgewater Park (Twp)	Incomplete
Evesham (Twp)	Incomplete
Fieldsboro (B)	Incomplete
Florence (Twp)	Incomplete
Hainesport (Twp)	Incomplete
Lumberton (Twp)	Incomplete
Mansfield (Twp)	Incomplete
Maple Shade (Twp)	Complete
Medford (Twp)	Complete

Annex Progress



Jurisdiction	Status
Medford Lakes (B)	Incomplete
Moorestown (Twp)	Complete
Mt. Holly (Twp)	Incomplete
Mt. Laurel (Twp)	Incomplete
New Hanover (Twp)	Incomplete
North Hanover (Twp)	Incomplete
Palmyra (B)	Incomplete
Pemberton (B)	Incomplete
Pemberton (Twp)	Complete
Riverside (Twp)	Complete

Jurisdiction	Status
Riverton (B)	Incomplete
Shamong (Twp)	Incomplete
Southampton (Twp)	Incomplete
Springfield (Twp)	Incomplete
Tabernacle (Twp)	Incomplete
Washington (Twp)	Complete
Westampton (Twp)	Incomplete
Willingboro (Twp)	Incomplete
Woodland (Twp)	Incomplete
Wrightstown (B)	Incomplete



HMP Draft Review

What's New in the 2024 Update?



- New FEMA requirements
 - Participation – engaged and actively participating throughout the process
 - Stakeholder involvement
 - Community lifelines
 - Socially vulnerable populations
 - Effects of future conditions (i.e., climate change) on hazards
 - Current and future capabilities integrating hazard mitigation
 - One mitigation action per hazard

A collage of four images: an aerial view of a residential neighborhood, a field of yellow flowers, a group of people sitting on a stream, and a winding path through a park.

**Local Mitigation Planning
Policy Guide**

FP 206-21-0002

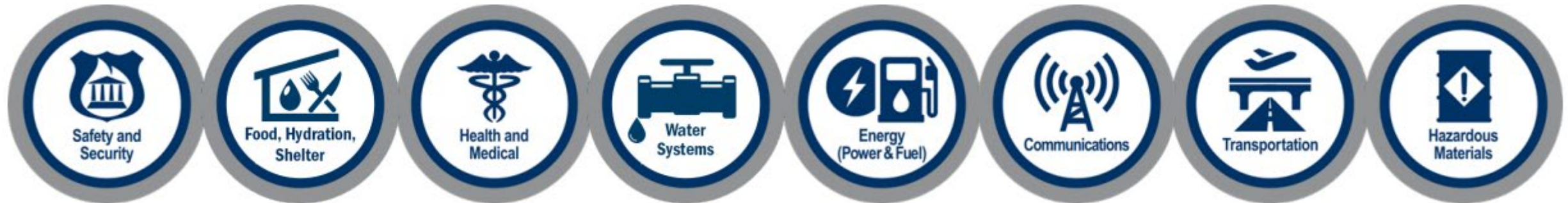
Released April 19, 2022, Effective April 19, 2023

OMB Collection #1660-0062

The logo for FEMA, featuring the text "U.S. DEPARTMENT OF HOMELAND SECURITY" and "FEMA" next to a circular seal.

What's New in the 2024 Update?

- **Critical facilities reorganized as Lifeline facilities –**
 - This includes – airports, bridges, cell towers, correctional facilities, dams, schools/daycares, EMS, fire, hazmat, hospitals/health care, police, utilities, tornado sirens, wastewater
 - Inventory has been updated





What's New in the 2024 Update?

- **Hazards of Concern –**

- Incorporated new hazards, and concise hazard profiles, including recent events
- Risk assessments for each hazard
- Climate change impacts incorporated into the probability of future occurrences
- Adaptive capacity to reduce vulnerability used in hazard ranking
- Impacts on population (general and socially vulnerable), buildings, lifelines, and economy





What's New in the 2024 Update?

- **Jurisdictional Annexes**

- Enhanced capability assessment including how hazard mitigation is integrated
- One mitigation action for every hazard of concern



2024 HMP Framework



Volume I

- Section 1. Introduction
- Section 2. Planning Process
- Section 3. County Profile
- Section 4. Risk Assessment
- Section 5. Capability Assessment
- Section 6. Mitigation Strategy
- Section 7. Plan Maintenance

Volume II

- Section 8. Planning Partnership
- Section 9. Jurisdictional Annexes

Appendices

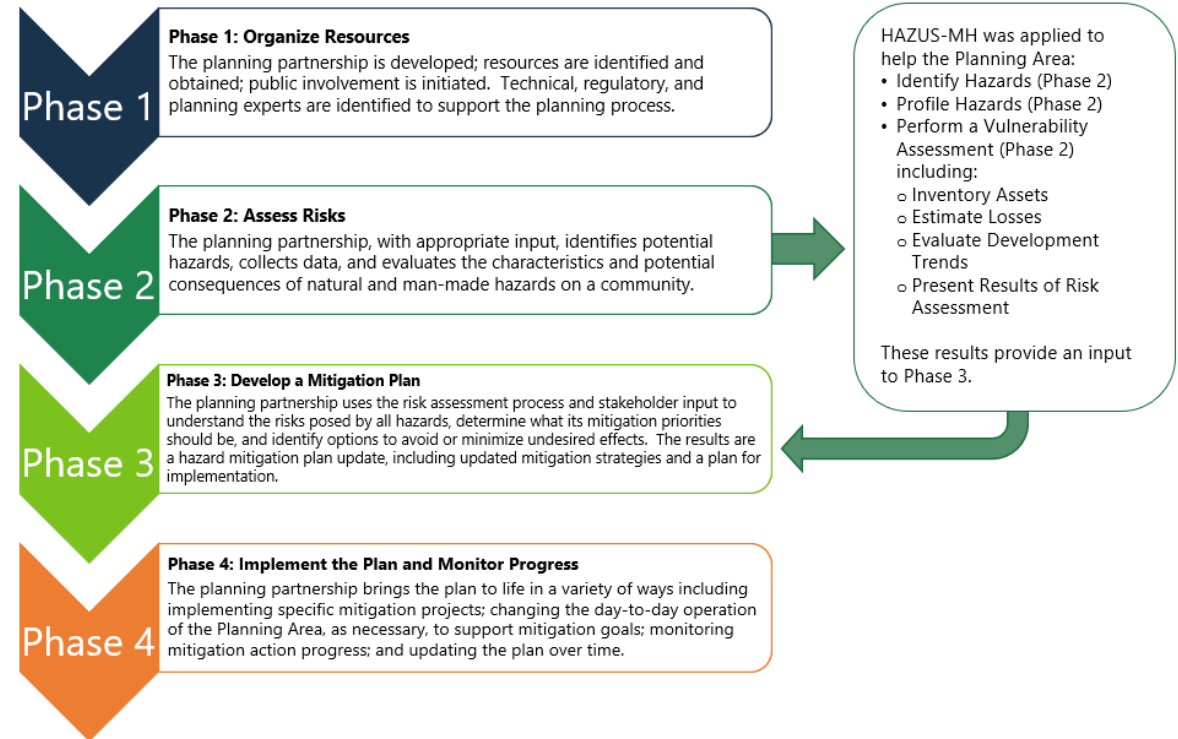
- Appendix A. Adoptions
- Appendix B. Participation
- Appendix C. Meeting Documentation
- Appendix D. Outreach
- Appendix E. Mitigation Strategies
- Appendix F. Plan Maintenance
- Appendix G. Critical Facilities
- Appendix H. Linkage Processes

Volume I

1. Introduction



- Plan Purpose
- Background of the plan
- Plan Organization
- Planning Differences – 2019 HMP vs. 2024 HMP



Volume I

2. Planning Process



- Introduction
- Organization of the Planning Process
 - Organization of the Planning Partnership
 - Planning Activities
- Stakeholder Outreach and Involvement
 - Federal, State, and County Agencies
 - Regional and Local Stakeholders
 - Stakeholder and Neighbor Survey Summaries
- Public Participation – Public Involvement
 - Public Survey Summary
- Plan Integration
- Integration with Planning Mechanisms and Programs
- Continued Public Involvement

Date	DMA 2000 Requirement	Description of Activity	Participants
June 20, 2023	2	<u>Pre-Kick Off Meeting with Burlington County:</u> Plan timing and administration, data needs and sharing, hazards of concern, dates, and next steps	Burlington County, Tetra Tech
August 22, 2023	2	<u>Steering Committee Meeting #1:</u> The purpose of the meeting was to introduce the Steering Committee members and contract consultant, provide an overview of the hazard mitigation planning process, identify the 2024 hazards of concern, discuss potential changes to the plan's goals and objectives, and to begin the information gathering processes.	Burlington County Division of Emergency Management, Burlington County Administration, Burlington County Department of Health, Burlington County Department of Public Information, Burlington County Department of Public Works, Burlington County Department of Resource Conservation, Burlington County Division of GIS, Burlington County Division of Solid Waste, Burlington County Department of Information Technology, Eastampton (Twp), Mansfield (Twp), Maple Shade (Twp), Moorestown (Twp), Springfield (Twp), American Water, Bordentown Regional School District, Burlington City Public Schools, Burlington Township School District, Holy Cross Preparatory Academy, Northern Burlington County Regular School District, Rowan College Burlington County Public Safety, NJOEM, Tetra Tech
August 29, 2023	2, 3c, 4a	<u>Planning Partnership Meeting #1:</u> The purpose of the meeting was to introduce the Planning	Burlington County Division of Emergency Management, Burlington County Administration,

Volume I

3. County Profile



- General Information
- Major Past Hazard Events
- Physical Setting
 - Location
 - Hydrography and Hydrology
 - Topography and Geography
 - Climate
 - Land Use and Land Cover
- Population and Demographics
 - General Population Characteristics
 - Vulnerable Populations
 - Population Trends
- General Building Stock
 - Development Trends and New Development
- Lifeline Facilities
 - Formerly discussed as Critical Facilities



Volume I

4. Risk Assessment



- 4.1 Hazard of Concern Identification
 - Process to review all potential hazards and identify the hazards that have the potential to impact the Planning Area
- 4.2 Methodology
 - Describes the various procedures and tools used to complete the risk assessment
 - Steps to do so included identifying and profiling each hazard of concern; determine exposure to each hazard; and assess the vulnerability of exposed population/buildings/economy

Volume I

4. Risk Assessment



- 4.3 Hazard Profiles

- Created individual sections for each hazard of concern.
- Each section includes:
 - Hazard Profile – description, location, extent, worst-case scenario, previous occurrences, climate change projections, and probability of future events
 - Vulnerability Assessment – impact on life/health/safety, impact on building stock and critical facilities, impact on economy, impact on the environment, future changes that may impact vulnerability, and changes in vulnerability since the last plan

- 4.4 Hazard Ranking

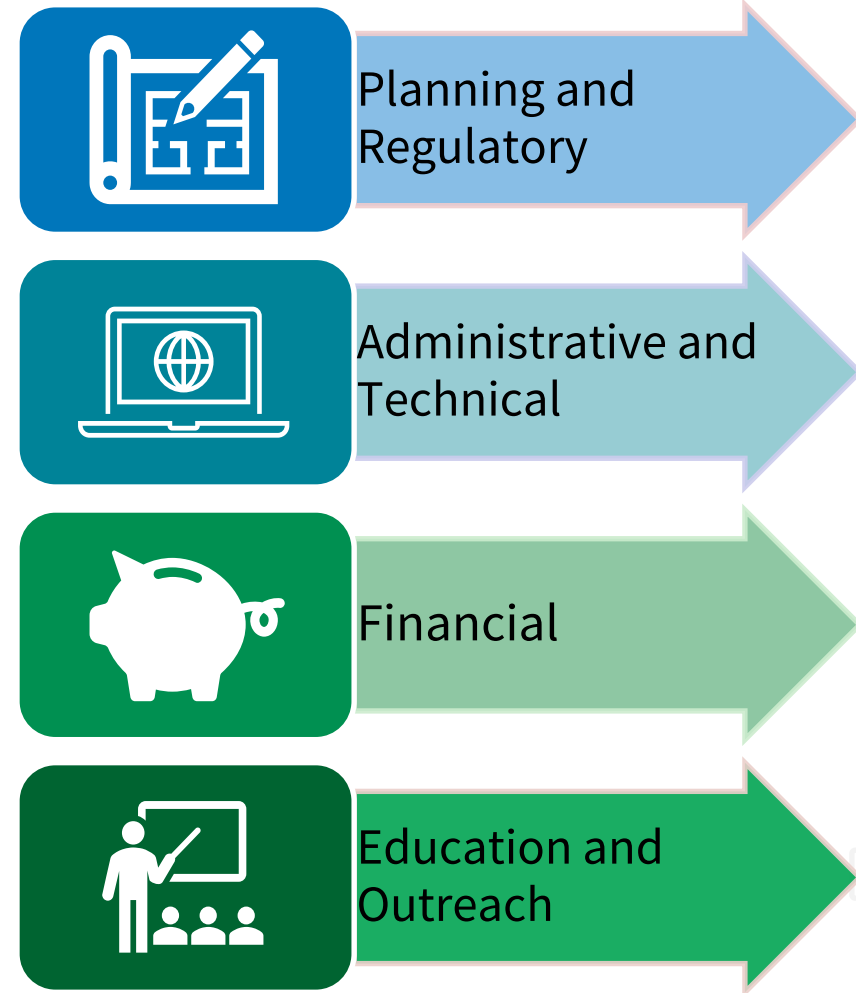
- Provides a preliminary ranking (high, medium, low) of each hazard to show the Planning Area’s hazards of greatest risk



Volume I

5. Capability Assessment

- What is currently available at the federal, state, and county level to support mitigation in Burlington County
 - Available plans, programs, & resources
 - Administrative and technical capabilities
 - Fiscal capabilities
 - Education and outreach



Volume I

6. Mitigation Strategy



- Past accomplishments
- Goals and Objectives
- Mitigation strategy development and update
 - Action identification
 - Evaluation and prioritization
 - Benefit/cost review

2024 HMP Update Goals	
1	Protect Life
2	Protect Property
3	Increase public preparedness and awareness
4	Develop and maintain an understanding of increased risk from hazards climate change impacts to natural hazards
5	Enhance mitigation capabilities to reduce hazard vulnerabilities
6	Support continuity of operations pre-, during, and post-hazard events
7	Reduce the risk of natural hazards for socially vulnerable populations

Volume I

7. Plan Maintenance



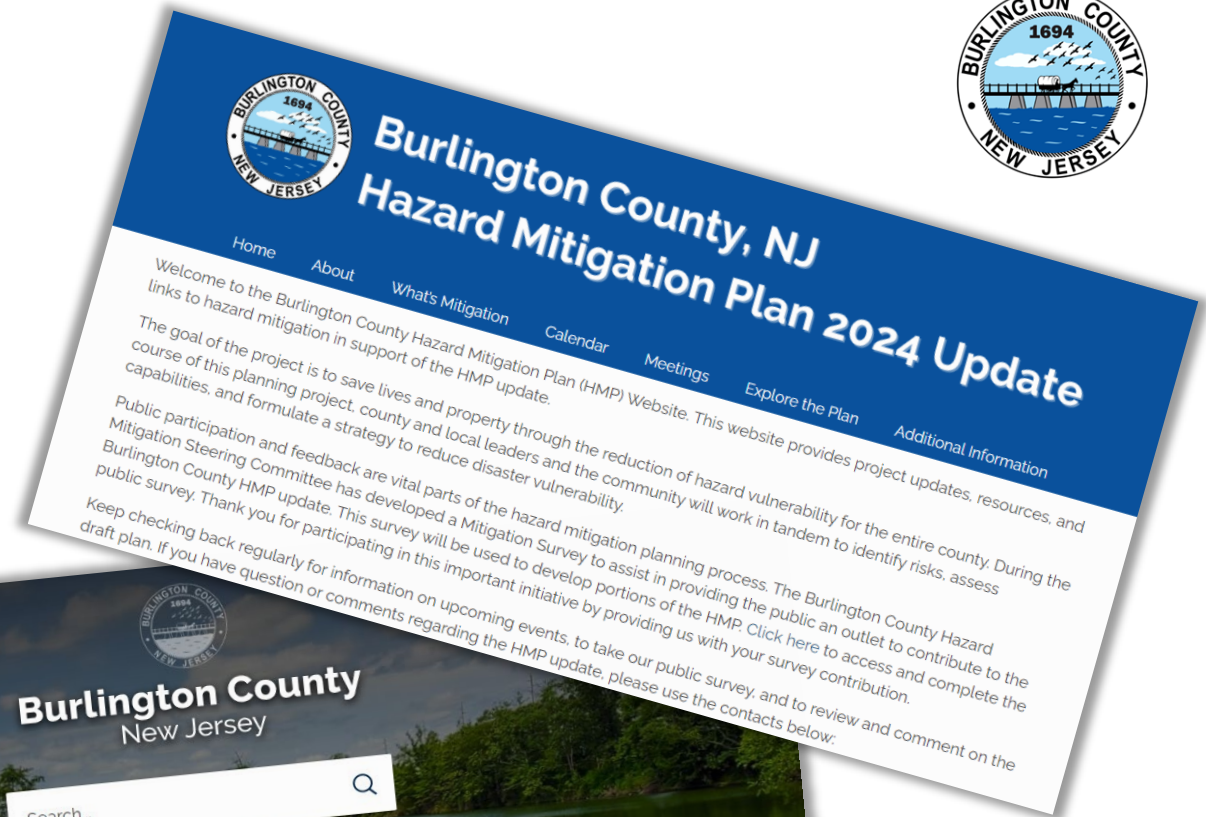
- Ongoing Planning Partnership – meet annually to discuss HMP
- Monitoring
- Continuous evaluation and progress reports
- Updating
- Integrating the HMP with existing and future programs
- Continued public involvement



Volume I

7. Plan Maintenance

- Share updates on County website or HMP site?
- Who will be responsible for receiving, tracking, and filing public comments?



Volume II

- **Section 8 – Planning Partnership**
 - Participating jurisdictions
 - Introduction to jurisdictional annexes
- **Section 9 – Jurisdictional Annexes**
 - Points of Contact and Who Participated
 - Jurisdictional Profile
 - Capabilities
 - Risk Assessment
 - Status of Past Mitigation Actions
 - Current Mitigation Actions





Section Contents - Appendices

- Appendix A Plan Adoption
- Appendix B Participation Documentation
- Appendix C Meeting Documentation
- Appendix D Public and Stakeholder Outreach Documentation
- Appendix E Mitigation Strategy Supplementary Data
- Appendix F Plan Maintenance Tools
- Appendix G Critical Facilities
- Appendix H Linkage Procedures





FEMA Approval Process

- The plan is made available for public review.
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 - You can review sections of the plan during the public review, and we will incorporate any applicable revisions into the final deliverable to the State and FEMA
- NJOEM will begin their review after the public review period
- Public feedback to be incorporated as appropriate prior to submittal to NJOEM/FEMA for their review
 - If needed, we will hold a brief meeting to discuss public comments and how to incorporate – date TBD



Next Steps

- Draft Plan Review Meeting – TODAY!
- Any edits to sections of the plan are due **March 21**
- Public Review Period (30 days) – February 20
- Submit Draft Plan for NJOEM Review by mid April
- Submit Draft Plan for FEMA Review by mid May; begin adoption
- FEMA approves plan (early summer); continue adoption
- Implement Projects and Maintain the Plan  Increase Resilience!





Questions?

Burlington County Project Contact

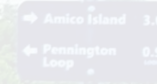
Kristen Carr, Office of Emergency Management
(609) 738-5139 | KrCarr@co.burlington.nj.us

Tetra Tech Project Manager

Chris Huch, CFM
(973) 630-8357 | chris.huch@tetrattech.com

Tetra Tech Lead Planner

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com



Thank
You!



BURLINGTON COUNTY HAZARD MITIGATION PLAN UPDATE
Public Draft Plan Review Meeting – AGENDA
MEETING DATE/TIME: February 20, 2024 11:00 A.M. – 12:00 P.M. EST.



Virtual Meeting

Dial-In Phone Number: +1 617-865-5234; Conference ID: 835 983 887#

Join by Meeting: <https://msteams.link/PHWO>

- 1. Opening Remarks**
- 2. Schedule Review**
- 3. HMP Draft Review**
 - **What's New?**
 - **2024 Framework**
 - **Review Process**
- 4. Feedback and Input**
- 5. Adjournment**

Burlington County Project Contacts

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Burlington County OEM
(609) 738-5139 | krcarr@co.burlington.nj.us

Tetra Tech Project Contacts

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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Public Draft Plan Review Meeting | Meeting Minutes**



Purpose of Meeting:	Public Draft Plan Review Meeting
Location of Meeting:	Teleconference
Date of Meeting:	February 20, 2024 @ 11:00 A.M.

<p>Attendees:</p> <ul style="list-style-type: none"> • Burlington County <ul style="list-style-type: none"> ○ Kristen Carr, Deputy OEM Coordinator ○ Todd Wirth, Management Specialist ○ Joseph Brickley, Public Works ○ John Janis Jr., Division of Roads and Bridges ○ Malukah Morris, Community Outreach and Special Projects • Bordentown (C) <ul style="list-style-type: none"> ○ Peg Peak, City Administrator/CFO • Burlington (C) <ul style="list-style-type: none"> ○ Johanna Conyer, Business Administrator ○ Frank Caruso, OEM Coordinator ○ Ken Shine, Engineer • Chesterfield (Twp) <ul style="list-style-type: none"> ○ Michael Davison, OEM & Police • Cinnaminson (Twp) <ul style="list-style-type: none"> ○ Joe Barbadoro, Township Engineer ○ Eric Schubiger, Township Administrator • Delanco (Twp) <ul style="list-style-type: none"> ○ Beverly Russell, Municipal Clerk • Lumberton (Twp) <ul style="list-style-type: none"> ○ Ryan Engle, OEM • Mansfield (Twp) <ul style="list-style-type: none"> ○ George Senf, Mansfield Township OEM • Medford (Twp) <ul style="list-style-type: none"> ○ Robert Dovi, Medford Township OEM ○ Beth Portocalis, Special Assistant to the Manager/Open Space & Farmland Coordinator 	<ul style="list-style-type: none"> • Medford Lakes (B) <ul style="list-style-type: none"> ○ Frank Bobinchock, OEM • Moorestown (Twp) <ul style="list-style-type: none"> ○ Joan Ponessa, Environmental Advisory Committee Chair • Palmyra (B) <ul style="list-style-type: none"> ○ Ron Lindemuth, OEM ○ Al Berg, Public Works • Riverside (Twp) <ul style="list-style-type: none"> ○ Ken Shine, Engineer ○ Meghan Jack, Township Administrator • Shamong (Twp) <ul style="list-style-type: none"> ○ John Lyons, OEM • Southampton (Twp) <ul style="list-style-type: none"> ○ Eamonn Fitzpatrick, OEM • Westampton (Twp) <ul style="list-style-type: none"> ○ Lt. Brian Ferguson, OEM • Willingboro (Twp) <ul style="list-style-type: none"> ○ Ken Shine, Engineer ○ Dwayne Harris, Township Manager • Wrightstown (B) <ul style="list-style-type: none"> ○ James Ingling, Borough OEM • NJSP <ul style="list-style-type: none"> ○ Christopher Warwick, NJSP NJOEM ERB-South • Tetra Tech <ul style="list-style-type: none"> ○ Chris Huch, Project Manager ○ Jessica Stokes, Lead Planner
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Agenda Summary: The purpose of the meeting was to provide an opportunity for the public to comment on the draft 2024 Burlington County HMP, review the FEMA Approval Process, and address any questions or comments.

Item No.	Description	Action item(s):
1	Introductions	-
2	<p>HMP Draft Review</p> <ul style="list-style-type: none"> • What’s New in the 2023 Update? • New FEMA requirements • Updated critical facilities inventory and included community lifelines • Incorporated new hazards of concern and performed new risk analysis • Enhanced the capability assessment for each participating jurisdiction 	-
3	<p>2024 HMP Framework</p> <ul style="list-style-type: none"> • Volume I <ul style="list-style-type: none"> ○ Section 1 Introduction <ul style="list-style-type: none"> ▪ This is the introduction of the HMP, explains the update process, who participated, and what changes have been made since the last plan. 	-



	<ul style="list-style-type: none"> ○ Section 2 Planning Process <ul style="list-style-type: none"> ▪ Provides a timeline of how the planning process was done and everything that went into developing the plan. It includes meeting dates, activities, and plan participants. ○ Section 3 County Profile <ul style="list-style-type: none"> ▪ Provides general information for the Planning Area and critical facilities/lifelines located within the area. ○ Section 4 Risk Assessment <ul style="list-style-type: none"> ▪ Provides a foundation for the rest of the planning process – which focuses on identifying and prioritizing actions to reduce risk to hazards. ○ Section 5 Capability Assessment <ul style="list-style-type: none"> ▪ Identifies the primary types of capabilities – planning and regulatory, administrative, and technical, financial, and education and outreach –existing plans, policies, programs, etc. available at the county, state, and federal level to help the County and municipalities accomplish mitigation. ○ Section 6 Mitigation Strategy <ul style="list-style-type: none"> ▪ Gives an overview of the process and then in each annex, we show the projects and procedures you all will do to reduce or eliminate future losses from hazards. ○ Section 7 Plan Maintenance <ul style="list-style-type: none"> ▪ Describes how the County will keep the hazard mitigation plan up to date over the next five years. ● Volume II <ul style="list-style-type: none"> ○ Section 8 Planning Partnership <ul style="list-style-type: none"> ▪ Gives an overview of how each jurisdiction participated in the plan and how the annexes are laid out. ○ Section 9 Jurisdictional Annexes <ul style="list-style-type: none"> ▪ Where the individual jurisdictional annexes of the plan are located. It shows us who participated in the plan, gives a general description of the municipality, outlines and summarizes your capabilities at the local level, provides the jurisdictional hazard ranking, includes a status of mitigation actions from 2019 and then includes mitigation actions for the 2024 HMP. ● Appendices: This is where you’ll find a draft adoption/resolution for when you need to adopt the plan, tables of who participated in the process and how; meeting documentation (minutes, presentations, etc.), public and stakeholder outreach; mitigation strategy data; plan maintenance tools; critical facilities (the list of facilities will not be posted for public review due to their sensitive nature); and linkage procedures for anyone who didn’t participate this time around and would like to join the plan in the next 5 years. <ul style="list-style-type: none"> ○ Appendix A Plan Adoption ○ Appendix B Participation Documentation ○ Appendix C Meeting Documentation ○ Appendix D Public and Stakeholder Outreach Documentation ○ Appendix E Mitigation Strategy Supplementary Data ○ Appendix F Plan Maintenance Tools ○ Appendix G Critical Facilities ○ Appendix H Linkage Procedures 	
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**Burlington County, NJ – Hazard Mitigation Plan 2024 Update
Public Draft Plan Review Meeting | Meeting Minutes**



4	<p>FEMA Approval Process</p> <ul style="list-style-type: none"> • The plan is made available for public and State review. <ul style="list-style-type: none"> ○ Feedback and comments will be incorporated into a second draft. • The second draft will be submitted to FEMA for review and approval. <ul style="list-style-type: none"> ○ If FEMA has questions or comments those will be addressed. ○ FEMA will grant the plan ‘Approvable Pending Adoption’ status, meaning FEMA will approve the plan once it has been locally adopted. • The County and municipalities will formally adopt the plan. <ul style="list-style-type: none"> ○ Resolution is submitted to FEMA and FEMA grants final approval. 	-
5	<p>Review the Draft Plan</p> <ul style="list-style-type: none"> • The entire plan will be posted on the Burlington County HMP website for a 30-day review period (starting February 21) • You can review sections of the plan during the public review, and we will incorporate any applicable revisions into the final deliverable to the State and FEMA 	-
6	<p>Questions/Discussion</p> <ul style="list-style-type: none"> • No questions 	-



Burlington County Multi-Jurisdictional Hazard Mitigation Plan 2024 Update

Public Draft Plan Review Meeting

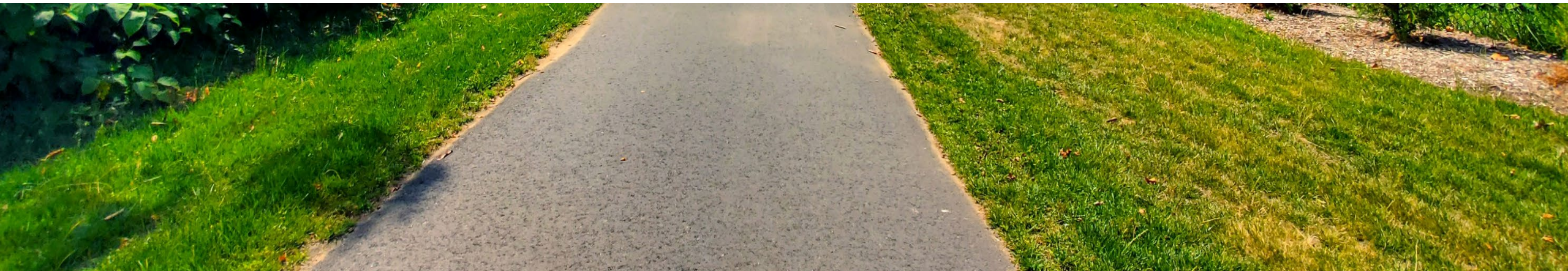
February 20, 2024

While waiting for the meeting to start, please enter your name and department/agency in the chat. Members of the public, please enter your name and the town you live in.



Today's Agenda

1. Welcome and Introductions
2. HMP Draft Review
3. Feedback and Input
4. Questions/Wrap Up





HMP Draft Review

What's New in the 2024 Update?



- New FEMA requirements
 - Participation – engaged and actively participating throughout the process
 - Stakeholder involvement
 - Community lifelines
 - Socially vulnerable populations
 - Effects of future conditions (i.e., climate change) on hazards
 - Current and future capabilities integrating hazard mitigation
 - One mitigation action per hazard

A collage of four images: an aerial view of a residential neighborhood, a field of yellow flowers, a group of people sitting on a stream, and a winding path through a park.

**Local Mitigation Planning
Policy Guide**

FP 206-21-0002

Released April 19, 2022, Effective April 19, 2023

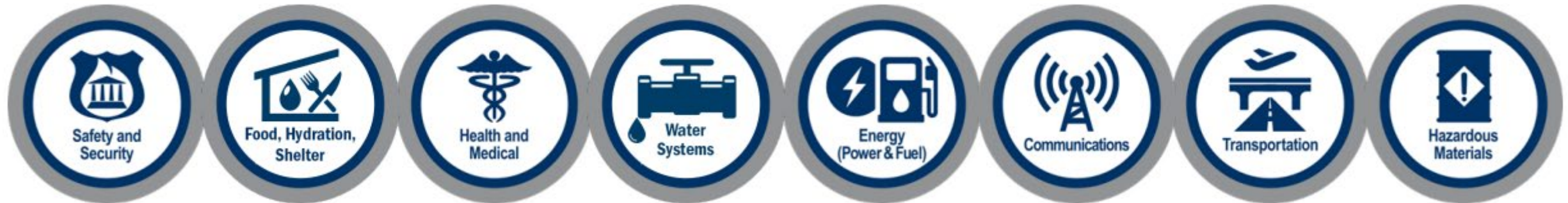
OMB Collection #1660-0062

The logo for FEMA, featuring the text "U.S. DEPARTMENT OF HOMELAND SECURITY" and "FEMA" next to a circular seal.

FEMA

What's New in the 2024 Update?

- **Lifeline facilities** – updated inventory and reorganized
 - This includes – airports, bridges, cell towers, correctional facilities, dams, schools/daycares, EMS, fire, hazmat, hospitals/health care, police, utilities, tornado sirens, wastewater





What's New in the 2024 Update?

- **Hazards of Concern –**

- Incorporated new hazards, and concise hazard profiles, including recent events
- Risk assessments for each hazard
- Climate change impacts incorporated into the probability of future occurrences
- Adaptive capacity to reduce vulnerability used in hazard ranking
- Impacts on population (general and socially vulnerable), buildings, lifelines, and economy





What's New in the 2024 Update?

- **Jurisdictional Annexes**

- Enhanced capability assessment including how hazard mitigation is integrated
- One mitigation action for every hazard of concern



2024 HMP Framework



Volume I

- Section 1. Introduction
- Section 2. Planning Process
- Section 3. County Profile
- Section 4. Risk Assessment
- Section 5. Capability Assessment
- Section 6. Mitigation Strategy
- Section 7. Plan Maintenance

Volume II

- Section 8. Planning Partnership
- Section 9. Jurisdictional Annexes

Appendices

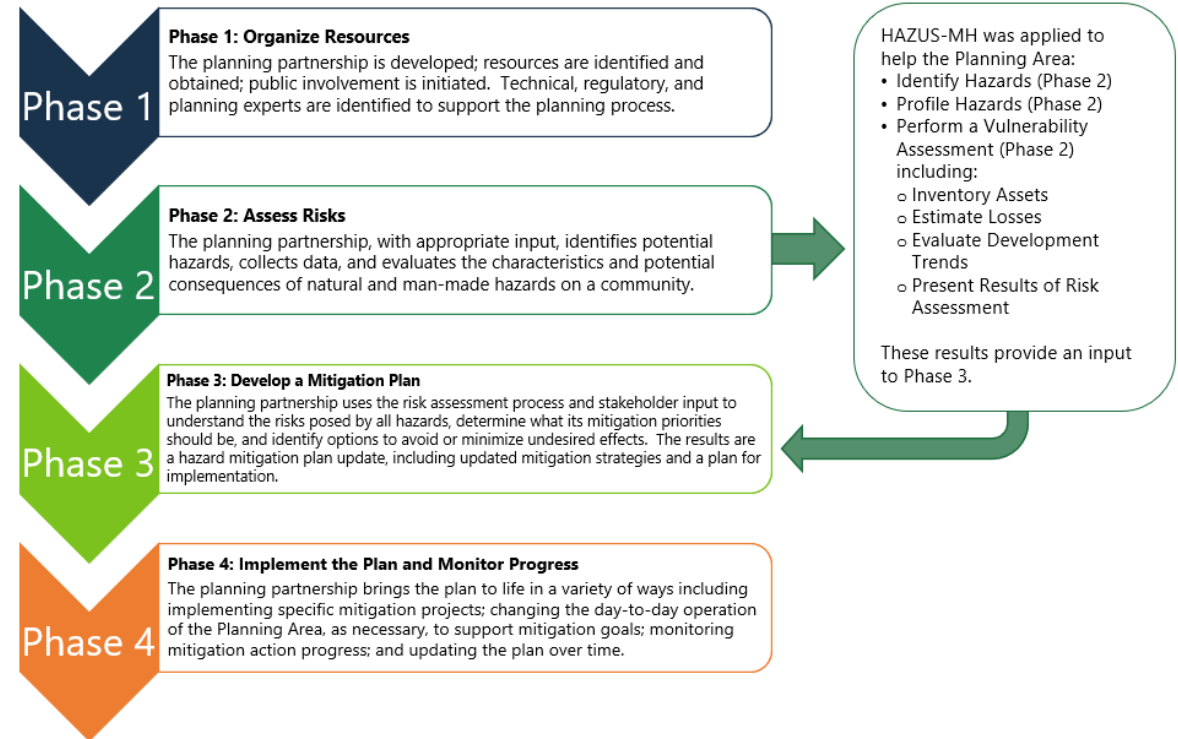
- Appendix A. Adoptions
- Appendix B. Participation
- Appendix C. Meeting Documentation
- Appendix D. Outreach
- Appendix E. Mitigation Strategies
- Appendix F. Plan Maintenance
- Appendix G. Critical Facilities
- Appendix H. Linkage Processes

Volume I

1. Introduction



- Plan Purpose
- Background of the plan
- Plan Organization
- Planning Differences – 2019 HMP vs. 2024 HMP



Volume I

2. Planning Process



- Introduction
- Organization of the Planning Process
 - Organization of the Planning Partnership
 - Planning Activities
- Stakeholder Outreach and Involvement
 - Federal, State, and County Agencies
 - Regional and Local Stakeholders
 - Stakeholder and Neighbor Survey Summaries
- Public Participation – Public Involvement
 - Public Survey Summary
- Plan Integration
- Integration with Planning Mechanisms and Programs
- Continued Public Involvement

Date	DMA 2000 Requirement	Description of Activity	Participants
June 20, 2023	2	<u>Pre-Kick Off Meeting with Burlington County:</u> Plan timing and administration, data needs and sharing, hazards of concern, dates, and next steps	Burlington County, Tetra Tech
August 22, 2023	2	<u>Steering Committee Meeting #1:</u> The purpose of the meeting was to introduce the Steering Committee members and contract consultant, provide an overview of the hazard mitigation planning process, identify the 2024 hazards of concern, discuss potential changes to the plan's goals and objectives, and to begin the information gathering processes.	Burlington County Division of Emergency Management, Burlington County Administration, Burlington County Department of Health, Burlington County Department of Public Information, Burlington County Department of Public Works, Burlington County Department of Resource Conservation, Burlington County Division of GIS, Burlington County Division of Solid Waste, Burlington County Department of Information Technology, Eastampton (Twp), Mansfield (Twp), Maple Shade (Twp), Moorestown (Twp), Springfield (Twp), American Water, Bordentown Regional School District, Burlington City Public Schools, Burlington Township School District, Holy Cross Preparatory Academy, Northern Burlington County Regular School District, Rowan College Burlington County Public Safety, NJOEM, Tetra Tech
August 29, 2023	2, 3c, 4a	<u>Planning Partnership Meeting #1:</u> The purpose of the meeting was to introduce the Planning	Burlington County Division of Emergency Management, Burlington County Administration,

Volume I

3. County Profile



- General Information
- Major Past Hazard Events
- Physical Setting
 - Location
 - Hydrography and Hydrology
 - Topography and Geography
 - Climate
 - Land Use and Land Cover
- Population and Demographics
 - General Population Characteristics
 - Vulnerable Populations
 - Population Trends
- General Building Stock
 - Development Trends and New Development
- Lifeline Facilities
 - Formerly discussed as Critical Facilities



Volume I

4. Risk Assessment



- 4.1 Hazard of Concern Identification
 - Process to review all potential hazards and identify the hazards that have the potential to impact the Planning Area
- 4.2 Methodology
 - Describes the various procedures and tools used to complete the risk assessment
 - Steps to do so included identifying and profiling each hazard of concern; determine exposure to each hazard; and assess the vulnerability of exposed population/buildings/economy

Volume I

4. Risk Assessment



- 4.3 Hazard Profiles

- Created individual sections for each hazard of concern.
- Each section includes:
 - Hazard Profile – description, location, extent, worst-case scenario, previous occurrences, climate change projections, and probability of future events
 - Vulnerability Assessment – impact on life/health/safety, impact on building stock and critical facilities, impact on economy, impact on the environment, future changes that may impact vulnerability, and changes in vulnerability since the last plan

- 4.4 Hazard Ranking

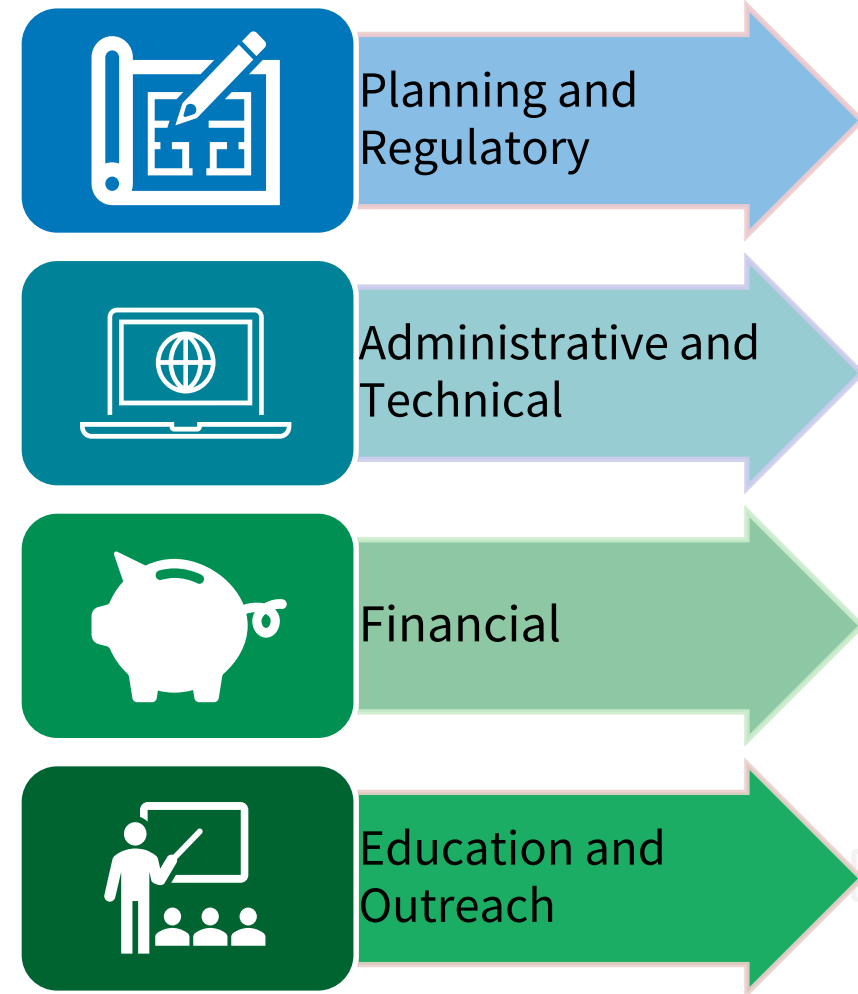
- Provides a preliminary ranking (high, medium, low) of each hazard to show the Planning Area’s hazards of greatest risk



Volume I

5. Capability Assessment

- What is currently available at the federal, state, and county level to support mitigation in Burlington County
 - Available plans, programs, & resources
 - Administrative and technical capabilities
 - Fiscal capabilities
 - Education and outreach



Volume I

6. Mitigation Strategy



- Past accomplishments
- Goals and Objectives
- Mitigation strategy development and update
 - Action identification
 - Evaluation and prioritization
 - Benefit/cost review

2024 HMP Update Goals	
1	Protect Life
2	Protect Property
3	Increase public preparedness and awareness
4	Develop and maintain an understanding of increased risk from hazards climate change impacts to natural hazards
5	Enhance mitigation capabilities to reduce hazard vulnerabilities
6	Support continuity of operations pre-, during, and post-hazard events
7	Reduce the risk of natural hazards for socially vulnerable populations

Volume I

7. Plan Maintenance



- Ongoing Planning Partnership – meet annually to discuss HMP
- Monitoring
- Continuous evaluation and progress reports
- Updating
- Integrating the HMP with existing and future programs
- Continued public involvement



Volume II

- **Section 8 – Planning Partnership**
 - Participating jurisdictions
 - Introduction to jurisdictional annexes
- **Section 9 – Jurisdictional Annexes**
 - Points of Contact and Who Participated
 - Jurisdictional Profile
 - Capabilities
 - Risk Assessment
 - Status of Past Mitigation Actions
 - Current Mitigation Actions





Section Contents - Appendices

- Appendix A Plan Adoption
- Appendix B Participation Documentation
- Appendix C Meeting Documentation
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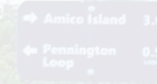
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