



Mitigation Plan for Four New Jersey Counties  
**Gloucester County Appendices**

**Appendix GC.13**  
**National Park Borough, New Jersey**

June 3, 2016

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## Part 1: Overview

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### Part 1.1: Mitigation Plan for Four New Jersey Counties

The Mitigation Plan for Four New Jersey Counties (NJ4 HMP) incorporates input from approximately ninety (90) participating municipalities in Camden, Cumberland, Gloucester, and Salem Counties. The NJ4 HMP is an update and expansion of the South Delaware Valley Region Multi-jurisdictional Hazard Mitigation Plans that were adopted by all four counties and approved by the Federal Emergency Management Agency in 2010 and 2011.

The NJ4 HMP has two main parts:

- Regional Hazard Mitigation Plan
- County and Municipal Appendices

The Regional Hazard Mitigation Plan includes descriptions and information that is common to all participating NJ4 HMP jurisdictions organized according to the following three main focus areas:

- Planning Process
- Hazard Identification and Risk Assessment
- Mitigation Measures

The Regional Hazard Mitigation Plan also includes Annexes that contain detailed background information for these three focus areas and additional reference materials for the implementation of the NJ4 HMP.

The County and Municipal Appendices include specific information for these same three main focus areas for each of the participating municipalities. Detailed tabulations are included in these Appendices for critical facilities, status of past mitigation activities, and proposed mitigation measures for each municipality.

### Part 1.2: National Park Borough (Gloucester County) Municipal Appendix

This Municipal Appendix is focused on National Park Borough in Gloucester County, New Jersey.

The National Park Borough Municipal Working Group recommended the National Park Borough (Gloucester County) Municipal Appendix for adoption to the National Park Borough Council.

The National Park Borough Council adopted the Municipal Appendix by resolution (see Attachment B: Adoption Resolution).

Region II of the Federal Emergency Management Agency subsequently approved the Municipal Appendix (see Attachment C: Approval Letter).

## Part 2: Participation

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### Part 2.1: Municipal Working Group Participation

Part 2.1 includes:

- *Municipal Working Group members including positions in the community, meetings and work sessions attended, and specific contributions to the Municipal Appendix*
- *Municipal positions and organizations that were invited but were not able to participate in the plan update process*
- *Municipal positions and organizations that have been recommended by the Federal Emergency Management Agency (FEMA) as candidates for participation on Municipal Working Groups but do not exist in the municipality*

Table GC.13-1 identifies the Municipal Working Group members. As explained in *Section 2: Planning Process* of the Mitigation Plan for Four New Jersey Counties (NJ4 HMP) Regional Hazard Mitigation Plan, the Municipal Working Groups are comprised of community representatives who worked to make sure mitigation measures included in the Municipal Appendix addressed the risks faced by residents, businesses, and property owners and reflected the priorities of the community. The Working Group will also continue to stay involved during the implementation and maintenance of the NJ4 HMP.

**Table GC.13-1: National Park Borough (Gloucester County) Working Group**

First Name	Last Name	Department	Position	Round 1 Work Session <sup>1</sup>	Round 2 Work Session <sup>2</sup>	Contribution <sup>3</sup>
Josh	Pitts	National Park Borough Administration	Clerk / Administrator / Treasurer / Registrar	☑	☑	Organized Working Group and Work Sessions.
Bill	Cattell	National Park Building Inspector's Department	Construction Official / Floodplain Administrator / Land Use Board Member		☑	

<sup>1</sup> Round 1 Work Session was held on August 6, 30, 2014.

<sup>2</sup> Round 2 Work Session was held on October 14, 2014.

<sup>3</sup> Municipal Working Group members reviewed briefing materials in advance of Work Sessions, contributed during Work Sessions, and reviewed the preliminary Mitigation Plan for Four New Jersey Counties. Additional or unusual contributions are noted in the far right hand column of Table GC.13-1.

## Part 2: Participation

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The following lists candidate positions and organizations within the community that were extended invitations but could not participate during the development of the Municipal Appendix. These positions and organizations will continue to be extended invitations to participate during subsequent plan implementation and maintenance activities<sup>4</sup>.

- Elected Officials
- OEM Coordinator
- Engineering
- Public Works
- Police
- Fire
- Community / Faith-Based Organizations
- School Board

The following lists positions and organizations that are generally recommended for consideration as members of the Municipal Working Groups by FEMA but do not currently exist within the community. An invitation to participate will be extended if positions are created or filled and as organizations are formed.

- GIS / IT Specialist
- Transportation Department Directors / Supervisors
- Emergency Medical Services
- Business Associations
- Environmental Organizations
- Non-Governmental Organizations
- Critical Infrastructure and Key Resources
- Major Employers and Businesses
- Healthcare Institutions

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<sup>4</sup> See *Section 4: Mitigation Measures* of the NJ4 HMP Regional Hazard Mitigation Plan.

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## Part 2: Participation

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### Part 2.2: Public Participation

*Part 2.2 includes opportunities provided to the public and interested parties in the municipality to participate during the plan update process*

Table GC.13-2 identifies the date, type, and location (where applicable) for opportunities provided to the public and interested parties to participate in the development of the plan update.

**Table GC.13-2: Public Participation**

Date	Type of Involvement	Location
August 29, 2014	Link to Project Website ( <a href="http://nj4hmp.com">http://nj4hmp.com</a> ) established	Borough of National Park website <sup>5</sup>
September 25, 2014	Public outreach	CRS related letters sent out to residents included information regarding NJ4 HMP Update Project.
August 12, 2015	Public hearing included on National Park Borough Council agenda providing for open discussion, and public comment regarding the Municipal Appendix	National Park Borough Hall

Public comments and input received for the Preliminary Municipal Appendix were considered by the Municipal Working Group and incorporated into the Draft Municipal Appendix where appropriate. Public comments received during the review of the Preliminary Municipal Appendix were included in Attachment A to the Municipal Appendix along with a brief explanation of how the comments were addressed in the Draft Municipal Appendix.

In addition, the Municipal Appendix was adopted as part of a regularly scheduled public meeting (see Attachment B: Adoption Resolution).

Public education and outreach is an on-going mitigation measure included in the Municipal Appendix<sup>6</sup>. In addition, public participation will continue to be encouraged during subsequent plan implementation and maintenance activities<sup>7</sup>.

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<sup>5</sup> <http://www.nationalparknj.com/>

<sup>6</sup> See Mitigation Measure M-1 in Part 4 of the Municipal Appendix.

<sup>7</sup> See *Section 4: Mitigation Measures* of the NJ4 HMP Regional Hazard Mitigation Plan.

## Part 3: Hazard Identification and Risk Assessment

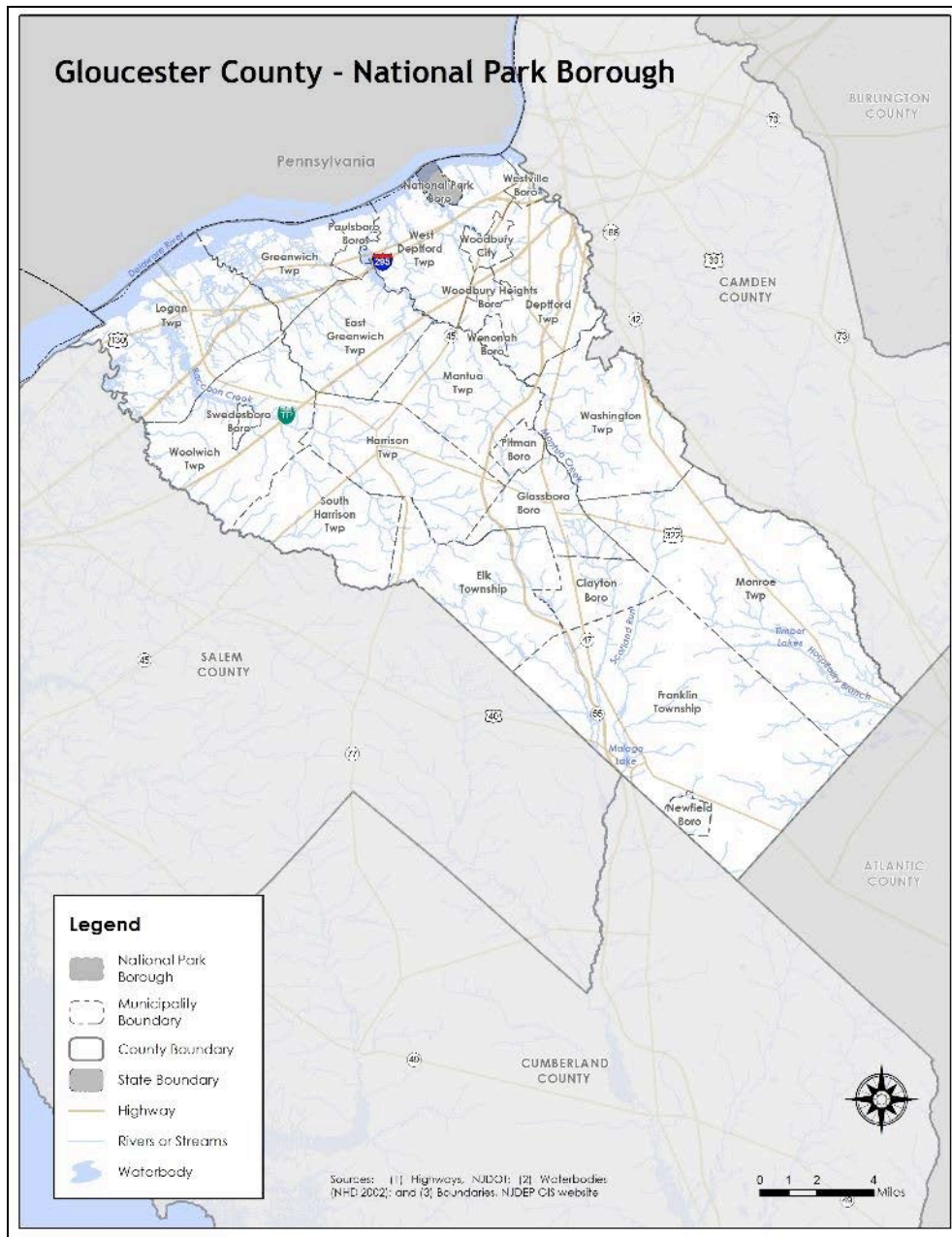
### Part 3.1: Municipal Profile

Part 3.1 includes:

- Selected data and information about the municipality that is generally relevant for emergency management planning and specifically for hazard mitigation
- A brief character sketch for the municipality that is only intended to portray a few of the most basic elements

National Park Borough is located on the northern edge of Gloucester County (See Figure GC.13-1).

**Figure GC.13-1: National Park Borough (Gloucester County) Location Map**



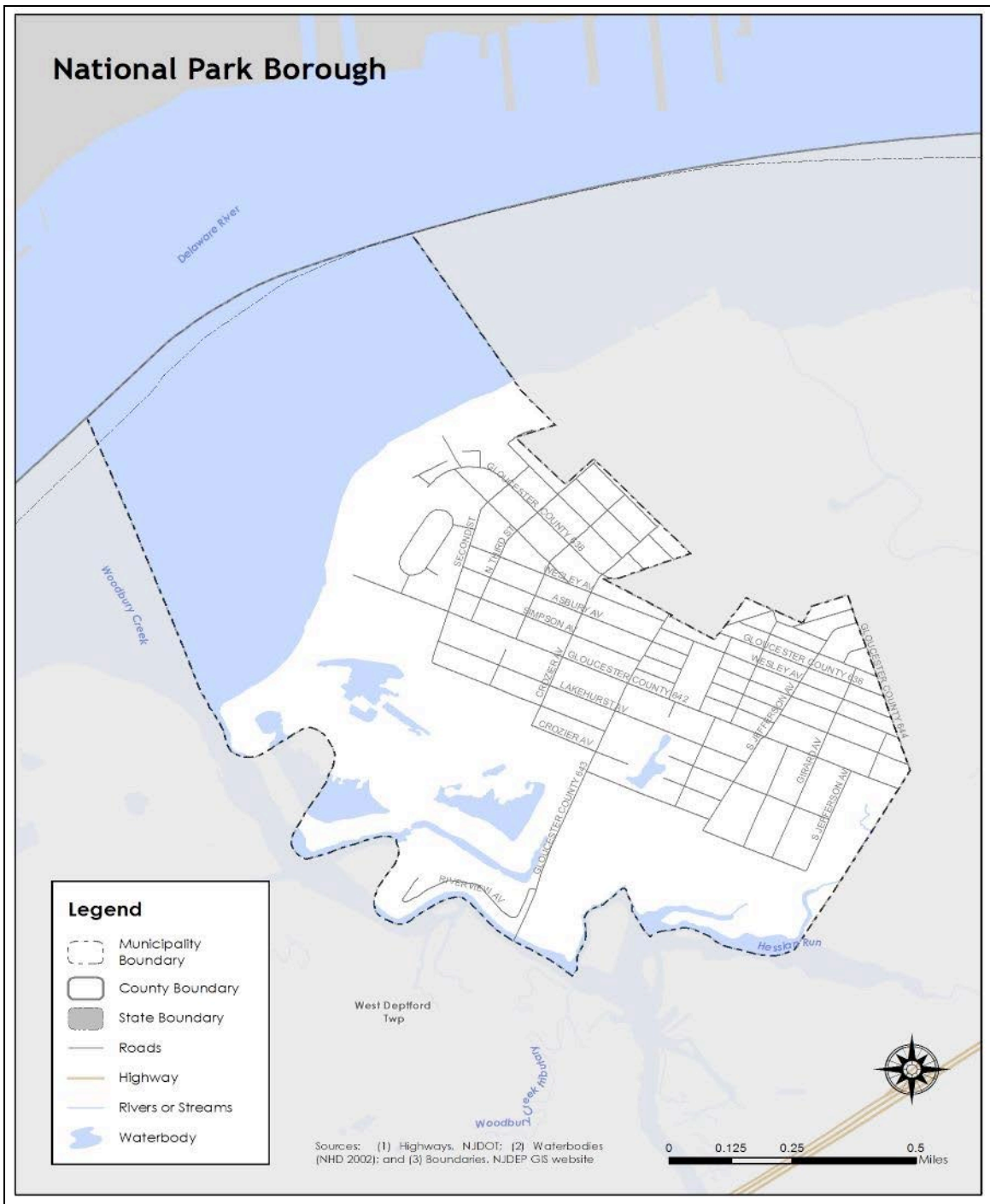


### Part 3: Hazard Identification and Risk Assessment

National Park Borough is a historic and religious town known as the location of the Battle of the Red Bank during the American Revolutionary War. Today, National Park Borough maintains its rich historic and religious heritage with a balance of continuing commercial and residential development.

Per Figure GC.13-2, the major water courses include the Delaware River and Woodbury Creek, which together form parts of the northern and western borders of the municipality respectively. Major transportation routes include Gloucester County 638 and 642. The land is predominantly flat.

Figure GC.13-2: National Park Borough Base Map



### Part 3: Hazard Identification and Risk Assessment

In addition, Table GC.13-3 is a compilation of demographic information for the municipality and comparison with the county, the four county region, and State of New Jersey.

**Table GC.13-3: National Park Borough Demographics**  
(Source: Census DP-1, 2010 ACS 5-Year Estimates, DP 3, 4)

	National Park Borough	Gloucester County	Region	New Jersey
2000 Population	3,205	254,673	974,328	8,414,350
2010 Population	3,036	288,288	1,024,926	8,791,894
Percent Change	-5.27%	13.2%	5.19%	4.49%
Population Density	3,023.9 / sq. mile	895.3 / sq. mile	754.25 / sq. mile	1,195.5 / sq. mile
Land Area	1.00 sq. miles	322.00 sq. miles	1,358.86 sq. miles	7,354.22 sq. miles
% of Population 18 and younger	23.1	24.4	24.1	23.5
% of Population 18 - 64	65.4	63.2	62.7	63
% of Population 65 and over	11.5	12.4	13.2	13.5

Table GC.13-4 illustrates how National Park Borough ranks in the county, the four county region, and New Jersey.

**Table GC.13-4: National Park Borough Demographic Rankings**

	Gloucester County (total of 24)	Region (total of 90]	New Jersey (total of 566)
Population Rank	21	67	451
Land Area Rank	22	75	456
Population Density Rank	6	31	215
Population Change Rank	24	83	-

Table GC.13-5 includes information related to economic and housing statistics for National Park Borough, Gloucester County, the four county region, and New Jersey.

**Table GC.13-5: National Park Borough Economics and Housing**  
(Source: USDA ERS, Census DP-1, 2010 ACS 5-Year Estimates, DP 3, 4; NJ LWD 2010)

	National Park Borough	Gloucester County	Region	New Jersey
Date Incorporated	April 15, 1902	1686	-	-
Rural / Urban Status	Urban	Urban	Urban	Urban
Median Household Income	\$65,852	\$72,664	\$60,933	\$69,811
Total Number of Housing Units	1,153	109,796	397,990	3,529,033
Occupied Housing Units	1,092	104,271	372,472	3,176,069
Vacant Housing Units	61	5,525	25,518	352,964
Owner Occupied Housing Units	908	83,525	266,593	2,126,279

**Part 3: Hazard Identification and Risk Assessment**

	National Park Borough	Gloucester County	Region	New Jersey
Renter Occupied Housing Units	184	20,746	105,879	1,049,790
Building Permits	2	716	1,554	13,535
Largest Industry	Construction	Educational Services, and health care and social assistance	Educational services, and health care and social assistance	Educational services, and health care and social assistance

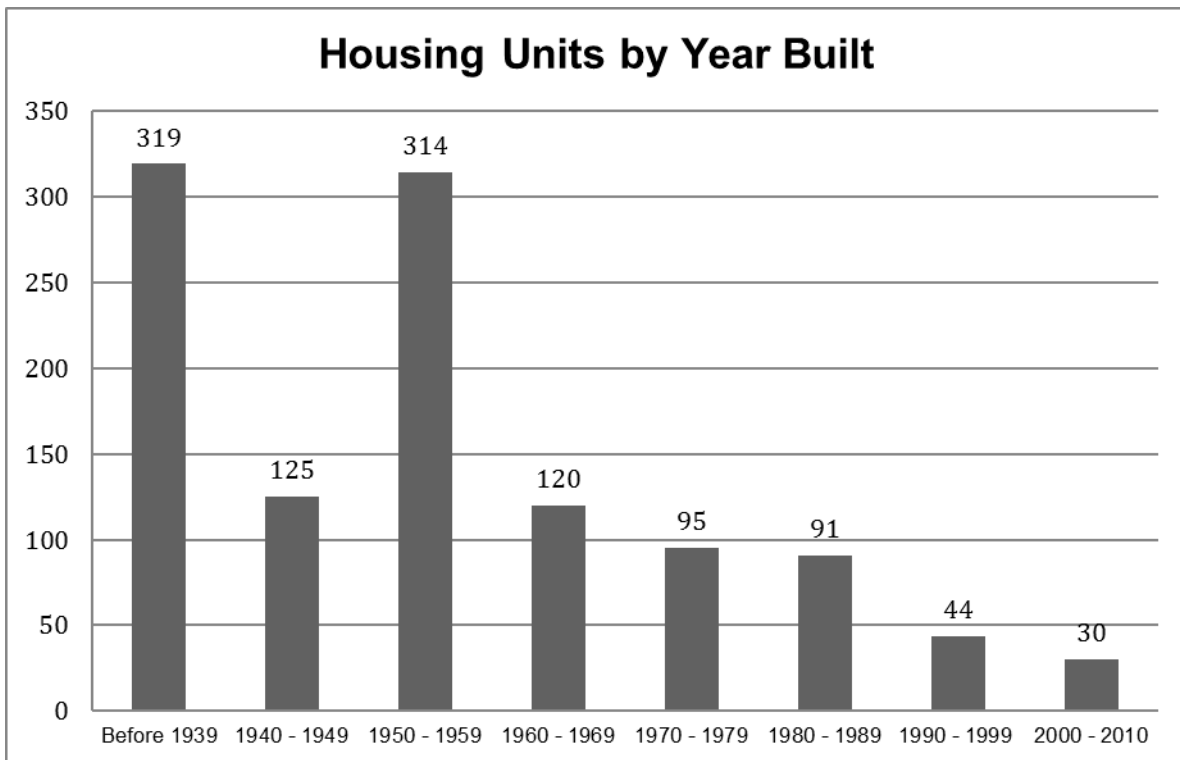
Table GC.13-6 illustrates how National Park Borough ranks in the county and the four county region.

**Table GC.13-6: National Park Borough Ranking (Economics and Housing)**

	Gloucester County (total of 24)	Region (total of 90)
Median Household Income Rank	16	38
Vacant Housing Rank	20	70
Renter Occupied Housing Rank	18	64
Building Permits	16	60

Figure GC.13-3 illustrates development patterns in National Park Borough by examining housing units by year built. About 27% of homes in National Park Borough were built during the 1950s.

**Figure GC.13-3: National Park Borough Housing Units by Year Built**  
(Source: 2010 ACS 5-Year Estimates, DP 4)



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## Part 3: Hazard Identification and Risk Assessment

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### Part 3.2: Hazard Priorities

*Part 3.2 includes hazard priority determinations per the Municipal Working Group.*

As a key step in the Hazard Identification and Risk Assessment (HIRA) process, the twelve (12) natural hazards identified in the NJ4 HMP<sup>1</sup> were discussed during the Municipal Working Group Work Sessions and the relative priority of these hazards was identified. The Municipal Working Group rated the hazards as follows:

#### High Priority

- Flood

#### Moderate Priority

- Coastal Erosion & Sea Level Rise Dam Failure
- Extreme Temperature: Cold & Hot
- High Wind

#### Low Priority

- Drought
- Earthquake
- Severe Weather – Summer
- Severe Weather – Winter
- Wildfire

Three additional hazards were discussed but were not considered applicable to the municipality:

- Dam Failure
- Geologic Hazards
- Levee Failure

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<sup>1</sup> See *Section 3: Hazard Identification and Risk Assessment*.

## Part 3: Hazard Identification and Risk Assessment

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### Part 3.3: Hazard Mapping

Part 3.3 includes cross references to hazard inventory and risk assessment mapping included in the NJ4 HMP Regional Hazard Mitigation Plan.

Table GC.13-7 provides information regarding hazard inventory mapping included in *Annex D: Hazard Profiles and Risk Assessments* of the NJ4 HMP that support the Hazard Identification and Risk Assessment (HIRA) for the Municipal Appendix. The indicated maps and exhibits correspond to the hazards identified by the Municipal Working Group in Part 3.2. The information represented by these maps will be used in the Critical Facilities Hazard Exposure Assessment described in Part 3.4.

**Table GC.13-7: Supporting Mapping and Exhibits**

Figure #	Hazard	Map	HIRA Contribution
Figure RP.D-46	Flood	FEMA Flood Hazard Zones Preliminary FIRM (PFIRM)	Identify areas subject to periodic flooding (work-in-progress for revisions to effective FIRM)
Figure RP.D-54	Flood (Storm Surge)	Coastal Flood Loss Atlas – SLOSH Model Maximum of Maximum	Identify areas where inundation due to storm surge may occur
Figure RP.D-99	Wildfire	Wildland Fuel Hazard Risk	Identify areas subject to wildfire
Figure RP.D-106	Wildfire	Wildland Urban Interface (WUI)	Identify areas subject to wildfire

The following hazards are not referenced as these hazards occur uniformly across the municipality and have the same potential impact on all properties and assets:

- Drought
- Earthquake
- Extreme Temperatures – Cold and Hot
- High Wind
- Severe Weather – Summer
- Severe Weather – Winter

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## Part 3: Hazard Identification and Risk Assessment

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### Part 3.4: Critical Facilities Inventory and Hazard Exposure Assessment

*Part 3.4 includes:*

- *Inventory information for municipal critical facilities*
- *Hazard exposure analysis results for municipal critical facilities*

Consistent with the process described in Section 3 of the NJ4 HMP Regional Hazard Mitigation Plan, Table GC.13-8 contains updated inventory information for municipal critical facilities including cross-references to related mitigation measures identified in Part 4 of the Municipal Appendix.

*Note: Shaded cells (if any) will be completed as part of follow-up efforts to be conducted as part of Mitigation Measure M-2 (see Part 4 of the Municipal Appendix).*

Table GC.13-9 provides the means to record results of overlaying critical facility locations with hazard mapping identified in Part 3.3. The results will indicate critical facilities that are potentially exposed to specific hazards.

*Note: This information will be used in critical site and facility assessments to be conducted as part of Mitigation Measure M-2 (see Part 4 of the Municipal Appendix).*

Hazards that apply to all critical facilities in the NJ4 region and will automatically be included in the proposed critical site and facility assessment process include:

- Earthquake
- High Wind
- Severe Weather – Summer
- Severe Weather – Winter

Hazards that do not relate to the proposed critical site and facility assessment process include:

- Drought
- Extreme Temperatures – Cold and Hot

As a result, these six (6) hazards are not included in the critical facility exposure assessment in Section 3 of the NJ4 HMP Regional Hazard Mitigation Plan.

**Part 3: Hazard Identification and Risk Assessment**

**Table GC.13-8: National Park Borough (Gloucester County) Critical Facilities Inventory**

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-1	National Park Borough Hall	Municipal	Administrative Offices	7 South Grove Avenue, National Park	CF-2, CF-5	Y <sup>2</sup>	N		M-5 / M-12
CF-2	Emergency Operations Center	EOC	Co-located Facilities	7 South Grove Avenue, National Park	CF-1, CF-5	Y	N		M-5 / M-12
CF-3	National Park Fire Department	FireStation	Stations	523 Hessian Avenue, National Park		Y	N		M-6
CF-4	Public Works	Public Works	Combined Administrative Office, Maintenance / Work Area, Equipment / Material Storage, and Fueling Station	602 Woodlawn Avenue, National Park		N	Y <sup>3</sup>		M-7
CF-5	Water Treatment Plant	Utilities – Water	Treatment Plants	7 South Grove Avenue, National Park	CF-1, CF-2	N/A	Y		
CF-6	Pump Station	Utilities – Water	Pump Stations	200 Princeton Avenue, National Park		N/A	Y <sup>3</sup>		
CF-7	Pump Station	Utilities – Water	Pump Stations	Jefferson Avenue, National Park		N/A	Y <sup>3</sup>		
CF-8	National Park Elementary School	Schools	Public Schools	516 Lakehurst Avenue, National Park		Y	Y <sup>3</sup>		M-8

<sup>2</sup> Shelter of last resort.

<sup>3</sup> Portable generator.

**Part 3: Hazard Identification and Risk Assessment**

**Table GC.13-9: National Park Borough (Gloucester County) Critical Facilities Hazard Exposure**

CF #	Name	Increased Inundation +1 Foot	Increased Inundation +2 Foot	Increased Inundation +3 Foot	Dam Failure	Flood – FIRM Zone V	Flood – FIRM Zone A	Flood – FIRM Zone 0.2%	Storm Surge – Category 1	Storm Surge – Category 2	Storm Surge – Category 3	Storm Surge – Category 4	Levee Failure	Wildfire Wildland High Density Urban Interface	Wildfire Extreme / High Fuel Level Risk
CF-1	National Park Borough Hall	N/A	N/A	N/A	N/A								N/A		
CF-2	Emergency Operations Center	N/A	N/A	N/A	N/A								N/A		
CF-3	National Park Fire Department	N/A	N/A	N/A	N/A								N/A		
CF-4	Public Works	N/A	N/A	N/A	N/A								N/A		
CF-5	Water Treatment Plant	N/A	N/A	N/A	N/A								N/A		
CF-6	Pump Station	N/A	N/A	N/A	N/A								N/A		
CF-7	Pump Station	N/A	N/A	N/A	N/A								N/A		
CF-8	National Park Elementary School	N/A	N/A	N/A	N/A								N/A		



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## Part 4: Mitigation Measures

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### Part 4.1: Mitigation Goals and Strategy

Part 4.1 includes:

- *Goal statements reviewed and approved by the Municipal Working Group based on goals included in the Southern Delaware Valley Region (New Jersey) Multi-Jurisdictional Hazard Mitigation Plans (SDVR HMPs) approved by FEMA in 2010 and 2011 for Camden, Cumberland, Gloucester, and Salem Counties*
- *Overarching strategy for the municipality's mitigation program*

Goals were originally established by the Southern Delaware Valley Region Hazard Mitigation Steering Committee and validated by the four County Hazard Mitigation Working Groups in response to risk and capability assessment results.

As part of the plan update process, these goals were reviewed and edited by the Municipal Working Group for use in the Municipal Appendix. All mitigation measures in the Municipal Appendix are related to at least one of these four goal statements.

- **Goal 1: Improve education and outreach efforts** regarding potential risk of natural hazards and appropriate mitigation measures that can be used to reduce risk (including programs, activities, and projects)
- **Goal 2: Improve data collection, use, and sharing** to reduce the risk of natural hazards
- **Goal 3: Improve capabilities and coordination** at municipal, county, and state levels to plan and implement hazard mitigation measures
- **Goal 4: Plan and implement projects** to mitigate identified natural hazards, known problems, and areas of concern

Based on these goals, the results of the NJ4 HMP Regional Hazard Mitigation Plan HIRA, and experience of participants in the plan update process, the Municipal Working Group identified an overarching strategy for mitigation:

- Focus on projects to address known problems or areas of concern for critical facilities and vulnerable populations as additional initial risk reduction efforts
- Provide opportunities for residents and property owners to access available information about risk reduction and mitigation measures, in particular for repetitive flood loss properties
- Identify additional areas of concern for critical facilities and vulnerable populations for future plan updates
- Institutionalize hazard mitigation into municipal activities and programs through regular interactions of the Municipal Working Group and better integration of related regulatory programs and planning initiatives
- Stay informed regarding changing conditions and related improvements in hazard and risk data due to future natural hazard events and increasing understanding of the effects of climate change and use the information as part of periodic evaluations of and refinements or additions to the municipality's mitigation program

The mitigation measures described in Parts 4.3 through 4.5 of the Municipal Appendix reflect this strategy.

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## Part 4: Mitigation Measures

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### Part 4.2: SDVR HMP Mitigation Measures

*Part 4.2 includes the status of mitigation measures identified for the municipality in the SDVR HMP.*

Known problems and areas of concern were the basis for mitigation measures identified in the SDVR HMP. In cases where these problems and concerns still existed at the time of the plan update, the related SDVR HMP mitigation measures were candidates for inclusion in the Municipal Appendix.

Table GC.13-10 identifies the status of mitigation measures included in the SDVR HMP. These entries were based on information provided by the Municipal Working Group. In some cases, the SDVR HMP mitigation measures were carried over as part of the Municipal Appendix as indicated in the “Comments” column and the far right-hand column of Table GC.13-10.

**Table GC.13-10: Status of National Park Borough (Gloucester County) SDVR HMP Mitigation Measures**

<b>Mitigation Action, Program, or Project</b>	<b>Status</b>	<b>Comments</b>	<b>Mitigation Measure # (Notes A &amp; B)</b>
<b>National Park 1:</b> Engineering study to determine appropriate flood mitigation action for 6 private houses on Princeton Avenue (non-RL/SRL).	Not completed, not funded	Revised mitigation measure included in updated NJ4 HMP and Municipal Appendix.	M-12

**Table GC.13-10 Notes:**

- A. See Tables GC.13-11 and GC.13-12 for municipal (M-#) mitigation measures
- B. See Table GC.13-13 for multi-jurisdictional (MJ-#) mitigation measures

## Part 4: Mitigation Measures

### Part 4.3: Municipal Mitigation Measures – Identification

Part 4.3 includes brief descriptions of mitigation measures that are considered the sole responsibility of the municipality.

Table GC.13-11 includes the list of mitigation measures that are considered the responsibility of the municipality. These mitigation measures:

- Reflect the goals and strategy identified in Part 4.1
- Include projects carried over from SDVR HMPs as detailed in Part 4.2
- Include new projects, programs or activities identified by the Municipal Working Groups including measures to address known problems or areas of concern for critical facilities and vulnerable populations
- Address Repetitive Flood Loss (RL) and Severe Repetitive Flood Loss Properties (SRL)<sup>1</sup> if applicable

Table GC.13-11 includes:

- Brief description of the mitigation action, program or project
- Hazard(s) addressed by the measure
- Relevant goal(s) addressed by the measure
- Whether the measure pertains to existing or new structures or both

*Note: Mitigation measures with discrete locations are shown in Figure GC.13-4.*

**Table GC.13-11: National Park Borough (Gloucester County) Municipal Mitigation Measures Identification**

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-1	Identify and pursue outreach and education opportunities to inform municipal residents, businesses, and property owners regarding: <ul style="list-style-type: none"> <li>• Current hazards and risks</li> <li>• Changing conditions and actions that may reduce / increase risk</li> <li>• Best practices for hazard mitigation at the individual or property level.<sup>2</sup></li> </ul>	All	Goal #1	Both
M-2	Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.	All	Goal #2	Existing
M-3	Prioritize recurrent drainage problem areas and initiate data collection to track unreimbursed damages and related response and recovery expenses.	All	Goal #2	Existing
M-4	Conduct regular Municipal Working Group meetings consistent with the plan maintenance program and the Municipal Adoption Resolution.	All	Goal #3	Both

<sup>1</sup> See Section 3: Hazard Identification and Risk Assessment and related portions of Annex D of the NJ4 HMP Regional Hazard Mitigation Plan for a description of RL and SRL properties.

<sup>2</sup> For example, individual property owners can be informed about back-up power alternatives such as initial battery back-up for power disruptions.

## Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-5	Install permanent backup emergency power generator at Municipal Borough Hall (CF-1).	All	Goal #4	Both
M-6	Install permanent backup emergency power generator at National Park Fire Department (CF-3).	All	Goal #4	Both
M-7	Install permanent backup emergency power generator at Public Works facility (CF-4).	All	Goal #4	Both
M-8	Install permanent backup emergency power generator at National Park Elementary School (CF-8).	All	Goal #4	Both
M-9	Engineering study for drainage upgrade / solution on Hessian Avenue at the 1200 Block.	Flood	Goal #4	Both
M-10	Engineering study to determine drainage solution at Temple Place Park.	Flood	Goal #4	Both
M-11	Address identified Repetitive Flood Loss Properties.	Flood	Goal #4	Both
M-12	Harden municipal Borough Hall infrastructure to include upgrade to roof, doors, and windows (CF-1).	High Wind	Goal #4	Both

## Part 4: Mitigation Measures

### Part 4.4: Municipal Mitigation Measures – Implementation

Part 4.4 includes a tabulation of relevant aspects related to the implementation of the municipal mitigation measures.

Table GC.13-12 includes information identified by the Municipal Working Group:

- Part(ies) responsible for following up with implementation of the measure
- Priority for implementation considering a range of criteria<sup>3</sup>
- Project Type to help determine funding options and implementation mechanisms at the municipal level<sup>4</sup>
- Estimated Cost, including estimates provided by the Municipal Working Group or approximate ranges for projects that are in early stages of development
- Target Date, indicating desired completion dates assuming availability of funding
- Next step(s) anticipated to implement the identified mitigation measures at the municipal level

**Table GC.13-12: National Park Borough (Gloucester County) Municipal Mitigation Measures Implementation**

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-1	Identify and pursue outreach and education opportunities.	Floodplain Administrator and Municipal OEM	Moderate	Public Outreach and Education	Staff time commitment	On-going	<ul style="list-style-type: none"> <li>▪ Work with County Working Group to identify resource needs and availability.</li> <li>▪ Identify target audience(s).</li> </ul>
M-2	Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.	Municipal OEM and Facility Managers	Moderate	Data Acquisition and Management	Staff time commitment	On-going	Review critical facility list and establish priorities, procedures, and tentative time schedule for conducting site and facility surveys.
M-3	Prioritize recurrent drainage problem areas and initiate data collection to track unreimbursed damages and related response and recovery expenses.	Municipal OEM and Municipal Working Group	Low	Capabilities and Coordination	Staff time commitment	On-going	Identify recurrent drainage problem areas, establish priorities, and identify data collection procedures.
M-4	Conduct regular Municipal Working Group meetings.	Municipal OEM and Municipal Working Group	Low	Capabilities and Coordination	Staff time commitment	On-going	Establish regular Municipal Working Group membership, reporting requirements, and meeting / work session schedule.

<sup>3</sup> See *Section 4: Mitigation Measures* and related portions of Annex E of the NJ4 HMP Regional Hazard Mitigation Plan for a description of evaluation criteria considered by the Municipal Working Group.

<sup>4</sup> See *Section 4: Mitigation Measures* and related portions of Annex F of the NJ4 HMP Regional Hazard Mitigation Plan for a description of project types and related information regarding funding options and implementation mechanisms.

## Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-5	Install permanent backup emergency power generator at Municipal Borough Hall (CF-1).	Municipal OEM and Public Works Department	High	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-6	Install permanent backup emergency power generator at National Park Fire Department (CF-3).	Municipal OEM and Fire Department	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-7	Install permanent backup emergency power generator at Public Works facility (CF-4).	Municipal OEM and Public Works Department	High	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-8	Install permanent backup emergency power generator at National Park Elementary School (CF-8).	Municipal OEM and Public Works Department	High	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-9	Engineering study for drainage upgrade / solution on Hessian Avenue at the 1200 Block.	Municipal OEM and Public Works Department	Moderate	Private Property Flood Mitigation	< \$50K	Three to five years	Develop scope of work for engineering study and procure professional consulting services.
M-10	Engineering study to determine drainage solution at Temple Place Park.	Municipal OEM and Public Works Department	Moderate	Public Property Flood Mitigation	< \$50K	Three to five years	Develop scope of work for engineering study and procure professional consulting services.
M-11	Address identified Repetitive Flood Loss Properties.	Municipal OEM and Public Works Department	High	Private Property Flood Mitigation	Staff time commitment	Six months	Identify mitigation options including eligible activities per FEMA HMA programs.
M-12	Harden municipal Borough Hall infrastructure to include upgrade to roof, doors, and windows (CF-1).	Municipal OEM and Public Works Department	Low	Building Retrofit	\$100K - \$1M	Three to five years	Conduct project scoping.

## Part 4: Mitigation Measures

### Part 4.5: Multi-Jurisdictional Mitigation Measures

*Part 4.5 includes brief descriptions of mitigation measures that require multiple jurisdictions to implement.*

During the Municipal Working Group Work Sessions, the Municipal Working Group identified some SDVR HMP mitigation measures as well as new areas of concern as mitigation measures where implementation requires participation or leadership from other levels of government, including county, state, and federal agencies. These multi-jurisdictional mitigation measures are included in Table GC.13-13.

*Section 4: Mitigation Measures* of the NJ4 HMP Regional Hazard Mitigation Plan describes multi-jurisdictional implementation strategies in detail. Section 4 identifies multi-jurisdictional mitigation measures that Municipal Working Groups believe are partly or wholly the responsibility of County agencies. These measures have been referred to the County Working Group for consideration. As part of the mitigation measures in the County Appendix to the NJ4 HMP Regional Hazard Mitigation Plan, the County Working Group will be working with the municipalities to identify:

- Specific responsibilities amongst different level(s) of government to address these problem areas
- Mitigation measures or related projects which may address the described problem areas that are already acknowledged as County responsibilities including identifying the appropriate County agency or department taking the lead role and status of implementing these mitigation measures
- Which, if any, additional mitigation measures the member agencies of the County Working Group will assume responsibility to implement

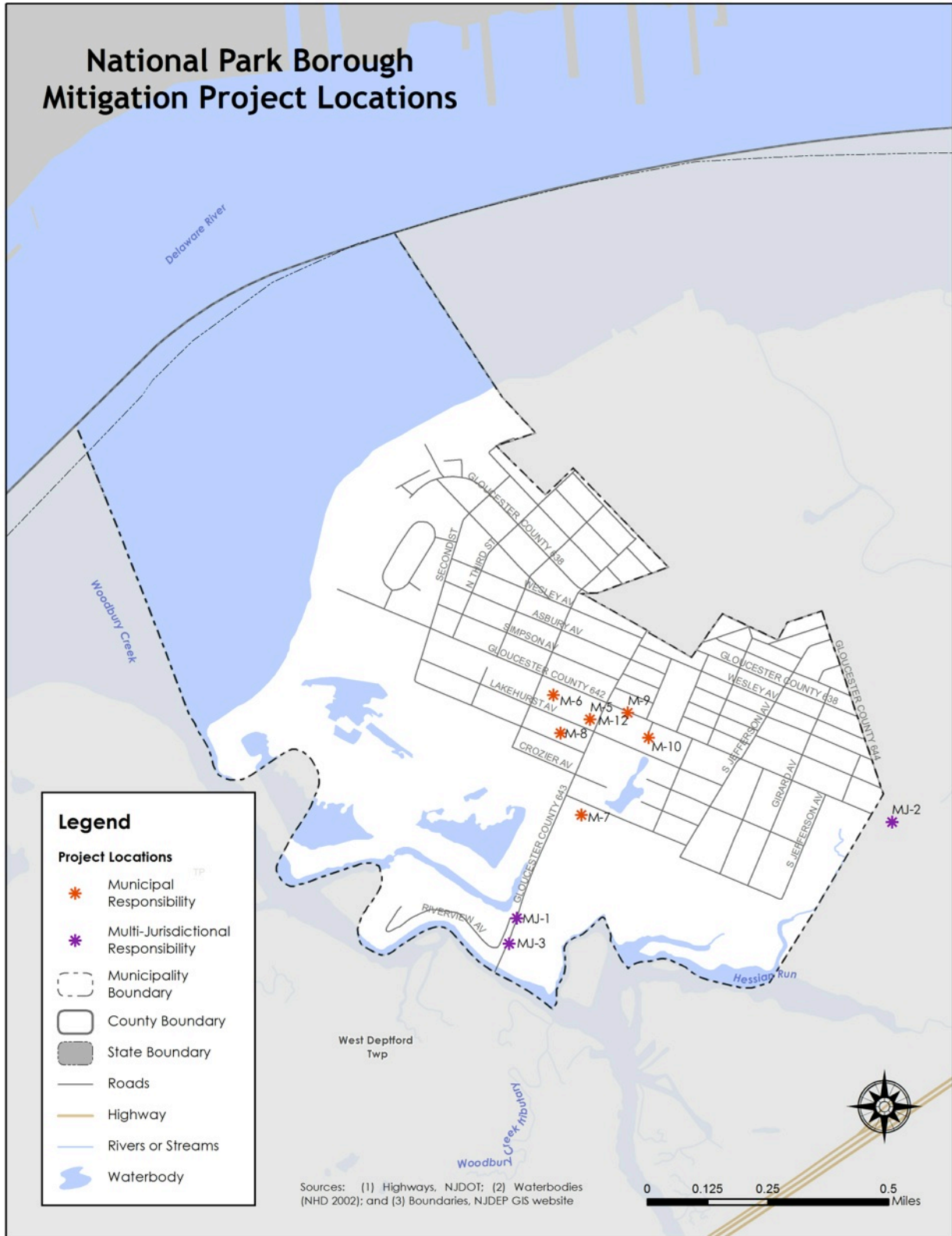
*Note: Multi-jurisdictional mitigation measures with discrete locations are shown in Figure GC.13-4.*

**Table GC.13-13: National Park Borough (Gloucester County) Multi-Jurisdictional Mitigation Measures**

#	Problem Description	Hazard(s) Addressed	Goal Addressed	Applies to Existing or New Structures	Potential Partners	Priority
MJ-1	Alleviate flooding at the intersection of County Route 643 (Grove Avenue) and Riverview Avenue.	Flood	Goal #4	Existing	Municipal OEM, West Deptford Township, Gloucester County DPW	Moderate
MJ-2	Alleviate flooding at the intersection of County Route 644 (Red Bank Avenue) and County Route 642 (Hessian Avenue).	Flood	Goal #4	Existing	Municipal OEM, West Deptford Township, and Gloucester County DPW	Moderate
MJ-3	Engineering study to determine appropriate flood mitigation action for flooding on Princeton Avenue (County Route 643).	Flood	Goal #4	Existing	Municipal OEM, Gloucester County DPW	High

Part 4: Mitigation Measures

Figure GC.13-4: National Park Borough Mitigation Project Locations





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## Part 4: Mitigation Measures

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### Part 4.6: Authorities, Policies, Programs, Resources, and Plan Integration

Part 4.6 includes three (3) subparts:

- **Authorities, Policies, and Programs** - Cross referencing relevant information and recommendations in the NJ4 HMP Regional Hazard Mitigation Plan regarding existing authorities, policies, and programs in the region and specific information about the jurisdiction's participation and continued compliance in the National Flood Insurance Program (NFIP)
- **Capabilities and Coordination** - Cross referencing relevant information and recommendations in the NJ4 HMP Regional Hazard Mitigation Plan regarding improving capabilities and coordination at the municipal level and specific information about the jurisdiction's available resources
- **Plan Review and Integration** – Identifying plans and programs included in the development of Plan Integration recommendations in the NJ4 HMP Regional Hazard Mitigation Plan

### Authorities, Policies, and Programs

Section 1.3: *Existing Authorities, Policies, Programs, and Resources* of the NJ4 HMP Regional Hazard Mitigation Plan summarizes relevant authorities, policies, and programs related to hazard mitigation in the region including the NFIP.

Continuing municipal participation in the NFIP as part of the implementation of the NJ4 HMP by the municipality, includes:

- Involvement of Floodplain Manager / Administrator during the NJ4 HMP implementation process
- Commitment to adopt updated FIRMs and evaluate / update the municipality's Flood Management Plan and/or Ordinance as appropriate per recommendations in Section 4.6 of the NJ4 HMP Regional Hazard Mitigation Plan

### Capabilities and Coordination

The update of the SDVR HMP included reexamining municipal hazard mitigation capabilities; potential for improving capabilities and coordination within and between jurisdictions; and, plan integration considerations. Section 1.3: *Existing Authorities, Policies, Programs, and Resources* of the NJ4 HMP Regional Hazard Mitigation Plan includes summary statements regarding regional resources and the impact of resource limitations on the overall approach to the NJ4 HMP mitigation strategies. Section 4: *Mitigation Measures* and related portions of Annex F of the NJ4 HMP Regional Hazard Mitigation Plan include summary observations and recommendations concerning:

- Hazard mitigation planning and mitigation measure implementation capabilities and coordination at the regional, county, and municipal levels
- Coordination within municipal governments, between municipal governments and their communities, and between municipal, county, and state agencies responsible for hazard mitigation

### Plan Review and Integration

Specific documents obtained during the plan update process from the Municipal Working Group include:

- Emergency Operations Plan – Base Plan
- Floodplain Ordinance
- Master Plan and Re-examination Reports
- Capital Improvement Budget (2014)<sup>5</sup>
- Zoning Ordinance<sup>6</sup>
- Stormwater Management Plan

Table RP.4-4 in *Section 4.6: Plan Review and Integration* of the NJ4 HMP Regional Hazard Mitigation Plan identifies the primary plans and documents collected from each of the participating municipalities. In addition, Annex E.2 provides a complete list of all the plans and documents collected from the participating municipalities.

Section 4.6 also includes the results of reviewing the primary plans and documents to determine the extent to which these documents reflect up-to-date hazard risk and mitigation. In addition, Section 4.6 includes recommendations for integrating the results of the NJ4 HMP, including hazard mitigation data, goals, measures, and/or recommendations with existing plans and programs at the municipal level that are relevant to all participating municipalities and incorporated by reference in each of the jurisdiction-specific Appendices including:

- Hazard Assessments
- Emergency Operations Plans
- Floodplain Management Ordinances
- Master Plans and Reexamination Reports
- Other plans and documents

The plan maintenance process includes a commitment to review and follow these recommendations during future scheduled updates of these various documents as considered appropriate by the Working Group and the governing body of the municipality.

*Note: National Park Borough is one of 82 communities in the State of New Jersey<sup>7</sup>, and the only municipality in Gloucester County and the four-county NJ4 HMP region, that is a participant in the NFIP Community Rating System (CRS) Program. National Park Borough entered CRS in October 2012 and has attached a CRS Class Rating of 9, which provides a 5% premium discount for NFIP flood insurance policy holders within the Borough. Adoption and implementation of the NJ4 HMP and the National Park Borough Municipal Appendix will be integrated with on-going management of the Borough's CRS Program.*

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<sup>5</sup> [http://www.nationalparknj.com/index\\_htm\\_files/2014BUDGET.pdf](http://www.nationalparknj.com/index_htm_files/2014BUDGET.pdf)

<sup>6</sup> [http://www.nationalparknj.com/index\\_htm\\_files/zoningordinance.pdf](http://www.nationalparknj.com/index_htm_files/zoningordinance.pdf)

<sup>7</sup> As of June 1, 2014 per FEMA listing of CRS Eligible Communities

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**Attachment A: Public Review Comments**

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The following comments were received during the public review of the National Park Borough Municipal Appendix:

**Table GC.13.A-1: Public Review Comments**

Comment Date and Time	Comment	Response

*Note: As of May 31, 2016, no public review comments were received for the National Park Borough Municipal Appendix.*

## **Attachment B: Adoption Resolution**

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Following this page is the Adoption Resolution for the National Park Borough Municipal Appendix as approved by the National Park Borough Council.

## **Attachment C: Approval Letter**

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Following this page is the Approval Letter for the National Park Borough Municipal Appendix.