



Mitigation Plan for Four New Jersey Counties
Camden County Appendices

Appendix CaC.9
Camden City, New Jersey

June 3, 2016

Notes to Draft NJ4 HMP Reviewers:

The April 17, 2015 Draft Appendices for the Mitigation Plan for Four New Jersey Counties NJ4 HMP contain highlighted passages and entries per the following:

- **Yellow highlighted items** are pending designation of the NJ4 HMP as “approvable pending adoption” and related plan approval and adoption proceedings.
- **Green highlighted items** are work-in-progress. Completion of these items will continue after the formal plan review period as part of plan implementation efforts and are not considered necessary to meet plan review requirements.

Table of Contents

Table of Contents	CaC.9-i
Part 1 Overview	CaC.9-1
1.1: Mitigation Plan for Four New Jersey Counties	CaC.9-1
1.2: Camden City (Camden County) Municipal Appendix	CaC.9-1
Part 2 Participation	CaC.9-2
2.1: Municipal Working Group Participation	CaC.9-2
2.2: Public Participation	CaC.9-4
Part 3 Hazard Identification and Risk Assessment	CaC.9-5
3.1: Municipal Profile	CaC.9-5
3.2: Hazard Priorities	CaC.9-9
3.3: Hazard Mapping	CaC.9-10
3.4: Critical Facilities Inventory and Hazard Exposure Assessment	CaC.9-11
Part 4 Mitigation Measures	CaC.9-26
4.1: Mitigation Goals and Strategy	CaC.9-26
4.2: SDVR HMP Mitigation Measures	CaC.9-27
4.3: Municipal Mitigation Measures – Identification	CaC.9-28
4.4: Municipal Mitigation Measures – Implementation	CaC.9-33
4.5: Multi-Jurisdictional Mitigation Measures	CaC.9-44
4.6: Authorities, Policies, Programs, Resources, and Plan Integration	CaC.9-46

Table of Contents

List of Figures

Figure CaC.9-1: Camden City (Camden County) Location Map	CaC.9-5
Figure CaC.9-2: Camden City Base Map	CaC.9-6
Figure CaC.9-3: Camden City Housing Units by Year Built	CaC.9-8
Figure CaC.9-4: Camden City Mitigation Project Locations	CaC.9-45

List of Tables

Table CaC.9-1: Camden City (Camden County) Working Group	CaC.9-2
Table CaC.9-2: Public Participation	CaC.9-4
Table CaC.9-3: Camden City Demographics	CaC.9-7
Table CaC.9-4: Camden City Demographic Rankings	CaC.9-7
Table CaC.9-5: Camden City Economics and Housing	CaC.9-7
Table CaC.9-6: Camden City Ranking (Economics and Housing)	CaC.9-8
Table CaC.9-7: Supporting Mapping and Exhibits	CaC.9-10
Table CaC.9-8: Camden City Critical Facilities Inventory	CaC.9-12
Table CaC.9-9: Camden City Critical Facilities Hazard Exposure	CaC.9-20
Table CaC.9-10: Status of Camden City SDVR HMP Mitigation Measures	CaC.9-27
Table CaC.9-11: Camden City Municipal Mitigation Measures Identification	CaC.9-28
Table CaC.9-12: Camden City Municipal Mitigation Measures Implementation	CaC.9-34
Table CaC.9-13: Camden City Multi-Jurisdictional Mitigation Measures	CaC.9-44

Attachments

Attachment CaC.9.A: Public Review Comments	CaC.9.A-1
Attachment CaC.9.B: Adoption Resolution	CaC.9.B-1
Attachment CaC.9.C: Approval Letter	CaC.9.C-1

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: Camden City (Camden County) Municipal Appendix

This Municipal Appendix is focused on Camden City in Camden County, New Jersey.

The Camden City Municipal Working Group recommended the Camden City (Camden County) Municipal to the Camden City Council.

The Camden City 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

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 CaC.9-1 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 CaC.9-1: Camden City (Camden County) Working Group

First Name	Last Name	Department	Position	Round 1 Work Session ¹	Round 2 Work Session ²	Contribution ³
Keith	Walker	Office of Emergency Management	Emergency Management Coordinator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Organized Working Group and Work Sessions.
Albert	Handy	Camden County Police Department	Captain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Candice	Jefferson	Planning and Development	Chief Clerk	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Charles	Hall	Public Works Department	Traffic Engineering Supervisor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Gary	Evangelista	Camden Housing Authority	Director of Security and Risk Management	<input checked="" type="checkbox"/>	-	
Luis	Ruiz	Code Enforcement	Director	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Martin	Hahn	Risk Management	Risk Manager	<input checked="" type="checkbox"/>	-	
Meishka	Mitchell	Coopers Ferry Partnership	Vice President	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

¹ Round 1 Work Session was held on July 31, 2014.

² Round 2 Work Session was held on October 2, 2014.

³ 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 CaC.9-1.

Part 2: Participation

First Name	Last Name	Department	Position	Round 1 Work Session ₁	Round 2 Work Session ₂	Contribution ³
Michael	Harper	Camden Fire Department	Fire Chief	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Neil	Phillips	Water/Wastewater/Storm water	Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Patrick	Keating	Public Works Department	Director of Public Works	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Sara	Joslin	United Methodist Women		-	<input checked="" type="checkbox"/>	
Ron	Casdia	Building Inspections	Building Inspector	-	<input checked="" type="checkbox"/>	
Darryl	Dozier	Human Services	Administrative Analyst	-	<input checked="" type="checkbox"/>	
Orion	Joyner	Planning and Development	Senior Engineer	-	<input checked="" type="checkbox"/>	
Edward	Williams	Planning and Development	Floodplain Administrator, Director, Zoning Officer	-	<input checked="" type="checkbox"/>	

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 activities⁴.

- Elected Officials
- Residents and Property Owners in hazard-prone areas
- Community/Faith-Based Organizations
- Environmental Organizations
- Non-Governmental Organizations (e.g., American Red Cross)
- Major employers and businesses
- Healthcare Institutions

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
- Business Associations (e.g., Chamber of Commerce)

⁴ See *Section 4: Mitigation Measures* of the NJ4 HMP Regional Hazard Mitigation Plan.

Part 2: Participation

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 CaC.9-2 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 CaC.9-2: Public Participation

Date	Type of Involvement	Location
2015	Link to Project Website (http://nj4hmp.com) established	Camden City Website at www.ci.camden.nj.us
September 26, 2014	Public meeting with presentation and open discussion	101 Newton Ave.
June 14, 2016	Public hearing included on Camden City Committee agenda providing for open discussion, and public comment regarding the Preliminary Municipal Appendix	lo City Council Chambers 2 nd Floor City 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.⁵ In addition, public participation will continue to be encouraged during subsequent plan implementation and maintenance activities.⁶

⁵ See Mitigation Measure M-1 in Part 4 of the Municipal Appendix.

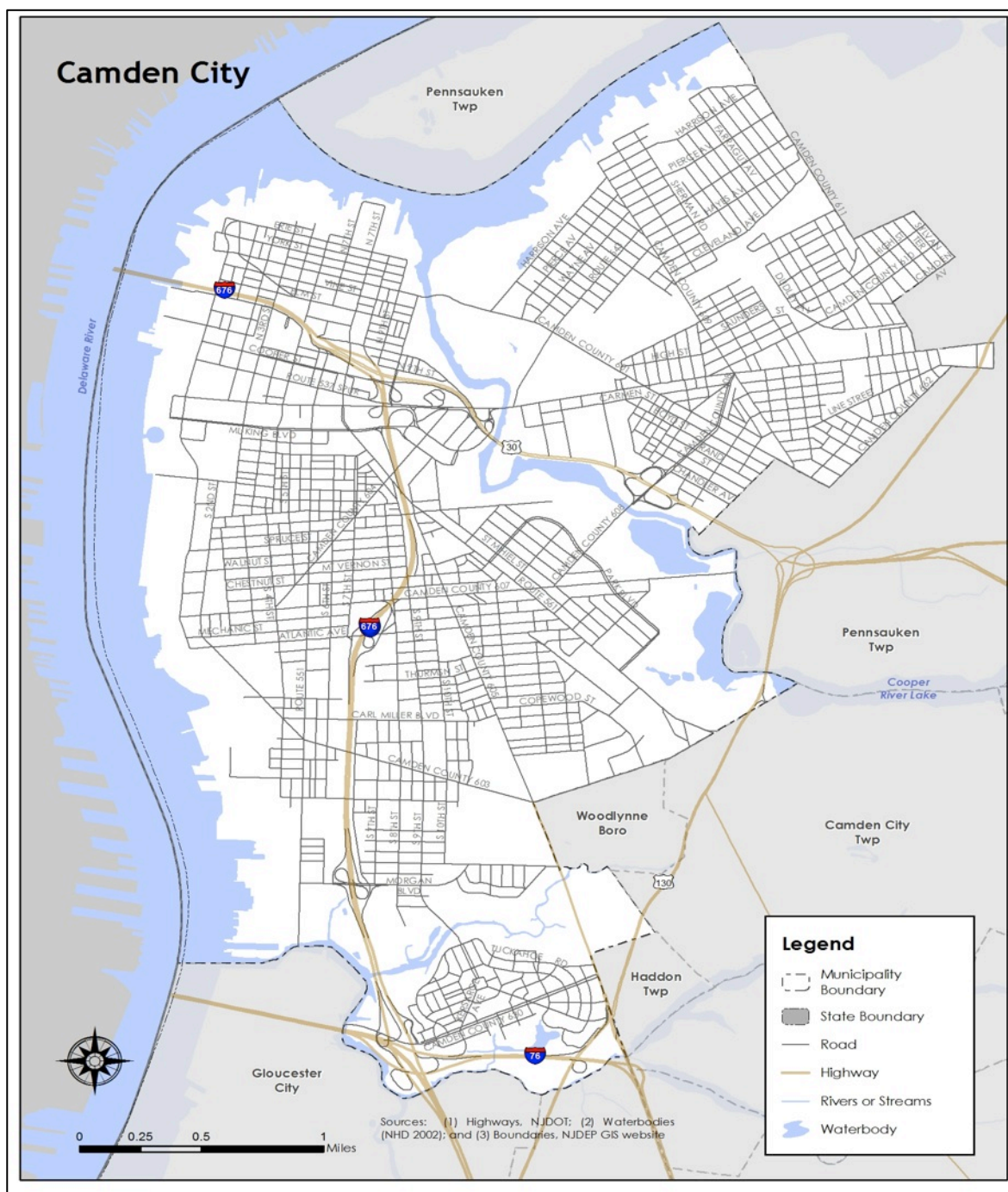
⁶ See Section 4: Mitigation Measures of the NJ4 HMP Regional Hazard Mitigation Plan.

Part 3: Hazard Identification and Risk Assessment

Camden City is a riverside, urban residential community. The municipality has the highest population as well as the second highest population density in the four county region. About 62% of the housing stock was built between 1940 and 1989 and only 10% in the last two decades.

Per Figure CaC.9-2, major water courses include the Delaware River, which forms the western border of the municipality, and the Cooper River. Major transportation routes include the Interstate 676 and U.S. Highway 30. The land is predominantly flat.

Figure CaC.9-2: Camden City Base Map



Part 3: Hazard Identification and Risk Assessment

In addition, Table CaC.9-3 is a compilation of demographic information for the municipality and comparison with the county, the four county region, and State of New Jersey.

Table CaC.9-3: Camden City Demographics
(Source: Census DP-1, 2010 ACS 5 Year Estimates, DP 3, 4)

	Camden City	Camden County	Region	New Jersey
2000 Population	79,904	508,932	974,328	8,414,350
2010 Population	77,344	513,657	1,024,926	8,791,894
Percent Change	-3.20%	0.93%	5.19%	4.49%
Population Density	8,669.6 / sq. mile	2,321.5 / sq. mile	754.25 / sq. mile	1,195.5 / sq. mile
Land Area	8.92 sq. miles	221.26 sq. miles	1,358.86 sq. miles	7,354.22 sq. miles
% of Population 18 and younger	31.0	24.4	24.1	23.5
% of Population 18 - 64	61.4	62.8	62.7	63
% of Population 65 and over	7.6	12.8	13.2	13.5

Table CaC.9-4 illustrates how Camden City ranks in the county, the four county region, and New Jersey.

Table CaC.9-4: Camden City County Ranking (Demographics)

	Camden County (total of 37)	Region (total of 90)	New Jersey (total of 565)
Population Rank	1	1	12
Land Area Rank	7	44	209
Population Density Rank	2	2	42
Population Change Rank	19	72	-

Table CaC.9-5 includes information related to economic and housing statistics for Camden City, Camden County, the four county region, and New Jersey.

Table CaC.9-5: Camden City Economics and Housing
(Source: USDA ERS, Census DP-1, 2010 ACS 5 Year Estimates DP 3, 4; NJ LWD 2010)

	Camden City	Camden County	Region	New Jersey
Date Incorporated	February 13, 1828	1844	-	-
Rural / Urban Status	Urban	Urban	Urban	Urban
Median Household Income	\$27,027	\$60,976	\$60,933	\$69,811
Total Number of Housing Units	28,358	204,943	397,990	3,529,033
Occupied Housing Units	24,475	190,980	372,472	3,176,069
Vacant Housing Units	3,883	13,963	25,518	352,964
Owner Occupied Housing Units	9,582	130,355	266,593	2,126,279
Renter Occupied Housing Units	14,893	60,625	105,879	1,049,790
Building Permits	128	487	1,554	13,535

Part 3: Hazard Identification and Risk Assessment

	Camden City	Camden County	Region	New Jersey
Largest Industry	Educational Services, and health care and social assistance	Educational Services, and health care and social assistance	Educational services, and health care and social assistance	Educational services, and health care and social assistance

One of the major employers in the municipality includes the Campbell Soup Company.

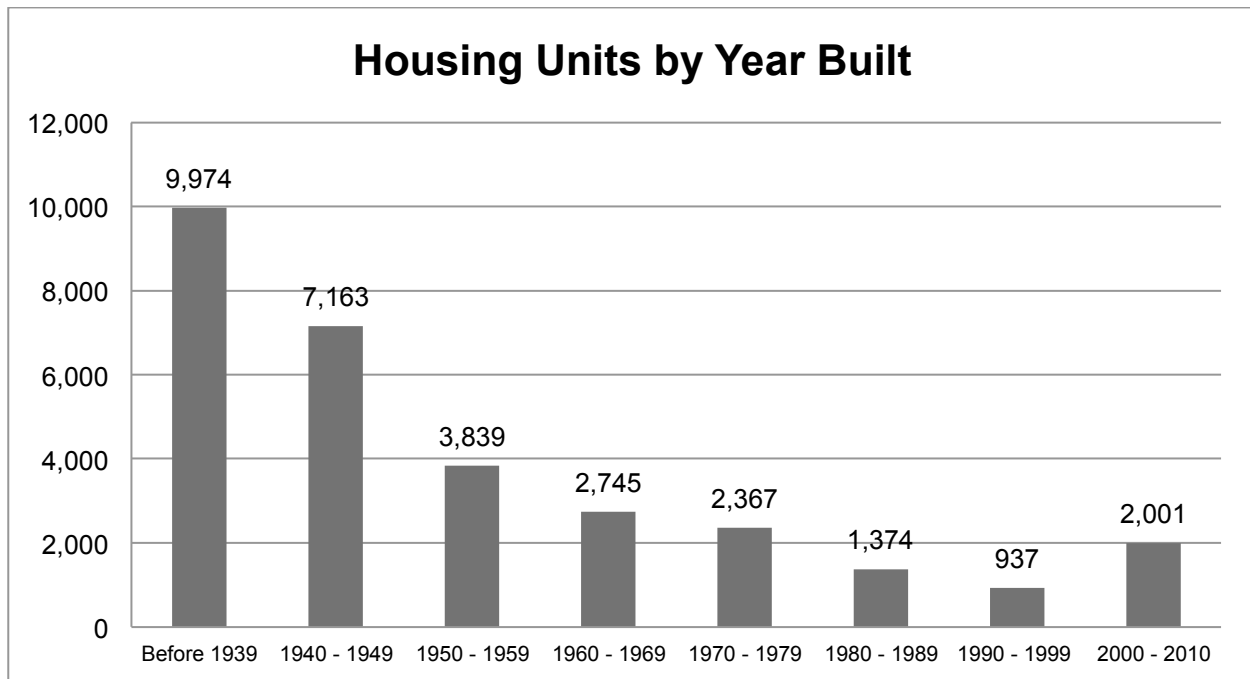
Table CaC.9-6 illustrates how Camden City ranks in the county and four county region.

Table CaC.9-6: Camden City Ranking (Economics and Housing)

	Camden County (total of 37)	Region (total of 90)
Median Household Income Rank	36	88
Vacant Housing Rank	1	1
Renter Occupied Housing Rank	1	1
Building Permits Rank	1	2

Figure CaC.9-3 illustrates development patterns in Camden City by examining housing units by year built. About 35% of homes in Camden City were built prior to 1939.

Figure CaC.9-3: Camden City Housing Units by Year Built
(Source: 2010 ACS 5 Year Estimates, DP 4)



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 HMP¹ 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

- Coastal Erosion & Sea Level Rise
- Dam Failure
- Flood

Moderate Priority

- Drought
- Extreme Temperature: Cold & Hot
- High Wind
- Severe Weather – Summer
- Severe Weather – Winter

Low Priority

- Geologic Hazards
- Wildfire
- Levee Failure
- Earthquake

¹ See Section 3: Hazard Identification and Risk Assessment.

Part 3: Hazard Identification and Risk Assessment

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 CaC.9-7 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 CaC.9-7: Supporting Mapping and Exhibits

Figure #	Hazard	Map	HIRA Contribution
Figure RP.D-11	Dam Failure	Dam Locations and Hazard Classification	Identify areas in proximity to rated dams
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

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

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 CaC.9-8 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 CaC.9-9 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 CaC.9-8: Camden City (Camden County) Critical Facilities Inventory

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-1	City Hall	Municipal	City Hall	520 Market Street, Camden		N	N		
CF-2	Emergency Medical Services	EMS	Municipal Stations	1000 South 10 th Street, Camden		N	Y		
CF-3	Prosecutor's Office	Municipal	Administrative Offices	25 N 5 th Street, Camden		N	Y		
CF-4	Mitchell E. Cohen U.S. Courthouse	Municipal	Administrative Offices	409 North 4 th Street, Camden		N	N	Includes a holding cell	
CF-5	Camden County Office of the Public Defenders	Municipal	Co-located Facilities	101 Haddon Avenue, Camden		N	Y	County Owned	
CF-6	Morgan Village Community Center	Emergency Staging Areas	Community Center	Hunter & Morgan Boulevard, Camden		N	N		
CF-7	North Camden Community Center	Emergency Staging Areas	Community Center	1001 North 6 th Street, Camden		Y	N		M-59
CF-8	Malandra Hall	Emergency Staging Areas	Community Center	New Jersey and Merrimac Street, Camden		Y	N		M-60
CF-9	Poppy Sharp Community Center	Emergency Staging Areas	Community Center	713-15 Broadway Avenue, Camden		N	N		
CF-10	Cramer Hill Community Center	Emergency Staging Areas	Community Center	1035 Reeves Avenue, Camden		Y	N		M-61
CF-11	Isabel Miller Community Center	Emergency Staging Areas	Community Center	8 th and Carl Miller Boulevard, Camden		Y	N		M-62

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-12	Martin Luther King Community Center	Emergency Staging Areas	Community Center	1151 Haddon Avenue, Camden		N	N		
CF-13	Police Administration Building	Law Enforcement Facilities	Administrative Offices	800 Federal Street, Camden		N	Y		
CF-14	NJ Division of Civil Rights- Camden Regional Office	Law Enforcement Facilities	Administrative Offices	2 Riverside Drive, Camden		N	Y		
CF-15	Municipal Court	Law Enforcement Facilities	Co-located Facilities	520 Market Street, Camden	CF-2	N	N	Includes a holding cell	
CF-16	Camden County Correctional Facility	Law Enforcement Facilities	Correctional Facilities	330 Federal Street, Camden		N	Y		
CF-17	Camden City Fire Department Squad 7	Fire Station/ EMS	Stations	1115 Kaighn Avenue, Camden		N	Y		
CF-18	Camden City Fire Department Squad 1	Fire Station/ EMS	Stations	1 North 27 th Street, Camden		N	Y		
CF-19	Camden City Fire Department Liberty Station	Fire Station/ EMS	Stations	1301 South Broadway, Camden		N	Y		
CF-21	Camden City Fire Department Fire Administration Building	Fire Station/ EMS	Stations	4 North 3 rd Street, Camden		N	Y		
CF-22	Camden City Fire Department Squad 3	Fire Station/ EMS	Stations	901 North 27 th Street, Camden		N	Y		
CF-23	Camden City Fire Station District 10	Fire Station	Stations	2500 Morgan Boulevard, Camden		N	Y		

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-24	D.U.E Season Charter School	Schools	Private Schools	1000 Atlantic Avenue, Camden		N	Y		
CF-25	Freedom Academy Charter School	Schools	Private Schools	1400 Collings Road, Camden		N	N		
CF-26	Brimm Medical Arts High School	Schools	Public Schools	1626 Copewood Street, Camden		N	N		
CF-27	Knowledge A to Z Charter (KATZ)	Schools	Private Schools	1725 Park Boulevard, Camden		N	N		
CF-28	Dudley Elementary School	Schools	Private Schools	2250 Berwick Street, Camden		Y	Y		
CF-29	Veterans Memorial Middle School	Schools	Public Schools	26 th & Hayes Avenue, Camden		N	N		
CF-30	Saint Anthony of Padua School	Schools	Private Schools	2824 River Avenue, Camden		N	N		
CF-31	Saint Joseph (Pro-Cathedral)	Schools	Private Schools	2907 Federal Street, Camden		N	N		
CF-32	Cramer Elementary School	Schools	Public Schools	29 th & Mickle Street, Camden		N	N		
CF-33	Octavius Catto Demonstration School	Schools	Public Schools	3060 Westfield Avenue, Camden		Y	Y		
CF-34	Juvenile Resource Center	Schools	Public Schools Administrative Offices	315 Cooper Street, Camden		N	N		
CF-35	Woodrow Wilson High School	Schools	Public Schools	31 st & Federal Street, Camden		N	N		
CF-36	Sharp Elementary School	Schools	Public Schools	32 nd & Hayes Avenue, Camden		N	N		

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-37	Davis Elementary School	Schools	Public Schools	34 th & Cramer, Camden		N	N		
CF-38	Cooper's Poynt Elementary School	Schools	Public Schools	3 rd & State Street, Camden		N	N		
CF-39	Sacred Heart School	Schools	Private Schools	4 th & Jasper Street, Camden		N	N		
CF-40	LEAP Academy University Charter School	Schools	Public Schools	549 Cooper Street, Camden		N	N		
CF-41	U.S. Wiggins Elementary School	Schools	Public Schools	5 th & Mt Vernon Streets, Camden		N	N		
CF-42	Pyne Poynt Family Middle School	Schools	Private Schools	7 th & Erie Street, Camden		N	N		
CF-43	Raphael Cordero Molina Elementary School	Schools	Public Schools	7 th & Vine Street, Camden		N	N		
CF-44	Environment Community Opportunity Charter School	Schools	Public Schools	817 Carpenter Street, Camden		N	N		
CF-45	The San Miguel School	Schools	Private Schools	836 South 4 th Street, Camden		N	N		
CF-46	Camden's Pride Charter School	Schools	Public Schools	879 Beideman Avenue, Camden		N	N		
CF-47	Whittier Elementary School	Schools	Public Schools	8 th & Chestnut Street, Camden		N	N		
CF-48	Sumner Elementary School	Schools	Public Schools	8 th & Jackson Avenue, Camden		N	N		

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-49	Camden High School	Schools	Public Schools	Baird & Park Boulevards, Camden		N	N		
CF-50	Yorkship Elementary School	Schools	Public Schools	Collings Road & Fairview Street, Camden		N	N		
CF-51	McGraw Elementary School	Schools	Public Schools	Dudley Street & Fremont Street, Camden		N	N		
CF-52	Holy Name School	Schools	Private Schools	5 th & Vine Street, Camden		N	N		
CF-53	Morgan Village Academy	Schools	Public Schools	Morgan Boulevard & Fairview Street, Camden		Y	Y		
CF-54	Bonsall Elementary School	Schools	Public Schools	Mt Ephraim Avenue & Chase Street, Camden		N	N		
CF-55	Riletta T. Cream Elementary School	Schools	Private Schools	Mulford Street & Budd Street, Camden		N	N		
CF-56	H. B. Wilson Elementary School	Schools	Public Schools	9 th & Florence Street, Camden		Y	Y		
CF-57	Hatch Middle School	Schools	Public Schools	Park Boulevard & Euclid Avenue, Camden		N	N		
CF-58	Forest Hill Elementary School	Schools	Public Schools	Park Boulevard & Wildwood Avenue, Camden		N	N		
CF-59	Early Childhood Development Center	Schools	Public Schools	Pine & Magnolia Streets, Camden		Y	Y		

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-60	Challenge Square Academy	Schools	Private Schools	5 th & Berkley Streets, Camden		N	N		
CF-61	Met East High School	Schools	Private Schools	Rose Street & Kaighn Avenue, Camden		N	N		
CF-62	Camden City Transitional Academy	Schools	Private Schools	Filmore & Carl Miller Boulevard, Camden		N	N		
CF-63	Washington Elementary School	Schools	Public Schools	1033 Cambridge Avenue, Camden		N	N		
CF-64	East Camden Middle School	Schools	Private Schools	3064 Stevens Street, Camden		N	N		
CF-65	Rutgers University	Schools	Private Schools	406 Penn Street, Camden		N	N		
CF-66	Cooper Medical Center	Health Care Facilities	Private Hospitals	1 Cooper Plaza, Camden		N	Y		
CF-67	Virtual Health Systems	Health Care Facilities	Private Hospitals	1000 Atlantic Avenue, Camden		N	Y		
CF-68	Our Lady of Lourdes Medical Center	Health Care Facilities	Private Hospitals	1600 Haddon Avenue, Camden		N	Y		
CF-69	Abigail House	Vulnerable Populations Facilities	Public Nursing Home	1105 -1115 Linden Street, Camden		N	Y		
CF-70	Sub-Station	Law Enforcement Facilities	Stations	10 th & Linden Street, Camden		N	N		
CF-71	Sub-Station	Law Enforcement Facilities	Stations	2881 Mt Ephraim Street, Camden		N	N		

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-72	Federal Court House	Law Enforcement Facilities	Correctional Facilities	400 Cooper Street, Camden		N	Y		
CF-73	Camden County Library, Camden City Branch	Emergency Staging Areas	Equipment Mobilization	852 Ferry Avenue, Camden		N	N		
CF-74	Camden County Library, Rutgers University Branch	Emergency Staging Areas	Equipment Mobilization	300 North 4 th Street, Camden		N	N		
CF-75	Aletha R. Wright Vision of Hope Center	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	271 Atlantic Avenue, Camden		Y	N		M-63
CF-76	Anna M. Sample House	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	408-416 Line Street, Camden		Y	N		M-64
CF-77	Camden Peace Mission	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	1634 Broadway, Camden		Y	N		M-65
CF-78	Cathedral Kitchen	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	642 Market Street, Camden		Y	N		M-66
CF-79	Cathedral Social Services	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	1845 Haddon Avenue, Camden		Y	N		M-67
CF-80	Evangelism Today Christian Education Center	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	1658 Mount Ephraim, Camden		Y	N		M-68
CF-81	Faith Tabernacle Church	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	553 Spruce Street, Camden		Y	N		M-69

Part 3: Hazard Identification and Risk Assessment

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-82	Food Bank of Southern New Jersey	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	1361 Walnut Street, Camden		Y	N		M-70
CF-83	Good Samaritan Center	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	325 Market Street, Camden		Y	N		M-71
CF-84	Group Homes of Camden Co, Inc.	Vulnerable Populations Facilities	Private/Non-Profit Homeless Shelter	35 South 29 th Street, Camden		Y	N		M-72
CF-85	Leavenhouse	Vulnerable Populations Facilities	Private/Non-Profit Homeless Shelter	523 State House, Camden		Y	N		M-73
CF-86	My Brother's Keeper	Vulnerable Populations Facilities	Private/Non-Profit Homeless Shelter	40 York Street, Camden		Y	N		M-74
CF-87	New Visions Homeless Day Shelter	Vulnerable Populations Facilities	Private/Non-Profit Homeless Shelter	523 Stevens Street, Camden		Y	N		M-75
CF-88	Catholic Charities Emergency/ Family Center	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	1845 Haddon Avenue, Camden		Y	N		M-76
CF-89	Ray and Joan Kroc Corps Community Center	Vulnerable Populations Facilities	Private/ Non-Profit Homeless Shelter	915 Haddon Avenue, Camden		Y	N		M-77
CF-90	State Street Housing	Affordable Housing	Private / Non Profit	532 State Street, Camden		Y	N		M-78
CF-91	Your Food Shelf	Vulnerable Population Facility	Private / Non Profit	1500 Federal Street, Camden		Y	N		M-79
CF-92	Camden County Municipal Utilities Authority	Utilities – Water	Treatment Plants	1645 Ferry Avenue, Camden		N/A	Y		

Part 3: Hazard Identification and Risk Assessment

Table CaC.9-9: Camden City (Camden 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	City Hall												N/A	N/A	N/A
CF-2	Emergency Medical Services												N/A	N/A	N/A
CF-3	Prosecutor's Office												N/A	N/A	N/A
CF-4	Mitchell E. Cohen U.S. Courthouse												N/A	N/A	N/A
CF-5	Camden County Office of the Public Defenders												N/A	N/A	N/A
CF-6	Morgan Village Community Center												N/A	N/A	N/A
CF-7	North Camden Community Center												N/A	N/A	N/A
CF-8	Malandra Hall												N/A	N/A	N/A
CF-9	Poppy Sharp Community Center												N/A	N/A	N/A
CF-10	Cramer Hill Community Center												N/A	N/A	N/A
CF-11	Isabel Miller Community Center												N/A	N/A	N/A
CF-12	Martin Luther King Community Center												N/A	N/A	N/A
CF-13	Police Administration Building												N/A	N/A	N/A
CF-14	NJ Division of Civil Rights- Camden Regional Office												N/A	N/A	N/A
CF-15	Municipal Court												N/A	N/A	N/A
CF-16	Camden County Correctional Facility												N/A	N/A	N/A

Part 3: Hazard Identification and Risk Assessment

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-17	Camden City Fire Department Squad 7												N/A	N/A	N/A
CF-18	Camden City Fire Department Squad 1												N/A	N/A	N/A
CF-19	Camden City Fire Department Liberty Station												N/A	N/A	N/A
CF-21	Camden City Fire Department Fire Administration Building												N/A	N/A	N/A
CF-22	Camden City Fire Department Squad 3												N/A	N/A	N/A
CF-23	Camden County Fire Station District 10												N/A	N/A	N/A
CF-24	D.U.E Season Charter School												N/A	N/A	N/A
CF-25	Freedom Academy Charter School												N/A	N/A	N/A
CF-26	Brimm Medical Arts High School												N/A	N/A	N/A
CF-27	Knowledge A to Z Charter (KATZ)												N/A	N/A	N/A
CF-28	Dudley Elementary School												N/A	N/A	N/A
CF-29	Veterans Memorial Middle School												N/A	N/A	N/A
CF-30	Saint Anthony of Padua School												N/A	N/A	N/A
CF-31	Saint Joseph (Pro-Cathedral)												N/A	N/A	N/A
CF-32	Cramer Elementary School												N/A	N/A	N/A

Part 3: Hazard Identification and Risk Assessment

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-33	Octavius Catto Demonstration School												N/A	N/A	N/A
CF-34	Juvenile Resource Center												N/A	N/A	N/A
CF-35	Woodrow Wilson High School												N/A	N/A	N/A
CF-36	Sharp Elementary School												N/A	N/A	N/A
CF-37	Davis Elementary School												N/A	N/A	N/A
CF-38	Cooper's Poynt Elementary School												N/A	N/A	N/A
CF-39	Sacred Heart School												N/A	N/A	N/A
CF-40	LEAP Academy University Charter School												N/A	N/A	N/A
CF-41	U.S. Wiggins Elementary School												N/A	N/A	N/A
CF-42	Pyne Poynt Family Middle School												N/A	N/A	N/A
CF-43	Raphael Cordero Molina Elementary School												N/A	N/A	N/A
CF-44	Environment Community Opportunity Charter School												N/A	N/A	N/A
CF-45	The San Miguel School												N/A	N/A	N/A
CF-46	Camden's Pride Charter School												N/A	N/A	N/A
CF-47	Whittier Elementary School												N/A	N/A	N/A
CF-48	Sumner Elementary School												N/A	N/A	N/A

Part 3: Hazard Identification and Risk Assessment

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-49	Camden High School												N/A	N/A	N/A
CF-50	Yorkship Elementary School												N/A	N/A	N/A
CF-51	McGraw Elementary School												N/A	N/A	N/A
CF-52	Holy Name School												N/A	N/A	N/A
CF-53	Morgan Village Academy												N/A	N/A	N/A
CF-54	Bonsall Elementary School												N/A	N/A	N/A
CF-55	Riletta T. Cream Elementary School												N/A	N/A	N/A
CF-56	H. B. Wilson Elementary School												N/A	N/A	N/A
CF-57	Hatch Middle School												N/A	N/A	N/A
CF-58	Forest Hill Elementary School												N/A	N/A	N/A
CF-59	Early Childhood Development Center												N/A	N/A	N/A
CF-60	Challenge Square Academy												N/A	N/A	N/A
CF-61	Met East High School												N/A	N/A	N/A
CF-62	Camden City Transitional Academy												N/A	N/A	N/A
CF-63	Washington Elementary School												N/A	N/A	N/A
CF-64	East Camden Middle School												N/A	N/A	N/A
CF-65	Rutgers University												N/A	N/A	N/A
CF-66	Cooper Medical Center												N/A	N/A	N/A

Part 3: Hazard Identification and Risk Assessment

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-67	Virtual Health Systems												N/A	N/A	N/A
CF-68	Our Lady of Lourdes Medical Center												N/A	N/A	N/A
CF-69	Abigail House												N/A	N/A	N/A
CF-70	Sub-Station												N/A	N/A	N/A
CF-71	Sub-Station												N/A	N/A	N/A
CF-72	Federal Court House												N/A	N/A	N/A
CF-73	Camden County Library, Camden City Branch												N/A	N/A	N/A
CF-74	Camden County Library, Rutgers University Branch												N/A	N/A	N/A
CF-75	Aletha R. Wright Vision of Hope Center												N/A	N/A	N/A
CF-76	Anna M. Sample House												N/A	N/A	N/A
CF-77	Camden Peace Mission												N/A	N/A	N/A
CF-78	Cathedral Kitchen												N/A	N/A	N/A
CF-79	Cathedral Social Services												N/A	N/A	N/A
CF-80	Evangelism Today Christian Education Center												N/A	N/A	N/A
CF-81	Faith Tabernacle Church												N/A	N/A	N/A
CF-82	Food Bank of Southern New Jersey												N/A	N/A	N/A
CF-83	Good Samaritan Center												N/A	N/A	N/A

Part 3: Hazard Identification and Risk Assessment

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-84	Group Homes of Camden Co, Inc.												N/A	N/A	N/A
CF-85	Leavenhouse												N/A	N/A	N/A
CF-86	My Brother's Keeper												N/A	N/A	N/A
CF-87	New Visions Homeless Day Shelter												N/A	N/A	N/A
CF-88	Catholic Charities Emergency/ Family Center												N/A	N/A	N/A
CF-89	Ray and Joan Kroc Corps Community Center												N/A	N/A	N/A
CF-90	State Street Housing												N/A	N/A	N/A
CF-91	Your Food Shelf												N/A	N/A	N/A
CF-92	Camden County Municipal Utilities Authority												N/A	N/A	N/A

Part 4: Mitigation Measures

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 initial risk reduction efforts
- Identify additional areas of concern for critical facilities and vulnerable populations for future plan updates
- Provide opportunities for residents and property owners to access available information about risk reduction and mitigation measures
- 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.

Part 4: Mitigation Measures

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 CaC.9-10 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 CaC.9-10.

Table CaC.9-10: Status of Camden City (Camden County) SDVR HMP Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure # (Notes A & B)
Camden City 1: Acquisition / elevation of one repetitive loss property on Baird Boulevard.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix.	M-80
Camden City 2: Acquisition / elevation of one repetitive loss property on Ferry Avenue.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 3: Acquisition / elevation of one repetitive loss property on River Road.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 4: Acquisition / elevation of four repetitive loss properties on Lois Avenue.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 5: Acquisition / elevation of one repetitive loss property on Mechanic Street.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 6: Acquisition / elevation of one repetitive loss property on Minnesota Avenue.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 7: Acquisition / elevation of one repetitive loss property on Merrimac Road.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 8: Acquisition / elevation of one repetitive loss property on Pfeiffer Street.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 9: Acquisition / elevation of two repetitive loss properties on Reeves Avenue.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80
Camden City 10: Acquisition / elevation of five repetitive loss properties on Randolph Street.	Not completed, not funded	Mitigation measure included in the updated Municipal Appendix	M-80

Table CaC.9-10 Notes:

- A. See Tables CaC.9-11 and CaC.9-12 for municipal (M-#) mitigation measures
- B. See Table CaC.9-13 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 CaC.9-11 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)¹ if applicable

Note: Camden City currently has forty three (43) RL and no SRL properties per information provided by the New Jersey Department of Environmental Protection.

Table CaC.9-11 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 CaC.9-4.

Table CaC.9-11: Camden City (Camden 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">• Current hazards and risks• Changing conditions and actions that may reduce / increase risk• Best practices for hazard mitigation at the individual or property level.	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	Both
M-4	Conduct regular Municipal Working Group meetings consistent with the plan maintenance program and the Municipal Adoption Resolution.	All	Goal #3	Both

¹ 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.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-5	Reconstruct sewer system located on Mt. Ephraim Avenue (Mechanic Street) to improve system's functionality and alleviate flooding issue ² .	Flood	Goal #4	Existing
M-6	Reconstruct sewer system located on South 4 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-7	Reconstruct sewer system located on Vine Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-8	Reconstruct sewer system located on State Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-9	Reconstruct sewer system located on North 17 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-10	Reconstruct sewer system located on North 20 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-11	Reconstruct sewer system located on North 22 nd Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-12	Reconstruct sewer system located on North 24 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-13	Reconstruct sewer system located on North 25 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-14	Reconstruct sewer system located on Wayne Avenue to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-15	Reconstruct sewer system located on Buren Avenue to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-16	Reconstruct sewer system located on DuPont Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-17	Reconstruct sewer system located on North 27 th Street (Hayes Avenue) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-18	Reconstruct sewer system located on North 27 th Street (High Street) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-19	Reconstruct sewer system located on North 28 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-20	Reconstruct sewer system located on North 31 st Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-21	Reconstruct sewer system located on North 35 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing

² Projects M-5 through M-59 identified in Table CaC.9-11 were submitted by the City of Camden for the 404 Hazard Mitigation Grant Program, subsequent to the Federal Disaster Declaration FEMA # 4086-DR-NJ on 2/25/2013 to address the long-standing infrastructure deficiencies.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-22	Reconstruct sewer system located on Polk Avenue to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-23	Reconstruct sewer system located on River Road to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-24	Reconstruct sewer system located Tyler Avenue to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-25	Reconstruct sewer system located on Federal Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-26	Reconstruct sewer system located on Marlton Avenue to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-27	Reconstruct sewer system located on South 27 th Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-28	Reconstruct sewer system located on Mt. Ephraim Avenue (Chase Street) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-29	Reconstruct sewer system located on South 9 th Street (Carl Miller Blvd.) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-30	Reconstruct sewer system located on South 9 th Street (Chelton Avenue) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-31	Reconstruct sewer system located on South 9 th Street (Fairmount Street) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-32	Reconstruct sewer system located on South 9 th Street (Woodland Street) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-33	Reconstruct sewer system located on South 9 th Street (Thurman Street) to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-34	Reconstruct sewer system located on State Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-35	Reconstruct sewer system located on Cherry Street to improve system's functionality and alleviate flooding issue.	Flood	Goal #4	Existing
M-36	Rehabilitate and upgrade sewer pump station with added back-up emergency power generator located on Arch Street.	All	Goal #4	Existing
M-37	Rehabilitate and upgrade sewer pump station with added back-up emergency power generator located on Baird Boulevard.	All	Goal #4	Existing
M-38	Rehabilitate and upgrade Ejector Station with added back-up emergency power generator located on Broadway and Morgan Boulevard.	All	Goal #4	Existing
M-39	Rehabilitate and upgrade Fairview Pump Station with added back-up emergency power generator located on Fenwick Road.	All	Goal #4	Existing

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-40	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Federal Street.	All	Goal #4	Existing
M-41	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Ferry Avenue (City Line).	All	Goal #4	Existing
M-42	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Mt. Ephraim Avenue.	All	Goal #4	Existing
M-43	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Pine Street.	All	Goal #4	Existing
M-44	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on State Street.	All	Goal #4	Existing
M-45	Demolish structure with potential impact on major transportation and waterways located at 14 th and Federal Street.	All	Goal #4	Existing
M-46	Demolish structure with potential impact on major transportation and waterways located on 1698 Federal Street.	All	Goal #4	Existing
M-47	Demolish structure with potential impact on major transportation and waterways located on 1625 Federal Street.	All	Goal #4	Existing
M-48	Demolish structures with potential impact on major transportation and waterways located on 1041-1053 Magnolia Avenue.	All	Goal #4	Existing
M-49	Demolish structures with potential impact on major transportation and waterways located on 1601 Federal Street.	All	Goal #4	Existing
M-50	Demolish structures with potential impact on major transportation and waterways located at Federal and River Road.	All	Goal #4	Existing
M-51	Conduct Flood Study of the Delaware Avenue to alleviate flooding issue.	Flood	Goal #4	Existing
M-52	Daylight the stream with added retention ponds to allow proper drainage into the Delaware River to alleviate flooding in Von Nieda Park.	Flood	Goal #4	Existing
M-53	Install a new sewer interceptor line to alleviate flooding east of Third Street.	Flood	Goal #4	Existing
M-54	Construct underground stormwater tanks to alleviate flooding issue at Ferry Avenue PATCO Station from Cooper River.	Flood	Goal #4	Existing
M-55	Dredge the Delaware River Back Channel and raise thirty six (36) tide gates to alleviate flooding on River Road.	Flood	Goal #4	Existing
M-56	Increase capacity of the former Harrison Avenue Landfill to absorb stormwater runoff and silting of the Cooper River and the Back Channel, as well as alleviate flooding issue.	Flood	Goal #4	Existing
M-57	Replace stormwater inlets throughout the City to alleviate stormwater runoff and unimpeded water flow.	Flood	Goal #4	Existing

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-58	Elevate Kaighn Avenue at Farnham Park and install a new stormwater collection system to alleviate flooding issue.	Flood	Goal #4	Existing
M-59	Install back-up emergency power generator at North Camden Community Center (CF-7).	All	Goal #4	Existing
M-60	Install back-up emergency power generator at Malandra Hall (CF-8).	All	Goal #4	Existing
M-61	Install back-up emergency power generator at Cramer Hill Community Center (CF-9).	All	Goal #4	Existing
M-62	Install back-up emergency power generator at Isabel Miller Community Center (CF-10).	All	Goal #4	Existing
M-63	Install back-up emergency power generator at Aletha R. Wright Vision of Hope Center located at 271 Atlantic Avenue (CF-75).	All	Goal #4	Existing
M-64	Install back-up emergency power generator at Anna M. Sample House located at 408-416 Line Street (CF-76).	All	Goal #4	Existing
M-65	Install back-up emergency power generator at Camden Peace Mission located at 1634 Broadway (CF-77).	All	Goal #4	Existing
M-66	Install back-up emergency power generator at Cathedral Kitchen located at 642 Market Street (CF-78).	All	Goal #4	Existing
M-67	Install back-up emergency power generator at Cathedral Social Services located at 1845 Haddon Avenue (CF-79).	All	Goal #4	Existing
M-68	Install back-up emergency power generator at Evangelism Today Christian Education Center located at 1658 Mount Ephraim (CF-80).	All	Goal #4	Existing
M-69	Install back-up emergency power generator at Faith Tabernacle Church located at 553 Spruce Street (CF-81).	All	Goal #4	Existing
M-70	Install back-up emergency power generator at Food Bank of Southern New Jersey located at 1361 Walnut Street (CF-82).	All	Goal #4	Existing
M-71	Install back-up emergency power generator at Good Samaritan Center located at 325 Market Street (CF-83).	All	Goal #4	Existing
M-72	Install back-up emergency power generator at Group Homes of Camden Co, Inc. located at 35 South 29 th Street (CF-84).	All	Goal #4	Existing
M-73	Install back-up emergency power generator at Leavenhouse Homeless Shelter located at 523 State House (CF-85).	All	Goal #4	Existing
M-74	Install back-up emergency power generator at My Brother's Keeper Shelter located at 40 York Street (CF-86).	All	Goal #4	Existing
M-75	Install back-up emergency power generator at New Visions Homeless Day Shelter located at 523 Stevens Street (CF-87).	All	Goal #4	Existing
M-76	Install back-up emergency power generator at Catholic Charities Emergency/ Family Center located at 1845 Haddon Avenue (CF-88).	All	Goal #4	Existing

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-77	Install back-up emergency power generator at Ray and Joan Kroc Corps Community Center located at 915 Haddon Avenue (CF-89).	All	Goal #4	Existing
M-78	Install back-up emergency power generator at State Street Housing Shelter located at 532 State Street (CF-90).	All	Goal #4	Existing
M-79	Install back-up emergency power generator at Your Food Shelf Homeless Shelter located at 1500 Federal Street (CF-91).	All	Goal #4	Existing
M-80	Address identified Repetitive Flood Loss Properties.	Flood	Goal #4	Existing

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 CaC.9-12 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 criteria³
- Project Type to help determine funding options and implementation mechanisms at the municipal level⁴
- 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

³ 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.

⁴ 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

Table CaC.9-12: Camden City (Camden 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 to inform municipal residents, businesses, and property owners regarding: <ul style="list-style-type: none"> Current hazards and risks Changing conditions and actions that may reduce / increase risk Best practices for hazard mitigation at the individual or property level. ⁵	PIO All Annex Managers	High	Public Outreach and Education	Staff time commitment	On-going	<ul style="list-style-type: none"> Work with County Working Group to identify resource needs and availability. Identify target audience(s).
M-2	Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.	Municipal OEM and Facility Managers	Low	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, Finance, Public Works Operations	Moderate	Data Acquisition and Management	Staff time commitment	On-going	Establish priorities, procedures, and reporting process for data collection.
M-4	Conduct regular Municipal Working Group meetings consistent with the plan maintenance program and the Municipal Adoption Resolution.	Municipal OEM and Municipal Working Group	Moderate	Capabilities and Coordination	Staff time commitment	On-going	Establish regular Municipal Working Group membership, reporting requirements, and meeting / work session schedule.
M-5	Reconstruct sewer system located on Mt. Ephraim Avenue (Mechanic Street) to improve system's functionality and alleviate flooding issue. ^{6, 7}	Municipal OEM and Capital Improvement Division Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.

⁵ Project included in Letter of Interest (LOI) for DR 4086 HMGP. LOI project #1071 budget = \$50,000.

⁶ Projects M-5 through M-59 identified in Table CaC.9-11 were submitted by the City of Camden for the 404 Hazard Mitigation Grant Program, subsequent to the Federal Disaster Declaration FEMA # 4086-DR-NJ on 2/25/2013 to address the long-standing infrastructure deficiencies.

⁷ Projects M-5 through M-35 included in Letter of Interest (LOI) for DR 4086 HMGP. LOI project #1115 budget = \$6,097,348.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-6	Reconstruct sewer system located on South 4 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-7	Reconstruct sewer system located on Vine Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-8	Reconstruct sewer system located on State Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-9	Reconstruct sewer system located on North 17 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-10	Reconstruct sewer system located on North 20 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-11	Reconstruct sewer system located on North 22 nd Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-12	Reconstruct sewer system located on North 24 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-13	Reconstruct sewer system located on North 25 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-14	Reconstruct sewer system located on Wayne Avenue to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-15	Reconstruct sewer system located on Buren Avenue to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-16	Reconstruct sewer system located on DuPont Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-17	Reconstruct sewer system located on North 27 th Street (Hayes Avenue) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-18	Reconstruct sewer system located on North 27 th Street (High Street) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-19	Reconstruct sewer system located on North 28 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-20	Reconstruct sewer system located on North 31 st Street to improve system's functionality and alleviate flooding issue.	Municipal OEM	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-21	Reconstruct sewer system located on North 35 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-22	Reconstruct sewer system located on Polk Avenue to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-23	Reconstruct sewer system located on River Road to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-24	Reconstruct sewer system located Tyler Avenue to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-25	Reconstruct sewer system located on Federal Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-26	Reconstruct sewer system located on Marlton Avenue to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-27	Reconstruct sewer system located on South 27 th Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-28	Reconstruct sewer system located on Mt. Ephraim Avenue (Chase Street) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-29	Reconstruct sewer system located on South 9 th Street (Carl Miller Blvd.) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-30	Reconstruct sewer system located on South 9 th Street (Chelton Avenue) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-31	Reconstruct sewer system located on South 9 th Street (Fairmount Street) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-32	Reconstruct sewer system located on South 9 th Street (Woodland Street) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-33	Reconstruct sewer system located on South 9 th Street (Thurman Street) to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-34	Reconstruct sewer system located on State Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-35	Reconstruct sewer system located on Cherry Street to improve system's functionality and alleviate flooding issue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	Three to five years	Conduct project scoping.
M-36	Rehabilitate and upgrade sewer pump station with added back-up emergency power generator located on Arch Street. ⁸	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-37	Rehabilitate and upgrade sewer pump station with added back-up emergency power generator located on Baird Boulevard.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-38	Rehabilitate and upgrade Ejector Station with added back-up emergency power generator located on Broadway and Morgan Boulevard.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-39	Rehabilitate and upgrade Fairview Pump Station with added back-up emergency power generator located on Fenwick Road.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.

⁸ Projects M-36 through M-44 included in LOI for DR 4086 HMGP. LOI project #1107 budget = \$7,687,234.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-40	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Federal Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-41	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Ferry Avenue (City Line).	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-42	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Mt. Ephraim Avenue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-43	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on Pine Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-44	Rehabilitate and upgrade Sewer Pump Station with added back-up emergency power generator located on State Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Back-up Emergency Power Generator	< \$100K	One to three years	Conduct project scoping.
M-45	Demolish structure with potential impact on major transportation and waterways located at 14 th and Federal Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-46	Demolish structure with potential impact on major transportation and waterways located on 1698 Federal Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-47	Demolish structure with potential impact on major transportation and waterways located on 1625 Federal Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-48	Demolish structures with potential impact on major transportation and waterways located on 1041-1053 Magnolia Avenue.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-49	Demolish structures with potential impact on major transportation and waterways located on 1601 Federal Street.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-50	Demolish structures with potential impact on major transportation and waterways located at Federal and River Road.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-51	Conduct Flood Study of the Delaware Avenue to alleviate flooding issue. ⁹	Municipal OEM Capital Improvements and Utility Operations	Moderate	Data Acquisition and Management	< \$100K	One to three years	Conduct project scoping.
M-52	Daylight the stream with added retention ponds to allow proper drainage into the Delaware River to alleviate flooding in Von Nieda Park. ¹⁰	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-53	Install a new sewer interceptor line to alleviate flooding east of Third Street. ¹¹	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-54	Construct underground stormwater tanks to alleviate flooding issue at Ferry Avenue PATCO Station from Cooper River. ¹²	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-55	Dredge the Delaware River Back Channel and raise thirty six (36) tide gates to alleviate flooding on River Road. ¹³	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-56	Increase capacity of the former Harrison Avenue Landfill to absorb stormwater runoff and silting of the Cooper River and the Back Channel, as well as alleviate flooding issue. ¹⁴	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.

⁹ Project included in LOI for DR 4086 HMGP. LOI project #1074 budget = \$1,500,000.

¹⁰ Project included in LOI for DR 4086 HMGP. LOI project #1072 budget = \$5,318,547.

¹¹ Project included in LOI for DR 4086 HMGP. LOI project #1029 budget = \$12,000,000.

¹² Project included in LOI for DR 4086 HMGP. LOI project #1030 budget = \$6,000,000.

¹³ Project included in LOI for DR 4086 HMGP. LOI project #1032 budget = \$25,000,000.

¹⁴ Project included in LOI for DR 4086 HMGP. LOI project #1035 budget = \$6,027,800.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-57 ¹⁵	Replace stormwater inlets throughout the City to alleviate stormwater runoff and unimpeded water flow.	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-58	Elevate Kaighn Avenue at Farnham Park and install a new stormwater collection system to alleviate flooding issue. ¹⁶	Municipal OEM Capital Improvements and Utility Operations	Moderate	Public Property Flood Mitigation	< \$100K	One to three years	Conduct project scoping.
M-59	Install back-up emergency power generator at North Camden Community Center (CF-7).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-60	Install back-up emergency power generator at Malandra Hall (CF-8).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-61	Install back-up emergency power generator at Cramer Hill Community Center (CF-9).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-62	Install back-up emergency power generator at Isabel Miller Community Center (CF-10).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-63	Install back-up emergency power generator at Aletha R. Wright Vision of Hope Center located at 271 Atlantic Avenue (CF-75).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-64	Install back-up emergency power generator at Anna M. Sample House located at 408-416 Line Street (CF-76).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-65	Install back-up emergency power generator at Camden Peace Mission located at 1634 Broadway (CF-77).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-66	Install back-up emergency power generator at Cathedral Kitchen located at 642 Market Street (CF-78).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.

¹⁵ Project included in LOI for DR 4086 HMGP. LOI project #1028 budget = \$1,500,000.

¹⁶ Project included in LOI for DR 4086 HMGP. LOI project #1031 budget = \$19,000,000.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-67	Install back-up emergency power generator at Cathedral Social Services located at 1845 Haddon Avenue (CF-79).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-68	Install back-up emergency power generator at Evangelism Today Christian Education Center located at 1658 Mount Ephraim (CF-80).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-69	Install back-up emergency power generator at Faith Tabernacle Church located at 553 Spruce Street (CF-81).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-70	Install back-up emergency power generator at Food Bank of Southern New Jersey located at 1361 Walnut Street (CF-82).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-71	Install back-up emergency power generator at Good Samaritan Center located at 325 Market Street (CF-83).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-72	Install back-up emergency power generator at Group Homes of Camden Co, Inc. located at 35 South 29 th Street (CF-84).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-73	Install back-up emergency power generator at Leavenhouse Homeless Shelter located at 523 State House (CF-85).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-74	Install back-up emergency power generator at My Brother's Keeper Shelter located at 40 York Street (CF-86).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-75	Install back-up emergency power generator at New Visions Homeless Day Shelter located at 523 Stevens Street (CF-87).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-76	Install back-up emergency power generator at Catholic Charities Emergency/Family Center located at 1845 Haddon Avenue (CF-88).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-77	Install back-up emergency power generator at Ray and Joan Kroc Corps Community Center located at 915 Haddon Avenue (CF-89).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-78	Install back-up emergency power generator at State Street Housing Shelter located at 532 State Street (CF-90).	Municipal OEM Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-79	Install back-up emergency power generator at Your Food Shelf Homeless Shelter located at 1500 Federal Street (CF-91).	OEM, Shelter Coordinator	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	Conduct project scoping.
M-80	Address identified Repetitive Flood Loss Properties.	Floodplain Administrator	Moderate	Private Property Flood Mitigation	Staff time commitment	Six months	Prior to initiating landowner contacts, identify flood insurance implications and mitigation options including eligible activities per FEMA HMA programs.

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 CaC.9-13.

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 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 CaC.9-4.

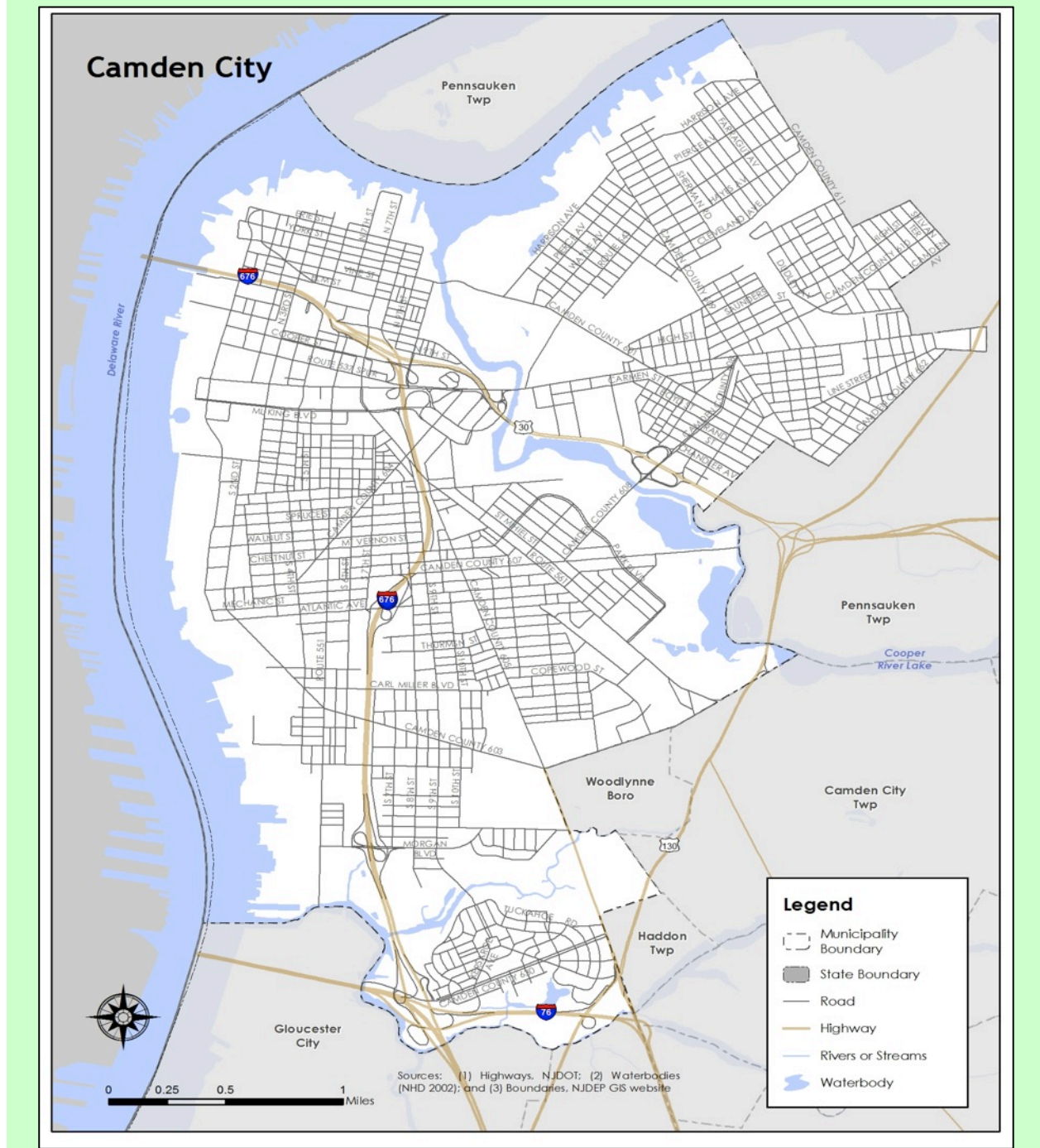
Table CaC.9-13: Camden City (Camden County) Multi-Jurisdictional Mitigation Measures

#	Problem Description	Hazard(s) Addressed	Goal Addressed	Applies to Existing or New Structures	Potential Partners	Priority
MJ-1	Alleviate flooding for four (4) well houses along Delaware River in between the Pennsauken Creek and Cooper River. ¹⁷	Flood	Goal #4	Existing	Utility Operator, Pennsauken Twp., Camden City DPW	High

¹⁷ Project included in LOI for DR 4086 HMGP. LOI project #1096 budget = \$500,000

Part 4: Mitigation Measures

Figure CaC.9-4: Camden City Mitigation Project Locations¹⁸



¹⁸ **Note to Draft Municipal Appendix Reviewers:** Map shown in Draft Municipal Appendix is only a placeholder and will be replaced with map showing Municipal and Multi-jurisdictional Mitigation Measures in the Final Municipal Appendix.

Part 4: Mitigation Measures

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 (2014)
- Master Plan and Reexamination Reports (date)
- City of Camden Land Development Ordinance (2011)
- Comprehensive Economic Development Strategy (2012)

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.

Attachment A: Public Review Comments

The following comments were received during the public review of the Camden City Municipal Appendix:

Table CaC.9.A-1: Public Review Comments

Comment Date and Time	Comment	Response

Note: As of June 3, 2016, no public review comments were received for the Camden City Municipal Appendix.

Attachment B: Adoption Resolution

Following this page is the Adoption Resolution for the Camden City Municipal Appendix as approved by the Camden City Council.

Attachment C: Approval Letter

Following this page is the Approval Letter for the Camden City Municipal Appendix.