



Cumberland County Multi-Hazard Mitigation Plan Update
Participating Jurisdiction Appendices

Appendix 3
Commercial Township, New Jersey

August 22, 2022

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Part 1: Overview

Part 1.1: Cumberland County Multi-Hazard Mitigation Plan Update

The Cumberland County Multi-Hazard Mitigation Plan Update (CC HMPU) incorporates input from all 15 participating jurisdictions in Cumberland County, including Cumberland County and 14 separate municipalities.

The CC HMPU is an update of the Mitigation Plan for Four New Jersey Counties (NJ4 HMP) that was completed by all fifteen jurisdictions in Cumberland County along with over 70 additional jurisdictions from Camden, Gloucester, and Salem Counties. The Cumberland County portions of the NJ4 HMP were adopted by the participating jurisdictions and approved by the Federal Emergency Management Agency in 2016.

The CC HMPU has two main parts:

- Cumberland County Multi-Hazard Mitigation Plan Update, or the “Base Plan”.
- County and Municipal Appendices.

The Base Plan includes descriptions and information common to all 15 participating jurisdictions organized according to the following three focus areas:

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

The County and Municipal Appendices include specific information for these same three focus areas for each of the 15 participating jurisdictions. Detailed tabulations are included in these Municipal Appendices for critical facilities, the status of past mitigation activities, and proposed mitigation measures for each municipality.

Part 1.2: Commercial Township Municipal Appendix

This Municipal Appendix is focused on Commercial Township in Cumberland County, New Jersey.

The Commercial Township Municipal Working Group developed the Commercial Township Municipal Appendix for adoption by the Commercial Township Committee and subsequent approval by Region II of the Federal Emergency Management Agency.

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 3-1 identifies the Municipal Working Group members. As detailed in *Section 2: Planning Process* of the Base 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.

Municipal Working Group members reviewed briefing materials and contributed during Work Sessions and Meetings and reviewed the Preliminary Draft and Public Review Draft versions of the CC HMPU Base Plan and Appendices. The Working Group will also continue to stay involved during the implementation and maintenance of the CC HMPU.

Due to the on-going COVID-19 pandemic during the plan update process, Working Group meetings were conducted in a variety of ways including virtual meetings. However, when local conditions permitted, in-person meetings were conducted.

Note: Nine members of the Working Group also participated in the development of the 2016 NJ4 HMP. These members are indicated with an () following their last names.*

Table 3-1: Commercial Township Working Group

First Name	Last Name	Department	Position	Project Kick-off Meeting ¹	Round 1 Work Session ²	Round 2 Work Session ³	Contribution ⁴
Frederick	Hundt*	Office of Emergency Management (OEM)	OEM Coordinator (through December 2021)	☑	☑		Organized Round 1 Working Group Session.
Robert	Welch	OEM	OEM Coordinator (as of January 2022, previously participated as Deputy OEM Coordinator)			☑	Organized Round 2 Working Group Session and subsequent follow-up efforts.
Michael	Rodgers, Sr.*	OEM	Deputy Coordinator		☑		
Michael	Vizzard	Executive Committee	Mayor		☑	☑	

¹Project Kickoff Meeting was held on May 20, 2021.

² Round 1 Work Session was held on August 19, 2021.

³ Round 2 Work Session was held on January 19, 2022.

⁴Additional or unusual contributions are noted in the far-right hand column.

Part 2: Participation

First Name	Last Name	Department	Position	Project Kick-off Meeting ¹	Round 1 Work Session ²	Round 2 Work Session ³	Contribution ⁴
Fletcher	Jamison	Executive Committee	Committeeman			<input checked="" type="checkbox"/>	
Joe	Klaudi	Executive Committee	Committeeman			<input checked="" type="checkbox"/>	
Dean	Berry*	Land Use Board	Board Member				
John	Nardone	Environmental Commission	Chairman				
Ronald	Sutton, Jr.*	School Board	Vice-President				
Nick	Dicosmo	Engineering	Township Engineer / Floodplain Administrator				
Steve	Desario	Construction	Construction Official (Zoning and Housing Code Enforcement)				
Derek	Leary	Construction	Construction Official (Building and Fire Code Enforcement))				
Gus	Maines	Construction	Construction Official (Electrical)				
William	White	Construction	Construction Official (Plumbing and Mechanical)				
Clint	Miller*	Public Works	Public Works Supervisor				
Donald	Hundt*	Mauricetown Fire Company	Fire Chief				
Scott	Eves	Bayshore Center	Facilities Manager				
Barney	Hollinger*	Marina	Marina Owner / Commercial Fishery				
James	D'Ambrosio, Jr.*	U.S. Silica Co. / Laurel Lake Volunteer Fire and Rescue / Board of Fire Commissioners	Liaison / Administrator / Board Member / Board Member		<input checked="" type="checkbox"/>		
John	Hoffman*	Hoffman Funeral Homes / Port Norris Fire Company	Owner / Firefighter				

Part 2: Participation

First Name	Last Name	Department	Position	Project Kick-off Meeting ¹	Round 1 Work Session ²	Round 2 Work Session ³	Contribution ⁴
Steve	Fleetwood	Bivalve Packing Company	Owner				

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

- GIS / IT Specialist
- Transportation Department Directors / Supervisors
- Police
- Critical Infrastructure and Key Resources
- Healthcare Institutions

Part 2: Participation

Part 2.2: Public Participation

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

Table 3-2 identifies the date, type of involvement, and location (where applicable) for all opportunities provided to the public and interested parties to participate in the development of the plan update.

Table 3-2: Public Participation

Date	Type of Involvement	Location
August 2, 2021	Link to Project Website ⁵ established and maintained.	Township website ⁶
August 19, 2021	Notice posted re: Preliminary Draft Municipal Appendix review period with link to Project Website.	Township website ⁶
September 8, 2021	Preliminary Draft Municipal Appendix available for public comment.	Project Website ⁵
April 13, 2022	Notice posted re: Public Review Draft Municipal Appendix review period with link to Project Website.	Township website ⁷
April 19, 2022	Public Review Draft Municipal Appendix available for public comment.	Project Website ⁵

Public comments and input received for the Preliminary Draft and Public Review Draft versions of the Municipal Appendix were considered by the Municipal Working Group and incorporated into the Municipal Appendix where appropriate. In addition, the Municipal Appendix was adopted as part of a regularly scheduled public meeting.

Public education and outreach is an on-going mitigation measure included in the Municipal Appendix.⁸ In addition, public participation will continue to be encouraged during subsequent plan implementation and maintenance activities.⁹

⁵ <https://cchmpu21.com/documents>

⁶ <https://commercialtwp.com/cumberland-county-2021-multi-hazard-mitigation-plan-update/>

⁷ <https://commercialtwp.com/public-review-draft-of-the-cumberland-county-multi-hazard-mitigation-plan-update/>

⁸ See Mitigation Measure M-1 in Part 4 of the Municipal Appendix.

⁹ Public education and outreach is described in *Section 4: Mitigation Measures* of the CC HMPU Base Plan.

Part 3: Hazard Identification and Risk Assessment

Part 3: Hazard Identification and Risk Assessment

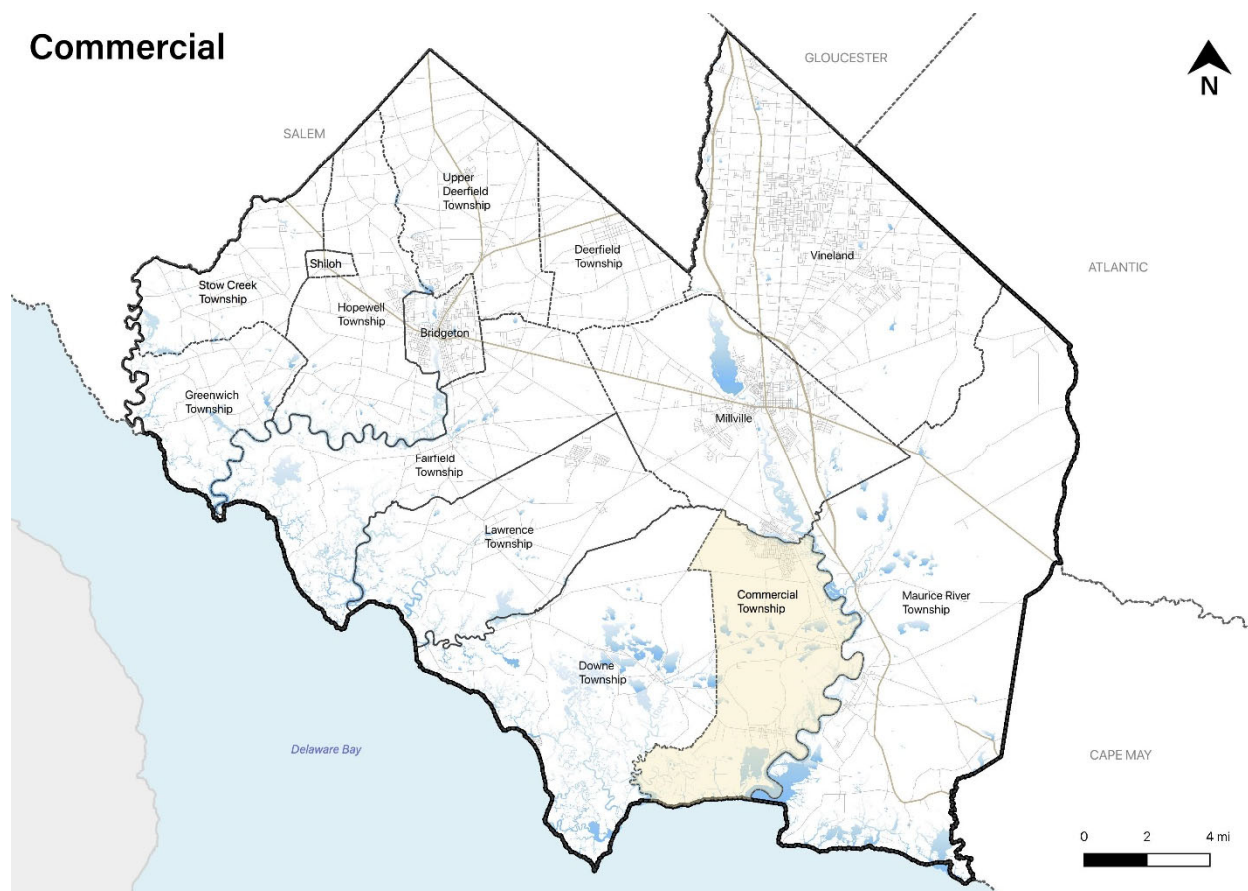
Part 3 includes seven subparts:

- *Part 3.1: Profile*
- *Part 3.2: General Building Stock*
- *Part 3.3: Critical Facilities*
- *Part 3.4: Hazard Exposure Assessment*
- *Part 3.5: Demographic Considerations*
- *Part 3.6: Observations*
- *Part 3.7: Hazard Priorities*

Part 3.1: Profile

Commercial Township is located in the southern edge of Cumberland County (See Figure 3-1).

Figure 3-1: Commercial Township Location Map

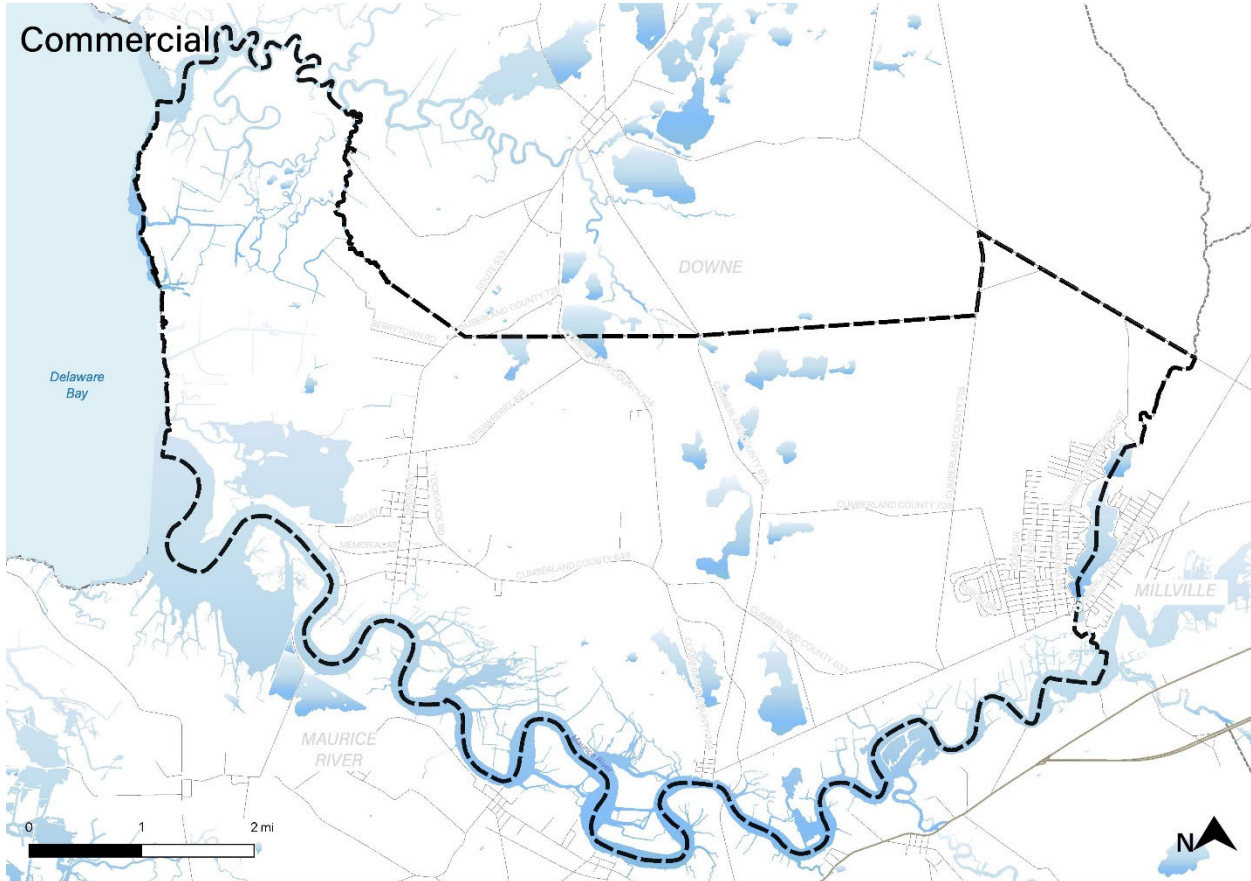


Part 3: Hazard Identification and Risk Assessment

Commercial Township is a rural residential and summer retreat community with an oyster packing and light industry. Unincorporated communities in the municipality include Baileytown, Bivalve, Buckshutem, Haleyville, Laurel Lake, Mauricetown, Port Norris, and Shell Pile.

Per Figure 3-2, major water bodies include the Delaware Bay and Maurice River, which together form the southern and eastern borders of the municipality, respectively. Major transportation routes include Cumberland County 553 (Main Street), 649 (North Avenue), 670 (East Buckshutem Road), and 718 (Ackley Road). The land is predominantly flat and a high percentage of existing land cover consists of forests and marshes.

Figure 3-2: Commercial Township Base Map



Part 3: Hazard Identification and Risk Assessment

Part 3.2: General Building Stock

As of 2015, there are 2,911 buildings in Commercial Township with a total assessed value of improvements of \$247,655,080. Figure 3-3 shows the footprints of these buildings.

Figure 3-3: Commercial Township Building Footprints¹⁰

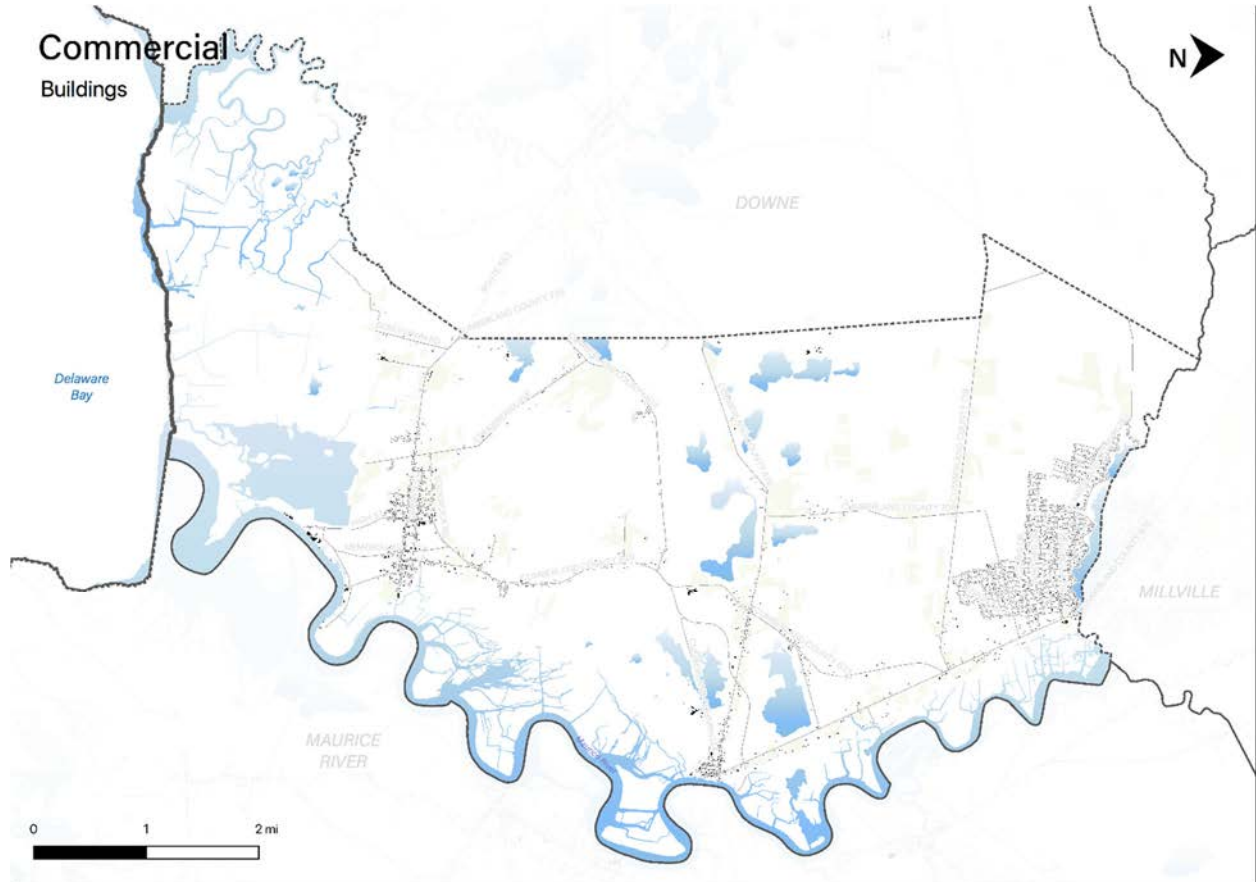


Table 3-3 shows the distribution of these structures according to land use distinctions.

Table 3-3: Commercial Township Buildings per Land Use Type¹¹

Land Use Type	Residential	Commercial	Industrial	Other
Number of Buildings	2,399	59	62	200
% of Total	88%	2%	2%	8%

¹⁰ Building footprint data was isolated from “Impervious Surfaces” data (2015) per <https://gisdata-njdep.opendata.arcgis.com/>. Note: This (map/publication/report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized or endorsed.

¹¹ Land use types were isolated from MOD-IV Parcels and Tax Assessor data composite (2021) per <https://njogis-newjersey.opendata.arcgis.com/documents/parcels-and-mod-iv-of-cumberland-county-nj-shp-download/about> from the New Jersey Office of GIS

Part 3: Hazard Identification and Risk Assessment

Part 3.3: Critical Facilities¹²

As of April 2022, there are twelve critical facilities in Commercial Township.

Critical facilities are prime candidates for mitigation measures due to important functions staged from these facilities prior to, during, and after natural hazards including emergency services and housing vulnerable populations.

Table 3-4 includes current inventory information for municipal critical facilities and cross-references to related mitigation measures identified in Part 4 of the Municipal Appendix. Figure 3.4 shows the location of these critical facilities.

Table 3-4: Commercial Township Critical Facilities Inventory

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-1	Township Hall	Municipal	Administrative Offices	1768 Main Street, Port Norris		N	Y		
CF-2	Emergency Operations Center	EOC	Co-located Facilities	9544 Noble Street, Mauricetown		N	Y		
CF-3	Mauricetown Fire Company	FireStation	Stations	9544 Noble Street, Mauricetown		N	Y		
CF-4	Laurel Lakes Volunteer Fire and Rescue Inc.	FireStation/EMS	Stations	5436 Battle Lane, Millville		Y ¹³	Y		
CF-5	Port Norris Fire Company	FireStation/EMS	Stations	6858 Brown Street, Port Norris		N	Y		
CF-6	Public Works	Public Works	Combined Administrative Office, Maintenance / Work Area, Equipment / Material Storage, and Fueling Station	1768 Main Street, Port Norris		N	Y		

¹² Critical facility definitions and considerations are described in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

¹³Not Red Cross certified shelter (no dedicated kitchen staff full-time) – used as warming / cooling center

Part 3: Hazard Identification and Risk Assessment

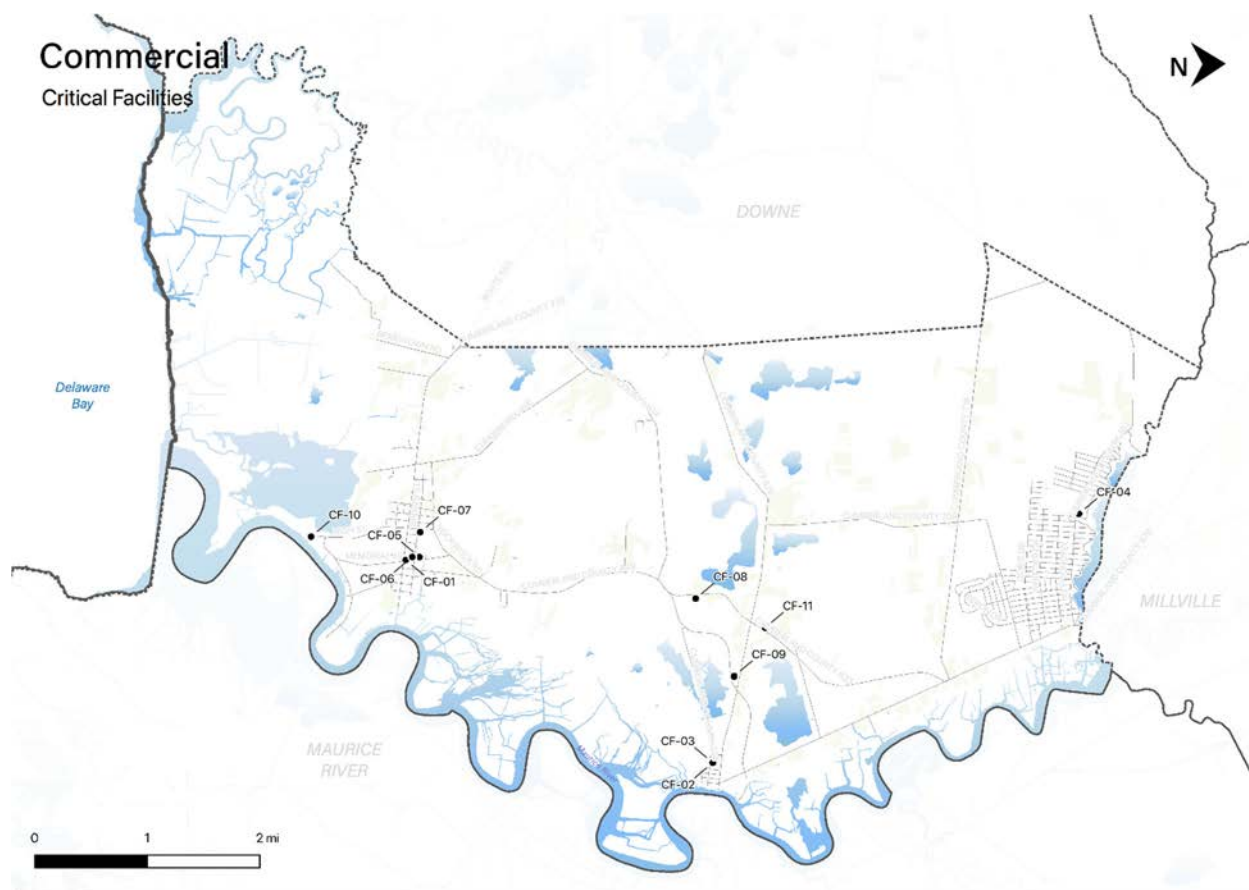
CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-7	Haleyville-Mauricetown Elementary School	Schools	Public Schools	1308 North Avenue / P.O. Box 650, Port Norris		Y ¹⁴	Y		M-6
CF-8	Louise E. Moore Senior Center	Vulnerable Populations Facilities	Senior Centers	8879 Highland Street, Haleyville		Y ¹⁵	Y		
CF-9	Bayshore Center at Bivalve	Emergency Staging Areas	Evacuation	2800 High Street, Port Norris		Y ¹⁵	N		M-2
CF-10	Community Center	Other Municipal	Community Center	1061 Steep Run Road, Millville		Y ¹⁵	N		M-3
CF-11	Holy Manor Health Care Facility	Vulnerable Populations	Private Assisted Living	2408 High Street, Port Norris		N	N	Facility has agreement with Inspira Medical Center – Millville EMS Division to transport residents to nursing facilities if evacuation is necessary	
CF-12	Adams House Assisted Living Facility	Vulnerable Populations	Private Assisted Living	6416 Brown Street, Port Norris		N	N	Same as CF-11	

¹⁴Not ARC certified but ARC will come and open.

¹⁵Warming / cooling center.

Part 3: Hazard Identification and Risk Assessment

Figure 3-4: Commercial Township Critical Facilities



Part 3.4: Hazard Exposure Assessment

Hazard exposure assessments were completed for the eleven (11) natural hazards identified in the CC HMPU Base Plan¹⁶.

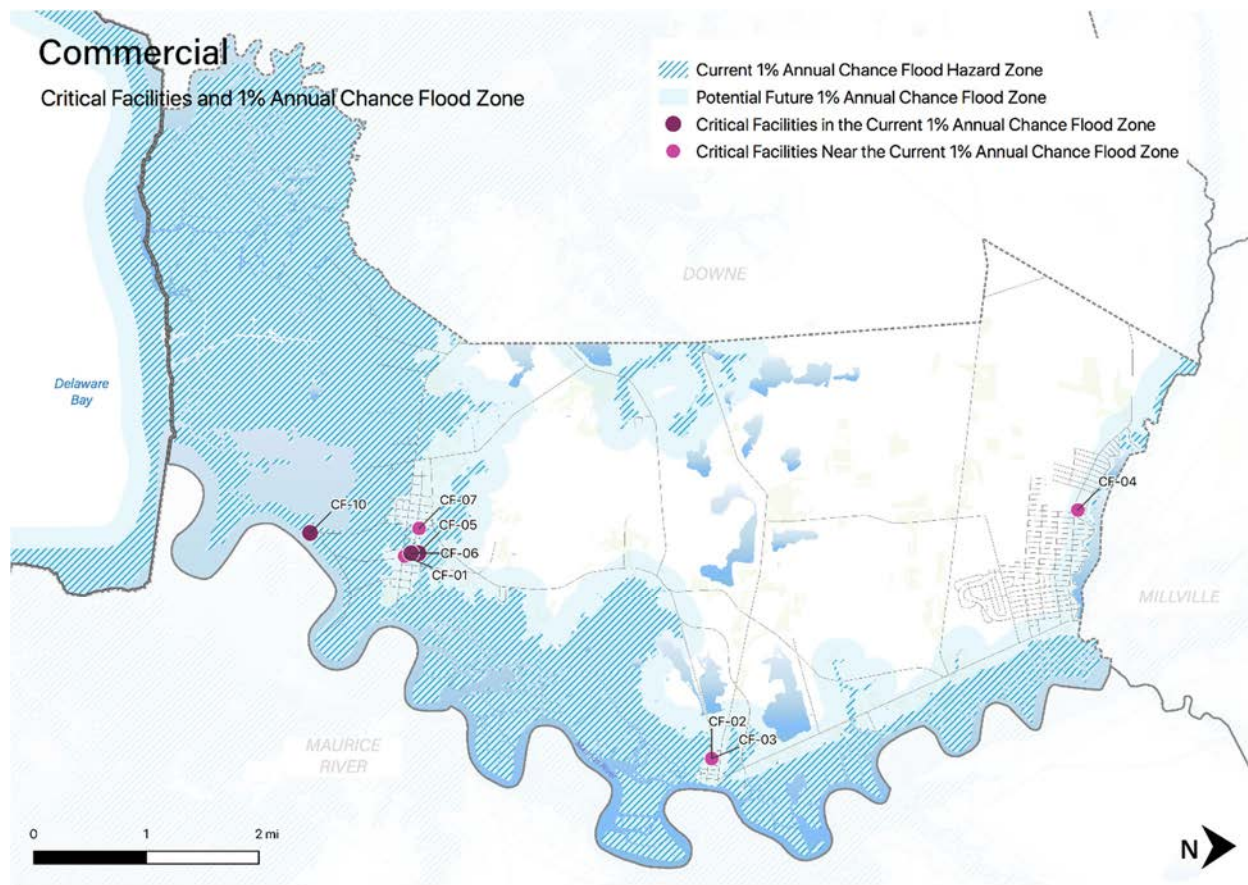
Key results for Commercial Township are depicted in the following.

Mapping: Figure 3-5 is illustrative of the type of mapping available as a result of the hazard exposure assessment. This figure shows critical facilities that are located in or near (i.e., within 500 feet) the 1% annual flood zone on FEMA's Flood Insurance Rate Maps (FIRMs) or within a potential future 1% annual chance flood zone (i.e., within 1,000 feet).

¹⁶Hazard profiles are included for all eleven natural hazards in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

Part 3: Hazard Identification and Risk Assessment

Figure 3-5: Commercial Township Critical Facilities and 1% Annual Chance Flood Zone



Mapping results are available for general building stock and critical facilities for the following hazards:¹⁷

- Coastal Erosion & Sea Level Rise
- Earthquake
- Extreme High Temperature
- Flood – per FEMA FIRM mapping
- High Wind and Severe Weather (heavy summer rains and winter snow loads)
- Wildfire

Tabulations: Selected data culled from the hazard exposure assessment process is displayed in the following tables:

- Table 3-5 indicates hazard exposure for general building stock
- Table 3-6 indicates hazard exposure for critical facilities

¹⁷ All mapping corresponding to results described in Parts 3.3 through 3.5 can be viewed in .pdf format at: <https://www.dropbox.com/sh/4sydqcc4i7do0f/AAD2cCALO8B21-kXPTOu7EQZa?dl=0>.

Part 3: Hazard Identification and Risk Assessment

Table 3-5: Commercial Township General Building Stock Hazard Exposure

Hazard	Number of Exposed Buildings	Percent of Total Buildings in the Jurisdiction	Value of Exposed Buildings	Percent of Total Value in the Jurisdiction
Coastal Erosion ¹⁸	0	N/A	0	N/A
Sea Level Rise - 3 feet increase	94	3.23%	\$11,836,500	4.78%
Flood - Within 1 % Annual Chance Zone	238	8%	\$26,199,300	11%
Flood - Near (within 500 feet) of 1% Annual Chance Zone	985	34%	\$101,872,112	41%
Earthquake – Structure built before 1927 ¹⁹	588	24%	\$70,298,000	33%
High Winds / Severe Weather – Structure built before 1975	1,801	72%	\$149,154,600	70%
Wildfire – Composite score > 2.5 ²⁰	51	1.75%	\$2,068,200	0.84%

Table 3-6: Commercial Township Critical Facilities Hazard Exposure²¹

Hazard	Number of Critical Facilities	CF #s
Coastal Erosion	None	N/A
Sea Level Rise	2	CF-05, CF-09
Flood - Within 1 % Annual Chance Zone	3	CF-05, CF-06, CF-09
Flood - Near (within 500 feet) of 1% Annual Chance Zone	4	CF-01, CF-02, CF-03, CF-04
Flood –Future potential (within 1,000 feet) 1% Annual Chance Zone	None	N/A
Wildfire	9	CF-01, CF-02, CF-03, CF-04, CF-05, CF-06, CF-08, CF-09, CF-10

In addition, all critical facilities in Cumberland County are exposed to the following hazards and potentially subject to power outages, and structural and/or contents damage:

- Earthquake
- Extreme Temperatures
- High Winds
- Severe Weather – Summer (including heavy rains)
- Severe Weather – Winter (including heavy snow loads)

¹⁸ All supporting data for Coastal Erosion, Sea Level Rise (3-foot rise), Flood (all) can be viewed at https://docs.google.com/spreadsheets/d/1fcN5hL3Jz4X7mldFyKs6wol6J6IAR9bSsvJPiqE_A0Q/edit?usp=sharing

¹⁹ All supporting data for Earthquake, High Winds, and Severe Weather can be viewed at <https://docs.google.com/spreadsheets/d/1Zx1LZwKQ8esqdv4c9hbbSZurtMjH4UITQWJY1LrZezc/edit?usp=sharing>

²⁰ All supporting data for Wildfire can be viewed at https://docs.google.com/spreadsheets/d/1JAbfd3A-eCHI93pZFaPVuM_H2yvuUzeHCmoijv-oxsw/edit?usp=sharing

²¹ All supporting data for critical facility hazard exposure can be viewed at <https://docs.google.com/spreadsheets/d/1MPLiOANm7fHoyKuxyWqyang26LTSPayTxJvLmK5IGPg/edit?usp=sharing>

Part 3: Hazard Identification and Risk Assessment

Information from the 2016 NJ4 HMP HIRA was also reviewed with the Working Group to determine the need for updates to hazard exposure results for Dam Failure and Levee Failure.

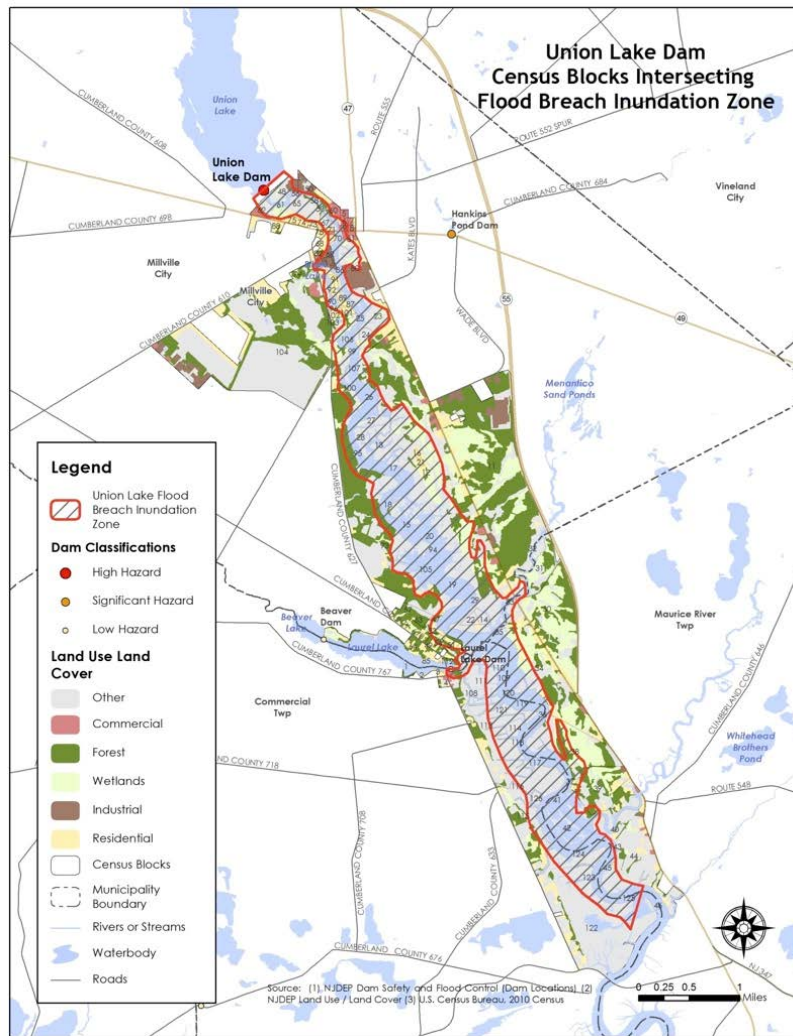
Dam Failure

Per the New Jersey Department of Environmental Protection (NJDEP) data²²:

- There are no “High Hazard” or Significant Hazard” dams located in the Township. However, the Township is downstream from one (1) “High Hazard” dam, Union Lake Dam in Millville City.
- No (0) dam failure incidents had been recorded in the Township as of 2014

Figure 3-6 depicts results from the 2016 NJ4 HMP HIRA showing land use within Census Blocks intersecting the Flood Breach Inundation Zone for the Union Lake dam. An estimated 85 housing units and 210 residents are potentially located downstream of the dam within Commercial Township.

Figure 3-6: Union Lake Dam Land Use/Land Cover for Census Blocks Intersecting Flood (With Breach) Inundation Zone



²² (1) NJDEP Dam Safety and Flood Control (Dam Locations); (2) NJDEP Land Use / Land Cover; (3) US Census Bureau 2010 Census

Part 3: Hazard Identification and Risk Assessment

Levee Failure

Per the South Jersey Levee Inventory²³:

- There are three (3) levees in the Township:
 - Port Norris (NCRS #81)
 - Port Norris North (NCRS #85)
 - Berrytown (NCRS #86)
- No (0) levee failure incidents had been recorded in the Township as of 2014

Working Group members were asked the following questions for Dam and Levee Failure:

- ✓ *Are these facilities still in operation?*
- ✓ *Are there updated Emergency Action Plans or inundation maps for these facilities?*
- ✓ *Have there been any other incidents of failure since the reported records?*

Per the Commercial Township Working Group

- There are two dams in Laurel Lake controlled by the Laurel Lake Property Owners Association that are considered “Low” hazard dams but have received a “failing” grade from NJDEP inspectors.
- Levee referred to “Peak of the Moon” has continuing problems with blowouts and failures.

Otherwise, there were no changes to the NJ4 HMP HIRA Dam Failure and Levee Failure hazard exposure results.

National Flood Insurance Program Information

One additional metric discussed with the Working Group was statistical information from the National Flood Insurance Program (NFIP)²⁴. The following are relevant numbers for Commercial Township as provided by the New Jersey Office of Emergency Management (NJOEM)²⁵:

- Active Policies – thirty (30) active NFIP flood insurance policies
- Claims History – twenty-eight (28) claims made against the NFIP between 1979 and 2020
- Repetitive Loss Properties (RL) – one (1) property designated as RL

For comparison relative to the number of active NFIP flood insurance policies, the following are the number of potentially exposed buildings (per Table 3-5), which are significantly higher than the number of active policies:

- Flood - Within 1 % Annual Chance Zone: 238 buildings ~ 8% of total buildings, with a value of \$26,199,300 ~ 11% of the total building value in the Township.
- Flood - Near (within 500 feet) of 1% Annual Chance Zone: 1,223 buildings ~ 42% of total buildings, with a value of \$128,071,412 ~ 52% of the total building value in the Township.

²³ US Department of Agriculture, National Resources Conservation Services (NRCS) South Jersey Levee Inventory, 2010.

²⁴ Information on the NFIP is described in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

²⁵ Spreadsheets provided by NJOEM in October 2021.

Part 3: Hazard Identification and Risk Assessment

Part 3.5: Demographic Considerations

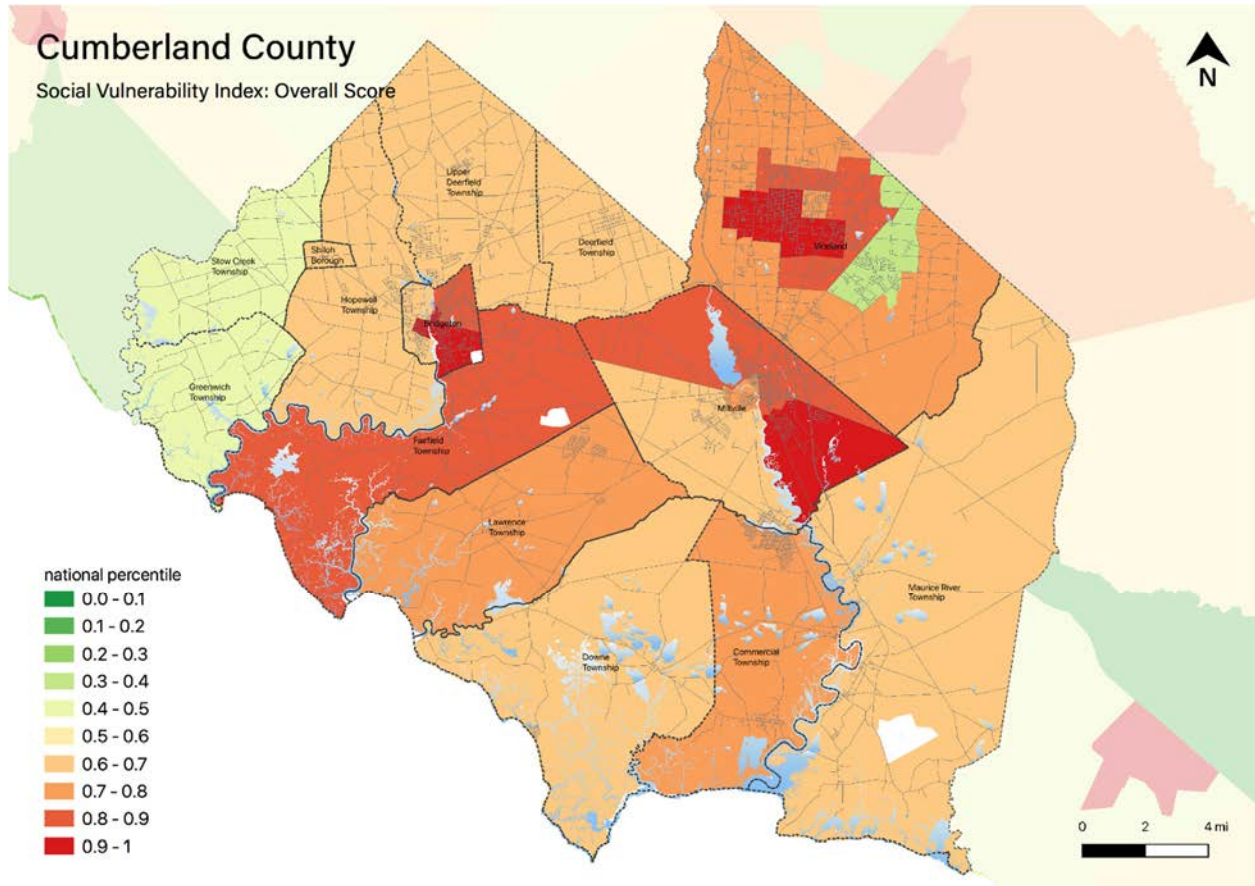
Demographic considerations include general population and land use factors. Table 3-7 includes current population estimates and changes since the previous US Census²⁶:

Table 3-7: Commercial Township General Population Demographics

Metric	Current Estimates
2010 Population	5,178
2019 Population	4,979
Percent Population Change (2010-2019)	- 3.84%
Land Area	32.13 sq. miles
Population Density	155.0 / sq. mile

Demographic considerations also include differences in social vulnerability²⁷. Figure 3-7 shows the overall Social Vulnerability (SVI) Index overall scores for Cumberland County.

Figure 3-7: Cumberland County Social Vulnerability Index: Overall Scores



²⁶ US Census, 2019 ACS 5 Year Estimates, Table ID DP5

²⁷ Social vulnerability considerations are described in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

Part 3: Hazard Identification and Risk Assessment

For Commercial Township, Table 3-8 includes selected metrics where social vulnerability considerations are noteworthy when compared with all national census tracts:

Table 3-8: Commercial Township Social Vulnerability Considerations²⁸

Metric	Comparison with all National Census Tracts
Average per capita income	Lower than 79%
Percentage of persons: With a disability	Higher than 95%
Percentage of persons: Leading a household as a single parent	Higher than 84%
Percentage of persons: Living in group quarters	Higher than 65%

In addition, the percentage of residents earning below poverty level = 17.8% (compared with the average in New Jersey of 10.4%).

Part 3.6: Observations

- Outreach and guidance should be provided for residents, business owners, and property owners for:
 - Properties in or near sea level rise, flood zones, or wildfire hazard areas.
 - Older buildings to help evaluate potential risk of damage due to hazards such as Earthquake, High Winds, and Severe Winter Weather (i.e., heavy snow loads).
- All critical facilities are potentially vulnerable to Earthquake, High Winds, and Severe Weather (heavy rains in summer and snow loads in winter).
- A few critical facilities are potentially vulnerable to Sea Level Rise, Flood and Wildfire and will be identified as priorities for follow-up critical facility field evaluations.
- Priority for follow-up should also be focused on critical facilities housing vulnerable populations related to Extreme Temperature and Severe Weather hazards. For example, determining and documenting (cross referencing EOP) how residents will be moved to facilities providing shelter including cooling and warming centers (all of which would need adequate back-up power and hardening).

²⁸ All supporting data for SVI can be viewed at https://docs.google.com/spreadsheets/d/10zb_Qlg2CqGxb45_fcKiP46swaC16-fORxYTIOiAKP0/edit#gid=1481479799

Part 3: Hazard Identification and Risk Assessment

Part 3.7: Hazard Priorities

As a key step in the Hazard Identification and Risk Assessment (HIRA) process, the eleven (11) natural hazards identified in the CC HMPU Base Plan were discussed during the Municipal Working Group Work Sessions and the relative priority of these hazards was identified.

Based on their personal experience as well as the results of the HIRA, the Municipal Working Group rated the hazards as follows:

High Priority

- Coastal Erosion & Sea Level Rise
- Flood
- Levee Failure
- Wildfire

Moderate Priority

- Dam Failure
- High Wind

Low Priority

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

Part 4: Mitigation Measures

Part 4: Mitigation Measures

Part 4 includes six subparts:

- *Part 4.1: Mitigation Goals and Strategy*
- *Part 4.2: NJ4 HMP Mitigation Measures*
- *Part 4.3: Municipal Mitigation Measures – Identification*
- *Part 4.4: Municipal Mitigation Measures – Implementation*
- *Part 4.5: Multi-Jurisdictional Mitigation Measures*
- *Part 4.6: Authorities, Policies, Programs, Resources, and Plan Integration*

Part 4.1: Mitigation Goals and Strategy

Goals were originally established by the SDVR 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 NJ4 HMP plan update process, these goals were reviewed and edited by the Municipal Working Groups for use in the Municipal Appendices. In addition, the Municipal Working Groups for the CC HMPU reviewed and reaffirmed these goals for continued use in the Appendices.

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 HIRA, and experience of participants in the plan update process, the Municipal Working Group identified an overarching strategy for mitigation:

- Identify and address known problems or areas of concern for critical facilities and vulnerable populations
- Provide opportunities for residents and property owners to access available information about risk reduction and mitigation measures, e.g., useful links added to municipal websites, in particular for Repetitive Flood Loss properties
- Institutionalize hazard mitigation into municipal activities and programs through regular interactions of the Municipal Working Group and 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: NJ4 HMP Mitigation Measures

Known problems and areas of concern were the basis for mitigation measures identified in the NJ4 HMP. In cases where these problems and concerns still exist at the time of the CC HMPU, the related NJ4 HMP mitigation measures were considered as candidates for inclusion in the Municipal Appendix.

Table 3-9 identifies the status of mitigation measures included in the NJ4 HMP. These entries were based on information provided by the Municipal Working Group. In some cases, the NJ4 HMP mitigation measures have been carried over as part of the Municipal Appendix as indicated in the “Comments” column and the far right-hand column of Table 3-9.

Table 3-9: Status of Commercial Township NJ4 HMP Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure # ²⁹³⁰
M-1: Identify and pursue outreach and education opportunities to inform municipal residents, businesses, and property owners.	Work-in-progress	Work-in-progress included: <ul style="list-style-type: none"> ▪ Reverse 911 used by the Township and the School Board for non-emergency public information. 	Carried over as part of M-1
M-2: Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.			
M-3: Prioritize recurrent drainage problem areas and initiate data collection to track unreimbursed damages and related response and recovery expenses.			
M-4: Conduct regular Municipal Working Group meetings.			
M-5: Install permanent backup emergency power generator at Port Norris Elementary School (CF-7).	No longer considered relevant	Facility has been closed.	N/A
M-6: Install permanent backup emergency power generator at Haleyville-Mauricetown Elementary School (CF-8).	Completed	Completed in 2018 using HMGP from Superstorm Sandy ³¹ .	N/A
M-7: Work with Bayshore Center at Bivalve to secure permanent backup emergency power generator at Bayshore Center at Bivalve (CF-10).	No progress, lack of funding		Carried over as M-2
M-8: Install permanent backup emergency power generator at Community Center (CF-11).	No progress, lack of funding	Potential facility for mobile generator hook-up.	Carried over as M-3

²⁹ Detailed information for identification and implementation of municipal (M-#) mitigation measures is included in Tables 3-10 and 3-11.

³⁰ Detailed information for identification and implementation of multi-jurisdictional (MJ-#) mitigation measures is included in Table 3-12.

³¹ Cumberland County Round 1 Generator Program.

Part 4: Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure # ²⁹³⁰
M-9: Maintain and upgrade berm located at Peak Of the Moon area.	Work-in-Progress	On-going repairs to berm realizing mixed results. USACE Project is looking at as part of a larger project. Should be considered as Multi-Jurisdictional Mitigation Measure.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-7
M-10: Address identified Repetitive Flood Loss Properties.	No progress	Current floodplain manager is unaware of RL property status.	Carried over as M-4
M-11: Harden / retrofit Township Hall (CF-1).	Work-in-Progress	Currently, when storms are predicted, plywood panels are used to cover doors and windows. Permanent solution is out for bid, including upgrades to doors, et al. Work is anticipated for completion in 2022 using Township funds and The American Recovery and Reinvestment Act funding.	Carried over as M-5
M-12: Harden / retrofit Port Norris Elementary School (CF-7).	No longer considered relevant	Facility has been closed.	N/A
M-13: Harden / retrofit Haleyville-Mauricetown Elementary School (CF-8).	Work-in-Progress	Roof needs replacement School Board is in the process of identifying funding.	Carried over as M-6
M-14: Consultant assessment to define and identify private levee locations within Commercial Township.	Work-in-Progress	PSE&G owns/operates levees along the river and maintains series of berms and levees in Port Norris. Should be considered as Multi-Jurisdictional Mitigation Measure.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-8
M-15: Clean and maintain ditches on the bay / reduce phragmites throughout Commercial Township to reduce risk of wildfire.	Work-in-Progress	Ditch maintenance by County is on-going; at the end of the 3-year plan to get work completed. NJ Forest Service conducting on-going effort to increase fire break / berms for residential areas in Port Norris. Should be considered as two separate Multi-Jurisdictional Mitigation Measure.	Carried over as Multi-Jurisdictional Mitigation Measures MJ-9 and MJ-10
MJ-1: Sheet piles on County Route 553 bridge (Berry Avenue) to protect against erosion.	Work-in-Progress	Per Township Road Department, installation of sheet piles at this location is scheduled for completion in Summer 2022.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-1
MJ-2: Maurice River Shore Protection Improvement Phase I.	Work-in-Progress	According to parties involved, process is on-going with surveys being completed by consultants.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-2

Part 4: Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure # ²⁹³⁰
MJ-3: Bulkhead for public wharf area to protect shoreline.	Work-in-Progress	\$50,000 grant funding received per NJ Department of Community Affairs for local recreation facilities but funding may not be adequate. Repairs may be limited to handrails and work will still be needed for bulkhead. Project is currently out to bid.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-3
MJ-4: Maurice River Flood Control Structure.	Work-in-Progress	Reconstruction of sluice gate is out to bid with funding from NJ Department of Transportation (DOT) to prevent flooding of roadways. Work is anticipated to be completed in 2022.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-4
MJ-5: Maurice Riverfront Roadway Elevation Improvements.	Completed	Completed with NJ DOT funding.	N/A
MJ-6: Maurice River Mouth Stabilization.	Work-in-Progress	American Littoral Society has received a \$4.2M grant to address conditions at the mouth of the Maurice River and place dredge material in front of dike. Working with Maurice River Township, et al. USACE Currently out to bid with construction anticipated to start in 2022.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-5
MJ-7: Alleviate flooding at county bridge at Berry Avenue.	Work-in-Progress	Per Township Road Department, replacement of sluice gate at this location is scheduled for completion in Summer 2022.	Carried over as Multi-Jurisdictional Mitigation Measure MJ-6
MJ-8: Alleviate flooding at State Police Barracks at Public Wharf.	Completed	Improved, by Township and local property owner, including roadway and drainage structure improvements that has relieved floods.	N/A
MJ-9: Assess Laurel Lake Dam (private dam) to identify upgrade measures and work with private property owners to identify funding mechanisms. Dam located on a County Road and borders Millville Township.	Completed	Completed in 2014. However, per the Working Group, the Laurel Lake Dams have failed recent inspections by NJEDP.	N/A
MJ-10: Create safety zones around critical facilities in wildfire risk areas.	No longer considered valid	Project is the same as described above under M-15 for NJ State Forestry wildfire risk management on State Land.	N/A

Part 4: Mitigation Measures

Part 4.3: Municipal Mitigation Measures – Identification

Table 3-10 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 NJ4 HMP 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)³² if applicable

Table 3-10 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

Table 3-10: Commercial Township Municipal Mitigation Measures Identification

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-1	<p><u>Township Mitigation Program</u> – including sustained efforts in cooperation with Cumberland County Office of Emergency Management (CC OEM) to:</p> <ul style="list-style-type: none"> ▪ Conduct outreach and education for residents, businesses, and property owners ▪ Complete critical facility field evaluations to identify potential vulnerabilities and mitigation measures ▪ Compile relevant data regarding hazard impacts ▪ Support regular interactions of the Municipal Working Group ▪ Seek integration of hazard mitigation with other parallel planning initiatives 	All	Goal #s 1, 2, and 3	All
M-2	Work with Bayshore Center at Bivalve to secure permanent backup emergency power generator at Bayshore Center at Bivalve (CF-9).	Power outage due to multiple hazard types.	Goal #4	Existing

³²Section 3: Hazard Identification and Risk Assessment of the CC HMPU Base Plan includes 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-3	Install transfer switch for use of portable backup emergency power generator (to be provided by Cumberland County and/or NJ) at Community Center (CF-10).	Power outage due to multiple hazard types.	Goal #4	Existing
M-4	Address identified Repetitive Flood Loss Properties.	Flood	Goal #4	Existing
M-5	Harden / retrofit Township Hall (CF-1).	High Wind	Goal #4	Existing
M-6	Harden / retrofit Haleyville-Mauricetown Elementary School (CF-7).	High Wind	Goal #4	Existing
M-7 ³³	Install sluice gate replacements and sheet piles at Miller Avenue.	Coastal Erosion and Sea Level Rise	Goal #4	Existing
M-8 ³³	Install sluice gate replacements and sheet piles at Front Street.	Coastal Erosion and Sea Level Rise	Goal #4	Existing

Part 4.4: Municipal Mitigation Measures – Implementation

Table 3-11 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 criteria³⁴
- Project Type to help determine funding options and implementation mechanisms at the municipal level³⁵
- 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

³³ Mitigation Measures M-7 and M-8 are new measures identified by the Working Group.

³⁴ Section 4: *Mitigation Measures* of the CC HMPU Base Plan includes a description of evaluation criteria considered by the Municipal Working Group.

³⁵ Section 4: *Mitigation Measures* of the CC HMPU Base Plan includes a description of project types and related information regarding funding options and implementation mechanisms.

Part 4: Mitigation Measures

Table 3-11: Commercial Township Municipal Mitigation Measures Implementation

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-1	Township Mitigation Program	Township OEM and Township Working Group	High	Program	Staff Time	On-going, sustained effort	<ul style="list-style-type: none"> ▪ Identify outreach and education objectives and methods (working with CC OEM) ▪ Set priorities (if necessary) and conduct critical facility field evaluations ▪ Identify schedule for plan updates (including sustained public participation and plan integration efforts)
M-2	Work with Bayshore Center at Bivalve to secure permanent backup emergency power generator at Bayshore Center at Bivalve (CF-9).	Township OEM and Bayshore Center	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	<ul style="list-style-type: none"> ▪ Conduct project scoping³⁶ ▪ Identify funding source(s)
M-3	Install transfer switch for use of portable backup emergency power generator at Community Center (CF-10).	Township OEM and Public Works Department	Moderate	Back-up Emergency Power Generator	< \$100K	Three to five years	<ul style="list-style-type: none"> ▪ Determine requirements for transfer switch. ▪ Confirm availability of portable generator(s).
M-4	Address identified Repetitive Flood Loss Property.	Floodplain Administrator	Moderate	Private Property Flood Mitigation	Staff time commitment	Six months	<ul style="list-style-type: none"> ▪ Confirm properties are still valid RLs ▪ For any still-valid properties, prior to initiating landowner contacts, identify flood insurance implications and mitigation options including eligible activities per FEMA HMA programs.
M-5	Harden / retrofit Township Hall (CF-1).	Township OEM and Public Works Department	Low	Building Retrofit	\$100K - \$500K	Three to five years	Complete bidding process.
M-6	Harden / retrofit Haleyville-Mauricetown Elementary School (CF-7).	Township OEM and School Board	Moderate	Building Retrofit	\$100K - \$500K	Three to five years	Conduct project scoping.
M-7	Install sluice gate replacements and sheet piles at Miller Avenue.	Township OEM and Public Works Department	High	Private Property Flood Mitigation	To be determined pending project scoping	One to three years	Conduct project scoping.

³⁶ Project scoping for M-2 to include determining feasibility to install hookup and transfer switch for using portable generator(s) to accommodate need, at least as a temporary measure

Part 4: Mitigation Measures

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-8	Install sluice gate replacements and sheet piles at Front Street.	Township OEM and Public Works Department	High	Private Property Flood Mitigation	To be determined pending project scoping	One to three years	Conduct project scoping.

The following are additional notes regarding the implementation of Mitigation Measure M-1 (consistent with *Part 3.6: Observations*):

- Outreach and guidance should be provided for owners of :
 - Properties with valid Repetitive Loss designations
 - Buildings potentially exposed to Coastal Erosion, Sea Level Rise, Dam Failure, Levee Failure, and/or Wildfire.
 - Buildings in or near the 1% annual flood zone regarding potential risk and availability of NFIP flood insurance.
 - Older buildings to help evaluate potential risk of damage due to hazards such as Earthquake, High Winds, and Severe Weather (heavy rains in summer and heavy snow loads in winter).
- Considerations for prioritizing and conducting critical facility field evaluations should include:
 - All CFs are potentially vulnerable to Earthquake, High Winds, and Severe Weather (heavy rains in summer and heavy snow loads in winter).
 - In addition, some CFs are potentially vulnerable to Coastal Erosion, Sea Level Rise, Flood, and/or Wildfire and should also be considered as candidates for follow-up facility-level evaluations.
 - Priority for follow-up should also be focused on critical facilities housing vulnerable populations, e.g., group homes, related to Extreme Temperature and Severe Weather hazards. For example, determining and documenting (cross referencing the jurisdiction's Emergency Operations Plan) how residents will be moved to facilities providing shelter including cooling and warming centers (all of which would need adequate back-up power and hardening).
- Provisions for Plan Maintenance include :
 - Sustain public outreach and participation (including but not limited to targeted outreach and guidance efforts)
 - Conduct regular interactions of the Working Group to keep the plan current (e.g., an annual plan review and amendment process at a minimum)
 - Track and take advantage of plan integration opportunities including noting all upcoming plan updates as part of regular Working Group interactions

Part 4: Mitigation Measures

Part 4.5: Multi-Jurisdictional Mitigation Measures

During the Municipal Working Group Work Sessions, the Working Group identified some NJ4 HMP mitigation measures to be carried over, as well as adding new areas of concern, all of which were designated as multi-jurisdictional mitigation measures. Implementation of these measures, in the opinion of the Municipal Working Groups, requires participation or leadership from other levels of government, including county, state, and federal agencies. These multi-jurisdictional mitigation measures have been compiled in Table 3-12.

These measures have been referred to the County Working Group for consideration. As part of the implementation of the CC HMPU, the County Working Group will be working with the municipalities to:

- Confirm identified issues are valid multi-jurisdictional measures
- Identify specific responsibilities amongst different level(s) of government to address these problem areas
- Identify 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
- Identify which, if any, additional mitigation measures the member agencies of the County Working Group will assume responsibility to implement

Table 3-12: Commercial Township Multi-Jurisdictional Mitigation Measures

#	Problem Description	Hazard(s) Addressed	Goal Addressed	Applies to Existing or New Structures	Potential Partners	Priority
MJ-1	Sheet piles on County Route 553 bridge (Berry Avenue) to protect against erosion.	Coastal Erosion and Sea Level Rise	Goal #4	Both	Township OEM, Cumberland County Department of Public Works (DPW)	High
MJ-2	Maurice River Shore Protection Improvement Phase I.	Coastal Erosion and Sea Level Rise	Goal #4	Both	Township OEM, Cumberland County DPW	High
MJ-3	Bulkhead for public wharf area to protect shoreline.	Coastal Erosion and Sea Level Rise	Goal #4	New	Township OEM, Cumberland County OEM, and New Jersey Station Police	High
MJ-4	Maurice River Flood Control Structure.	Coastal Erosion and Sea Level Rise	Goal #4	New	Township OEM, Cumberland County DPW	High
MJ-5	Maurice River Mouth Stabilization.	Coastal Erosion and Sea Level Rise	Goal #4	New	Township OEM, Cumberland County DPW, USACE, NJDEP PSE&G, American Littoral Society	High
MJ-6	Alleviate flooding at county bridge at Berry Avenue.	Coastal Erosion and Sea Level Rise	Goal #4	Both	Township OEM, Cumberland County DPW	High
MJ-7	Maintain and upgrade berm located at Peak Of the Moon area.	Flood	Goal #4	Both	Township OEM, Township DPW, Cumberland County DPW, USACE	High

Part 4: Mitigation Measures

#	Problem Description	Hazard(s) Addressed	Goal Addressed	Applies to Existing or New Structures	Potential Partners	Priority
MJ-8	Consultant assessment to define and identify private levee locations within Commercial Township.	Levee Failure	Goal #4	Both	Township OEM, Township DPW, Cumberland County DPW, PSE&G	Low
MJ-9	Clean and maintain ditches on the bay / reduce phragmites throughout Commercial Township to reduce risk of wildfire.	Wildfire	Goal #4	Existing	Township OEM, Township DPW, Cumberland County DPW	Moderate
MJ-10	Increase fire break / berms for residential areas in Port Norris.	Wildfire	Goal #4	Existing	Township OEM, Township DPW, NJ Forest Service	Moderate

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 CC HMPU Base Plan regarding existing authorities, policies, and programs in the County and specific information about the Commercial Township's participation and continued compliance in the National Flood Insurance Program (NFIP)
- Resources - Cross referencing relevant information and recommendations in the CC HMPU Base Plan regarding improving capabilities and coordination at the County and municipal level and specific information about Commercial Township's available resources
- Plan Review and Integration – Identifying plans and programs included in the development of Plan Integration recommendations in the CC HMPU Base Plan

4.6.1: Authorities, Policies, and Programs

Section 4.6: Authorities, Policies, Programs, Resources, and Plan Integration of the CC HMPU Base Plan summarizes relevant authorities, policies, and programs related to hazard mitigation in Cumberland County including the NFIP.

Continuing participation in the NFIP as part of the implementation of the CC HMPU includes:

- Involvement of Floodplain Manager / Administrator during the CC HMPU implementation process
- Commitment to adopt updated FIRMs (if appropriate) and evaluate / update the municipality's Flood Damage Prevention Ordinance as appropriate per recommendations included in Section 4.6 of the CC HMPU Base Plan and under Part 4.6.3: Plan Review and Integration of this Appendix.

4.6.2: Resources

The update of the NJ4 HMP included reexamining participating jurisdictions' hazard mitigation and floodplain management capabilities; potential for improving capabilities and coordination within and between jurisdictions; and plan integration considerations, including:

- *Section 4: Mitigation Measures* of the CC HMPU Base Plan includes summary observations and recommendations concerning:
 - Capabilities for hazard mitigation planning and mitigation measure implementation and floodplain management for the participating jurisdictions
 - Coordination within municipal governments, between municipal governments and their communities, and between municipal, county, and state agencies responsible for hazard mitigation
- *Section 4.6: Authorities, Policies, Programs, Resources, and Plan Integration* of the CC HMPU Base Plan also includes summary statements regarding county and municipal resources and the impact of resource limitations on the overall approach to the CC HMPU mitigation strategies.

Table 3-13 compares the results of the Capability Assessment Survey for the County as a whole and Commercial Township.

Part 4: Mitigation Measures

Table 3-13: Commercial Township Capability Assessment Survey Results

Metric	Commercial Township Results (n=8)	Cumberland County "as a whole" Results (n=85)
Position Type: Full-time	50.00%	51.76%
Position Type: Part-time	50.00%	36.47%
Position Type: Volunteer	0.00%	11.76%
Time in Position:		
Time in Position: Less than 1 year	37.50%	12.94%
Time in Position: 1 to 2 years	0.00%	8.24%
Time in Position: 2 to 5 years	0.00%	23.53%
Time in Position: More than 5 years	62.50%	55.29%
Prior Experience:		
Prior Experience: None	75.00%	57.65%
Prior Experience: with hazard mitigation planning	12.50%	31.76%
Prior Experience: with HMA grant administration	25.00%	12.94%
Prior Experience: with floodplain management	12.50%	7.06%
Training / Certifications:		
Training / Certifications: None	87.50%	75.29%
Training / Certifications: for hazard mitigation planning and implementation	0.00%	9.41%
Training / Certifications: for floodplain management	12.50%	15.29%

In general terms, when compared to the sampled individuals from across all the Working Groups, Commercial Township has:

- Similar percentage of full-time staff
- Similar average time in current positions
- Lower percentage of staff with experience in hazard mitigation planning
- Higher percentage of staff with experience in HMA grant administration and floodplain management
- Lower percentage of staff with training for hazard mitigation planning and implementation
- Similar percentage of staff with training for floodplain management

Part 4: Mitigation Measures

4.6.3: Plan Review and Integration

Section 4.6: *Authorities, Policies, Programs, Resources, and Plan Integration* of the CC HMPU Base Plan includes:

- Table BP.4-2 that identifies primary plans and documents collected from each of the participating municipalities.
- Includes results of reviewing primary plans and documents to determine the extent to which these documents reflect up-to-date hazard risk and mitigation.
- Includes recommendations for integrating the results of the CC HMPU, 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

The plan maintenance process articulates and specifies 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.

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

- Flood Damage Prevention Ordinance
- Emergency Operations Plan - Base Plan (2019), due again at end of 2022
- Master Plan (2006)
- Capital Improvement Budget (2014)³⁷
- Cumberland County Delaware Bayshore Recovery Plan (2013)
- Hazard Mitigation Grant Awards (2014)
- Hazard Mitigation Grant Award Correspondence (2014)
- Natural Resources Inventory (1993)
- Stormwater Management Plan

In addition, the following is status regarding the status of the Flood Damage Prevention Ordinance::

- Current version was adopted in 2016 and is consistent with the most recent FDPO per NJDEP]
- The Zoning Officer is the responsible party for enforcement per the FDPO. However, the Working Group identified the Township Engineer as the Floodplain Administrator. The individual who currently holds that position is included on the Working Group and has completed the capability assessment survey.
- The document is accessible to the public via the Township and is not available online.

³⁷<http://www.commercialtwp.com/finance-commercial-twp-nj.html>

Part 4: Mitigation Measures

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