



Cumberland County Multi-Hazard Mitigation Plan Update
Participating Jurisdiction Appendices

Appendix 15
Vineland City, New Jersey

Preliminary Draft

September 7, 2021

Notes to Preliminary Draft Reviewers

This Preliminary Draft of the Vineland City Appendix to the Cumberland County Multi-Hazard Mitigation Plan Update (CC HMPU) includes:

Updated tables containing information available as of September 7th for the community's:

- Working Group
- Critical Facilities
- Mitigation Measures included in the 2016 Mitigation Plan for Four New Jersey Counties (NJ4 HMP)
- Plan Review and Integration document status

In addition, the Preliminary Draft contains:

- Preliminary Hazard Identification and Risk Assessment (HIRA) Update – including mapping and data tabulations regarding vulnerability to natural hazards and social vulnerability considerations
- Hazard Priorities – as determined by the Working Group
- Goals and Strategies

Finally, the Preliminary Draft includes initial lists of proposed Municipal and Multi-Jurisdictional Mitigation Measures to be included in the CC HMPU.

Text highlighted in **yellow** indicates information requested of the community's Working Group as part of this review.

Text highlighted in **blue** indicates information to be provided and/or actions to be taken at a later date.

Please provide any questions, input, or comments to your community's Deputy Emergency Management Coordinator:

Paul Shropshire
pshropshire@vinelandcity.org

This review period will close on Friday, October 1st. However, there will be additional opportunities to participate in the development of the CC HMPU. These opportunities will be identified on the project website (<https://cchmpu21.com>).

Table of Contents

Table of Contents	15-i
Part 1 Overview	15-1
1.1: Cumberland County Multi-Hazard Mitigation Plan Update	15-1
1.2: Vineland City Municipal Appendix	15-1
Part 2 Participation	15-2
2.1: Municipal Working Group Participation	15-2
2.2: Public Participation	15-5
Part 3 Hazard Identification and Risk Assessment	15-6
3.1: Profile	15-6
3.2: General Building Stock	15-8
3.3: Critical Facilities	15-9
3.4: Hazard Exposure Assessment	15-21
3.5: Demographic Considerations	15-24
3.6: Observations	15-25
3.7: Hazard Priorities	15-26
Part 4 Mitigation Measures	15-27
4.1: Mitigation Goals and Strategy	15-27
4.2: NJ4 HMP Mitigation Measures	15-28
4.3: Municipal Mitigation Measures – Identification	15-32
4.4: Municipal Mitigation Measures – Implementation	15-33
4.5: Multi-Jurisdictional Mitigation Measures	15-34
4.6: Authorities, Policies, Programs, Resources, and Plan Integration	15-36

Table of Contents

List of Figures

Figure 15-1: Vineland City Location Map	15-6
Figure 15-2: Vineland City Base Map	15-7
Figure 15-3: Vineland City Building Footprints	15-8
Figure 15-4: Vineland City Critical Facilities	15-21
Figure 15-5: Vineland City Critical Facilities and 1% Annual Chance Flood Zone	15-22
Figure 15-6: Vineland City Social Vulnerability Index: Overall Scores	15-24
Figure 15-7: Vineland City Mitigation Project Locations	15-35

List of Tables

Table 15-1: Vineland City Working Group	15-2
Table 15-2: Public Participation	15-5
Table 15-3: Vineland City Buildings per Land Use Type	15-8
Table 15-4: Vineland City Critical Facilities Inventory	15-9
Table 15-5: Vineland City General Building Stock Hazard Exposure	15-23
Table 15-6: Vineland City Critical Facilities Hazard Exposure	15-23
Table 15-7: Vineland City General Population Demographics	15-24
Table 15-8: Vineland City Social Vulnerability Considerations	15-25
Table 15-9: Status of Vineland City NJ4 HMP Mitigation Measures	15-28
Table 15-10: Vineland City Municipal Mitigation Measures Identification	15-32
Table 15-11: Vineland City Municipal Mitigation Measures Implementation	15-33
Table 15-12: Vineland City Multi-Jurisdictional Mitigation Measures	15-34

Attachments

Attachment 15.A: Public Review Comments	15.A-1
Attachment 15.B: Adoption Resolution	15.B-1
Attachment 15.C: Approval Letter	15.C-1

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 **will include** descriptions and information that is 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: Vineland City Municipal Appendix

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

The Vineland City Municipal Working Group **will recommend** the Vineland City Municipal Appendix for adoption to the Vineland City Council.

The Vineland City Council **will adopt** the Municipal Appendix by resolution (see Attachment B: Adoption Resolution).

Region II of the Federal Emergency Management Agency **will approve** the Municipal Appendix (see Attachment C: Approval Letter).

Part 1: Overview

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 15-1 identifies the Municipal Working Group members. As [will be] 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 [will review] the Preliminary Draft and 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: Seven 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 15-1: Vineland City Working Group

First Name	Last Name	Department	Position	Project Kick-off Meeting ¹	Round 1 Work Session ²	Round 2 Work Session ³	Working Group Meeting ⁴	Contribution ⁵
Luigi	Tramontana	Fire Department / Office of Emergency Management	Chief / OEM Coordinator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Paul	Shropshire	Fire Department / Office of Emergency Management	Deputy OEM Coordinator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Organized Working Group and Work Sessions.
Michael	Cifaloglio, Jr.	Fire Department / Office of Fire Prevention	Fire Marshal		<input checked="" type="checkbox"/>			
Robert	Dickenson	Department of Administration	Assistant Business Administrator					

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

² Round 1 Work Session was held on August 4, 2021.

³ Round 2 Work Session [will be] held on [to be determined].

⁴ Working Group Meeting [will be] held on [to be determined (if applicable)].

⁵ Additional or unusual contributions are noted in the far-right hand column.

Part 1: Overview

First Name	Last Name	Department	Position	Project Kick-off Meeting ¹	Round 1 Work Session ²	Round 2 Work Session ³	Working Group Meeting ⁴	Contribution ⁵
Greg	Pacitto	Police Department	Lieutenant					
Christopher	Fulcher *	Police Department	Sergeant		<input checked="" type="checkbox"/>			
Owen	Flores	Police Department	Sergeant					
Armando	Pineda	Fire Department / Emergency Medical Services	EMS Supervisor					
Kelly	Soracco	Fire Department / Emergency Medical Services	EMS Chief		<input checked="" type="checkbox"/>			
Derek	Leary	Department of Licenses and Inspections	Construction Official / Floodplain Administrator		<input checked="" type="checkbox"/>			
David	Maillet *	Administration Department, Division of Engineering	City Engineer		<input checked="" type="checkbox"/>			
Rickie	Caudill	Administration Department, Division of Engineering	Supervising Engineer		<input checked="" type="checkbox"/>			
Kathleen	Hicks *	Administration Department, Division of Planning	Supervising Planner		<input checked="" type="checkbox"/>			
Ryan	Headley	Administration Department, Division of Planning	Supervising Engineer		<input checked="" type="checkbox"/>			
Tom	Shelton	Department of Public Works	Road Supervisor		<input checked="" type="checkbox"/>			
Michael	Lawler	Municipal Water Utility	Superintendent					
Dave	Ricci	Municipal Water Utility	Assistant Superintendent					
John	Lillie	Municipal Utilities	Director					
Tom	Dunmore	Municipal Electric Utility	Chief Engineer		<input checked="" type="checkbox"/>			
John	Boyle *	Municipal Electric Utility	VMU. Distribution Operations, Superintendent		<input checked="" type="checkbox"/>			
Steve	August	Municipal Electric Utility	VMU Assistant Superintendent Generation.		<input checked="" type="checkbox"/>			

Part 1: Overview

First Name	Last Name	Department	Position	Project Kick-off Meeting ¹	Round 1 Work Session ²	Round 2 Work Session ³	Working Group Meeting ⁴	Contribution ⁵
Diane	Amico *	Municipal Environmental Commission	Senior Environmental Health Specialist		<input checked="" type="checkbox"/>			
Dennis	Palmer	The Landis Sewerage Authority	Executive Director / Chief Engineer		<input checked="" type="checkbox"/>			
Anthony	Tobolski	The Landis Sewerage Authority	Field Engineer		<input checked="" type="checkbox"/>			
Macleod	Carre	Department of Health	Health Director		<input checked="" type="checkbox"/>			
Robert	Dickinson	Department of Health	Health Officer		<input checked="" type="checkbox"/>			
Radford	Garrison	Department of Safety and Security, Inspira. Health Network	Emergency Preparedness Manager					
Brett	McCormick	Department of Safety and Security, Inspira. Health Network	Emergency Preparedness		<input checked="" type="checkbox"/>			
Al'Asia	Powell	Inspira Life Vanguard	Director of Quality and Patient Safety					
Paul	Farinaccio	Vineland Public Schools	Executive Director of Facilities					
Robert	Pitocchi *	Vineland Board of Education (Maintenance Department)	Coordinator of Maintenance Services					
Dawn	Hunter *	Greater Vineland Chamber of Commerce	Executive Director					
Jorge	Cardona	[Identify Department]	[Identify Position]		<input checked="" type="checkbox"/>			
Bobby	Fields	[Identify Department]	[Identify Position]		<input checked="" type="checkbox"/>			

The following lists candidate positions and organizations within the community that [will be extended invitations to participate] during the development of the Municipal Appendix. These positions and organizations will continue to be extended invitations to participate during subsequent plan implementation and maintenance activities.⁶

- Elected and Appointed Officials
- Community / Faith-Based Organizations
- Environmental Organizations

⁶ Plan implementation and maintenance activities [will be] described in Section 4: Mitigation Measures of the CC HMPU Base Plan.

Part 1: Overview

Part 2.2: Public Participation

Part 2.2 **[will include]** all opportunities provided to the public and interested parties in the municipality to participate during the plan update process.

Table 15-2 **[will identify]** 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 15-2: Public Participation

Date	Type of Involvement	Location
[insert date link was established]	Link to Project Website ⁷ established and maintained.	[insert municipal website URL]
[insert date meeting was held (if applicable)]	Public meeting conducted with presentation and open discussion.	[insert location]
September 8, 2021	Preliminary Municipal Appendix available for public comment.	Project Website
[insert date link was established]	Notice posted re: Preliminary Municipal Appendix review period with link to Project Website.	[insert municipal website URL]
[date(s) to be determined]	Public outreach via [insert audience(s) and outreach method(s)] .	[insert location(s)]
[date to be determined]	Draft Municipal Appendix [will be] available for public comment.	Project Website
[date to be determined]	Public hearing [will be] conducted regarding the Draft Municipal Appendix providing for open discussion and public comment.	[insert location]

Public comments and input received for the Preliminary Draft and Draft versions of the Municipal Appendix **[will be]**:

- Considered by the Municipal Working Group and **[will be]** incorporated into the Municipal Appendix where appropriate.
- Included in Attachment A to the Municipal Appendix along with a brief explanation of if and how the comments were addressed in the Municipal Appendix.

In addition, the Municipal Appendix **[will be]** 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.⁸ In addition, public participation will continue to be encouraged during subsequent plan implementation and maintenance activities.⁹

⁷ <https://cchmpu21.com/documents>

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

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

Part 1: Overview

Part 3: Hazard Identification and Risk Assessment

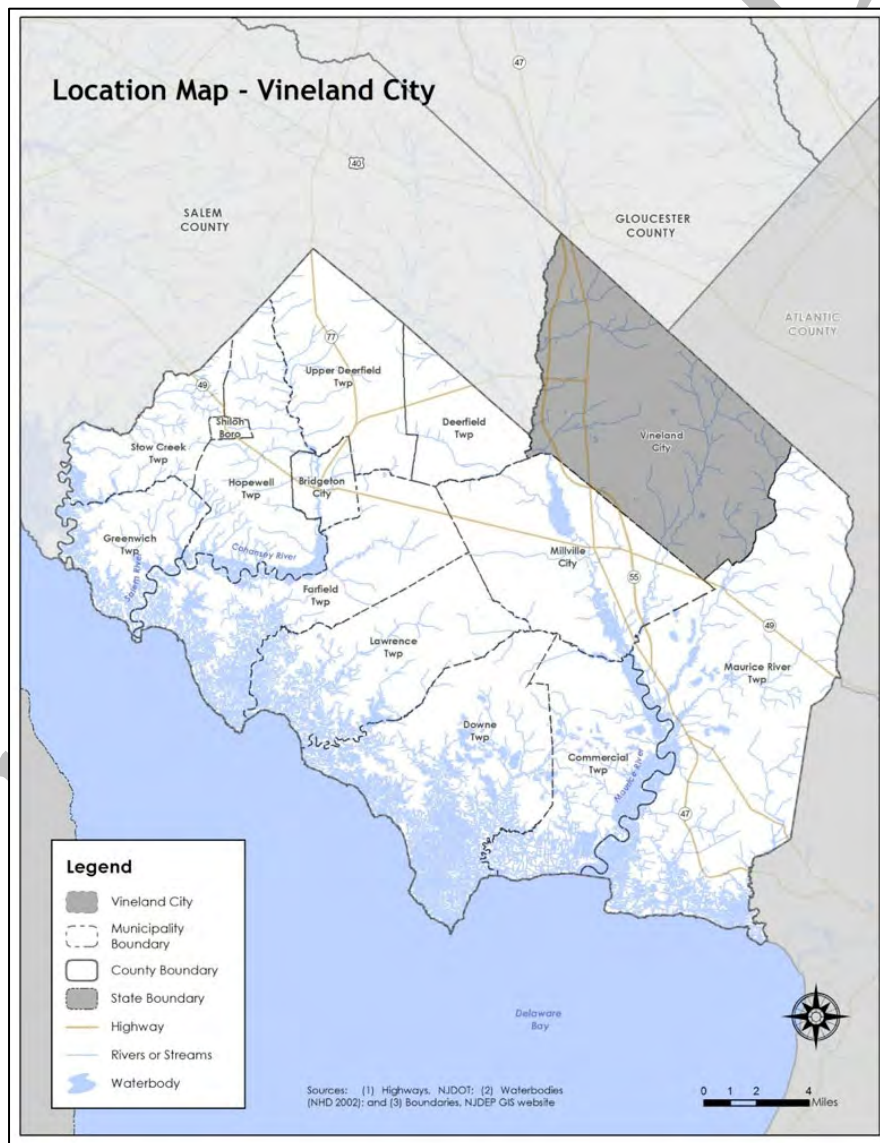
Part 3 includes seven subparts:

- 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: Municipal Profile

Vineland City is located in the northeast corner of Cumberland County (See Figure 15-1).

Figure 15-1: Vineland City Location Map

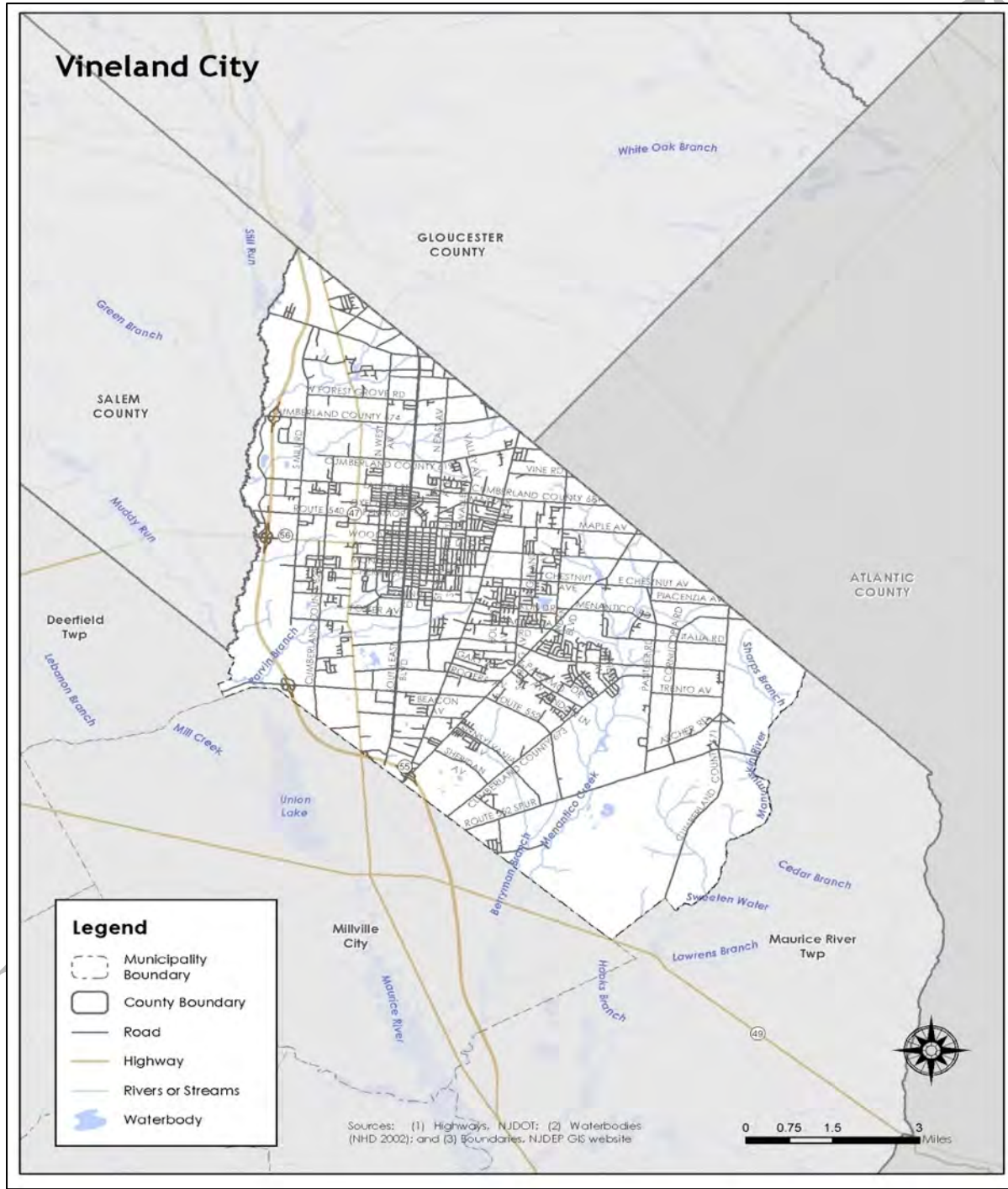


Part 1: Overview

Vineland City is an inland municipality with mixed urban and suburban development and the highest population of the fourteen municipalities in Cumberland County.

Per Figure 15-2, major water courses include Parvin Branch and Menapico Creek. Major transportation routes include State Highway Routes 47 and 55. The land is gently rolling.

Figure 15-2: Vineland City Base Map



Part 3.2: General Building Stock

As of 2015, there are 25,565 buildings in Vineland City with a total assessed value of improvements of \$4,031,956,731. Figure 15-3 shows the footprints of these buildings.

Figure 15-3: Vineland City Building Footprints¹⁰

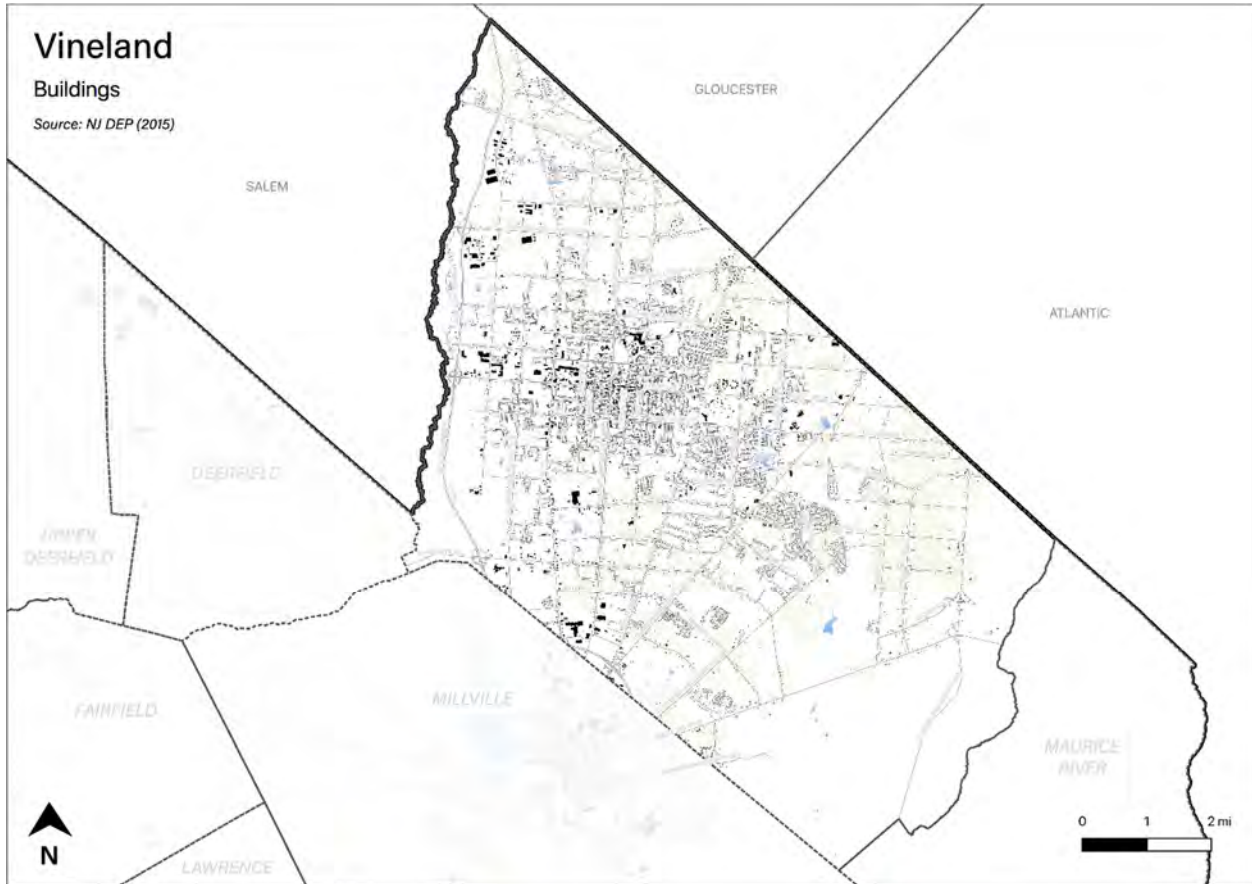


Table 15-3 [will show] the distribution of these structures according to land use distinctions.

Table 15-3: Vineland City Buildings per Land Use Type¹¹

Land Use Type	Number of Buildings
Residential	[TBD]
Commercial	[TBD]
Industrial	[TBD]

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 [will be] isolated from MOD-IV Parcels and Tax Assessor data composite (2021) per <https://njgis-newjersey.opendata.arcgis.com/documents/parcels-and-mod-iv-of-cumberland-county-nj-shp-download/about> from the New Jersey Office of GIS

Part 1: Overview

Part 3.3: Critical Facilities¹²

As of August 2021, there are 143 critical facilities in Vineland City.

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 15-4 includes current inventory information for municipal critical facilities **and will include** cross-references to related mitigation measures **to be** identified in Part 4 of the Municipal Appendix. Figure 15.4 shows the location of these critical facilities.

The following information is needed for the highlighted entries:

- A. Review all information for the listed critical facilities and identify if any changes have occurred since 2016.
- B. Add any new critical facilities to the list and provide information for all columns to the best of your ability. If there are known problems with any of these additional critical facilities, provide a brief description as well. For example, "periodic flooding", "roof leaks", "broken doors or windows", i.e., anything that would make the facility non-operational in the event of a natural hazard event.

Table 15-4: Vineland City 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	Administrative Offices	640 E. Wood Street, Vineland	CF-10, CF-18	N	Y ¹³		TBD
CF-2	Emergency Operations Center	EOC	Stand-alone Facility	625 Plum Street, Vineland		N	Y	New communications room has been added since 2016	TBD
CF-3	Fire Station 1	FireStations	Stations	810 East Chestnut Avenue, Vineland	CF-16	N	Y		TBD
CF-4	Fire Station 1	FireStations	Stations	18 N. East Avenue, Vineland		N	Y		TBD
CF-5	Fire Station 2	FireStations	Stations	876 E. Sherman Avenue, Vineland	CF-11	N	Y		TBD

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

¹³ Back-up emergency power generator only provides emergency lighting.

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-6	Fire Station 3	FireStations	Stations	185 W. Forest Grove Road, Vineland		N	Y		[TBD]
CF-7	Fire Station 4	FireStations	Stations	1500 E. Oak Road, Vineland		N	Y		[TBD]
CF-8	Fire Station 5	FireStations	Stations	4450 Italia Avenue, Vineland		N	Y		[TBD]
CF-9	Fire Station 6	FireStations	Stations	110 N. 4 th Street, Vineland		N	Y		[TBD]
CF-10	Emergency Medical Services Station	EMS	Municipal Stations	640 E. Wood Street, Vineland	CF-1, CF-18	N	Y ¹⁰		[TBD]
CF-11	Emergency Medical Services Station	EMS	Municipal Stations	876 E. Sherman Avenue, Vineland	CF-5	N	Y		[TBD]
CF-12	Emergency Medical Services Station	EMS	Municipal Stations	1045 E. Butler Avenue, Vineland		N	N		[TBD]
CF-13	Emergency Medical Services Station	EMS	Municipal Stations	237 W. Chestnut Avenue, Suite B, Vineland		N	N		[TBD]
CF-14	Emergency Medical Services Station	EMS	Municipal Stations	48 Howard Street, Vineland		N	N		[TBD]
CF-15	Emergency Medical Services Station	EMS	Municipal Stations	1676 N. West Avenue, Vineland		N	N	Basement Flooding	[TBD]
CF-16	Police Station / 911 Communication / Dispatch Center	Communications	Co-located 911 Communications / Dispatch Centers	620 East Plum Street, Vineland	CF-3	N	Y		
CF-17	Vineland Public Library	Emergency Staging Areas	Data Storage and Retrieval	1058 E Landis Ave, Vineland		Y	N	COG Plan location for back-up copies of vital records and cooling center.	[TBD]

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-18	Public Health Facility	Health Care Facilities	Public Health Clinic / Treatment Centers	640 E. Wood Street, Vineland	CF-1, CF-10	N	Y ¹⁰		[TBD]
CF-19	Sabatier Annex Public Health Facility	Health Care Facilities	Public Health Clinic / Treatment Centers	610 E. Montrose Street, Vineland		N	N		[TBD]
CF-20	Inspira Medical Center	Health Care Facilities		1505 W. Sherman Avenue, Vineland		N	Y		[TBD]
CF-21	Encompass Health Rehabilitation Hospital of Vineland	Health Care Facilities	Rehabilitation Center	1237 W. Sherman Avenue, Vineland		N	Y		[TBD]
CF-22	Public Works Facility	Public Works	Combined Administrative Office, Maintenance / Work Area, Equipment / Material Storage, and Fueling Station	1086 E. Walnut Road, Vineland		N	N ¹⁴		[TBD]
CF-23	Distribution Service Building	Utilities - Electric	Administrative Offices	415 N. West Avenue, Vineland	CF-24	N/A	N	Roof structure requires replacement	[TBD]
CF-24	Howard Down Generating Station	Utilities - Electric	Generating Station	415 N. West Avenue, Vineland	CF-23	N/A	N/A	Decommission Old Plant	[TBD]
CF-25	West Combustion Station	Utilities - Electric	Combustion Station	311 N. West Avenue, Vineland		N/A	N/A		[TBD]
CF-26	Clayville Combustion Station	Utilities - Electric	Combustion Station	1185 New Peach Street, Vineland		N/A	N/A		[TBD]
CF-27	Clayville Substation	Utilities - Electric	Substations	4087 S. Lincoln Avenue, Vineland	CF-28	N/A	N/A		[TBD]

¹⁴ Generator for Vineland City Public Works Facility included in Cumberland County Energy Resiliency Program grant application to the Governor's Office of Recovery and Rebuilding

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-28	Butler Substation	Utilities - Electric	Substations	4087 S. Lincoln Avenue, Vineland	CF-27	N/A	N/A		[TBD]
CF-29	Central Substation	Utilities - Electric	Substations	346 W. Butler Avenue, Vineland		N/A	N/A		[TBD]
CF-30	Central North Substation	Utilities - Electric	Substations	235 N. East Boulevard, Vineland		N/A	N/A		[TBD]
CF-31	West Substation	Utilities - Electric	Substations	301 N. East Boulevard, Vineland		N/A	N/A		[TBD]
CF-32	Manaway Substation	Utilities - Electric	Substations	1185 New Peach Street, Vineland		N/A	N/A		[TBD]
CF-33	Spring Substation	Utilities - Electric	Substations	1543 Gallagher Drive, Vineland		N/A	N/A	Decommission	[TBD]
CF-34	Oak Substation	Utilities - Electric	Substations	425 N. Spring Road, Vineland		N/A	N/A	Decommission	[TBD]
CF-35	Mill Substation	Utilities - Electric	Substations	810 W. Oak Road, Vineland		N/A	N/A	Decommission	[TBD]
CF-36	Delsea Substation	Utilities - Electric	Substations	423 N. Mill Road, Vineland		N/A	N/A	Decommission	[TBD]
CF-37	East Grant Substation	Utilities - Electric	Substations	262 S. Delsea Drive, Vineland		N/A	N/A	Decommission	[TBD]
CF-38	West Grant Substation	Utilities - Electric	Substations	678 E Grant Avenue, Vineland		N/A	N/A	Decommission	[TBD]
CF-39	Circuit #s 170 and 172	Utilities - Electric	Priority Circuits ¹⁵	346 W. Butler Ave., Vineland		N/A	N/A	South Jersey Hospital Main and Alternate Feed	[TBD]
CF-40	Circuit #s 172 and 154	Utilities - Electric	Priority Circuits ⁵	346 W. Butler Ave. & 1185 New Peach St., Vineland		N/A	N/A	LSA Main and Alternate Feed	[TBD]

¹⁵ Areas where localized power disruptions are more frequent due to vegetation or other natural hazard conditions. These areas are considered as priority circuits for line clearance and distribution system hardening including reconducting, automation, and pole / cross arm replacements.

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-41	Circuit #s 134 and 130	Utilities - Electric	Priority Circuits ⁵	235 N. East Blvd. & 301 N. East Blvd., Vineland		N/A	N/A	NJ State Home and Elwynn Institute Main and Alternate Feed	[TBD]
CF-42	Circuit #s 134 and 135	Utilities - Electric	Priority Circuits ⁵	235 N. East Blvd., Vineland		N/A	N/A	City Hall and Vineland Police Department Main and Alternate Feed	[TBD]
CF-43	City of Vineland Water-Sewer Utility Offices	Utilities - Water	Administrative Offices	330 E. Walnut Road, Vineland		N	Y		[TBD]
CF-44	Forest Grove Road Tank	Utilities - Water	Water Towers	71 W. Forest Grove Road, Vineland		N/A	N/A		[TBD]
CF-45	Oak Road Tank	Utilities - Water	Water Towers	1690 E. Oak Road, Vineland		N/A	N/A		[TBD]
CF-46	Magnolia Road Tank	Utilities - Water	Water Towers	2245 Magnolia Road, Vineland		N/A	N/A		[TBD]
CF-47	Mill Road Tank	Utilities - Water	Water Towers	640 N. Mill Road, Vineland		N/A	N/A		[TBD]
CF-48	6 th Street Tank	Utilities - Water	Water Towers	600 E. Pear Street, Vineland		N/A	N/A		[TBD]
CF-49	Michigan Avenue Tank	Utilities - Water	Water Towers	912 Michigan Avenue, Vineland	C-52	N/A	N/A		[TBD]
CF-50	S. East Avenue Tank	Utilities - Water	Water Towers	1939 S. East Avenue, Vineland		N/A	N/A		[TBD]
CF-51	Butler Avenue Tank	Utilities - Water	Water Towers	382 W. Butler Avenue, Vineland		N/A	N/A		[TBD]
CF-52	Well #s 2 and 3	Utilities - Water	Wellheads	311 N. West Avenue, Vineland		N/A	N ¹⁶		[TBD]
CF-53	Well #4	Utilities - Water	Wellheads	912 Michigan Avenue, Vineland	C-49	N/A	N ¹³		[TBD]

¹⁶ Wellheads without standby generators are not currently equipped with hook-ups for portable back-up emergency generators. In the event of a power disruption, the Vineland Water-Sewer Utility directly wires portable generator to the main power panel at the wellhead.

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-54	Well #5	Utilities - Water	Wellheads	330 E. Walnut Road, Vineland		N/A	Y		[TBD]
CF-55	Well #6	Utilities - Water	Wellheads	591 N. Valley Avenue, Vineland		N/A	N ¹³		[TBD]
CF-56	Well #7	Utilities - Water	Wellheads	423 N. Mill Road, Vineland		N/A	N ¹³		[TBD]
CF-57	Well #8	Utilities - Water	Wellheads	1633 Magnolia Road, Vineland		N/A	N ¹³		[TBD]
CF-58	Well #9	Utilities - Water	Wellheads	832 W. Walnut Road, Vineland		N/A	Y		[TBD]
CF-59	Well #10	Utilities - Water	Wellheads	3353 N. Delsea Drive, Vineland		N/A	N ¹³		[TBD]
CF-60	Well #11	Utilities - Water	Wellheads	615 N. Brewster Road, Vineland		N/A	N ¹³		[TBD]
CF-61	Well #12	Utilities - Water	Wellheads	2180 Helen Avenue, Vineland		N/A	Y		[TBD]
CF-62	Well #13	Utilities - Water	Wellheads	936 Magnolia Road, Vineland		N/A	Y		[TBD]
CF-63	Well #14	Utilities - Water	Wellheads	2390 W. Weymouth Road		N/A	Y		[TBD]
CF-64	Wastewater Treatment Plant	Utilities - Wastewater	Treatment Plants	1776 S Mill Rd, Vineland		N/A	Y	No history of flood problems.	[TBD]
CF-65	Pump Station #1 (Brookhaven)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁷		N/A	Y	Standby generator available.	[TBD]
CF-66	Pump Station #2 (Industrial Park South)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-67	Pump Station #3 (Little Robin)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-68	Pump Station #4 (Fisher Gardens)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-69	Pump Station #5 (Anthony Court)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]

¹⁷ Landis Sewerage Authority maintains GPS coordinates for wastewater pumping stations.

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-70	Pump Station #6 (Sears)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-71	Pump Station #7 (Shirley Court)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-72	Pump Station #8 (Oak Road)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-73	Pump Station #9 (North East Avenue)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available. Located next to a stream. Requires Vineland DPW periodic checks of bridge to determine if debris has accumulated.	[TBD]
CF-74	Pump Station #10 (South East Avenue)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-75	Pump Station #11 (New Pear)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-76	Pump Station #12 (Ramada Inn)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-77	Pump Station #13 (Linwood)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-78	Pump Station #14 (Brewster Road)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-79	Pump Station #15 (East Landis Avenue)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-80	Pump Station #16 (Lincoln Avenue)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available. Located in a low-lying area and adjacent grass areas accumulate surface water.	[TBD]
CF-81	Pump Station #17 (Plum Street)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-82	Pump Station #18 (Burnt Mill)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-83	Pump Station #19 (Ramblewood)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available. Located in Flood Zone but no problems with flooding.	[TBD]
CF-84	Pump Station #20 (Petticoat Drainage Basin)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-85	Pump Station #21 (Butler Avenue)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-86	Pump Station #22 (Pennsylvania Avenue)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-87	Pump Station #23 (South Jersey Hospital)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-88	Pump Station #24 (Blue Hole)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-89	Pump Station #25 (Spring Hollow)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-90	Pump Station #26 (Landis Pointe)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-91	Pump Station #27 (ShopRite)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Standby generator available.	[TBD]
CF-92	Pump Station #20A (Aunt Kitty (OCU))	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-93	Pump Station #4A (Old North Industrial Park)	Utilities - Wastewater	Pump Stations	Per coordinates ¹⁴		N/A	Y	Portable generator available.	[TBD]
CF-94	Vineland Senior High School South	Schools	Public Schools	2880 E. Chestnut Avenue, Vineland		Y	Y	Area prone to flooding	[TBD]

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-95	Solve E. D'Ippolito Intermediate School	Schools	Public Schools	1578 N. Valley Avenue, Vineland		N	Y		[TBD]
CF-96	Landis Intermediate School	Schools	Public Schools	61 W. Landis Avenue, Vineland		N	Y		[TBD]
CF-97	Anthony Rossi Intermediate School	Schools	Public Schools	2572 Palermo Avenue, Vineland		N	N		[TBD]
CF-98	Veterans Memorial Intermediate School	Schools	Public Schools	424 S. Main Road, Vineland		N	Y		[TBD]
CF-99	Thomas W. Wallace Jr. Middle School	Schools	Public Schools	688 N. Mill Road, Vineland		N	Y		[TBD]
CF-100	Vineland Public Charter	Schools	Public Schools	610 E. Montrose Street, Vineland		N	Y	Grades K-7	[TBD]
CF-101	Dane Barse Elementary School	Schools	Public Schools	240 S. Orchard Road, Vineland		N	Y		[TBD]
CF-102	Cunningham Elementary School	Schools	Public Schools	315 S. East Avenue, Vineland		N	N		[TBD]
CF-103	Marie Durand Elementary School	Schools	Public Schools	371 W. Forest Grove Road, Vineland		N	N		[TBD]
CF-104	Johnstone Elementary School	Schools	Public Schools	165 S. Brewster Road, Vineland		N	Y		[TBD]
CF-105	Max Leuchter Elementary School	Schools	Public Schools	519 N. West Avenue, Vineland		N	N		[TBD]
CF-106	Dr. William Mennies Elementary School	Schools	Public Schools	361 E. Grant Avenue, Vineland		N	Y		[TBD]
CF-107	Pauline J. Petway Elementary School	Schools	Public Schools	1115 S. Lincoln Avenue, Vineland		N	Y		[TBD]
CF-108	Gloria M. Sabater Elementary School	Schools	Public Schools	301 S. East Boulevard, Vineland		N	Y		[TBD]

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-109	John H. Winslow Elementary School	Schools	Public Schools	1335 Magnolia Road, Vineland		N	Y		[TBD]
CF-110	Casimer M. Dallago Early Learning Center	Schools	Public Schools	240 S. 6 th Street, Vineland		N	Y		[TBD]
CF-111	Almond Road Preschool Center	Schools	Public Schools	860 N. Orchard Road, Vineland		N	N	Leased building	[TBD]
CF-112	Ellison School	Schools	Private Schools	1017 S. Spring Road, Vineland		N	N	Private Grades K-8	[TBD]
CF-113	Cumberland Christian School	Schools	Private Schools	1100 W. Sherman Avenue, Vineland		N	N	Private Grades K-12	[TBD]
CF-114	Creative Achievement Academy	Schools	Private Schools	1667 E. Landis Avenue, Vineland		N	N	Private Grades K-12	[TBD]
CF-115	New Life Academy	Schools	Private Schools	69 W. Landis Avenue, Vineland		N	N	Private Grades K-12	[TBD]
CF-116	Pinelands Learning Center	Schools	Private Schools	520 N. 4th St, Vineland		N	N	Private Grades K-12	[TBD]
CF-117	Sacred Heart Regional Grammar School	Schools	Private Schools	922 E. Landis Avenue, Vineland		N	N	Private Grades K-8	[TBD]
CF-118	Spring Oak Assisted Living	Vulnerable Populations Facilities	Private Nursing Homes	1611 S. Main Road, Vineland		Y ¹⁸	Y ¹⁰		[TBD]
CF-119	Bishop McCarthy Residence	Vulnerable Populations Facilities	Private Nursing Homes	1045 E. Chestnut Avenue, Vineland		Y ¹⁵	Y ¹⁰		[TBD]
CF-120	Lincoln Specialty Care Rehabilitation Center	Vulnerable Populations Facilities	Private Nursing Homes	1640 S. Lincoln Avenue, Vineland		Y ¹⁵	Y ¹⁰		[TBD]
CF-121	Veterans Home	Vulnerable Populations Facilities	Private Nursing Homes	524 N. West Boulevard, Vineland		Y ¹⁵	Y ¹⁰		[TBD]

¹⁸ Shelter-in-place.

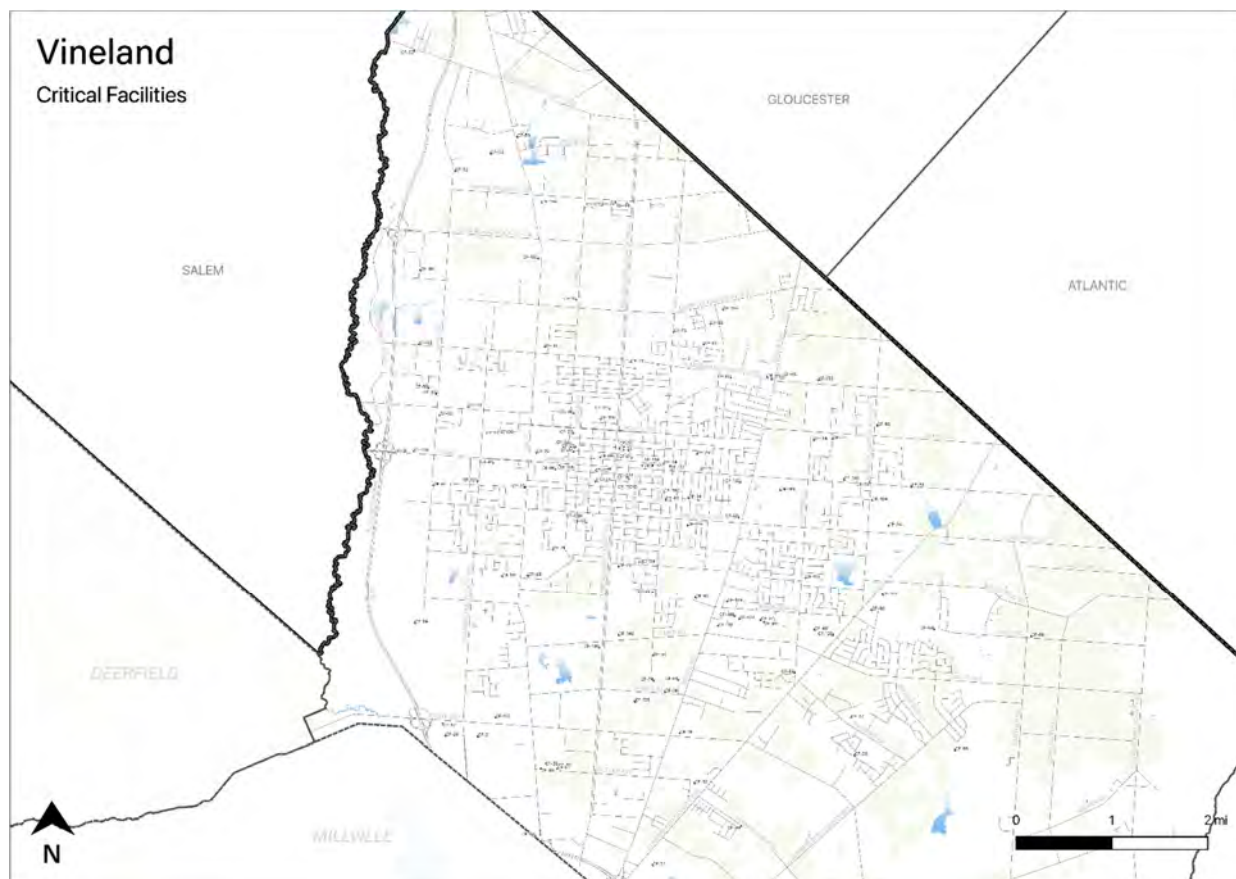
Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-122	Municipal Courthouse	Municipal - Other	Courthouse	736 E. Landis Ave, Vineland		N	N		[TBD]
CF-123	Senior Center	Vulnerable Populations Facilities	Senior Center	103 S. 6 th Street		Y	N	Cooling Center	[TBD]
CF-124	Trinity Episcopal Church	Vulnerable Populations Facilities	Warming Center	800 East Wood Street, Vineland		Y	N	Warming Center	[TBD]
CF-125	First Presbyterian Church	Vulnerable Populations Facilities	Warming Center	800 East Landis Avenue, Vineland		Y	N	Warming Center	[TBD]
CF-126	First United Methodist Church	Vulnerable Populations Facilities	Warming Center	700 East Landis Avenue, Vineland		Y	N	Warming Center	[TBD]
CF-127	ABC Learning Academy	Vulnerable Populations Facilities	Private Child Day-Care Center	321 West Grape Street		N	N	Ages 0-13	[TBD]
CF-128	All Kids First, Inc.	Vulnerable Populations Facilities	Private Child Day-Care Center	1385 Magnolia Road, Vineland		N	N	Ages 0-6	[TBD]
CF-129	All Kids First II, Inc.	Vulnerable Populations Facilities	Private Child Day-Care Center	1321 Stewart Street, Vineland		N	N	Ages 0-6	[TBD]
CF-130	Bumble Bee Academy	Vulnerable Populations Facilities	Private Child Day-Care Center	1940 Southwest Boulevard, Vineland		N	N	Ages 0-13	[TBD]
CF-131	Christ the Good Shepherd Preschool	Vulnerable Populations Facilities	Private Child Day-Care Center	1655 Magnolia Road, Vineland		N	N	Ages 2½-6	[TBD]
CF-132	Cumberland Cape Atlantic YMCA	Vulnerable Populations Facilities	Private Child Day-Care Center	1159 East Landis Avenue, Vineland		N	N	Ages 0-13	[TBD]
CF-133	DiBiase Infant Care Center	Vulnerable Populations Facilities	Private Child Day-Care Center	2040 East Oak Road, Vineland		N	N	Ages 0-13	[TBD]

Part 1: Overview

CF #	Name	Type	Sub-Type	Address	Co-located CF #	Shelter (Y/N)	Generator (Y/N)	Comments	Mitigation Measure #
CF-134	Golan Learning Center	Vulnerable Populations Facilities	Private Child Day-Care Center	2725 North Delsea Drive, Vineland		N	N	Ages 2½-6	[TBD]
CF-135	Golden Gate Academy	Vulnerable Populations Facilities	Private Child Day-Care Center	2120 North Delsea Drive, Vineland		N	N	Ages 0-13	[TBD]
CF-136	Greater Deliverance Learning Center	Vulnerable Populations Facilities	Private Child Day-Care Center	2106 West Landis Avenue, Vineland		N	N	Ages 0-13	[TBD]
CF-137	King's Kids Child Care Center & Preschool	Vulnerable Populations Facilities	Private Child Day-Care Center	427 West Landis Avenue, Vineland		N	N	Ages 0-13	[TBD]
CF-138	Linda Dechen Early Learning Center	Vulnerable Populations Facilities	Private Child Day-Care Center	237 West Chestnut Avenue, Vineland		N	N	Ages 0-13	[TBD]
CF-139	Little Lamb Preschool-Keener Kids, Inc.	Vulnerable Populations Facilities	Private Child Day-Care Center	1005 East Wheat Road, Vineland		N	N	Ages 0-13	[TBD]
CF-140	LML Compass Care	Vulnerable Populations Facilities	Private Child Day-Care Center	2384 East Landis Avenue, Vineland		N	N	Ages 6-13	[TBD]
CF-141	The Courtyard School	Vulnerable Populations Facilities	Private Child Day-Care Center	1270 South East Avenue, Vineland		N	N	Ages 2½-13	[TBD]
CF-142	Tiny Tots Pre-School & Child Care Center	Vulnerable Populations Facilities	Private Child Day-Care Center	158 East Elmer Road, Vineland		N	N	Ages 0-6	[TBD]
CF-143	Vineland III HeadStart Center	Vulnerable Populations Facilities	Private Child Day-Care Center	116 Elmer Street, Vineland		N	N	Ages 2½-6	[TBD]

Figure 15-4: Vineland City Critical Facilities



Note: 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/wo583u0at6qnmeo/AABPFwLpYLRwR6jXkYU322yta?dl=0>

Part 3.4: Hazard Exposure Assessment

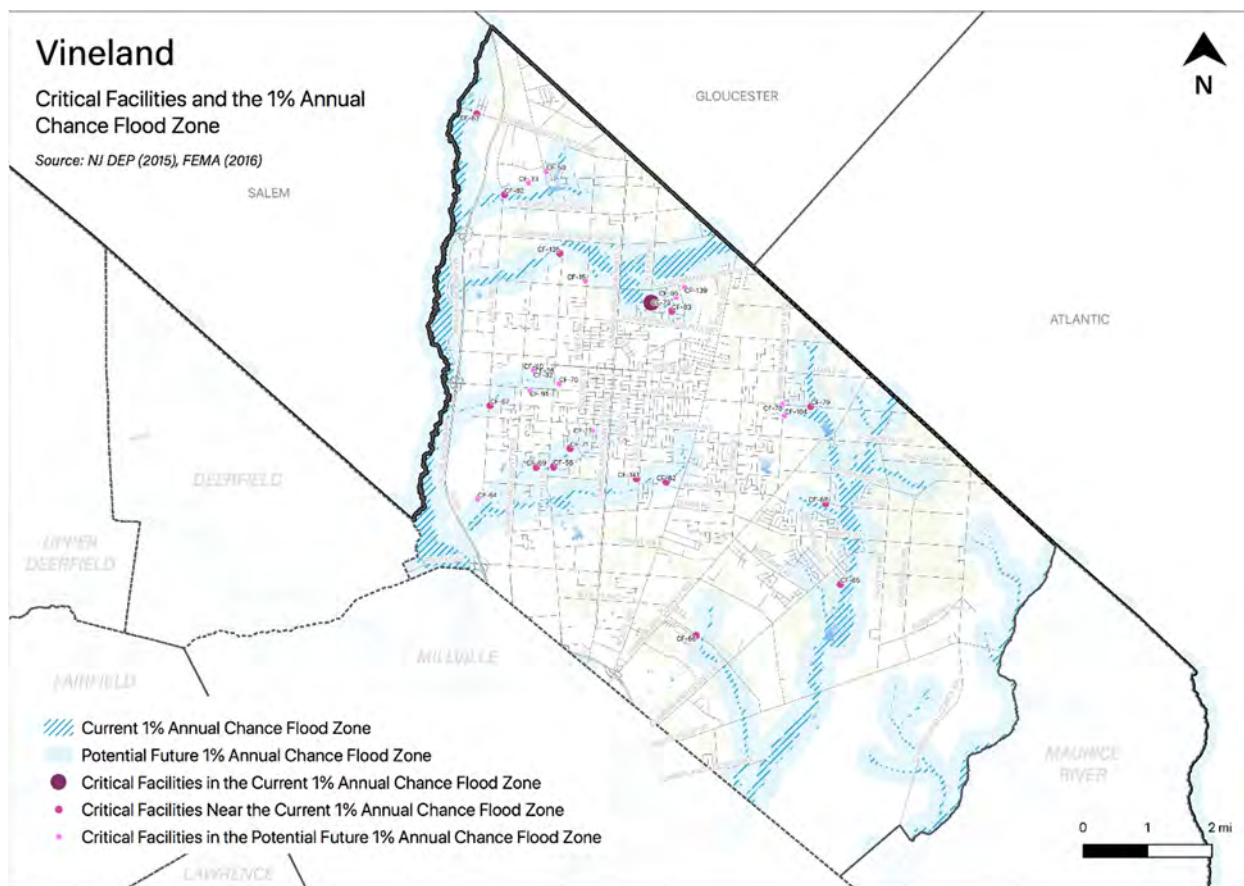
Hazard exposure assessments [will be completed] for the twelve (12) natural hazards identified in the CC HMPU Base Plan¹⁹.

Key results for Vineland City are depicted in the following.

Mapping: Figure 15-5 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).

¹⁹ Hazard profiles [will be] included for all twelve natural hazards in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

Figure 15-5: Vineland City Critical Facilities and 1% Annual Chance Flood Zone



Mapping results are available for the following hazards (where applicable for individual jurisdictions):

- Coastal Erosion & Sea Level Rise
- Dam Failure [pending data from NJDEP]
- Earthquake
- Extreme High Temperature
- Flood – per FEMA FIRM mapping
- Flood - per National Flood Insurance Program data [pending data from FEMA Region II]
- Geologic Hazards
- High Wind and Severe Weather (heavy summer rains and winter snow loads)
- Levee Failure [pending data from NJDEP]
- Wildfire

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

- Table 15-5 indicates hazard exposure for general building stock
- Table 15-6 indicates hazard exposure for critical facilities

Part 3: Hazard Identification and Risk Assessment

Table 15-5: Vineland City 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 ²⁰	0	N/A	0	N/A
Sea Level Rise - 3 feet increase	0	N/A	0	N/A
Flood - Within 1 % Annual Chance Zone	241	1%	\$19,076,356	-
Flood - Near (within 500 feet) of 1% Annual Chance Zone	2,780	11%	\$407,704,951	10%
Earthquake – Structure built before 1927 ²¹	4,691	20%	\$568,086,400	16%
High Winds / Severe Weather – Structure built before 1975	17,163	72%	\$2,153,461,021	59%
Wildfire – Composite score > 2.5 ²²	136	-	\$12,016,277	0.30%

Table 15-6: Vineland City Critical Facilities Hazard Exposure²³

Hazard	Number of Critical Facilities	CF #s
Coastal Erosion	None	N/A
Sea Level Rise	None	N/A
Flood - Within 1 % Annual Chance Zone	1	CF-73
Flood - Near (within 500 feet) of 1% Annual Chance Zone	15	CF-53, CF-58, CF-62, CF-63, CF-65, CF-67, CF-68, CF-69, CF-71, CF-79, CF-82, CF-83, CF-86, CF-135, CF-141
Flood – Future potential (within 1,000 feet) 1% Annual Chance Zone	15	CF-13, CF-15, CF-26, CF-32, CF-33, CF-40, CF-59, CF-64, CF-70, CF-73, CF-78, CF-91, CF-95, CF-104, CF-139
Wildfire	59	CF-08, CF-11, CF-12, CF-21, CF-26, CF-27, CF-28, CF-29, CF-32, CF-33, CF-35, CF-36, CF-37, CF-39, CF-40, CF-44, CF-46, CF-47, CF-50, CF-51, CF-56, CF-58, CF-59, CF-60, CF-61, CF-62, CF-63, CF-65, CF-67, CF-69, CF-73, CF-77, CF-78, CF-79, CF-80, CF-82, CF-84, CF-85, CF-86, CF-87, CF-88, CF-89, CF-90, CF-91, CF-94, CF-97, CF-99, CF-101, CF-107, CF-109, CF-111, CF-113, CF-120, CF-128, CF-133, CF-134, CF-135, CF-139, CF-141

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
- Severe Weather – Summer (including heavy rains)
- Severe Weather – Winter (including heavy snow loads)

²⁰ 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

²¹ All supporting data for Earthquake, High Winds, and Severe Weather can be viewed at <https://docs.google.com/spreadsheets/d/1Zx1LZwKQ8esqdv4c9hbbSZurtMjH4UITQWJY1LrZezc/edit?usp=sharing>

²² All supporting data for Wildfire can be viewed at https://docs.google.com/spreadsheets/d/1JAbfd3A-eCHI93pZFaPVuM_H2yvuUzeHCmoujv-oxsw/edit?usp=sharing

²³ 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

Part 3.5: Demographic Considerations

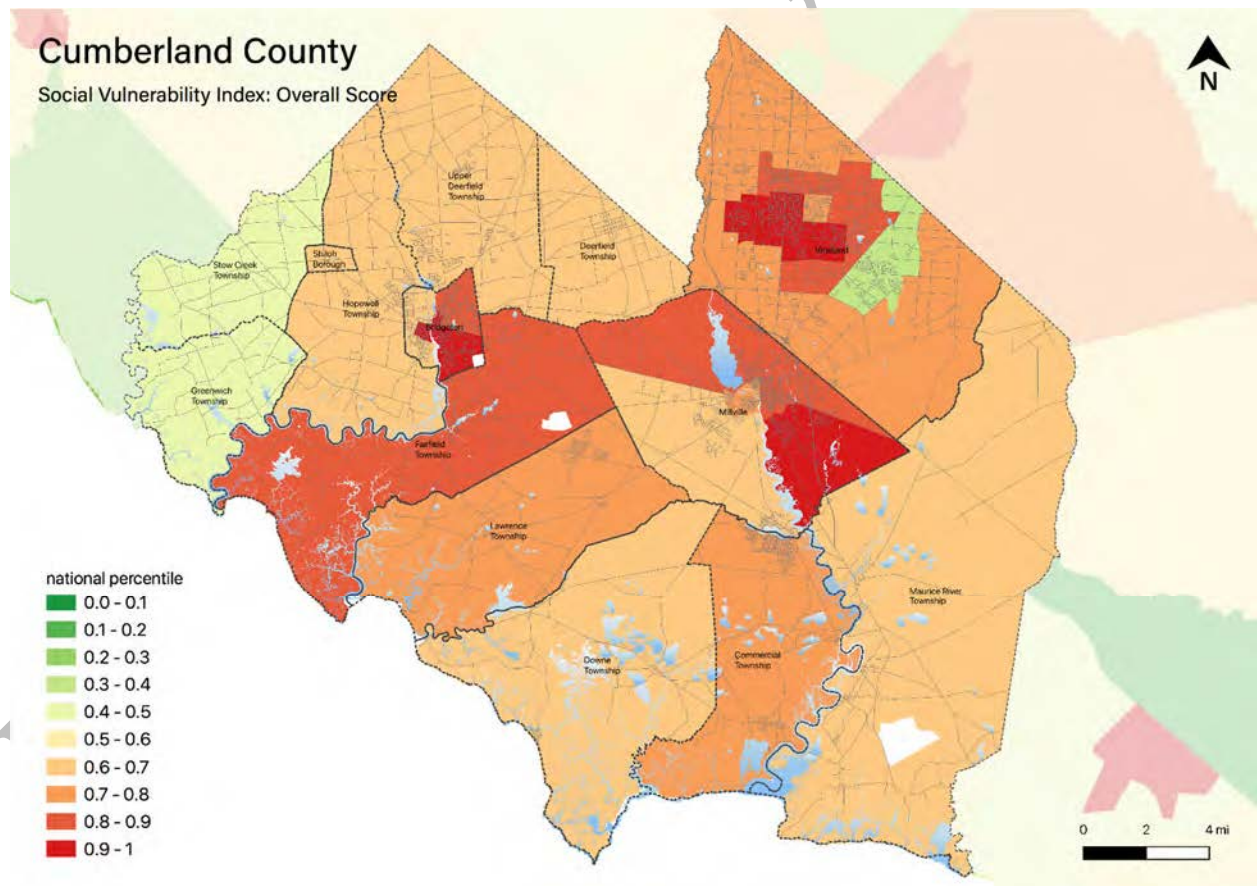
Demographic considerations include general population and land use factors. Table 15-7 includes current population estimates and changes since the previous US Census²⁴:

Table 15-7: Vineland City General Population Demographics

Metric	Current Estimates
2010 Population	60,724
2019 Population	60,034
Percent Population Change (2010-2019)	- 0.01%
Land Area	68.42 sq. miles
Population Density	877.4 / sq. mile

Demographic considerations also include differences in social vulnerability²⁵. Figure 15-6 shows the overall Social Vulnerability (SVI) Index overall scores for Cumberland County.

Figure 15-6: Cumberland County Social Vulnerability Index: Overall Scores



²⁴ US Census, 2019 ACS 5 Year Estimates, Table ID DP5

²⁵ Social vulnerability considerations [will be](#) described in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

Part 3: Hazard Identification and Risk Assessment

For Vineland City, Table 15-8 includes selected metrics where social vulnerability considerations are notably higher when compared with all national census tracts:

Table 15-8: Vineland City Social Vulnerability Considerations²⁶

Metric	Percentile
Socioeconomic Status	74 th
Household Composition & Diversity	84 th
Minority Status & Language	68 th
Housing Type & Transportation	70 th

In addition, the percentage of residents earning below poverty level = 14.4% (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 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).
- Several critical facilities are potentially vulnerable to 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).

²⁶ 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 [review / confirm or revise highlighted entries]

As a key step in the Hazard Identification and Risk Assessment (HIRA) process, the twelve (12) 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

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

Moderate Priority

- Dam Failure
- Drought
- Earthquake
- Flood²⁷
- Severe Weather – Summer

Low Priority

- None

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

- Coastal Erosion & Sea Level Rise
- Geologic Hazards
- Levee Failure

²⁷ The NJ4 HMP Municipal Working Group identified riverine flooding as a low priority but flooding due to drainage problems, including deferred maintenance of drainage channels, as a high priority.

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 [review / confirm or revise highlighted entries]

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/edited] 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, 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 [to be] 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 [will be] candidates for inclusion in the Municipal Appendix.

Table 15-9 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 [will be] carried over as part of the Municipal Appendix as [will be] indicated in the “Comments” column and the far right-hand column of Table 15-9.

The City of Vineland listed 30 Municipal Mitigation Measures and 3 Multi-Jurisdictional Mitigation Measures in the 2016 NJ4 HMP. The update must identify the status of each of these measures (except M-20) per the following:

1. *If completed, make a note of the year the measure was implemented and the funding source (if applicable)*
2. *If on-going or work-in-progress, make a note of the status and anticipated next steps as well as the funding source*
3. *If no progress has been made, identify the reason (e.g., funding pending)*

Table 15-9: Status of Vineland City NJ4 HMP Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure to be carried over?
Responsible Party: OEM			
M-1: Identify and pursue outreach and education opportunities to inform municipal residents, businesses, and property owners regarding vulnerability, risk, and mitigation options.	[TBD]	[TBD]	To be 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.	[TBD]	[TBD]	To be carried over as part of M-1
M-4: Conduct regular Municipal Working Group meetings consistent with the plan maintenance program and the Municipal Adoption Resolution.	[TBD]	[TBD]	To be carried over as part of M-1
M-6: Provide offsite digital back-up of essential documents for City Hall and City-wide computer network.	[TBD]	[TBD]	[TBD]
M-8: Provide back-up emergency power generator for Vineland Public Library (CF-17).	[TBD]	[TBD]	[TBD]
M-10: Provide back-up emergency power generator for Distribution Service Building (CF-23).	[TBD]	[TBD]	

Part 4: Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure to be carried over?
M-11: Provide back-up emergency power generator for Senior Center (cooling center) (CF-123).	[TBD]	[TBD]	[TBD]
M-12: Provide back-up emergency power generator for Trinity Episcopal Church (warming center) (CF-124).	[TBD]	[TBD]	[TBD]
M-13: Provide back-up emergency power generator for First Presbyterian Church (warming center) (CF-125).	[TBD]	[TBD]	[TBD]
M-14: Provide back-up emergency power generator for First United Methodist Church (warming center) (CF-126).	[TBD]	[TBD]	[TBD]
M-19: Address identified Repetitive Flood Loss Properties.	[TBD]	[TBD]	To be carried over as # [TBD]
M-30: Consider use of Landis Sewerage Authority portable generators as possible interim source of back-up emergency power for municipal critical facilities assuming adequate wiring and hook-ups are available and if LSA is not otherwise using portable generators.	[TBD]	[TBD]	[TBD]
Responsible Party(ies): Engineering			
M-3: Prioritize recurrent drainage problem areas and initiate data collection to track unreimbursed damages and related response and recovery expenses.	[TBD]	[TBD]	To be carried over as part of M-1
M-15: Dam replacement for Memorial Park Pond.	[TBD]	[TBD]	[TBD]
M-16: Dam replacement for Burnt Mill Pond.	[TBD]	[TBD]	[TBD]
MJ-1: Dam replacement for Willow Grove Lake at Weymouth Road.	[TBD]	[TBD]	[TBD]
MJ-2: Alleviate flooding problems on Sherman Avenue (west of Route 55).	[TBD]	[TBD]	[TBD]
MJ-3: Alleviate flooding problems at Cedar Crest Village Trailer Park.	[TBD]	[TBD]	[TBD]

Part 4: Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure to be carried over?
Responsible Party: EMS			
M-7: Provide back-up emergency power generator for EMS (CF-15).	[TBD]	[TBD]	[TBD]
M-17: Address basement flooding at EMS (CF-15).	[TBD]	[TBD]	[TBD]
Responsible Party: Public Works			
M-5: Provide back-up emergency power to City Hall (CF-1) and City-wide computer network.	[TBD]	[TBD]	[TBD]
M-9: Provide back-up emergency power generator for Public Works Facility (CF-22).	[TBD]	[TBD]	[TBD]
Responsible Party: Public Schools			
M-18: Address flooding at Vineland Senior High School South (shelter) (CF-94).	[TBD]	[TBD]	[TBD]
Responsible Party: Police Department			
M-20: Provide hardening against wind and flood damage for Police Department / 911 Center (CF-3 and CF-16).	Completed	Measures completed in 2020 using municipal bond funds included construction of new facility.	Will not be carried over.
Responsible Party: Utilities - Electric			
M-21: Provide hardening against wind damage to roof of Distribution Service Building (CF-23).	[TBD]	[TBD]	[TBD]
M-22: Conduct line clearing and/or distribution system hardening for Circuit #s 170 and 172 (CF-39).	[TBD]	[TBD]	[TBD]
M-23: Conduct line clearing and/or distribution system hardening for Circuit #s 172 and 154 (CF-40).	[TBD]	[TBD]	[TBD]
M-24: Conduct line clearing and/or distribution system hardening for Circuit #s 134 and 130 (CF-41).	[TBD]	[TBD]	[TBD]
M-25: Conduct line clearing and/or distribution system hardening for Circuit #s 13 and 135 (CF-42).	[TBD]	[TBD]	[TBD]
M-26: Decommission Howard Down Generating Station	[TBD]	[TBD]	[TBD]
M-27: Decommission Spring Substation	[TBD]	[TBD]	[TBD]

Part 4: Mitigation Measures

Mitigation Action, Program, or Project	Status	Comments	Mitigation Measure to be carried over?)
M-28: Decommission Oak Substation	[TBD]	[TBD]	[TBD]
M-29: Decommission Mill, Delsea, East Grant, and West Grant Substations	[TBD]	[TBD]	[TBD]

Preliminary Draft

Part 4: Mitigation Measures

Part 4.3: Municipal Mitigation Measures – Identification

Table 15-10 [will include] 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)²⁸ if applicable

Table 15-10 [will include]:

- 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 [will be] shown in Figure 15-7.

Table 15-10: Vineland City Municipal Mitigation Measures Identification

#	Mitigation Action, Program, or Project	Hazard(s)	Goal (s)	Existing or New Structures
M-1	<p><u>Municipal 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	All	All

²⁸ Section 3: Hazard Identification and Risk Assessment of the CC HMPU Base Plan [will include] a description of RL and SRL properties.

Part 4: Mitigation Measures

Part 4.4: Municipal Mitigation Measures – Implementation

Table 15-11 [will include] 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 criteria²⁹
- Project Type to help determine funding options and implementation mechanisms at the municipal level³⁰
- Estimated Cost, including estimates provided by the Municipal Working Group or approximate ranges for projects that are in early stages of development
- Target Date, indicating desired completion dates assuming availability of funding
- Next step(s) anticipated to implement the identified mitigation measures at the municipal level

Table 15-11: Vineland City Municipal Mitigation Measures Implementation

#	Mitigation Action, Program, or Project	Responsible Part(ies)	Priority	Project Type	Estimated Cost (\$)	Target Date	Next Step(s)
M-1	Municipal Mitigation Program	Office of Emergency Management	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 initiate critical facility field assessments ▪ Identify schedule for plan updates (for plan integration efforts)

²⁹ Section 4: Mitigation Measures of the CC HMPU Base Plan [will include] a description of evaluation criteria considered by the Municipal Working Group.

³⁰ Section 4: Mitigation Measures of the CC HMPU Base Plan [will include] a description of project types and related information regarding funding options and implementation mechanisms.

Part 4: Mitigation Measures

Part 4.5: Multi-Jurisdictional Mitigation Measures

During the Municipal Working Group Work Sessions, the Municipal Working Group [will identify] some NJ4 HMP mitigation measures that need to be carried over, 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 [will be] included in Table 15-12.

Section 4: *Mitigation Measures* of the CC HMPU Base Plan [will describe] multi-jurisdictional implementation strategies in detail. Section 4 [will identify] multi-jurisdictional mitigation measures that Municipal Working Groups believe are partly or wholly the responsibility of County agencies. These measures [will be] 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 [will be] shown in Figure 15-7.

Table 15-12: Vineland City Multi-Jurisdictional Mitigation Measures

#	Problem Description	Hazard(s) Addressed	Goal Addressed	Applies to Existing or New Structures	Potential Partners	Priority

Figure 15-7: Vineland City Mitigation Project Locations

Preliminary Draft

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 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 CC HMPU Base 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 CC HMPU Base Plan

Authorities, Policies, and Programs

Section 1.3: Existing Authorities, Policies, Programs, and Resources of the CC HMPU Base Plan **will summarize** relevant authorities, policies, and programs related to hazard mitigation in the County including the NFIP.

Continuing municipal participation in the NFIP as part of the implementation of the CC HMPU by the municipality, includes:

- Involvement of Floodplain Manager / Administrator during the CC HMPU implementation process
- Commitment to adopt updated FIRMs and evaluate / update the municipality's Flood Management Plan and/or Ordinance as appropriate per recommendations **to be included** in Section 4.6 of the CC HMPU Base Plan

Capabilities and Coordination

The update of the NJ4 HMP **will include** reexamining municipal hazard mitigation capabilities; potential for improving capabilities and coordination within and between jurisdictions; and plan integration considerations, including:

- *Section 1.3: Existing Authorities, Policies, Programs, and Resources* of the CC HMPU Base Plan **will include** summary statements regarding county and municipal resources and the impact of resource limitations on the overall approach to the CC HMPU mitigation strategies.
- *Section 4: Mitigation Measures* of the CC HMPU Base Plan **will include** summary observations and recommendations concerning:
 - Hazard mitigation planning and mitigation measure implementation capabilities and coordination at the 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

Part 4: Mitigation Measures

Plan Review and Integration

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

- Emergency Operations Plan (2021)
- Floodplain Management Plan
- Master Plan and Reexamination Report (2008)
- Zoning Map
- Environmental Resource Inventory (2010)
- GIS Viewer
- Dam Inundation Studies

Need to determine for highlighted entries if:

- ✓ Plans have been updated and if so, when
- ✓ Plans are scheduled for update and if so, when and who is the responsible party

Note: Need to identify status of Flood Management Ordinance and determine need for updating referenced FIRMs and/or ordinance content. Most recent one passed in 2016.

Table BP.4-4 in *Section 4.6: Plan Review and Integration* of the CC HMPU Base Plan:

- [Will identify] the primary plans and documents collected from each of the participating municipalities.
- [Will include] 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.
- [Will include] 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 including:
 - Hazard Assessments
 - Emergency Operations Plans
 - Floodplain Management Ordinances
 - Master Plans and Reexamination Reports
 - Other plans and documents

The plan maintenance process [will articulate and specify] 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

Public review comments [will be] recorded during the public review of the Vineland City Preliminary Draft and Draft versions of the Municipal Appendix on [dates to be determined]:

Table 15.A-1: Public Review Comments

Comment Date and Time	Comment	Response

Preliminary Draft

Attachment B: Adoption Resolution

Following this page [will be] the Adoption Resolution for the Vineland City Municipal Appendix as approved by the Vineland City Council.

Preliminary Draft

Attachment C: Approval Letter

Following this page [will be] the Approval Letter for the Vineland City Municipal Appendix.

Preliminary Draft