



Cumberland County Multi-Hazard Mitigation Plan Update  
**Participating Jurisdiction Appendices**

**Appendix 12**  
**Shiloh Borough, New Jersey**

August 22, 2022

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## Part 1: Overview

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### 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: Shiloh Borough Municipal Appendix

This Municipal Appendix is focused on Shiloh Borough in Cumberland County, New Jersey.

The Shiloh Borough Municipal Working Group developed the Shiloh Borough Municipal Appendix for adoption by the Shiloh Borough Council 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 12-1 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: Twelve 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 12-1: Shiloh Borough Working Group**

| First Name | Last Name       | Department                    | Position           | Project Kick-off Meeting <sup>1</sup> | Working Group Meeting <sup>2</sup> | Round 1 Work Session <sup>3</sup> | Round 2 Work Session <sup>4</sup> | Contribution <sup>5</sup>                  |
|------------|-----------------|-------------------------------|--------------------|---------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|--|
| Gary       | VanMeter, Sr. * | Shiloh Borough OEM            | OEM Coordinator    | ☑                                     | ☑                                  | ☑                                 | ☑                                 | Organized Working Group and Work Sessions. |
| Donna      | VanMeter *      | Shiloh Borough OEM            | Volunteer          |                                       |                                    | ☑                                 |                                   |  |
| Brad       | Campbell *      | Shiloh Borough Administration | Councilman / Mayor |                                       | ☑                                  | ☑                                 |                                   |  |
| Dallus     | Bruso *         | Shiloh Borough Administration | Council President  |                                       | ☑                                  |                                   |                                   |  |
| Hillary    | Barille         | Shiloh Borough Administration | Councilwoman       |                                       | ☑                                  |                                   |                                   |  |

<sup>1</sup> Project Kickoff Meeting was held on May 20, 2021.

<sup>2</sup> Working Group Meeting was held on June 7, 2021.

<sup>3</sup> Round 1 Work Session was held on July 27, 2021.

<sup>4</sup> Round 2 Work Session was held on November 16, 2021.

<sup>5</sup> Additional or unusual contributions are noted in the far-right hand column.

## Part 2: Participation

| First Name | Last Name       | Department   | Position   | Project Kick-off Meeting <sup>1</sup> | Working Group Meeting <sup>2</sup>  | Round 1 Work Session <sup>3</sup>   | Round 2 Work Session <sup>4</sup>   | Contribution <sup>5</sup> |
|------------|-----------------|--|--|---------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------|
| Carman     | Daddario *      | Shiloh Borough Administration                        | Councilman   |                                       | <input checked="" type="checkbox"/> |                                     |                                     |                           |
| Matt       | Hunzer          | Shiloh Borough Administration                        | Councilman   |                                       | <input checked="" type="checkbox"/> |                                     |                                     |                           |
| Jeff       | Knerr           | Shiloh Borough Administration                        | Councilman   |                                       | <input checked="" type="checkbox"/> |                                     |                                     |                           |
| Glenn      | Newkirk *       | Shiloh Borough Administration                        | Councilman   |                                       |                                     |                                     |                                     |                           |
| Medeia     | Willis *        | Shiloh Borough Administration                        | Councilwoman   |                                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                           |
| Ronald L.  | Campbell, Sr. * | Shiloh Borough Administration                        | Municipal Clerk  |                                       | <input checked="" type="checkbox"/> |                                     |                                     |                           |
| Teresa     | Warburton       | Shiloh Borough                                       | Construction Official / Housing Inspector <sup>6</sup> |                                       |                                     | <input checked="" type="checkbox"/> |                                     |                           |
| Kenny      | Mayhew          | Hopewell-Stow Creek Fire Department                  | Chief  |                                       |                                     | <input checked="" type="checkbox"/> |                                     |                           |
| Rebecca    | Bertram *       | Shiloh Borough Resident                              | Solicitor  |                                       | <input checked="" type="checkbox"/> |                                     |                                     |                           |
| Blair      | Bakker *        | Shiloh Borough Major Employers / Businesses          | Agricultural Business                                  |                                       |                                     |                                     |                                     |                           |
| Sarah      | Bakker *        | Shiloh Borough Major Employers / Businesses          | Agricultural Business                                  |                                       |                                     |                                     |                                     |                           |
| Don        | Chrowger *      | Shiloh Borough Community / Faith-Based Organizations | Pastor of Seventh Day Baptist Church of Shiloh         |                                       |                                     |                                     |                                     |                           |

<sup>6</sup> Housing Inspector is a shared position with Upper Deerfield Township.

## Part 2: Participation

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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.

- Floodplain Administrator / Manager (Shiloh Borough is not a participating community under the National Flood Insurance Program)
- Land Use / Economic Development Planner
- GIS / IT Specialist
- Engineering
- Public Works
- Transportation Department Directors / Supervisors
- Police
- Business Associations
- Environmental Organizations
- Non-Governmental Organizations
- Critical Infrastructure and Key Resources
- Healthcare Institutions
- School Board



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## Part 2: Participation

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### 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 12-2 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 12-2: Public Participation**

| Date               | Type of Involvement  | Location                     |
|--------------------|--|------------------------------|
| September 8, 2021  | Preliminary Draft Municipal Appendix available for public comment.                                   | Project Website <sup>7</sup> |
| September 13, 2021 | Public meeting conducted with presentation and open discussion.                                      | Borough Hall                 |
| September 13, 2021 | Notice posted re: Preliminary Draft Municipal Appendix review period with link to Project Website.   | Borough Website <sup>8</sup> |
| April 4, 2022      | Notice posted re: Public Review Draft Municipal Appendix review period with link to Project Website. | Borough Website <sup>8</sup> |
| April 19, 2022     | Public Review Draft Municipal Appendix available for public comment.                                 | Project Website <sup>7</sup> |

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 (see Attachment B: Adoption Resolution).

Public education and outreach is an on-going mitigation measure included in the Municipal Appendix.<sup>9</sup> In addition, public participation will continue to be encouraged during subsequent plan implementation and maintenance activities.<sup>10</sup>

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<sup>7</sup> <https://cchmpu21.com/documents>

<sup>8</sup> [www.shilohborough.com](http://www.shilohborough.com)

<sup>9</sup> See Mitigation Measure M-1 in Part 4 of the Municipal Appendix.

<sup>10</sup> 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

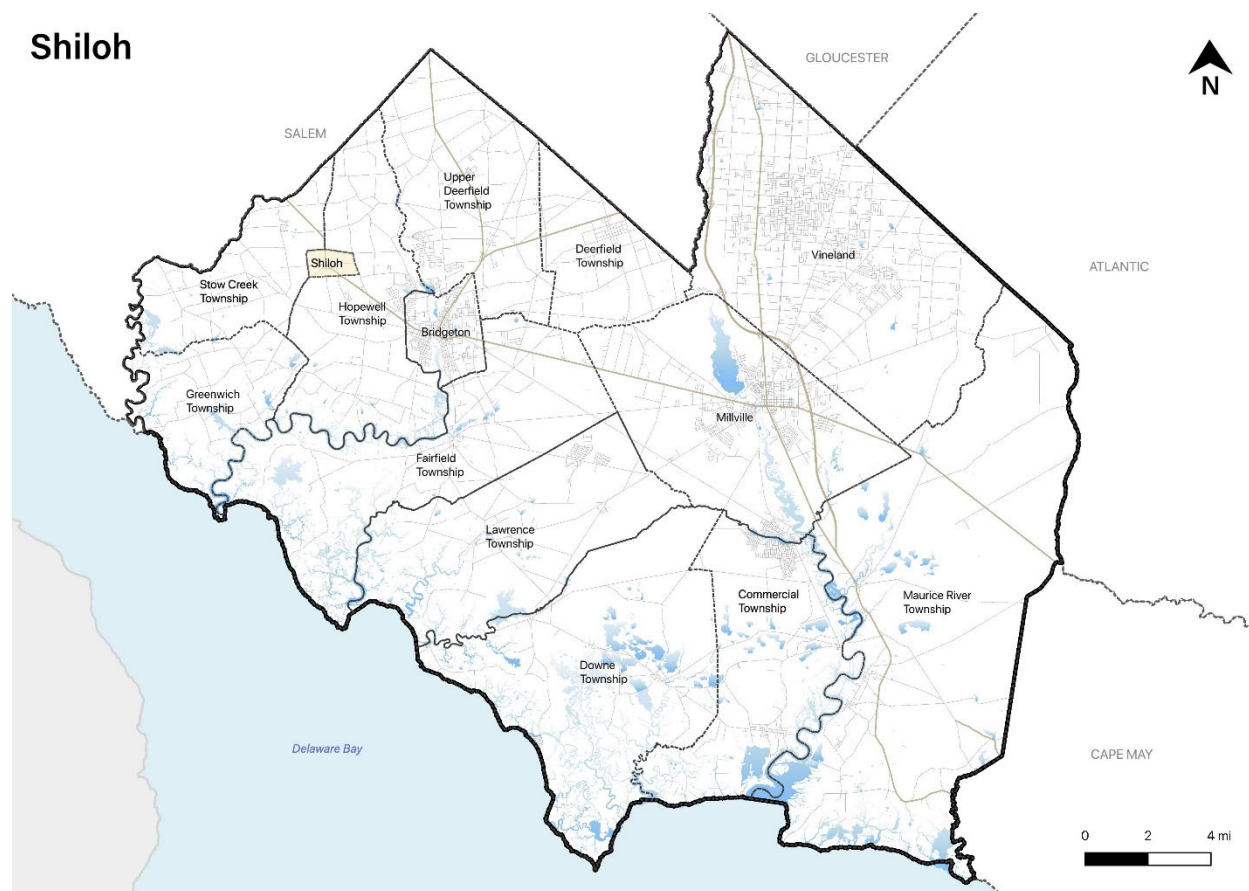
Part 3 includes seven subparts:

- *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: Municipal Profile

Shiloh Borough is located in the northwestern portion of Cumberland County (See Figure 12-1).

**Figure 12-1: Shiloh Borough Location Map**

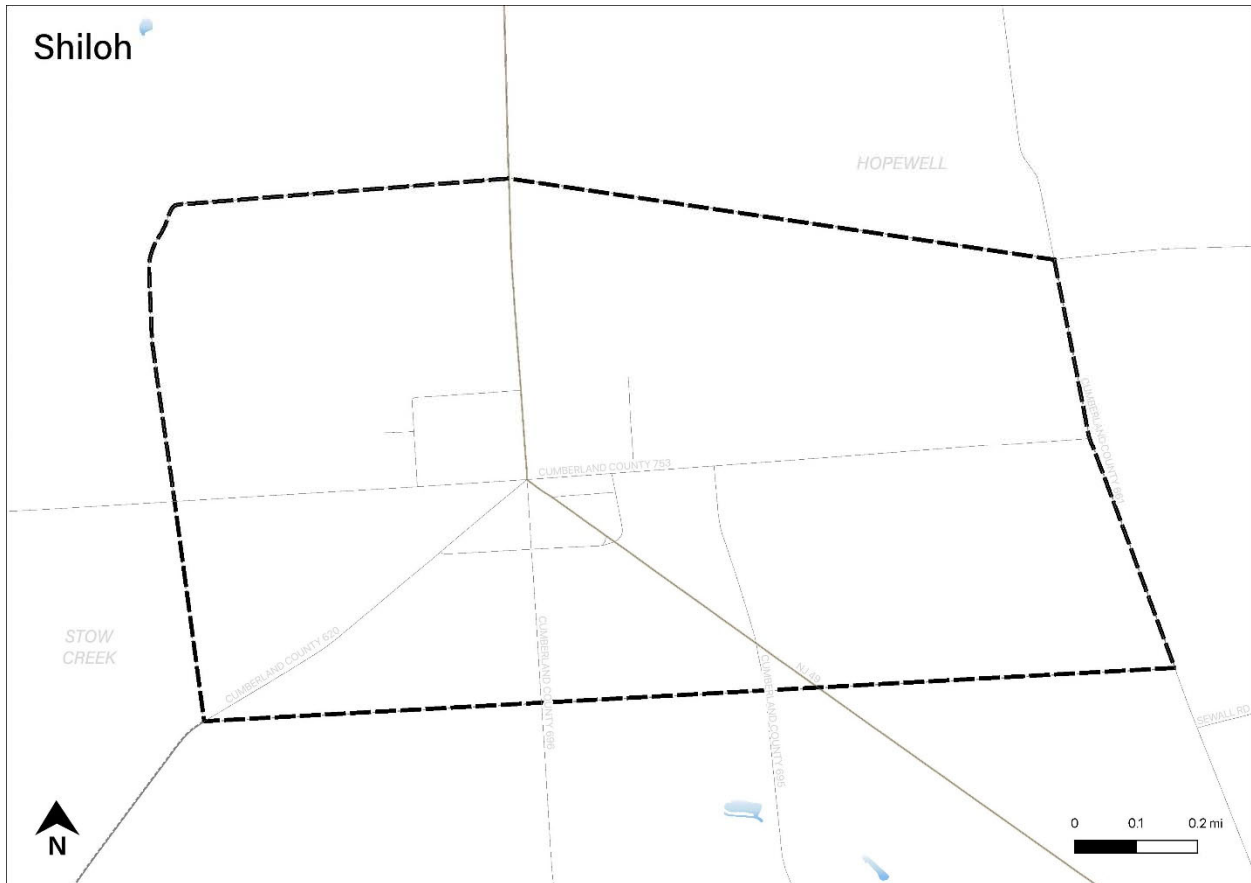


### Part 3: Hazard Identification and Risk Assessment

Shiloh Borough is a small rural community with a rich natural, religious, and historic heritage. A large portion of the community is reserved for agricultural uses. The resulting open lands also provide seasonal stopping points for a selection of migratory animals.

Per Figure 12-2, the major water course in the municipality is Shaw Branch. Major transportation routes include State Highway Route 49 and Cumberland County 753. The land is predominantly flat.

**Figure 12-2: Shiloh Borough Base Map**



## Part 3: Hazard Identification and Risk Assessment

### Part 3.2: General Building Stock

As of 2015, there are 325 buildings in Shiloh Borough with a total assessed value of improvements of \$36,424,300. Figure 12-3 shows the footprints of these buildings.

**Figure 12-3: Shiloh Borough Building Footprints<sup>11</sup>**

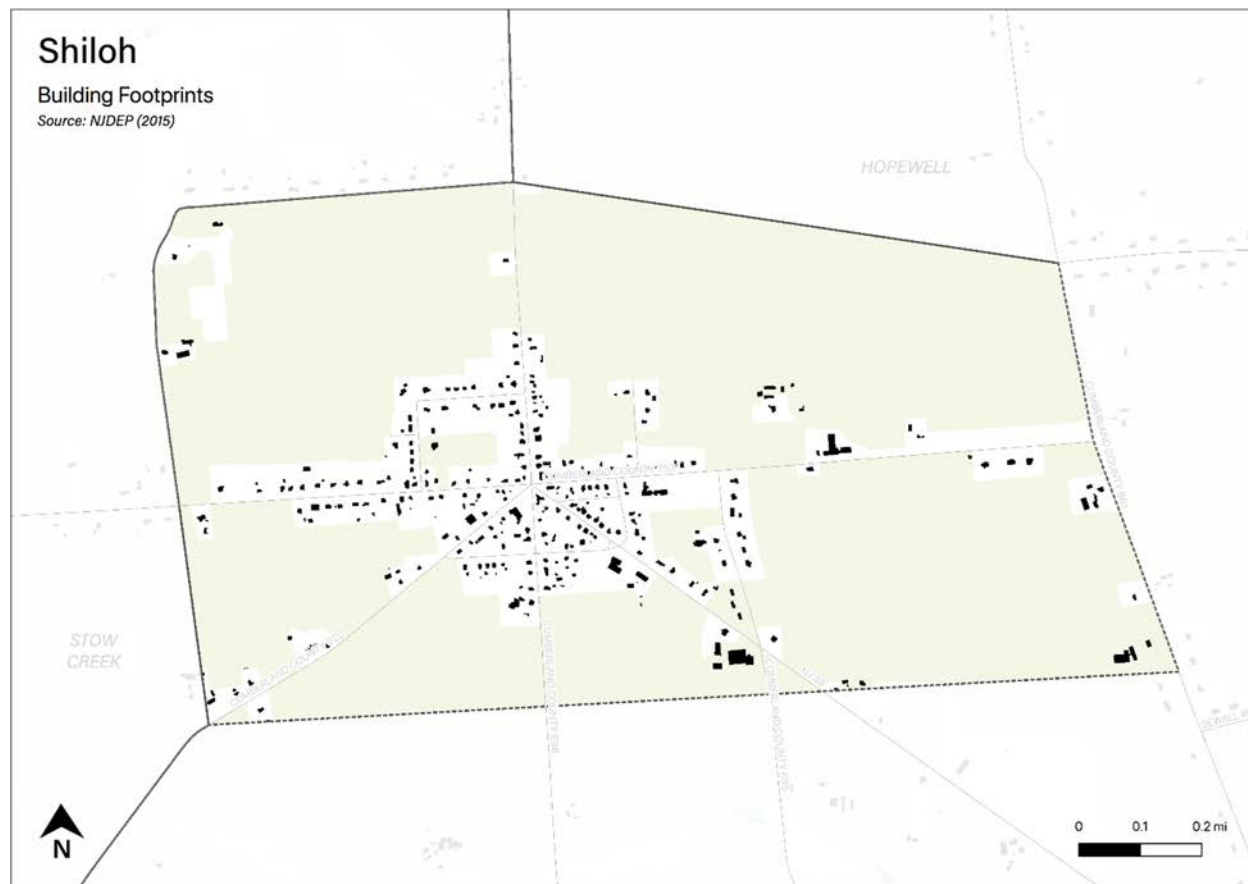


Table 12-3 shows the distribution of these structures according to land use distinctions.

**Table 12-3: Shiloh Borough Buildings per Land Use Type<sup>12</sup>**

| Land Use Type       | Residential | Commercial | Industrial | Other |
|---------------------|-------------|------------|------------|-------|
| Number of Buildings | 259         | 11         | 0          | 46    |
| % of Total          | 82%         | 3%         | 0%         | 15%   |

<sup>11</sup> 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.

<sup>12</sup> 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 Facilities<sup>13</sup>

As of April 2022, there are three (3) critical facilities in Shiloh Borough.

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 12-4 includes current inventory information for municipal critical facilities and cross-references to related mitigation measures identified in Part 4 of the Municipal Appendix. Figure 12.4 shows the location of these critical facilities.

**Table 12-4: Shiloh Borough Critical Facilities Inventory**

| CF # | Name   | Type                    | Sub-Type                       | Address                                | Co-located CF # | Shelter (Y/N) | Generator (Y/N) | Comments  | Mitigation Measure # |
|------|--|-------------------------|--------------------------------|--|-----------------|---------------|-----------------|---|----------------------|
| CF-1 | Borough Hall                                       | Municipal               | Administrative Office          | 900 Main Street, Shiloh                |                 | N             | Y               | Generator needs replacement   | M-3                  |
| CF-2 | Seventh Day Baptist Church of Shiloh               | Emergency Staging Areas | Equipment Mobilization         | 116 East Avenue / P.O. Box 145, Shiloh |                 | Y             | N               | Generator needs replacement. Facility has potential as congregate shelter, and cooling / heating station. | M-2                  |
| CF-3 | Cumberland Mutual Insurance Corporate Headquarters | Emergency Staging Areas | Private Corporate Headquarters | 633 Shiloh Pike, Bridgeton             |                 | N             | Y               | 50,000 SF facility; designed to withstand Category 3 hurricane winds (Same as Hopewell Township CF-18)    |                      |

<sup>13</sup> Critical facility definitions and considerations are described in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

Figure 12-4: Shiloh Borough 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 Plan<sup>14</sup>.

Key results for Shiloh Borough are depicted in the following.

Mapping: Figure 12-5 is illustrative of the type of mapping available as a result of the hazard exposure assessment. This figure shows critical facilities that are located near wildfire hazard zones.

<sup>14</sup> Hazard 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 12-5: Shiloh Borough Critical Facilities and Wildfire Hazard Zones



Mapping results are available for general building stock and critical facilities for the following hazards:<sup>15</sup>

- Earthquake
- Extreme High Temperature
- 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 12-5 indicates hazard exposure for general building stock
- Table 12-6 indicates hazard exposure for critical facilities

<sup>15</sup> 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/u34fg5qw0m20jbk/AABXdG9-Kxbl8vGoiKOJqv9La?dl=0>.

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

**Table 12-5: Shiloh Borough 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 <sup>16</sup>                             | 0                           | N/A  | 0                          | N/A  |
| Sea Level Rise - 3 feet increase                          | 0                           | N/A  | 0                          | N/A  |
| Flood - Within 1 % Annual Chance Zone                     | 0                           | N/A  | 0                          | N/A  |
| Flood - Near (within 500 feet) of 1% Annual Chance Zone   | 0                           | N/A  | 0                          | N/A  |
| Earthquake – Structure built before 1927 <sup>17</sup>    | 136                         | 50%  | \$16,650,700               | 48%  |
| High Winds / Severe Weather – Structure built before 1975 | 239                         | 89%  | \$28,311,500               | 81%  |
| Wildfire – Composite score > 2.5 <sup>18</sup>            | 0                           | N/A  | 0                          | N/A  |

**Table 12-6: Shiloh Borough Critical Facilities Hazard Exposure<sup>19</sup>**

| Hazard   | Number of Critical Facilities | CF #s |
|--|-------------------------------|-------|
| Coastal Erosion  | None                          | N/A   |
| Sea Level Rise   | None                          | N/A   |
| Flood - Within 1 % Annual Chance Zone                              | None                          | N/A   |
| Flood - Near (within 500 feet) of 1% Annual Chance Zone            | None                          | N/A   |
| Flood – Future potential (within 1,000 feet) 1% Annual Chance Zone | None                          | N/A   |
| Wildfire   | None                          | N/A   |

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)

<sup>16</sup> 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](https://docs.google.com/spreadsheets/d/1fcN5hL3Jz4X7mldFyKs6wol6J6IAR9bSsvJPIqE_A0Q/edit?usp=sharing)

<sup>17</sup> All supporting data for Earthquake, High Winds, and Severe Weather can be viewed at <https://docs.google.com/spreadsheets/d/1Zx1LZwKQ8esqdv4c9hbbSZurtMjH4UITQWJY1LrZezc/edit?usp=sharing>

<sup>18</sup> All supporting data for Wildfire can be viewed at [https://docs.google.com/spreadsheets/d/1JAbfd3A-eCHI93pZFaPVuM\\_H2yvuUzeHCmoijv-oxsw/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1JAbfd3A-eCHI93pZFaPVuM_H2yvuUzeHCmoijv-oxsw/edit?usp=sharing)

<sup>19</sup> All supporting data for critical facility hazard exposure can be viewed at <https://docs.google.com/spreadsheets/d/1MPLiOANm7fHoyKuxyWqyanq26LTSPayTxJvLmK5IGPg/edit?usp=sharing>



## Part 3: Hazard Identification and Risk Assessment

### Part 3.5: Demographic Considerations

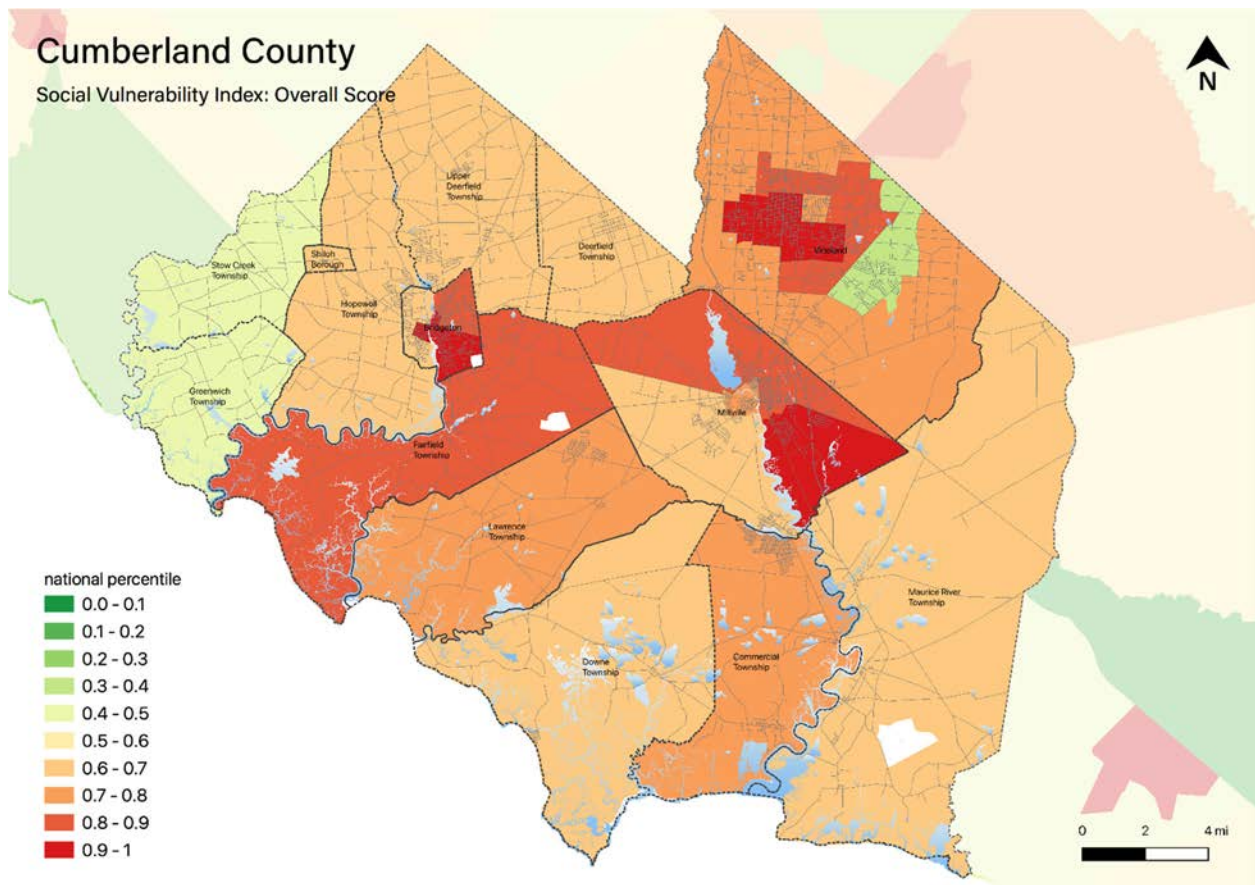
Demographic considerations include general population and land use factors. Table 12-7 includes current population estimates and changes since the previous US Census<sup>20</sup>:

**Table 12-7: Shiloh Borough General Population Demographics**

| Metric  | Percentile       |
|---|------------------|
| Percentage of persons: Living in group quarters   | 93 <sup>rd</sup> |
| Percentage of persons: Living in mobile homes     | 90 <sup>th</sup> |
| Percentage of persons: Older than 65 years of age | 89 <sup>th</sup> |
| Percentage of persons: With a disability          | 80 <sup>th</sup> |

Demographic considerations also include differences in social vulnerability<sup>21</sup>. Figure 12-6 shows the overall Social Vulnerability (SVI) Index overall scores for Cumberland County.

**Figure 12-6: Cumberland County Social Vulnerability Index: Overall Scores**



<sup>20</sup> US Census, 2019 ACS 5 Year Estimates, Table ID DP5

<sup>21</sup> Social vulnerability considerations are described in *Section 3: Hazard Identification and Risk Assessment* of the CC HMPU Base Plan.

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### Part 3: Hazard Identification and Risk Assessment

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For Shiloh Borough, Table 12-8 includes selected metrics where social vulnerability considerations are noteworthy when compared with all national census tracts:

**Table 12-8: Shiloh Borough Social Vulnerability Considerations<sup>22</sup>**

| Metric  | Comparison with all National Census Tracts |
|---|--|
| Percentage of persons: Older than 65 years of age | Higher than 89%                            |
| Percentage of persons: With a disability          | Higher than 80%                            |
| Percentage of persons: Living in mobile homes     | Higher than 90%                            |
| Percentage of persons: Living in group quarters   | Higher than 93%                            |

In addition, the percentage of residents earning below poverty level = 7.3% (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:
  - 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).
- 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).

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<sup>22</sup> All supporting data for SVI can be viewed at [https://docs.google.com/spreadsheets/d/10zb\\_Qlg2CqGxb45\\_fcKiP46swaC16-fORxYTIOiAKP0/edit#gid=1481479799](https://docs.google.com/spreadsheets/d/10zb_Qlg2CqGxb45_fcKiP46swaC16-fORxYTIOiAKP0/edit#gid=1481479799)

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## Part 3: Hazard Identification and Risk Assessment

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### 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

- None

#### Moderate Priority

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

#### Low Priority

- Drought
- Earthquake
- Flood
- Wildfire

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

- Coastal Erosion and Sea Level Rise
- Dam Failure
- Levee Failure

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## Part 4: Mitigation Measures

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### 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
- 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 candidates for inclusion in the Municipal Appendix.

Table 12-9 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 were carried over as part of the Municipal Appendix as indicated in the “Comments” column and the far right-hand column of Table 12-9.

**Table 12-9: Status of Shiloh Borough NJ4 HMP Mitigation Measures**

| Mitigation Action, Program, or Project  | Status                                    | Comments   | Mitigation Measure # <sup>23</sup> |
|---|---|--|------------------------------------|
| <b>M-1:</b> Identify and pursue outreach and education opportunities to inform municipal residents, businesses, and property owners.  | Work-in-progress                          | Work-in-progress included the Borough website has provided links for the NJ4 HMP and the current CC HMPU planning process. | Carried over as part of M-1        |
| <b>M-2:</b> Prioritize critical facilities and complete site and facility surveys to identify vulnerabilities and potential mitigation measures.  |   |  |                                    |
| <b>M-3:</b> Conduct regular Municipal Working Group meetings.   |   |  |                                    |
| <b>M-4:</b> Install permanent backup emergency power generator at Seventh Day Baptist Church of Shiloh (primary Shiloh Borough shelter) (CF-2).   | Not completed, not funded                 |  | Carried over as M-2                |
| <b>M-5:</b> Install permanent backup emergency power generator at Public Works facility.  | Not completed, no longer considered valid | Critical facility is no longer in operation  | N/A                                |
| <b>M-6:</b> Risk assessment of wellhead at former Shiloh Borough School to determine possibility of wellhead failure due to several natural hazards resulting in potentially damaging flooding at the Municipal Building (EOC). | Not completed, no longer considered valid | School sold and under renovation by private owner. Building well head is now separate from municipal building.             | N/A                                |
| <b>M-7:</b> Retrofit / harden municipal building include new roof and windows (CF-1).   | Not completed, not funded                 | Building has two windows and a door that are not wind resistant.   | Carried over as M-3                |

<sup>23</sup> Detailed information for identification and implementation of municipal (M-#) mitigation measures is included in Tables 12-10 and 12-11.

## Part 4: Mitigation Measures

### Part 4.3: Municipal Mitigation Measures – Identification

Table 12-10 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)<sup>24</sup> if applicable

Table 12-10 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 12-10: Shiloh Borough Municipal Mitigation Measures Identification**

| #   | Mitigation Action, Program, or Project  | Hazard(s)                                  | Goal (s)            | Existing or New Structures |
|-----|---|--|---------------------|----------------------------|
| M-1 | <p><u>Borough 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"> <li>▪ Conduct outreach and education for residents, businesses, and property owners</li> <li>▪ Complete critical facility field evaluations to identify potential vulnerabilities and mitigation measures</li> <li>▪ Compile relevant data regarding hazard impacts</li> <li>▪ Support regular interactions of the Borough Working Group</li> <li>▪ Seek integration of hazard mitigation with other parallel planning initiatives</li> </ul> | All  | Goal #s 1, 2, and 3 | All                        |
| M-2 | Install permanent backup emergency power generator at Seventh Day Baptist Church of Shiloh (primary Shiloh Borough shelter) (CF-2).   | Power outage due to multiple hazard types. | Goal #4             | Existing                   |
| M-3 | Retrofit / harden municipal building include new roof and windows (CF-1).   | High Wind / Severe Winter Weather          | Goal #4             | Existing                   |

<sup>24</sup> Section 3: Hazard Identification and Risk Assessment of the CC HMPU Base Plan includes a description of RL and SRL properties.

## Part 4: Mitigation Measures

### Part 4.4: Municipal Mitigation Measures – Implementation

Table 12-11 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 criteria<sup>25</sup>
- Project Type to help determine funding options and implementation mechanisms at the municipal level<sup>26</sup>
- Estimated Cost, including estimates provided by the Municipal Working Group or approximate ranges for projects that are in early stages of development
- Target Date, indicating desired completion dates assuming availability of funding
- Next step(s) anticipated to implement the identified mitigation measures at the municipal level

**Table 12-11: Shiloh Borough 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"> <li>▪ Identify outreach and education objectives and methods (working with CC OEM)</li> <li>▪ Set priorities (if necessary) and conduct critical facility field evaluations</li> <li>▪ Identify schedule for plan updates (including sustained public participation and plan integration efforts)</li> </ul> |
| M-2 | Install permanent backup emergency power generator at Seventh Day Baptist Church of Shiloh (primary Shiloh Borough shelter) (CF-2). | Borough OEM and Borough Working Group   | High     | Back-up Emergency Power Generator | < \$100K            | One to three years         | <ul style="list-style-type: none"> <li>▪ Conduct project scoping.<sup>27</sup></li> <li>▪ Identify funding source(s).</li> </ul>  |
| M-3 | Retrofit / harden municipal building include new roof and windows (CF-1).   | Borough OEM and Borough Working Group   | Moderate | Building Retrofit                 | \$100K - \$500K     | Three to five years        | <ul style="list-style-type: none"> <li>• Conduct project scoping.</li> </ul>  |

<sup>25</sup> Section 4: Mitigation Measures of the CC HMPU Base Plan includes a description of evaluation criteria considered by the Municipal Working Group.

<sup>26</sup> 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.

<sup>27</sup> Project scoping for M-2 to include determining feasibility to install hookups and transfer switch for using portable generator(s) to accommodate need, at least as a temporary measure

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## Part 4: Mitigation Measures

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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 :
  - 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).
  - 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 4.5: Multi-Jurisdictional Mitigation Measures

During the Municipal Working Group Work Sessions, the Working Groups had the opportunity to identify multi-jurisdictional mitigation measures. Implementation of these measures, in the opinion of the Municipal Working Groups would requires participation or leadership from other levels of government, including county, state, and federal agencies.

Shiloh Borough did not identify any issues that required participation from other levels of government and therefore, the Borough's Appendix does not include any multi-jurisdictional mitigation measures.



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## Part 4: Mitigation Measures

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

Part 4.6 includes three (3) subparts:

- Authorities, Policies, and Programs - Cross referencing relevant information and recommendations in the CC HMPU Base Plan regarding existing authorities, policies, and programs in the County
- 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 Shiloh Borough'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.

*Note: Shiloh Borough does not participate in the NFIP.*

#### 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 12-12 compares the results of the Capability Assessment Survey for the County as a whole and Shiloh Borough.

**Part 4: Mitigation Measures**

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**Table 12-12: Shiloh Borough Capability Assessment Survey Results**

| Metric  | Shiloh Borough Results (n=5) | Cumberland County "as a whole" Results (n=85) |
|---|------------------------------|---|
| Position Type: <b>Full-time</b>   | 20.00%                       | 51.76%  |
| Position Type: <b>Part-time</b>   | 40.00%                       | 36.47%  |
| Position Type: <b>Volunteer</b>   | 40.00%                       | 11.76%  |
| <b>Time in Position:</b>  |                              |   |
| Time in Position: <b>Less than 1 year</b>   | 0.00%                        | 12.94%  |
| Time in Position: <b>1 to 2 years</b>   | 0.00%                        | 8.24%   |
| Time in Position: <b>2 to 5 years</b>   | 20.00%                       | 23.53%  |
| Time in Position: <b>More than 5 years</b>  | 80.00%                       | 55.29%  |
| <b>Prior Experience:</b>  |                              |   |
| Prior Experience: <b>None</b>   | 0.00%                        | 57.65%  |
| Prior Experience: <b>with hazard mitigation planning</b>                            | 80.00%                       | 31.76%  |
| Prior Experience: <b>with HMA grant administration</b>                              | 20.00%                       | 12.94%  |
| Prior Experience: <b>with floodplain management</b>                                 | 0.00%                        | 7.06%   |
| <b>Training / Certifications:</b>   |                              |   |
| Training / Certifications: <b>None</b>  | 80.00%                       | 75.29%  |
| Training / Certifications: <b>for hazard mitigation planning and implementation</b> | 0.00%                        | 9.41%   |
| Training / Certifications: <b>for floodplain management</b>                         | 20.00%                       | 15.29%  |

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

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

### 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 Shiloh Borough Working Group include:

- Hopewell Township Emergency Operations Plan (2019)
- Master Plan (1989)
- Municipal Stormwater Management Plan (2021)
- Development Ordinance of 1979 as Amended June 1, 1999
- Capital Improvement Budget (2021)

## Part 4: Mitigation Measures

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