

# Sussex County Delaware



## Multi-Jurisdictional Hazard Mitigation Plan (HMP)

PREPARED BY THE OLSON GROUP LTD.  
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## **INTRODUCTION**

### **PURPOSE**

The purpose of this Executive Summary is to provide a briefing on the Sussex County Multi-Jurisdictional All-Hazard Mitigation Plan Update (from now on referred to as the “Plan”) which continues to provide guidance for hazard mitigation in Sussex County. It identifies hazard mitigation goals, objectives, and recommended actions and initiatives for County and jurisdictional governments to reduce injury and damage from natural hazards.

This Plan update keeps Sussex County qualified to obtain all disaster assistance, including all categories of Public Assistance, Individual Assistance, and Hazard Mitigation grants available through the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93288, as amended.

### **ORGANIZATION,**

The Plans organization parallels the structure provided in the Final Rule, 44 CFR 201.4. It has seven sections, appendices containing mitigation assessment annexes, supporting documentation, and adoption resolutions. In addition, there are references to the CFR throughout the Plan. Where possible, these provide specific section and subsection notations to aid the review process.

Sussex County Emergency Operations was the lead agency for developing the Plan update. At the beginning of the process, a consultant firm, The Olson Group Ltd., was hired to provide technical support to the County and all participating jurisdictions. In addition, several individuals and organizations worked together to develop the Plan update.

### **GOALS AND OBJECTIVES**

The Hazard Mitigation Steering Committee supported updating the goals, objectives, and mitigation actions. The mitigation actions address or solve local mitigation issues and problems. Therefore, the Sussex County Hazard Mitigation Steering Committee developed the following mission statement for the Sussex County All-Hazard Mitigation Plan and the following goals for hazard mitigation.

- Sussex County and participating jurisdictions will continue to adopt enhanced stormwater management practices.
- Sussex County and participating jurisdictions will continue to adopt and enforce codes and regulations designed to reduce the impact of natural hazards.
- Sussex County and participating jurisdictions will continue to retrofit and protect critical facilities and infrastructure from natural and human-caused hazards.
- Sussex County and participating jurisdictions will continue to enhance education and outreach strategies to improve the dissemination of information to the public regarding hazards, including the steps to reduce their impact.
- Sussex County and participating jurisdictions will continue to improve pre-event planning and preparedness activities.
- Sussex County and participating jurisdictions will continue to identify and implement sound hazard mitigation projects

## **PLANNING PROCESS**

### **PLAN DEVELOPMENT**

The Plan update was prepared following the process established in the State and Local Mitigation Plan Development Guides produced by the Federal Emergency Management Agency (FEMA) and 44 CFR 201.6 Local Mitigation Plan. The process includes four basic steps.

- Organize resources.
- Assess risks.
- Develop a mitigation plan.
- Implement the plan and monitor progress.

Sussex County and participating jurisdictions developed the 2022 Hazard Mitigation Plan in conjunction with the 2016 Sussex County Hazard Mitigation Plan, 2020 Continuity of Operations Plan (COOP), State of Delaware 2019-2022 Strategic Plan, and the State of Delaware 2018 All Hazards Mitigation Plan. The planning steps for developing these three plans included:

- Forming the Collaborative Planning Team
- Understanding the Situation
- Goals & Objectives
- Plan Development, Review, & Approval
- Plan Refinement & Execution

### **METHODOLOGY**

- Data Collection - OGL on behalf of the Sussex County Hazard Mitigation Steering Committee requested hazard specific information to the participating jurisdictions via the local OEM coordinators.
- Critical Infrastructure Inventory – OGL provided the HMWG with spreadsheets with default data listings per HAZUS-MH. The HMWG members reviewed the information and provided revisions compiled for use in developing mitigation actions. OGL also provided directions for capturing more detailed information regarding critical infrastructure for use in this Plan update and future planning efforts via the County EOC Director.
- Jurisdictional Stakeholder Engagement – HMSC identified the stakeholders to enlist in the planning effort, including other local departments, schools, and hospitals. The HMWG members were then responsible for following up with potential stakeholders. In some cases, stakeholders participated with the local coordinators in the one-on-one meetings to identify and document mitigation actions.

### **PARTICIPATING JURISDICTIONS**

- All municipalities within Sussex County, except for the Town of Bethel, Town of Dagsboro, and Town of Greenwood actively participated in the data collection and review process.

## TIMELINE

The planning process and plan development occurred between October 2021 through November 2022 which consisted of:

- Planning workshops
- Online collaboration,
- Stakeholder outreach
- Public comment,
- Plan reviews
- Plan revisions
- Notice of Approval-Pending-Adoption (APA) status

## RISK ASSESSMENT

The assessment determined several aspects of the risks of hazards faced by the County and the participating jurisdictions:

- Natural hazards are most likely to affect Sussex County.
- How often hazards are expected to impact Sussex County.
- Expected severity of the dangers.
- Areas of Sussex County that are likely to be affected by risks.
- Threats may impact Sussex County's assets, operations, people, and infrastructure.
- How private and commercial assets, procedures, and infrastructure may be affected by hazards.
- Expected future losses if the risk is not mitigated.

## HAZARD IDENTIFICATION

### HAZARDS AND RISKS MATRIX

Based upon the hazards and risks identified in the Sussex County Multi-Jurisdictional All Hazard Mitigation Plan 2016 update, the HMSC and the HMWG identified the hazards and risks it felt could have the most significant impact on the community. The Hazards and Risks Identification Survey and the Hazards and Risks Validation Survey submitted by the HMSC and the HMWG evaluated and scored each hazard and risk on the Severity of Impact (SOI), Probability of Event (POE), and Long-Term Impacts (LTI) an event would have on facilities in the community. High priority hazards scored between 19-25, medium priority hazards scored between 14-19, low priority hazards scored between 8-13, and non-rated hazards scored a seven or below. The Threat and Hazards Matrix (**Table 1**) is illustrated on the following page.

| Severity of Impact | Probability of Event |            |                  |                 |                   |               |
|--------------------|----------------------|------------|------------------|-----------------|-------------------|---------------|
|                    |                      | Unlikely   | Somewhat Likely  | Likely          | Most Likely       | Highly Likely |
|                    | Catastrophic         | 5          | 10               | 15              | 20                | 25            |
|                    | Critical             | 4          | 8                | 12              | 16                | 20            |
|                    | Minimal              | 3          | 6                | 9               | 12                | 15            |
|                    | Negligible           | 2          | 4                | 6               | 8                 | 10            |
|                    | Insignificant        | 1          | 2                | 3               | 4                 | 5             |
|                    |                      | Not Severe | Minimal Severity | Somewhat Severe | Moderate Severity | Most Severe   |
| Long Term Impact   |                      |            |                  |                 |                   |               |

Table 1. Threats and Hazards Matrix

### CALCULATED PRIORITY RISK INDEX (CPRI)

The following Calculated Priority Risk Index (CPRI) ratings, as shown below, are provided as a tool for local governments to analyze their risks. The CPRI combines user input and a mathematic equation to establish a ranking for each hazard. The CPRI is calculated based on the four selections with the following weightings for each criterion:

- Probability (P)= 45%
- Magnitude/Severity (M)= 30%
- Warning Time= 15%
- Duration (D)= 10%

### HAZARD RANKING

The HMSC and HMWG identified eleven (11) natural, four (4) human-caused, and one (1) technological hazard for consideration within this hazard mitigation plan update. Having applied the CPRI values in assessing the hazards, the prioritization of the hazards under consideration are displayed in **Table 2** on the following page.

| CALCULATED PRIORITY RANKING INDEX SUMMARY |             |                    |              |          |            |                |
|-------------------------------------------|-------------|--------------------|--------------|----------|------------|----------------|
| HAZARD                                    | PROBABILITY | MAGNITUDE SEVERITY | WARNING TIME | DURATION | CPRI SCORE | HAZARD RANKING |
| Flooding                                  | 1.8         | .60                | .30          | .30      | 3          | 1              |
| Hurricane/Tropical Storms                 | 1.8         | .60                | .30          | .20      | 2.9        | 2              |
| Severe Thunderstorms                      | 1.8         | .60                | .30          | .20      | 2.9        | 3              |
| Drought                                   | .90         | .60                | .15          | .40      | 2.05       | 4              |
| Extreme Heat/Cold                         | 1.35        | .30                | .15          | .30      | 2.1        | 5              |
| Hazmat                                    | .90         | .30                | .60          | .20      | 2          | 6              |
| Winter Storms                             | 1.35        | .30                | .15          | .20      | 2          | 7              |
| Tornado                                   | .45         | .60                | .60          | .10      | 1.75       | 8              |
| Hailstorms                                | .90         | .30                | .45          | .10      | 1.75       | 9              |
| Terrorism                                 | .45         | .30                | .15          | .10      | 1.0        | 10             |
| Beach/Soil Erosion                        | --          | --                 | --           | --       | --         | N/R            |
| Cyber Terrorism                           | --          | --                 | --           | --       | --         | N/R            |
| Dam Levee Failure                         | --          | --                 | --           | --       | --         | N/R            |
| Pipeline Failure                          | --          | --                 | --           | --       | --         | N/R            |
| Earthquake                                | --          | --                 | --           | --       | --         | N/R            |
| Wildfire                                  | --          | --                 | --           | --       | --         | N/R            |

Table 2 . CPRI and Hazard Ranking Index

## RISK AND VULNERABILITY ASSESSMENT

### NATIONAL RISK INDEX<sup>1</sup>

The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hail, Heat Wave,

<sup>1</sup> <https://hazards.fema.gov/nri/>

Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather.

### CALCULATING THE RISK INDEX

Risk Index scores are calculated using an equation that combines scores for Expected Annual Loss due to natural hazards, Social Vulnerability and Community Resilience:

$$\text{Risk Index} = \text{Expected Annual Loss} \times \text{Social Vulnerability} \div \text{Community Resilience}$$

| TYPE              | RATING              | SCORE |
|-------------------|---------------------|-------|
| Coastal Flooding  | Relatively High     | 38.37 |
| Drought           | Relatively Moderate | 13.53 |
| Earthquake        | Relatively Low      | 4.50  |
| Hail              | Relatively Low      | 8.07  |
| Heat Wave         | Relatively Moderate | 17.42 |
| Hurricane         | Relatively Moderate | 13.01 |
| Ice Storm         | Relatively Moderate | 18.31 |
| Landslide         | Relatively Low      | 8.60  |
| Lightning         | Relatively Moderate | 20.74 |
| Riverine Flooding | Relatively Moderate | 11.68 |
| Strong Wind       | Relatively Low      | 13.45 |
| Tornado           | Relatively Moderate | 20.04 |
| Wildfire          | Relatively Low      | 11.84 |
| Winter Weather    | Relatively High     | 33.76 |

Table 3. Hazard Risk Index

### CALCULATING EXPECTED ANNUAL LOSS

Expected Annual Loss scores are calculated using an equation that combines values for exposure, annualized frequency, and historic loss ratios for 18 hazard types:

$$\text{Expected Annual Loss} = \text{Exposure} \times \text{Annualized Frequency} \times \text{Historic Loss Ratio}$$

| TYPE              | TOTAL       | BUILDING VALUE | POPULATION EQUIVALENCE | POPULATION | AGRICULTURE VALUE |
|-------------------|-------------|----------------|------------------------|------------|-------------------|
| Coastal Flooding  | \$8,909,423 | \$8,742,143    | \$167,280              | 0.02       | n/a               |
| Drought           | \$423,765   | n/a            | n/a                    | n/a        | \$423,765         |
| Earthquake        | \$181,276   | \$174,993      | \$6,283                | 0.00       | n/a               |
| Hail              | \$36,501    | \$8,813        | \$217                  | 0.00       | \$27,471          |
| Heat Wave         | \$407,107   | \$0            | \$406,918              | 0.05       | \$189             |
| Hurricane         | \$922,988   | \$457,663      | \$334,466              | 0.04       | \$130,859         |
| Ice Storm         | \$117,736   | \$94,054       | \$23,682               | 0.00       | n/a               |
| Landslide         | \$9,193     | \$5,288        | \$3,904                | 0.00       | n/a               |
| Lightning         | \$214,028   | \$108,115      | \$105,912              | 0.01       | n/a               |
| Riverine Flooding | \$641,850   | \$160,346      | \$31,707               | 0.00       | \$449,797         |
| Strong Wind       | \$180,221   | \$51,892       | \$126,590              | 0.02       | \$1,740           |
| Tornado           | \$914,111   | \$465,532      | \$441,533              | 0.06       | \$7,045           |
| Wildfire          | \$210,741   | \$209,872      | \$452                  | 0.00       | \$417             |
| Winter Weather    | \$384,019   | \$117,217      | \$266,585              | 0.04       | \$218             |

Table 4. Expected Annual Loss

| EXPECTED ANNUAL LOSS           |                 |                   |                 |
|--------------------------------|-----------------|-------------------|-----------------|
| Composite Expected Annual Loss |                 | \$13,552,958.99   |                 |
| Building Value                 | \$10,595,928.81 | Population        | 0.25 fatalities |
| Population Equivalence         | \$1,915,529.49  | Agriculture Value | \$1,041,500.69  |

Table 5. Expected Annual Loss

### COMMUNITY RESILIENCE

Community resilience is the capacity of individuals and households to absorb, endure, and recover from the health, social, and economic impacts of a disaster such as a hurricane or pandemic. When disasters occur, recovery depends on the community's ability to withstand the effects of the event. To facilitate disaster

preparedness, the Census Bureau has developed small new area estimates, identifying communities where resources and information may effectively mitigate the impact of disasters.<sup>2</sup>

## DEMOGRAPHICS

In 1960, the population of Sussex County was 49,255. The population increased by 57.40% by 1970, 49.78% in the following decade, and 12.77% from 1980 to 1990. According to the 2000 Census data, Sussex saw an increase from 1990 to 2000 of 10.10%, for a total population of 156,638. Between 2000 and 2010, the County underwent a 25.86% growth and continued to increase by 26.64%.

| JURISDICTION           | 1990<br>POPULATION | 2000<br>POPULATION | 2010<br>POPULATION | 2020<br>POPULATION | % CHANGE FROM<br>2010-2020 |
|------------------------|--------------------|--------------------|--------------------|--------------------|----------------------------|
| Sussex County          | 113,229            | 156,638            | 197,145            | 248,733            | 26.16                      |
| Town of Bethany Beach  | 315                | 905                | 1,060              | 1,317              | 24.24                      |
| Town of Bethel         | 157                | 184                | 171                | 253                | 47.95                      |
| Town of Blades         | 1079               | 1100               | 1,241              | 1,538              | 23.93                      |
| Town of Bridgeville    | 1361               | 1546               | 2,048              | 2,504              | 22.26                      |
| Town of Dagsboro       | 488                | 520                | 805                | 1,026              | 27.45                      |
| Town of Delmar         | 1,292              | 1,443              | 1,597              | 1,927              | 20.66                      |
| Dewey Beach            | 208                | 300                | 341                | 424                | 24.34                      |
| Town of Ellendale      | 334                | 336                | 381                | 487                | 27.82                      |
| Town of Fenwick Island | 178                | 343                | 379                | 472                | 24.53                      |
| Town of Frankford      | 536                | 716                | 847                | 1,041              | 22.90                      |
| Town of Georgetown     | 3,983              | 4,789              | 6,422              | 7,200              | 12.11                      |
| Town of Greenwood      | 587                | 844                | 973                | 990                | 1.74                       |
| Town of Henlopen Acres | 108                | 133                | 122                | 153                | 25.43                      |
| Town of Laurel         | 3,431              | 3,746              | 3,708              | 4,608              | 24.27                      |
| City of Lewes          | 2,343              | 2,923              | 2,747              | 3,303              | 20.24                      |

<sup>2</sup> <https://experience.arcgis.com/experience/b0341fa9b237456c9a9f1758c15cde8d/>

| JURISDICTION            | 1990<br>POPULATION | 2000<br>POPULATION | 2010<br>POPULATION | 2020<br>POPULATION | % CHANGE FROM<br>2010-2020 |
|-------------------------|--------------------|--------------------|--------------------|--------------------|----------------------------|
| Town of Millsboro       | 1,688              | 2,497              | 3,877              | 6,863              | 77.01                      |
| Town of Millville       | 189                | 255                | 544                | 662                | 21.69                      |
| Town of Milton          | 1,703              | 1,719              | 2,576              | 3,189              | 23.79                      |
| Town of Ocean View      | 770                | 1,044              | 1,882              | 2,636              | 4.01                       |
| City of Rehoboth Beach  | 1,335              | 1,500              | 1,327              | 1,400              | 5.5                        |
| City of Seaford         | 5,703              | 6,786              | 6,928              | 8,457              | 22.06                      |
| Town of Selbyville      | 1,482              | 1,723              | 2,167              | 2,634              | 21.55                      |
| Town of Slaughter Beach | 100                | 198                | 207                | 253                | 22.22                      |
| Town of South Bethany   | 146                | 493                | 449                | 563                | 25.38                      |

Table 6. Population Trends

### GENERAL BUILDING INVENTORY

Sussex County is the largest of Delaware's three counties, with 979 square miles and over 79,000 households. The region has an estimated 117,721 buildings with a total building replacement value (excluding contents) of \$32,249,328.

Approximately 95% of the County's structures and 85% of the building value are associated with residential housing. Wood frame construction makes up 81% of the building inventory, with the other 19% constructed of steel, concrete, precast, reinforced masonry, unreinforced masonry, or manufactured housing. In HAZUS-MH analysis, the general building stock is grouped and evenly distributed at the census block or tract level.

| OCCUPANCY    | EXPOSURE     | % OF TOTAL BUILDING INVENTORY |
|--------------|--------------|-------------------------------|
| Residential  | \$27,520,983 | 85.34%                        |
| Commercial   | \$3,042,603  | 9.43%                         |
| Industrial   | \$871,675    | 2.70%                         |
| Agricultural | \$156,447    | 0.49%                         |
| Religious    | \$324,358    | 1.01%                         |

| OCCUPANCY  | EXPOSURE     | % OF TOTAL BUILDING INVENTORY |
|------------|--------------|-------------------------------|
| Government | \$144,928    | 0.45%                         |
| Education  | \$188,634    | 0.58%                         |
| Total      | \$32,249,628 | 100.00%                       |

Table 7. Building Exposure<sup>3</sup>**REPETITIVE LOSS PROPERTIES**

**Repetitive loss** properties are those for which two or more losses of at least \$1,000 each have been paid under the National Flood Insurance Program (NFIP) within any 10-year period since 1978.<sup>4</sup>

**Severe repetitive loss** properties are residential properties that have at least four NFIP payments over \$5,000 each and the cumulative amount of such claims exceeds \$20,000, or at least two separate claims payments with the cumulative amount exceeding the market value of the building.<sup>5</sup>

Addressing repetitive loss properties through implementing specific mitigation projects represents one of the most effective ways to reduce future flood losses. As a result, the mitigation strategies listed in the Sussex County Flood Mitigation Plan were explicitly designed to address identified repetitive loss properties and are cited by reference here.<sup>6</sup>

NFIP repetitive loss properties by type is listed in the table below. Currently there are no severe repetitive loss properties in Sussex County and this information is current as of September 2022.

| JURISDICTION  | REPETITIVE LOSS | SINGLE FAMILY | TWO-FOUR FAMILY | NON-RESIDENTIAL BUSINESS | OTHER RESIDENTIAL | OTHER NON-RESIDENTIAL |
|---------------|-----------------|---------------|-----------------|--------------------------|-------------------|-----------------------|
| Sussex County | 145             | 126           | 6               | 0                        | 8                 | 5                     |
| Lewes         | 15              | 10            | 2               | 1                        | 1                 | 1                     |
| Milford       | 4               | 4             | 0               | 0                        | 0                 | 0                     |
| Millsboro     | 1               | 1             | 0               | 0                        | 0                 | 0                     |
| Milton        | 1               | 0             | 0               | 1                        | 0                 | 0                     |
| Ocean View    | 1               | 1             | 0               | 0                        | 0                 | 0                     |

<sup>3</sup> HAZUS-MH Analysis completed June 2016.

<sup>4</sup> 2011 Local Mitigation Plan Review Tool, page 21

<sup>5</sup> 2011 Local Mitigation Plan Review Tool, page 21

<sup>6</sup> Sussex County Flood Mitigation Plan maintained by DNREC, last updated in 1999

| JURISDICTION    | REPETITIVE LOSS | SINGLE FAMILY | TWO-FOUR FAMILY | NON-RESIDENTIAL BUSINESS | OTHER RESIDENTIAL | OTHER NON-RESIDENTIAL |
|-----------------|-----------------|---------------|-----------------|--------------------------|-------------------|-----------------------|
| Seaford         | 1               | 1             | 0               | 0                        | 0                 | 0                     |
| Slaughter Beach | 1               | 1             | 0               | 0                        | 0                 | 0                     |
| South Bethany   | 44              | 43            | 1               | 0                        | 0                 | 0                     |
| Dewey Beach     | 31              | 14            | 4               | 0                        | 11                | 2                     |
| Bethany Beach   | 52              | 28            | 19              | 0                        | 3                 | 2                     |
| Fenwick Island  | 18              | 17            | 1               | 0                        | 0                 | 0                     |
| Rehoboth Beach  | 8               | 4             | 0               | 0                        | 2                 | 2                     |
| Unknown         | 1               | 1             | 0               | 0                        | 0                 | 0                     |

Table 8. Repetitive Loss Properties

To create a final overall risk ranking per hazard in Sussex County, the previous hazard analysis and the risk assessment are combined in the table below. Several analyzed hazards were deemed to be of little consequence to the County. Therefore, they are added to the risk ranking as low risk but unranked.

| FLOOD | TROPICAL STORM WINDS | THUNDERSTORMS | TORNADO | DROUGHT | HAIL | WINTER STORMS | EARTHQUAKE |
|-------|----------------------|---------------|---------|---------|------|---------------|------------|
| High  | Low                  | Moderate      | Low     | High    | Low  | Moderate      | Low        |

Table 9. Estimated Level of Risk by Hazard (High, Moderate, Low)

## CAPABILITY ASSESSMENT

The purpose of conducting a capability assessment is to determine the ability of a local jurisdiction to implement a mitigation strategy and to identify potential opportunities for establishing or enhancing specific mitigation policies, programs, or projects<sup>7</sup>. As in any planning process, it is essential to establish which goals, objectives, and actions are feasible based on an understanding of the organizational capacity of those agencies or departments tasked with their implementation. In addition, a capability assessment helps determine which mitigation actions are practical and likely to be implemented over time, given the community's fiscal, technical, administrative, and political framework.

A capability assessment has two primary components: an inventory of a local jurisdiction's relevant plans, programs, or policies already in place; and an analysis of its capacity to carry them out. Examining local capabilities will detect gaps, shortfalls, or weaknesses with ongoing government activities. A capability assessment also highlights the positive mitigation measures already in place or being implemented at the local government level, which should continue to be supported and enhanced, if possible, through future mitigation efforts.

|                | HMP | DRP | CLUP | FMP | SMP | EOP  | COOP | REP | SARA | TRANS | CIP | REG-PL | HPP | ZO | SO | FDPO | NFIP | CRS | BC |
|----------------|-----|-----|------|-----|-----|------|------|-----|------|-------|-----|--------|-----|----|----|------|------|-----|----|
| Sussex County  | X   | X   | X    | X   | X   | X    | X    | X   | X    | X     | X   | X      | X   | X  | X  | X    | X    |     | X  |
| Bethany Beach  | X   | X   | X    | X   | X   | X    | X    |     | X    |       | X   | X      | X   | X  | X  | X    | X    | X   | X  |
| Blades         |     |     | X    |     |     | X    |      |     | X    |       |     |        |     | X  | X  | X    | X    |     | X  |
| Bridgeville    | X   |     | X    | X   |     | X    | X    | X   | X    | X     | X   | X      | X   | X  | X  | X    | X    |     | X  |
| Delmar         | X   |     | X    |     |     | X    | X    |     | X    | X     | X   |        |     | X  | X  | X    | X    |     | X  |
| Dewey Beach    |     |     | X    |     | X   | X    | X    |     |      |       | P   | X      |     | X  | X  | X    | X    | X   | X  |
| Ellendale      |     |     | X    |     |     |      |      |     | X    |       |     |        |     | X  | X  |      |      |     | X  |
| Fenwick Island | X   |     | X    | X   | X   | X    |      |     | X    |       | X   | X      |     | X  | X  | X    | X    | X   | X  |
| Frankford      | X   |     | X    | X   |     |      |      |     |      |       |     |        |     | X  | X  | X    | X    |     | X  |
| Georgetown     | X   |     | X    | X   |     | I/C  |      |     | X    |       | W/W | X      |     | X  | X  | X    | X    |     | X  |
| Henlopen Acres |     | X   | X    | X   | X   | X    | X    |     | X    | X     | X   | X      |     | X  | X  | X    | X    |     | X  |
| Laurel         | X   | X   | X    | X   | X   | A/CP |      |     |      |       |     |        |     | X  | X  | X    | X    |     | X  |
| Lewes          | X   | X   | X    | X   | X   | X    | X    | X   | X    | X     | X   | X      | X   | X  | X  | X    | X    | X   | X  |

<sup>7</sup> While the Final Rule for implementing the Disaster Mitigation Act of 2000 does not require a local capability assessment to be completed for local hazard mitigation plans, it is a critical step to develop a mitigation strategy that meets the needs of each jurisdiction while considering their own unique abilities. The Rule does state that a community's mitigation strategy should be "based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools" (44 CFR, Part 201.6(c) (3)).

|                 | HMP | DRP | CLUP | FMP | SMP | EOP | COOP | REP | SARA | TRANS | CIP | REG-PL | HPP | ZO | SO | FDPO | NFIP | CRS | BC |
|-----------------|-----|-----|------|-----|-----|-----|------|-----|------|-------|-----|--------|-----|----|----|------|------|-----|----|
| Millsboro       |     | X   | X    | X   | @   |     |      |     |      | D/D   | X   |        |     | X  | X  | X    | X    |     | X  |
| Millville       | X   |     | X    | X   |     |     |      |     | X    |       |     | X      |     | X  | X  | X    | X    |     | X  |
| Milton          | X   |     | X    |     |     | X   |      |     |      |       |     |        |     | X  | X  | X    | X    |     | X  |
| Ocean View      | X   |     | X    |     | X   | X   | X    |     | X    | X     | X   |        | X   | X  | X  | X    | X    |     | X  |
| Rehoboth Beach  | X   | X   | X    | X   | X   | X   | X    |     | X    |       | X   |        | X   | X  | X  | X    | X    | X   | X  |
| Seaford         | X   | X   | X    | X   |     | X   | X    |     | X    | X     |     | X      | X   | X  | X  | X    | X    | X   | X  |
| Selbyville      | X   |     | X    | X   |     |     |      |     |      |       |     | X      | X   | X  | X  | X    | X    |     | X  |
| Slaughter Beach |     |     | X    |     |     | X   | X    |     | X    |       |     | X      |     | X  | X  | X    | X    |     | X  |
| South Bethany   | X   | X   | X    | X   | X   | X   | X    |     | X    | X     | X   | X      |     | X  | X  | X    | X    | X   | X  |

Table 10. Local Plans and Policies in Place

### JURISDICTIONAL ASSESSMENT

In addition to the above inventory of existing plans, programs, and policies, the Capability Assessment required each local jurisdiction to evaluate the 2016 self-assessment of its capability to implement hazard mitigation activities. As part of this process, County and municipal officials were encouraged to consider the barriers to implementing mitigation strategies and the mechanisms that could further such strategies. In response to the survey questionnaire, local officials classified the capabilities listed the following abilities as either “limited,” “moderate,” or “high”:

- Technical Capability
- Fiscal Capability
- Administrative Capability

**Table 11** summarizes the results of the self-assessment process for technical, fiscal, and administrative capabilities. An “L” indicates limited capability; an “M” indicated moderate capability; and an “H” indicates high capability. Further descriptions and discussions on each are provided below, in addition to some of general findings on political capability.

| JURISDICTION   | COMPREHENSIVE LAND USE  | BCEGS GRADE | DATE OF NFIP | CRS DATE | CRS CLASS | TECHNICAL CAPABILITY (L, M, H) | FISCAL CAPABILITY (L, M, H) | ADMINISTRATIVE CAPABILITY (L, M, H) |
|----------------|-------------------------|-------------|--------------|----------|-----------|--------------------------------|-----------------------------|-------------------------------------|
| SussexCounty   | 2018                    | 8           | 10/76        | N/A      | N/A       | M                              | M                           | M                                   |
| Bethany Beach  | 2017                    | N/A         | 04/73        | 05/209   | 8         | M                              | M                           | M                                   |
| Bethel         |                         |             | 10/81        |          |           |                                |                             |                                     |
| Blades         | Under Revision          | N/A         | 01/81        | N/A      | N/A       | L                              | L                           | M                                   |
| Bridgeville    | 2019                    | 8           | 01/77        | N/A      | N/A       | M                              | L                           | M                                   |
| Dagsboro       |                         |             | 06/81        |          |           |                                |                             |                                     |
| Delmar         | 2020                    | N/A         | N/A          | N/A      | N/A       | L                              | L                           | L                                   |
| Dewey Beach    | 2021                    | 8           | 06/82        | 10/94    | 9         | H                              | H                           | M                                   |
| Ellendale      | 2022                    | 8           | N/A          | N/A      | N/A       | L                              | L                           | L                                   |
| Fenwick Island | 2021 Update in progress | 8           | 03/73        | 10/94    | 9         | M                              | M                           | M                                   |
| Frankford      | Adopted 2021            | 8           | 09/81        | N/A      | N/A       | M                              | L                           | M                                   |
| Georgetown     | Adopted 2021            | 8           | 05/03        | N/A      | N/A       | L                              | M                           | L                                   |

| JURISDICTION    | COMPREHENSIVE LAND USE | BCEGS GRADE | DATE OF NFIP | CRS DATE | CRS CLASS | TECHNICAL CAPABILITY (L, M, H) | FISCAL CAPABILITY (L, M, H) | ADMINISTRATIVE CAPABILITY (L, M, H) |
|-----------------|------------------------|-------------|--------------|----------|-----------|--------------------------------|-----------------------------|-------------------------------------|
| Greenwood       |                        |             | 02/78        |          |           |                                |                             |                                     |
| Henlopen Acres  | Updated 2016           | 8           | 08/78        | N/A      | N/A       | M                              | M                           | M                                   |
| Laurel          | 2018                   | 6           | 01/81        | N/A      | N/A       | L                              | L                           | M                                   |
| Lewes           | 2017                   | 9           | 03/77        | UNK      | 8         | H                              | M                           | M                                   |
| Millsboro       | 2021                   | 7           | 09/78        | N/A      | N/A       | H                              | H                           | H                                   |
| Millville       | Updated 2019           | 8           | 09/81        | N/A      | N/A       | L                              | L                           | L                                   |
| Milton          | 2018                   | 8           | 08/78        | N/A      | N/A       | L                              | M                           | M                                   |
| Ocean View      | Revised 2020           | 8           | 09/80        | N/A      | N/A       | H                              | M                           | H                                   |
| Rehoboth Beach  | 2014 (Update Pending)  | 6           | 3/13         | UNK      | 8         | H                              | M                           | H                                   |
| Seaford         | Updated 2020           | 6           | 02/79        | 10/96    | 9         | M                              | M                           | H                                   |
| Selbyville      | Updated 2020           | 8           | 07/91        | N/A      | N/A       | M                              | M                           | M                                   |
| Slaughter Beach | 2016                   | 8           | 07/80        | N/A      | N/A       | L                              | L                           | L                                   |

| JURISDICTION  | COMPREHENSIVE LAND USE   | BCEGS GRADE | DATE OF NFIP | CRS DATE | CRS CLASS | TECHNICAL CAPABILITY (L, M, H) | FISCAL CAPABILITY (L, M, H) | ADMINISTRATIVE CAPABILITY (L, M, H) |
|---------------|--------------------------|-------------|--------------|----------|-----------|--------------------------------|-----------------------------|-------------------------------------|
| South Bethany | 2016<br>(Update Pending) | 8           | 10/76        | 10/07    | 8/9       | M                              | L                           | H                                   |

Table 11. Capability Assessment

## MITIGATION STRATEGIES

### MITIGATION GOALS

Mitigation goals are general guidelines that explain what the County and participating jurisdictions want to achieve and are expressed as broad policy statements representing desired long-term results. The broad goals of the Sussex County Multi-Jurisdictional All-Hazard Mitigation Plan are as follows:

- **Goal 1:** Sussex County and participating jurisdictions will continue to adopt enhanced stormwater management practices.
- **Goal 2:** Sussex County and participating jurisdictions will continue to adopt and enforce codes and regulations designed to reduce the impact of natural hazards.
- **Goal 3:** Sussex County and participating jurisdictions will continue to retrofit and protect critical facilities and infrastructure from natural hazards.
- **Goal 4:** Sussex County and participating jurisdictions will continue to enhance education and outreach strategies to improve the dissemination of information to the public regarding hazards, including the steps that can be taken to reduce their impact.
- **Goal 5:** Sussex County and participating jurisdictions will continue to improve pre-event planning and preparedness activities.
- **Goal 6:** Sussex County and participating jurisdictions will continue identifying and implementing sound hazard mitigation projects.

### MITIGATION MEASURES

- **Prevention:** Preventative activities are intended to keep hazard problems from getting worse.
- **Property Protection:** Property protection measures enable structures to better withstand hazard events, remove structures from hazardous locations, or provide insurance to cover potential losses.
- **Natural Resource Protection:** Natural resource protection activities reduce the impact of hazards by preserving or restoring the function of natural systems.
- **Structural Projects:** Structural mitigation projects are intended to lessen the impact of hazards by modifying the environment or hardening structures.
- **Emergency Services:** Although not typically considered a mitigation technique, emergency services minimize the impact of a hazard on people and property.
- **Public Information and Awareness:** Public Information and awareness activities are used to advise residents, business owners, potential property buyers, and visitors about hazards and mitigation techniques they can use to protect themselves and their property.

### MITIGATION ACTIONS

Mitigation Actions are the specific steps (projects, policies, and programs) that advance a given objective. They are highly focused, precise, and measurable:

- **National Flood Insurance Program, Floodplain Management, and Building Codes**
  - The NFIP requires that the facility must meet the exact construction requirements as a new building when the cost of reconstruction, rehabilitation, addition, or other improvements to a building equal or exceeds 50% of the fair market value.

- Established through the NFIP, the Community Rating System (CRS) is a program that counties and jurisdictions can elect to join. Once the jurisdiction has been entered, participants in that jurisdiction receive a discount on their flood insurance premiums.
- Improved floodplain management, including land use planning, zoning, and enforcement of Building Codes at the local level, can reduce flood-related damages for both existing buildings and new development and are consistent with the stated Goals and Objectives of this plan.
- **Outreach**
  - The first step in the Repetitive Loss Outreach Program is to advise the homeowners that they live in a repetitive loss area and could be subject to flooding.
  - The second step is to give the homeowner appropriate property protection measure guidelines.
  - The third is to make the homeowner aware of the basic facts about flood insurance.
- **Public Awareness**
  - The insurance industry and emergency management research have demonstrated that awareness of hazards is not enough. People must know how to prepare for, respond to, and take preventive measures against threats from natural hazards.
- **Flood Mitigation Actions**
  - Retrofitting structures prone to periodic flooding is an effective mitigation technique to reduce the flood loss of property and is consistent with stated goals.
  - Elevation
  - Acquisition of structures
  - Mitigation Reconstruction
  - Dry flood-proofing
  - Wet-flood proofing
- **Early Warning Systems**
  - With sufficient warning of a flood, a community and its residents can take protective measures such as moving personal property, cars, and people out of harm's way. When a flood threat recognition system is combined with an emergency response plan that addresses the jurisdictional flood problems, considerable flood damage can be prevented.

## PLAN MAINTENANCE

### UPDATE IMPLEMENTATION

- Each jurisdiction participating in this Plan is responsible for implementing specific mitigation actions as prescribed in their locally adopted mitigation plan. In the Mitigation Action Plan, each proposed action is assigned to a particular local department or jurisdiction to increase accountability and the likelihood of implementation.

### LOCAL PLANNING MECHANISMS

- It should be noted that Sussex County has limited land use planning and zoning authority, so the County has few opportunities to incorporate this Plan into other local mechanisms, such as zoning and subdivision ordinances or comprehensive land use plans.

### CONTINUED PUBLIC INVOLVEMENT

- Efforts to obtain public input was an integral part of the Plan Update and will continue to be essential as this Plan changes over time.

### FUTURE RECOMMENDATIONS

- Following this Plan's adoption and approval, Sussex County can submit a written and signed request to FEMA, through DEMA, to amend their HMP to include information that addresses the HHPD required and recommended revisions below.
- Elaborate on the political climate within Sussex County and its jurisdictions. Address how the rating referenced was determined.
- More detailed information regarding each jurisdiction's staffing totals, position titles, vacancies, strengths, and gaps relating to each jurisdiction's technical, financial, and administrative capability.
- Include more action-oriented objectives associated with each HMP goal.

### NEXT STEPS: APPROVAL AND ADOPTION

- Sussex County notify each participating jurisdiction that they should immediately begin their HMP adoption proceedings.
- After the adoption resolutions are signed, submit to Sussex County EOC to be included in the HMP (**Appendix E and F**).
- Forward consolidated (PDF) version of HMP to be submitted to DEMA and FEMA for our records.
- Add date of approval to page 188.