

## *Appendix Vol I.43 Sea Bright Borough*

Please find below the following documents specific to this jurisdiction that have been included as part of the plan update process.

- Summary Sheet
- Mitigation Action Table
- Mitigation Action Worksheets
- Capability Assessment
- Flood Zone Map
- Sea Level Rise Vulnerability Map
- Meeting Material



## NFIP Statistics

**1,096** *Polices In-force*

**1,952** *Total Losses*

**\$86,509,160** *Total Payments*

**185** *Number of RL Properties*

**75** *Number Mitigated  
RL Properties*

**590** *RL - Total Losses*

**\$35,382,671** *RL - Total Paid*

**12** *Number of SRL Properties*

**0** *Number Mitigated SRL  
Properties*

**53** *SRL - Total Losses*

**\$2,025,343** *SRL - Total Paid*

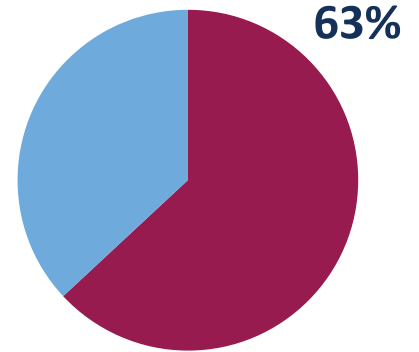


## Critical Facilities

**4** *Critical Facilities*

**0** *Critical Infrastructure*

**25** *Historic & Cultural Resources*



Percent Land Area Within SFHA

**12**

*Total Mitigation  
Actions*

**2**



*Education and Awareness Programs*

**9**



*Structure and Infrastructure Projects*

**1**



*Local Plans and Regulations*

**0**



*Natural Systems Protection*



**0** *SV Population At Risk (2017)*

**822** *Population at Risk (2017)*

Sea Bright, Borough of

Monmouth County HMP Mitigation Action Summary

| Community Action # | Action Name   | Action Description  | Action Category                          | Action Type                          | Hazard(s) Addressed   | Priority | Ease of Implementation | Responsible Party | Potential Funding Sources             | Cost Estimate    | Timeline | Action Status |
|--------------------|---|---|--|--------------------------------------|---|----------|------------------------|-------------------|---------------------------------------|------------------|----------|---------------|
| 43_01              | Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties | Elevation of approximately 700 homes; 114 homes are on the Repetitive Loss List. The Borough has identified these homes as severely damaged after Superstorm Sandy. A majority of the homes on the repetitive loss fist are located west of NJSH Route 36, on the river side, between Osborne Place and Peninsula Avenue. The Borough is seeking funding to provide financial assistance to Borough residents seeking to elevate their homes.   | Mitigation - Risk Reduction              | Structure and Infrastructure Project | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge               | High     | Medium                 | OEM Coordinator   | FEMA HMA; Municipal budget            | \$105,000,000.00 | 2 years  | Ongoing       |
| 43_02              | Elevate Bulkhead with Pump Stations, Tide Valves to Outfalls, and Backflow Preventors   | The scope of this project is completing the bulkhead by raising it 2,600 feet from the south side of the Rumson Rd. Bridge to Osborne P., along both private and public property, to create a continuous elevated bulkhead equipped with four stormwater pump stations, tide flex valves at all outfalls within the project area, and backflow preventers. The Borough is seeking to raise the bulkhead elevation to 7.0ft NAVO 88, to protect these properties from the 25-year-storm event. | Mitigation - Risk Reduction              | Structure and Infrastructure Project | Flood, Wave Action, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge | High     | Medium                 | OEM Coordinator   | FEMA HMA                              | \$10,286,600.00  | 2 years  | Ongoing       |
| 43_03              | Rehabilitate and Complete Sea Wall  | Rehabilitate and complete the Sea Wall along Ocean Ave./Route 36.   |  | Structure and Infrastructure Project | Flood, Wave Action, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge |          |                        | OEM Coordinator   | Army Corps of Engineers and HMP funds | \$15,366,500.00  |          | Completed     |
| 43_04              | Floodproof the Downtown District  | Floodproof a minimum of 35 buildings in the Downtown District. These businesses have been identified by the Borough as severely damaged after Superstorm Sandy. Many of the buildings (18) are also listed on the 2011 Repetitive Loss List. The Downtown District is located along Ocean Avenue/Route 36 between Peninsula Avenue and Osborne Place. The Borough is seeking funding to provide financial assistance to businesses in order to provide floodproofing to their buildings.      | Mitigation - Risk Reduction              | Structure and Infrastructure Project | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge               | Medium   | Medium                 | OEM Coordinator   | FEMA HMA                              | \$5,250,000.00   | 1 year   | Ongoing       |
| 43_05              | Construct Berms Along Beachfront to Absorb Storm Surge  | Constructing berms to protect vulnerable areas and absorb wave action storm surge, and to act as a natural barrier to the destructive forces of wind.   | Mitigation - Risk Reduction              | Structure and Infrastructure Project | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge               | High     | Low                    | OEM Coordinator   | FEMA HMA                              | \$3,000,000.00   | 1 year   | Ongoing       |
| 43_06              | Move the Electrical Infrastructure Underground  | Move above-ground electric wires and infrastructure below-ground.   | Mitigation - Continuity of Fuctional Use | Structure and Infrastructure Project | All Hazards   | Medium   | Medium                 | OEM Coordinator   | CDBG, Federal and State grant         | \$200,000.00     | 1 year   | Ongoing       |
| 43_07              | Target Harden Pump Stations with Camera System and Fencing  | Upgrade security on all pump stations (3 sewer pumps + 2 stormwater pumps), including camera system and fencing.  | Maintenance/Respon se/Recovery           | Structure and Infrastructure Project | Terrorism   | Low      | Low                    | Borough DPW       | Homeland Security grants              |                  | 2 years  | New           |

Sea Bright, Borough of

Monmouth County HMP Mitigation Action Summary

| Community Action # | Action Name   | Action Description   | Action Category               | Action Type                          | Hazard(s) Addressed  | Priority | Ease of Implementation | Responsible Party        | Potential Funding Sources | Cost Estimate | Timeline | Action Status |
|--------------------|---|--|-------------------------------|--------------------------------------|--|----------|------------------------|--------------------------|---------------------------|---------------|----------|---------------|
| 43_08              | Develop a Hydrology Study to Improve Stormwater Management Borough-wide | Hydrology Study to improve stormwater management and flooding issues.  | Administrative                | Local Plans and Regulations          | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge                | Medium   | Low                    | Borough Engineering      | Municipal funding         |               | 2 years  | New           |
| 43_09              | Maintain and Retrofit Existing Outfalls                                 | Maintain and retrofit all existing 63 outfalls in the Borough.   | Maintenance/Response/Recovery | Structure and Infrastructure Project | Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge                             | Medium   | Medium                 | Borough DPW, Engineering | FEMA HMA                  |               | 1 year   | New           |
| 43_10              | Improve Public Awareness of Severe Wind Through Outreach Activities     | Improve public awareness of severe wind through outreach activities such as informing residents of shelter locations and evacuation routes; requiring or encouraging wind engineering measures and construction techniques that may include structural bracing, straps and clips, anchor bolts, laminated or impact-resistant glass, reinforced pedestrian and garage doors, window shutters; reviewing building codes and structural policies to ensure they are adequate to protect older structures from wind damage; encouraging wind-resistant roof shapes; educating design professionals to include wind mitigation during building design. | Administrative                | Education and Awareness Programs     | Extreme Wind, Nor'easter, Hurricane and Tropical Storm                                   | Low      | Low                    | Planning Board, OEM      | Municipal budget          |               | 2 years  | New           |
| 43_11              | Improve Public Awareness of Storm Preparedness at the Marina            | Educate boat and marina owners on how to properly prepare for a storm in order to reduce losses. Marinas can develop a boat preparation pamphlet for boat owners. The purpose of the pamphlet would be to educate owners on how to secure boats in preparation for a hurricane, storage facility options, and actions to take after a storm.   | Administrative                | Structure and Infrastructure Project | Flood, Wave Action, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Winter Storm | Low      | Low                    | Planning Board, OEM      | Municipal budget          |               | 2 years  | New           |
| 43_12              | Purchase and Install New Siren for Municipal Complex                    | Purchase and install a siren on the municipal complex.   | Maintenance/Response/Recovery | Education and Awareness Programs     | All Hazards  | Medium   | Low                    | Borough Administration   | Municipal budget          |               | 1 year   | New           |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_01

Sea Bright, Borough of

## Describing the Action

|                        |   |
|------------------------|---|
| Action Name:           | Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties   |
| Action Category:       | Mitigation - Risk Reduction   |
| Action Type:           | Structure and Infrastructure Project  |
| HMA Eligible Activity: | Structure Elevation   |
| Action Description:    | Elevation of approximately 700 homes; 114 homes are on the Repetitive Loss List. The Borough has identified these homes as severely damaged after Superstorm Sandy. A majority of the homes on the repetitive loss list are located west of NJSH Route 36, on the river side, between Osborne Place and Peninsula Avenue. The Borough is seeking funding to provide financial assistance to Borough residents seeking to elevate their homes. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge   |
| Goals:                      | 1, 2, 3, 4, 5, 6  |
| Risk Reduction:             | Virtually all of Sea Bright lies within mapped storm surge hazard areas. The Borough of Sea Bright was almost entirely inundated during Superstorm Sandy. A large number of homes were flooded during Sandy where their first floors were below the BFE. Some also incurred wave damage. Those that were substantially damaged or destroyed must be rebuilt to code, effectively elevating them, but those that were not substantially damaged that did not face the elevation requirement as a condition of rebuilding would be good candidates for an elevation project if they have not already opted to do so. Climate change will contribute to more frequent and severe weather events. |
| Technical:                  | Technically feasible. Flooding problem in downtown and repetitive loss would be eliminated.   |
| Political:                  | The Borough Council is committed to supporting the implementation of this project and has already included the newly adopted ABFE as a requirement for new construction elevations to prevent flooding in the future. The community also supports this.   |
| Legal:                      | No apparent legal issues.   |
| Environmental:              | The project will comply with environmental regulations.   |
| Social:                     | Does not adversely affect any particular social group.  |
| Administrative Capability:  | Will use Borough staff, but outside help would be necessary for volume of work.   |
| Local Champion:             | Borough Council   |
| Other Community Objectives: |   |
| STAPLEE Evaluation:         | 10  |

## Implementing the Action

|                                  |  |
|----------------------------------|--|
| Cost Estimate:                   | \$105,000,000.00   |
| Priority:                        | High   |
| Scale of Ease of Implementation: | Medium   |
| Responsible Party:               | OEM Coordinator  |
| Local Planning Mechanism:        | Land use administration, planning boards, zoning officer, flood plain manager  |
| Likely Funding Source(s):        | FEMA HMA; Municipal budget   |
| Timeline:                        | 2 years  |
| Action Status:                   | Ongoing  |
| Notes:                           | Ongoing 2015 action; 25 Center Street (\$257,040) and 8 Center Street (\$241,000) have been elevated through HMGP funding. |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_02

Sea Bright, Borough of

## Describing the Action

|                        |   |
|------------------------|---|
| Action Name:           | Elevate Bulkhead with Pump Stations, Tide Valves to Outfalls, and Backflow Preventors   |
| Action Category:       | Mitigation - Risk Reduction   |
| Action Type:           | Structure and Infrastructure Project  |
| HMA Eligible Activity: | Mitigation Reconstruction   |
| Action Description:    | The scope of this project is completing the bulkhead by raising it 2,600 feet from the south side of the Rumson Rd. Bridge to Osborne P., along both private and public property, to create a continuous elevated bulkhead equipped with four stormwater pump stations, tide flex valves at all outfalls within the project area, and backflow preventers. The Borough is seeking to raise the bulkhead elevation to 7.0ft NAVO 88, to protect these properties from the 25-year-storm event. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Flood, Wave Action, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge   |
| Goals:                      | 2, 3, 5, 6  |
| Risk Reduction:             | Gaps in the bulkheads (physical gaps, differences in the level of protection, and sections of deteriorated condition) along the Shrewsbury River result in an inconsistent line of protection and subsequent flooding. The bulkhead along the Shrewsbury River is privately owned and varies in height. The subject properties regularly became inundated with water due to flooding, which creates public health hazards, causes loss of use and income, property damage, emergency response and unnecessary burden. |
| Technical:                  | Technically feasible. Flooding problem salved long term; community's problem of business interruption solved.   |
| Political:                  | The Borough has participated in this program before and the Council continues to support it.  |
| Legal:                      | Easements needed.   |
| Environmental:              | No adverse environmental impacts.   |
| Social:                     | Does not adversely affect any particular social group.  |
| Administrative Capability:  | Would use Borough resources and technical assistance from State to manage.  |
| Local Champion:             | Borough Council   |
| Other Community Objectives: | Protect Economic Development (homes and businesses)   |
| STAPLEE Evaluation:         | 11  |

## Implementing the Action

|                                  |  |
|----------------------------------|--|
| Cost Estimate:                   | \$10,286,600.00  |
| Priority:                        | High   |
| Scale of Ease of Implementation: | Medium   |
| Responsible Party:               | OEM Coordinator  |
| Local Planning Mechanism:        | Borough Engineer, Borough Council, OEM   |
| Likely Funding Source(s):        | FEMA HMA   |
| Timeline:                        | 2 years  |
| Action Status:                   | Ongoing  |
| Notes:                           | Ongoing 2015 action; three out of four pump stations have been completed; currently adding tide flex valves; and three backflow preventers have been built (but need more).<br>The Ocean Ave. Pump Station received \$1,831,952 in HMGP funding.<br>The Borough was awarded two FEMA 406 Funding to repair the pump stations post-Sandy. One grant was for \$187,109 and the second for \$67,360.<br>The Borough was also awarded FEMA 406 for repairs to bulkheads after Hurricane Irene. |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_03

Sea Bright, Borough of

## Describing the Action

Action Name: Rehabilitate and Complete Sea Wall

Action Category:

Action Type: Structure and Infrastructure Project

HMA Eligible Activity: Mitigation Reconstruction

Action Description: Rehabilitate and complete the Sea Wall along Ocean Ave./Route 36.

## Evaluating the Action

Hazard(s) Addressed: Flood, Wave Action, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Storm Surge

Goals: 2, 3, 5, 7

Risk Reduction: The Sea Wall extends along most of the eastern portion of the community, there are missing segments and discontinuity along the length of the wall. As a result, areas of the Borough are vulnerable and exposed to water damage and flooding during storm surges. Route 36 is an evacuation route and must be protected from flooding surge and erosion. It is of particular importance in Sea Bright because of its location on the very narrow spit of land between the Shrewsbury River and the Atlantic Ocean.

Technical: Technically feasible. Flooding problem throughout town would be addressed and mitigated to a degree.

Political: The Borough Council and community support protecting the residents by pursuing this project.

Legal: No apparent legal issues.

Environmental: No adverse environmental effects.

Social: Does not adversely affect any particular social group.

Administrative Capability: Will need multiple people to administer (after technical assistance from State and professionals).

Local Champion: Borough Council

Other Community Objectives: Business district protection

STAPLEE Evaluation: N/A

## Implementing the Action

Cost Estimate: \$15,366,500.00

Priority:

Scale of Ease of Implementation:

Responsible Party: OEM Coordinator

Local Planning Mechanism: Mayor and Council, with State and Federal Authorities

Likely Funding Source(s): Army Corps of Engineers and HMP funds

Timeline:

Action Status: Completed

Notes:

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_04

Sea Bright, Borough of

## Describing the Action

|                        |  |
|------------------------|--|
| Action Name:           | Floodproof the Downtown District   |
| Action Category:       | Mitigation - Risk Reduction  |
| Action Type:           | Structure and Infrastructure Project   |
| HMA Eligible Activity: | Dry Floodproofing of Non-residential Structures  |
| Action Description:    | Floodproof a minimum of 35 buildings in the Downtown District. These businesses have been identified by the Borough as severely damaged after Superstorm Sandy. Many of the buildings (18) are also listed on the 2011 Repetitive Loss List. The Downtown District is located along Ocean Avenue/Route 36 between Peninsula Avenue and Osborne Place. The Borough is seeking funding to provide financial assistance to businesses in order to provide floodproofing to their buildings. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge   |
| Goals:                      | 2, 3, 5   |
| Risk Reduction:             | Sea Bright's downtown district was completely inundated by Superstorm Sandy and is in SFHA, Zone A. Dry floodproofing is encouraged for businesses that cannot elevate. |
| Technical:                  | Technically feasible. Flooding problem in downtown area.  |
| Political:                  | The Borough Council, business owners, and residents support this project.   |
| Legal:                      | No apparent legal issues  |
| Environmental:              | No adverse environmental effects  |
| Social:                     | Does not adversely affect any particular social group   |
| Administrative Capability:  | Borough resources would be used with technical assistance from the State  |
| Local Champion:             | Borough Council, Businesses of Sea Bright   |
| Other Community Objectives: | Supports Sea Bright's Economic Development Plan   |
| STAPLEE Evaluation:         | 10  |

## Implementing the Action

|                                  |   |
|----------------------------------|---|
| Cost Estimate:                   | \$5,250,000.00  |
| Priority:                        | Medium  |
| Scale of Ease of Implementation: | Medium  |
| Responsible Party:               | OEM Coordinator   |
| Local Planning Mechanism:        | Floodplain Manager, Zoning Officer, Borough Council, Planning Board                                       |
| Likely Funding Source(s):        | FEMA HMA  |
| Timeline:                        | 1 year  |
| Action Status:                   | Ongoing   |
| Notes:                           | Ongoing 2015 action; one business tried to floodproof but was not able to due to location of gas service. |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_05

Sea Bright, Borough of

## Describing the Action

|                        |   |
|------------------------|---|
| Action Name:           | Construct Berms Along Beachfront to Absorb Storm Surge  |
| Action Category:       | Mitigation - Risk Reduction   |
| Action Type:           | Structure and Infrastructure Project  |
| HMA Eligible Activity: | Localized Flood Risk Reduction Projects   |
| Action Description:    | Constructing berms to protect vulnerable areas and absorb wave action storm surge, and to act as a natural barrier to the destructive forces of wind. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge   |
| Goals:                      | 2, 3, 5, 6  |
| Risk Reduction:             | Sea Bright is located on the barrier island; its beaches are eroding. Superstorm Sandy destroyed the dune system in Sea Bright. The Borough has been rebuilding berms to add protection for the beach, homes, and businesses. |
| Technical:                  | Technically feasible. Protection for local residences, businesses, and NJSH Route 36 corridor.  |
| Political:                  | The Borough Council and community support this project and have used Borough resources on this work.  |
| Legal:                      | Need to coordinate with NJDEP regulations.  |
| Environmental:              | No adverse environmental effects. Working around piping plover season. Working with State to monitor this.  |
| Social:                     | Does not adversely affect any particular social group.  |
| Administrative Capability:  | Borough has sufficient capacity and experience to administer this action  |
| Local Champion:             | Borough Council   |
| Other Community Objectives: |   |
| STAPLEE Evaluation:         | 11  |

## Implementing the Action

|                                  |   |
|----------------------------------|---|
| Cost Estimate:                   | \$3,000,000.00  |
| Priority:                        | High  |
| Scale of Ease of Implementation: | Low   |
| Responsible Party:               | OEM Coordinator   |
| Local Planning Mechanism:        | Mayor and Council, Department of Public Works, OEM  |
| Likely Funding Source(s):        | FEMA HMA  |
| Timeline:                        | 1 year  |
| Action Status:                   | Ongoing   |
| Notes:                           | Ongoing 2015 action; currently, the Borough is planting and replanting dunes and they established a Dune Planting Committee. There will always be an ongoing need for dunes and berms to protect the Borough from flooding from the ocean side. |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_06

Sea Bright, Borough of

## Describing the Action

|                        |   |
|------------------------|---|
| Action Name:           | Move the Electrical Infrastructure Underground                    |
| Action Category:       | Mitigation - Continuity of Fuctional Use                          |
| Action Type:           | Structure and Infrastructure Project                              |
| HMA Eligible Activity: | Miscellaneous/Other   |
| Action Description:    | Move above-ground electric wires and infrastructure below-ground. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | All Hazards   |
| Goals:                      | 2, 5, 7   |
| Risk Reduction:             | The effects of the winds and flooding have taken their toll on the above-ground power utilities and outages during severe storms are fairly common. Power outages affect residents, businesses, and the ability of the Borough to provide critical services and perform emergency functions. Above ground transmission systems undergo repeated cycles of damage, repair, and reconstruction. Due to the constant exposure to storms, Sea Bright has had extensive damage to the utility service by falling poles and the loss of power from downed transmission lines. Underground utility service can be more reliable than overhead service. The transmission poles throughout the Borough are part of a larger grid system serving much of coastal Monmouth County and Sandy Hook. By increasing resiliency, there will be fewer outages. |
| Technical:                  | Discussing with utility companies.  |
| Political:                  | The Borough Council and community support protecting the residents by pursuing this project.  |
| Legal:                      | No apparent legal issues.   |
| Environmental:              | No adverse environmental effects.   |
| Social:                     | Does not adversely affect any particular social group.  |
| Administrative Capability:  | Will need multiple people to administer (after technical assistance from State and Professionals).  |
| Local Champion:             | Sea Bright 2020, Mayor and Council  |
| Other Community Objectives: |   |
| STAPLEE Evaluation:         | N/A   |

## Implementing the Action

|                                  |   |
|----------------------------------|---|
| Cost Estimate:                   | \$200,000.00  |
| Priority:                        | Medium  |
| Scale of Ease of Implementation: | Medium  |
| Responsible Party:               | OEM Coordinator   |
| Local Planning Mechanism:        | Mayor and Council, Sea Bright 2020  |
| Likely Funding Source(s):        | CDBG, Federal and State grant   |
| Timeline:                        | 1 year  |
| Action Status:                   | Ongoing   |
| Notes:                           | Ongoing 2015 action; JCP&L put in redundant system after Sandy. Electrical infrastructure connecting to stormwater pumps is elevated. |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_07

Sea Bright, Borough of

## Describing the Action

|                        |  |
|------------------------|--|
| Action Name:           | Target Harden Pump Stations with Camera System and Fencing   |
| Action Category:       | Maintenance/Response/Recovery  |
| Action Type:           | Structure and Infrastructure Project   |
| HMA Eligible Activity: | Miscellaneous/Other  |
| Action Description:    | Upgrade security on all pump stations (3 sewer pumps + 2 stormwater pumps), including camera system and fencing. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Terrorism   |
| Goals:                      | 1, 2, 3, 5, 7   |
| Risk Reduction:             | The pump stations are vulnerable to a terrorist attack and needs to be more secure.   |
| Technical:                  | Action will not negatively impact function or operation of station.   |
| Political:                  | No adverse political ramifications are expected.  |
| Legal:                      | No legal impediments anticipated.   |
| Environmental:              | No adverse environmental impact anticipated   |
| Social:                     | No adverse social impact anticipated. The project is perceived as beneficial by the public as it will increase the reliability of operations. |
| Administrative Capability:  | Borough has sufficient capacity and experience to administer this action  |
| Local Champion:             | Mayor, OEM, Administrator   |
| Other Community Objectives: |   |
| STAPLEE Evaluation:         | N/A   |

## Implementing the Action

|                                  |  |
|----------------------------------|--|
| Cost Estimate:                   |  |
| Priority:                        | Low                                      |
| Scale of Ease of Implementation: | Low                                      |
| Responsible Party:               | Borough DPW                              |
| Local Planning Mechanism:        | Sea Bright Hazard Mitigation Plan (2016) |
| Likely Funding Source(s):        | Homeland Security grants                 |
| Timeline:                        | 2 years                                  |
| Action Status:                   | New                                      |
| Notes:                           |  |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_08

Sea Bright, Borough of

## Describing the Action

Action Name: Develop a Hydrology Study to Improve Stormwater Management Borough-wide

Action Category: Administrative

Action Type: Local Plans and Regulations

HMA Eligible Activity: Localized Flood Risk Reduction Projects

Action Description: Hydrology Study to improve stormwater management and flooding issues.

## Evaluating the Action

Hazard(s) Addressed: Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge

Goals: 2, 3, 4, 5, 6

Risk Reduction: The hydrological processes and erosion along Sea Bright's Atlantic Ocean and Shrewsbury River shorelines are continuous and of mounting concern. Overall, the future occurrence of coastal erosion in Sea Bright can be considered likely, as defined by the Risk Factor methodology probability criteria.

Technical: Technically feasible.

Political: No adverse political ramifications are expected.

Legal: No legal impediments anticipated.

Environmental: Does not adversely affect the environment.

Social: Does not adversely affect any particular social group. Perceived by the public to be a good thing because it reduces risk for residents.

Administrative Capability: Borough has sufficient capacity and experience to administer this action.

Local Champion: Mayor, OEM, Administrator

Other Community Objectives:

STAPLEE Evaluation: N/A

## Implementing the Action

Cost Estimate:

Priority: Medium

Scale of Ease of Implementation: Low

Responsible Party: Borough Engineering

Local Planning Mechanism: Sea Bright Hazard Mitigation Plan (2016)

Likely Funding Source(s): Municipal funding

Timeline: 2 years

Action Status: New

Notes:

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_09

Sea Bright, Borough of

## Describing the Action

|                        |  |
|------------------------|--|
| Action Name:           | Maintain and Retrofit Existing Outfalls                        |
| Action Category:       | Maintenance/Response/Recovery                                  |
| Action Type:           | Structure and Infrastructure Project                           |
| HMA Eligible Activity: | Infrastructure Retrofit  |
| Action Description:    | Maintain and retrofit all existing 63 outfalls in the Borough. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge  |
| Goals:                      | 2, 3, 5   |
| Risk Reduction:             | Tidal flooding in Sea Bright has become a common occurrence during high tides cycles and full moons. The storm sewers along the roads have outfalls below the high tide elevations. When the tide rises water can enter the storm sewer and flood the streets. Some of the drainage systems in Sea Bright have check valves at the outfalls that prevent the tide from backing up into the pipes and onto the roadways. |
| Technical:                  | Technically feasible.   |
| Political:                  | Politically acceptable and encouraged.  |
| Legal:                      | No legal issues anticipated   |
| Environmental:              | Does not adversely affect the environment.  |
| Social:                     | Does not adversely affect any particular social group. Perceived by the public to be a good thing because it reduces risk for residents.  |
| Administrative Capability:  | Borough has sufficient capacity and experience to administer this action.   |
| Local Champion:             | Mayor, OEM, Administrator   |
| Other Community Objectives: |   |
| STAPLEE Evaluation:         | N/A   |

## Implementing the Action

|                                  |  |
|----------------------------------|--|
| Cost Estimate:                   |  |
| Priority:                        | Medium                                   |
| Scale of Ease of Implementation: | Medium                                   |
| Responsible Party:               | Borough DPW, Engineering                 |
| Local Planning Mechanism:        | Sea Bright Hazard Mitigation Plan (2016) |
| Likely Funding Source(s):        | FEMA HMA                                 |
| Timeline:                        | 1 year                                   |
| Action Status:                   | New                                      |
| Notes:                           |  |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_10

Sea Bright, Borough of

## Describing the Action

|                        |  |
|------------------------|--|
| Action Name:           | Improve Public Awareness of Severe Wind Through Outreach Activities  |
| Action Category:       | Administrative   |
| Action Type:           | Education and Awareness Programs   |
| HMA Eligible Activity: | Miscellaneous/Other/NA   |
| Action Description:    | Improve public awareness of severe wind through outreach activities such as informing residents of shelter locations and evacuation routes; requiring or encouraging wind engineering measures and construction techniques that may include structural bracing, straps and clips, anchor bolts, laminated or impact-resistant glass, reinforced pedestrian and garage doors, window shutters; reviewing building codes and structural policies to ensure they are adequate to protect older structures from wind damage; encouraging wind-resistant roof shapes; educating design professionals to include wind mitigation during building design. |

## Evaluating the Action

|                             |  |
|-----------------------------|--|
| Hazard(s) Addressed:        | Extreme Wind, Nor'easter, Hurricane and Tropical Storm   |
| Goals:                      | 1, 2, 3, 4, 5, 6   |
| Risk Reduction:             | Sea Bright has experienced high winds from hurricane events. During Hurricane Sandy the National Weather Service (NWS) recorded sustained winds up to eight-eight (88) mph. Wind poses a threat to lives, property, and vital utilities primarily due to the effects of flying debris or downed trees and power lines. |
| Technical:                  | Technically feasible.  |
| Political:                  | The Borough Council and community support continued awareness and research into new and innovation mitigation actions, techniques and technologies.  |
| Legal:                      | No legal issues are anticipated.   |
| Environmental:              | No adverse environmental impacts are anticipated.  |
| Social:                     | Does not adversely affect any particular social group. Perceived by the public to be beneficial by protecting their home or business.  |
| Administrative Capability:  | Will utilize Borough staff, but outside help would be necessary for increased volume of work.  |
| Local Champion:             | Mayor, OEM, Administrator  |
| Other Community Objectives: |  |
| STAPLEE Evaluation:         | N/A  |

## Implementing the Action

|                                  |  |
|----------------------------------|--|
| Cost Estimate:                   |  |
| Priority:                        | Low  |
| Scale of Ease of Implementation: | Low  |
| Responsible Party:               | Planning Board, OEM  |
| Local Planning Mechanism:        | Sea Bright Hazard Mitigation Plan (2016), Planning Board, Borough Council, OEM |
| Likely Funding Source(s):        | Municipal budget   |
| Timeline:                        | 2 years  |
| Action Status:                   | New  |
| Notes:                           |  |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_11

Sea Bright, Borough of

## Describing the Action

|                        |  |
|------------------------|--|
| Action Name:           | Improve Public Awareness of Storm Preparedness at the Marina   |
| Action Category:       | Administrative   |
| Action Type:           | Structure and Infrastructure Project   |
| HMA Eligible Activity: | Miscellaneous/Other/NA   |
| Action Description:    | Educate boat and marina owners on how to properly prepare for a storm in order to reduce losses. Marinas can develop a boat preparation pamphlet for boat owners. The purpose of the pamphlet would be to educate owners on how to secure boats in preparation for a hurricane, storage facility options, and actions to take after a storm. |

## Evaluating the Action

|                             |   |
|-----------------------------|---|
| Hazard(s) Addressed:        | Flood, Wave Action, Extreme Wind, Nor'easter, Hurricane and Tropical Storm, Winter Storm  |
| Goals:                      | 2, 3, 5, 6, 7   |
| Risk Reduction:             | Debris carried by floodwater generates short duration impacts when they strike stationary or slower moving objects. Waterborne debris typically include any floating object that that is not secure, such as boats. Unsecured boats can cause damage to other boats and properties. |
| Technical:                  | N/A   |
| Political:                  | The Borough Council and community support continued awareness and research into new and innovation mitigation actions, techniques and technologies.   |
| Legal:                      | No apparent legal issues.   |
| Environmental:              | No adverse environmental effects.   |
| Social:                     | Does not adversely affect any particular social group.  |
| Administrative Capability:  | Will utilize Borough staff, but outside help would be necessary for increased volume of work.   |
| Local Champion:             | Mayor, OEM, Administrator   |
| Other Community Objectives: |   |
| STAPLEE Evaluation:         | N/A   |

## Implementing the Action

|                                  |  |
|----------------------------------|--|
| Cost Estimate:                   |  |
| Priority:                        | Low  |
| Scale of Ease of Implementation: | Low  |
| Responsible Party:               | Planning Board, OEM  |
| Local Planning Mechanism:        | Sea Bright Hazard Mitigation Plan (2016), Planning Board, Borough Council, OEM |
| Likely Funding Source(s):        | Municipal budget   |
| Timeline:                        | 2 years  |
| Action Status:                   | New  |
| Notes:                           |  |

# Monmouth County Mitigation Action Worksheets

Community Action Number: 43\_12

Sea Bright, Borough of

## Describing the Action

Action Name: Purchase and Install New Siren for Municipal Complex

Action Category: Maintenance/Response/Recovery

Action Type: Education and Awareness Programs

HMA Eligible Activity: Miscellaneous/Other/NA

Action Description: Purchase and install a siren on the municipal complex.

## Evaluating the Action

Hazard(s) Addressed: All Hazards

Goals: 4, 5, 7

Risk Reduction: The Borough has difficulty reaching all residents during emergency situations and disaster.

Technical: Technically feasible.

Political: Politically acceptable and encouraged in order to communicate reach all residents with crucial information.

Legal: No legal issues anticipated.

Environmental: No adverse environmental effects anticipated.

Social: Does not adversely affect any particular social group. Perceived by the public to be a good thing because the siren will keep residents alert and informed.

Administrative Capability: Borough has sufficient capacity and experience to administer this action

Local Champion: Mayor, OEM, Administrator

Other Community Objectives:

STAPLEE Evaluation: N/A

## Implementing the Action

Cost Estimate:

Priority: Medium

Scale of Ease of Implementation: Low

Responsible Party: Borough Administration

Local Planning Mechanism: Hazard Mitigation Plan

Likely Funding Source(s): Municipal budget

Timeline: 1 year

Action Status: New

Notes: The Borough Hall and Municipal Lot was awarded two FEMA 406 Public Assistance funding after Hurricane Irene; one for \$1,150 and \$986,144.

# CAPABILITY ASSESSMENT WORKSHEET

Name: Daniel J. Chernavsky

Title: OEM Coordinator

Jurisdiction: Sea Bright Borough

Organization:

Local Mitigation Capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

## Planning & Regulatory

Planning and Regulatory Capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Please indicate which of the following your jurisdiction currently has in place.

| Plan                               | Yes/No | 1. What is the date/year of the plan?<br>2. Does the plan address hazards?<br>3. Does the plan identify projects to include in the mitigation strategy?<br>4. Can the plan be used to implement mitigation actions? |
|------------------------------------|--------|---|
| Comprehensive/Master Plan          | Yes    | 1. 2017   |
| Capital Improvements Plan          | Yes    |   |
| Economic Development Plan          | Yes    |   |
| Local Emergency Operations Plan    | Yes    | 1. 2013   |
| Continuity of Operations Plan      |        |   |
| Post-Disaster Recovery Plan        | Yes    |   |
| Transportation Plan                | Yes    | 1. As an element of the 2017 Master Plan  |
| Stormwater Management Plan         | Yes    | 1. Revised 2007   |
| Community Wildfire Protection Plan |        |   |



## CAPABILITY ASSESSMENT WORKSHEET

|  |               |   |
|--|---------------|---|
| Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation) | Yes           | <ul style="list-style-type: none"> <li>• Stormwater Pollution Prevention Plan (2018)</li> <li>• Strategic Recovery Planning Report</li> <li>• Sea Bright 202 Recovery Plan (2013)</li> <li>• Getting to Resilience</li> <li>• NJ FRAMES</li> <li>• Sea Bright Hazard Mitigation Plan</li> </ul> |
| <b>Building Code, Permitting, and Inspections</b>  | <b>Yes/No</b> | <b>Are codes adequately enforced?</b>   |
| Building Code  | Yes           | Version/Year:   |
| Building Code Effectiveness Grading Schedule (BCEGS) Score   |               | Score:  |
| Fire Department ISO rating   |               | Rating:   |
| Site Plan Review Requirements  | Yes           |   |
| <b>Land Use Planning and Ordinances</b>  | <b>Yes/No</b> | <b>Is the ordinance an effective measure for reducing hazard impacts?</b><br><b>Is the ordinance adequately administered and enforced?</b>  |
| Zoning Ordinance   | Yes           |   |
| Subdivision Ordinance  | Yes           |   |
| Floodplain Ordinance   | Yes           | <ul style="list-style-type: none"> <li>• Flood Damage Prevention Ordinance</li> </ul>   |
| Natural hazard ordinance (stormwater, steep slope, wildfire)   | Yes           | <ul style="list-style-type: none"> <li>• Bulkhead Ordinance</li> <li>• Stormwater Management Ordinance</li> <li>• Floodplain Management Ordinance</li> </ul>  |
| Flood Insurance Rate Maps  | Yes           |   |
| Acquisition of Land for Open Space and Public Recreation Uses  |               |   |
| Post-Disaster Recovery Ordinance   | Yes           |   |
| Real Estate Disclose Ordinance   | Yes           |   |



## CAPABILITY ASSESSMENT WORKSHEET

|  |     |  |
|--|-----|--|
| Other (ie. Special Purposes Ordinance)   | Yes | Special Purposes Ordinance and Growth Management Ordinance |
| <b>How can the above capabilities be expanded and improved to reduce risk?</b> |     |  |
|  |     |  |

### Administrative & Technical

Identify whether your community has the following administrative and technical capabilities. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. For smaller jurisdictions without local staff resources, if there are public resources at the next higher-level government that can provide technical assistance, indicate so in your comments.

| Administration   | Yes/No          | Describe capability<br>Is coordination effective?  |
|--|-----------------|--|
| Planning Commission  |                 |  |
| Mitigation Planning Committee  | Yes             | Sea Bright Dune Committee  |
| Maintenance Programs to Reduce Risk (e.g., tree trimming, clearing drainage systems) |                 |  |
| Mutual Aid Agreements  |                 |  |
| Staff  | Yes/No<br>FT/PT | Is the staff full time or part time?<br>Is staffing adequate to enforce regulations?<br>Is the staff trained on hazards and mitigation?<br>Is coordination between agencies and staff effective? |
| Chief Building Official  |                 |  |
| Floodplain Administrator   | Yes             | PT   |
| Emergency Manager  | Yes             | PT   |
| Community Planner  | Yes             | Consultant<br>PT   |



## CAPABILITY ASSESSMENT WORKSHEET

|  |               |   |
|--|---------------|---|
| Civil Engineer   | Yes           | Consultant<br>PT  |
| Surveyor   | Yes           |   |
| GIS Coordinator  | Yes           |   |
| Scientists familiar with the hazards of the community                          | Yes           |   |
| Other  |               | Intron (IT Company) Cyber security, email servers, moving backup serves in Shrewsbury, protects from phishing                 |
| <b>Technical</b>   | <b>Yes/No</b> | <b>Describe capability<br/>Has capability been used to access/mitigate risk in the past?</b>                                  |
| Warning Systems/Services<br>(Reverse 911, outdoor warning signals)             |               | <ul style="list-style-type: none"> <li>• Reverse 911 Nexel</li> <li>• Code Red</li> </ul>                                     |
| Hazard Data and Information  |               | <ul style="list-style-type: none"> <li>• Flood Tab</li> <li>• HMW Sign</li> </ul>   |
| Grant Writing  | No            |   |
| Hazus Analysis   | No            |   |
| Other  |               | <ul style="list-style-type: none"> <li>• Ballards along Sea Wall ramps</li> <li>• Classification CRS 2018, class 5</li> </ul> |
| <b>How can the above capabilities be expanded and improved to reduce risk?</b> |               |   |
|  |               |   |



## CAPABILITY ASSESSMENT WORKSHEET

### Financial

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

| Funding Resource   | Access / Eligibility (Yes/No) | Has the funding resource been used in the past and for what type of activities?<br>Could the resource be used to fund future mitigation actions? |
|--|-------------------------------|--|
| Capital Improvements Project Funding   | Yes                           |  |
| Authority to Levy Taxes for Specific Purposes  | Yes                           |  |
| Fees for Water, Sewer, Gas, or Electric Services   | Yes                           |  |
| Impact Fees for New Development  | Yes                           |  |
| Stormwater Utility Fee   |                               |  |
| Incur Debt Through Private Activities  | Yes                           |  |
| Community Development Block Grant  | Yes                           |  |
| Other Federal Funding Programs   | Yes                           |  |
| State Funding Programs   |                               |  |
| Other (e.g., withhold spending in hazard-prone areas)  | Yes                           | Withhold spending in hazard-prone areas, Incur Debt through General Obligation, Incur Debt through Special Tax and Revenue Bond                  |
| <b>How can these capabilities be expanded and improved to reduce risk?</b>   |                               |  |
| <p>We have identified 7 areas of concern for which we submitted grant applications to ensure better protection and increased mitigation of problems identified during this past storm. Funding these programs is an issue for which Sea Girt has committed its own resources and actively seeks a partnership via federal and State grant applications. We have identified weak areas within the Borough and are working to educate the public as well as present the Borough's case for improving infrastructure for these at-risk residents.</p> |                               |  |



## CAPABILITY ASSESSMENT WORKSHEET

### Education and Outreach

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

| Program/Organization  | Yes/No | Describe program/organization and how it relates to disaster resilience and mitigation.<br>Could the program/organization help implement future mitigation activities? |
|---|--------|--|
| Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc. |        |  |
| Ongoing Public Education or Information Programs (e.g., responsible water use, fire safety, household preparedness, environmental education)                |        |  |
| Natural Disaster or Safety Related School Programs  |        |  |
| StormReady Certification  |        |  |
| Firewise Communities Certification  |        |  |
| Public-Private Partnership Initiatives Addressing Disaster Related Issues   |        |  |
| Other   |        |  |
| <b>How can these capabilities be expanded and improved to reduce risk?</b>  |        |  |
|   |        |  |



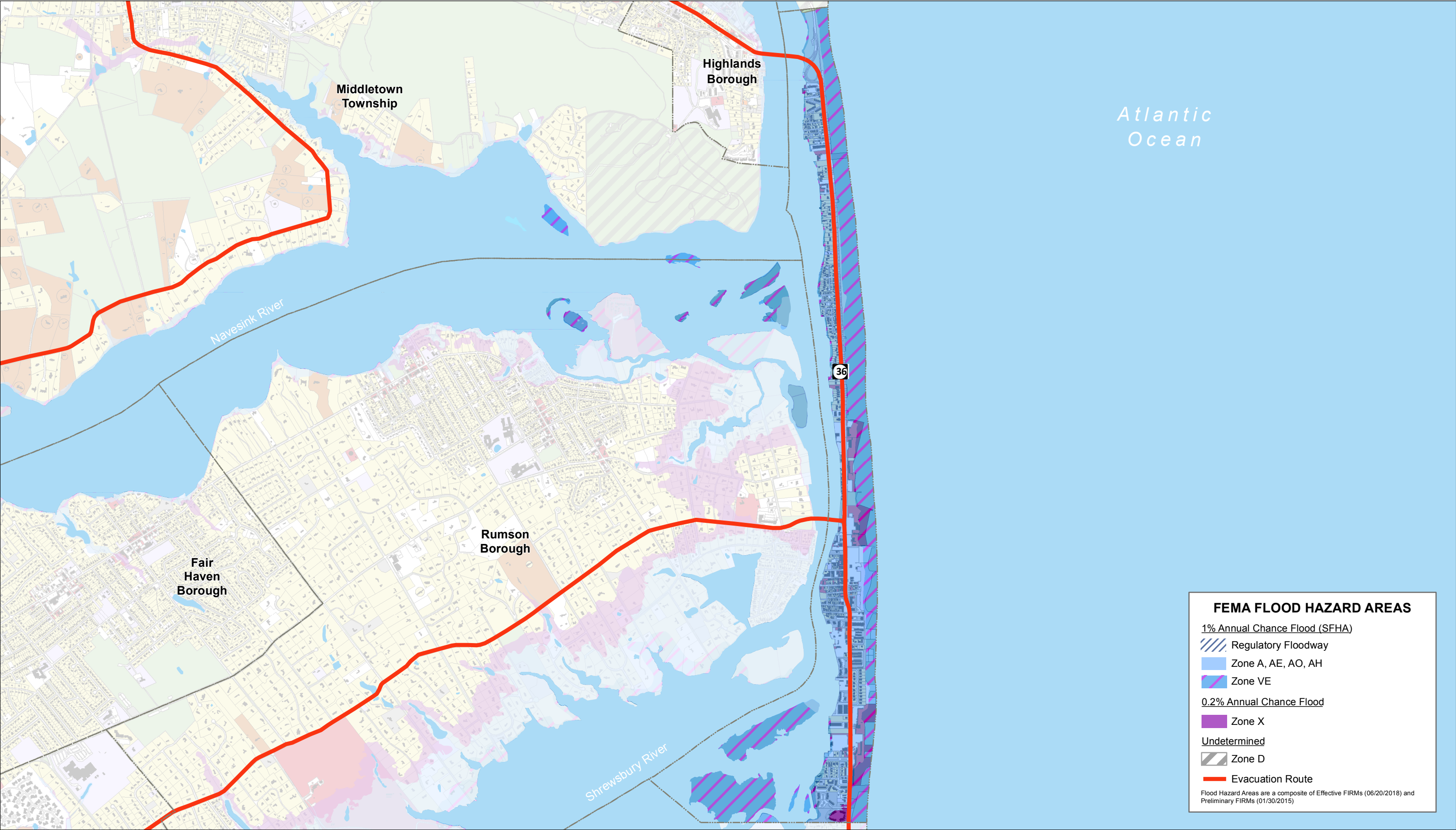


- Parcel Classification
- |            |            |                           |                                     |            |
|------------|------------|---------------------------|-------------------------------------|------------|
| Industrial | Commercial | Apartment                 | Residential (four families or less) |            |
| Farm       | Vacant     | Civic/Public (Tax Exempt) | Unclassified                        | Open Space |

01,0502,100

Feet

Source: 2014 Esri; Monmouth County; NJOIT-OGIS; NJGIN MODIV Parcel, FEMA  
Projection: New Jersey State Plane, NAD 1983



This map was developed using the 10-04-18 statewide composite of parcel data published by the NJOIT-OGIS. The State of New Jersey makes great effort to provide secure, accurate, and complete data and metadata. However, portions of the data and metadata may be incorrect or not current. Any errors or omissions should be reported for investigation to OGIS.



Parcel Classification

Industrial

Commercial

Apartment

Residential (four families or less)

Farm

Vacant

Civic/Public (Tax Exempt)

Unclassified

Open Space

01,0502,100

Feet

N

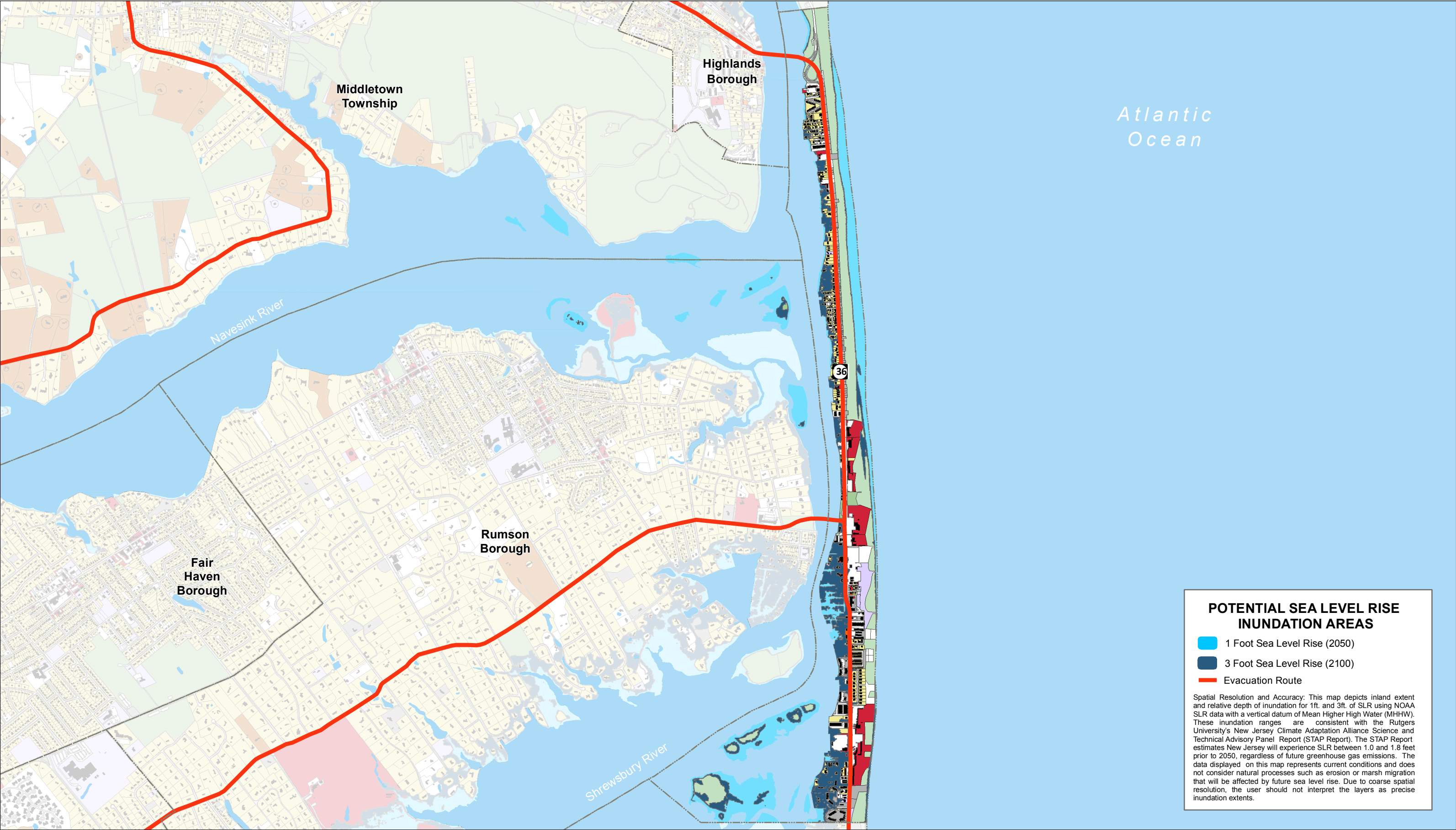
COUNTY OF MONMOUTH  
NEW JERSEY

SHERIFF  
MONMOUTH COUNTY

Michael Baker  
INTERNATIONAL

Source: 2014 Esri; Monmouth County;  
NJOIT-OGIS; NJGIN MODIV Parcel, FEMA

Projection: New Jersey State Plane, NAD 1983





## MEETING NOTES

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**Topic:** Sea Bright- Monmouth County HMP Update Meeting

**Date:** June 27, 2019

**Time:** 12:00 PM- 1:00 PM

**Location:** Sea Bright Boro Hall: 1167 Ocean Ave, Sea Bright, NJ

**Attendees:**

|        |            |               |
|--------|------------|---------------|
| Daniel | Chernavsky | OEM           |
| Dina   | Long       | Mayor         |
| Joseph | Verruni    | Administrator |

**Drafted by:** Paige Kaspar

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**Introductions (Paige):**

- Goals and Hazards
- What is Mitigation Hazard Planning?
- Funding Available
  - HMA
- Mitigation Strategies

**2015 Mitigation Actions:**

- Community Action 43\_01 Home Elevation **Ongoing**
  - Town to send updated list of homes
- Community Action 43\_02 Bulkhead Elevation and Add Pump Stations, Tide Valves to Outfalls, and Backflow Preventors **Ongoing**
  - 3 out of 4 pump stations have been completed
  - Have added tide flex valves through easements
  - Added 3 backflow preventers → need more
  - New Action: Osborne to Rumson Bridge majority in a residential area
    - Bulkheads at end of public streets ( boardwalk) raised to standards 7ft NAVD (as designated by Army Corp)
    - Residential development from Center St. to River St. continuous bulkhead that will be at the designated 7ft height



- Borough wants to continue to pump station (River St to Peninsula St.) and ties into repair Rumson Bridge
  - Osborne South still open
  - Applied for HMPG grant for this but denied because cost/benefit wasn't high enough because people elevated
- Community Action 43\_03 Rehabilitate and complete sea wall **Complete**
- Community Action 43\_04 Flood proofing in Downtown district - **Ongoing**
  - Retrofit existing building that can't be elevated
  - Dry flood proofing nonresidential structures are covered by PDM
  - One business tried but was not able to due to location of gas service
- Community Action 43\_05 Constructing berms to protect vulnerable areas **Ongoing**
  - Planting & replanting dunes
  - Dune Planting Committee
  - Dune replenishment
  - For erosion control
  - Allowed to construct berms under state of emergency conditions
  - Need to have a permit from DEP, there are strict rules
- Community Action 43\_06 Protect electrical infrastructure - **Ongoing**
  - JCP&L put in redundant system after Sandy
  - Electrical infrastructure to stormwater pumps are elevated

**2020 Mitigation Actions (NEW):**

- 7 Upgrade security on all pump stations (3 sewer pumps 2 stormwater pumps), including cameras
- 8 - Hydrology study for stormwater flows
- 9 Maintenance & retrofit of existing outfalls, currently there are 63 outfalls, Church St. backflow valves
- 10 Wind study or wind ordinance wind event → from local HMP
- 11 Marina Strengthening
- 12 - upgrade & replace siren on municipal complex

