

**Community Rating System  
Activity 510 (Floodplain Management Planning)**

**Progress Report on Implementation of Credited Plan**

Date this Report was Prepared: **October 1, 2021**

Name of Community: Town of Ocean City, MD

Name of Plan: Ocean City, Maryland 2017 Hazard Mitigation Plan

Date of Adoption of Plan: May 1, 2017

5 Year CRS/HMP Expiration Date: ~~April 1, 2022~~

1. How can a copy of the original plan or area analysis report be obtained:  
***A copy of the adopted plan / progress report may be found on the Town website at: <https://oceancitymd.gov/oc/departments/emergency-services/> , or a copy may be requested in person at the Department of Planning and Community Development.***
2. Describe how this progress report was prepared and how it was submitted to the governing body, released to the media, and made available to the public:  
*The HMP Actions were reviewed and incorporated into the Comprehensive Plan update in 2017, reviewed and coordinated for potential grant application assistance, and updated by City departments. HMP Actions were reviewed with preparation of the Nuisance Flood Plan. Presentation the Mayor and City Council at a regular work session and advertisement on the Town Website*
3. Provide a description of the implementation of each recommendation or action item in the action plan or area analysis report, including a statement on how the project was implemented or not implemented during the previous year:  
***See Attached***
4. Discuss why any objectives were not reached or why implementation is behind schedule:  
*Incremental progress with coordination of partners has resulted in phased implementation as grants and municipal funding is available.*
5. What are the recommendations for new projects or revised recommendations?  
*-Incorporate State mandated Nuisance Flooding Plan (**approved October 2020**) into overall Floodplain Management Planning through the HMP Action items **during next plan update.***  
*-Revise Hazard Mitigation Plan actions to incorporate major storm event 'after action' report recommendations, review Recommendations for Future Improvements provided by FEMA in the October 6, 2017 HMP approval letter*  
*-Incorporate pervious surface for runoff infiltration during Ocean Block street paving projects*  
***-New projects***

There are currently ten (10) existing Mitigation Action Items that were identified in the *2011 Ocean City, Maryland All-Hazard Mitigation Plan*. These projects were developed from the mitigation action items that were identified by the 2011 HMPC. The table below lists the ten (10) 2011 projects and the associated 2021 status.

Table 12-1: Mitigation Project Status

| 2011 Mitigation Project   | 2021 Status   |
|---|---|
| <p><b>CERT Training</b><br/> <i>CERT Training classes are conducted annually.</i></p>   | <p>Ongoing refresher training for existing CERT members</p>   |
| <p><b>Comprehensive Emergency Operations Plan</b><br/> <i>Elements of the Plan Update have been developed. Specifically, designation of Response Division Areas and mapping. Response Area Divisions were used as Mitigation Planning Areas during the 2016 Plan Update. Also, Incident management information including response, recovery, mitigation, and preparedness were updated.</i></p> | <p>Current &amp; Revised as Required, <b>No change in this period</b></p>   |
| <p><b>Develop Post-Disaster Plan – Comprehensive Recovery Plan</b></p>  | <p><b>Ongoing updates as time allows with limited staff.</b> Action Items include: Complete Recovery Support Function Elements to meet State and Federal policy requirements for the mandated Recovery Plan. <b>Current effort to outsource contract for debris monitoring. Action proposed by May 2022</b></p> |
| <p><b>Property Protection Activities</b><br/> <i>Project 1: Bering Road – elevation project complete</i><br/> <i>Project 2: Tide Gate Project – Phase 2 completed 2020</i><br/> <i>Project 3: Beach Patrol Elevation Project – completed 2015</i></p>   | <p>Project 1: Complete</p> <p>Project 2: Phase 1 and Phase 2 of the storm drain outfall check valve project is complete and its performance is being evaluated.</p> <p>Project 3: Complete</p>  |
| <p><b>Datum Markers/Benchmarks</b><br/> <i>Ocean City installed over forty permanent benchmarks. These benchmarks <b>are updated when changes are identified</b>, and available on the Town website. <a href="https://oceancitymd.gov/oc/departments/engineering/bench-marks/">https://oceancitymd.gov/oc/departments/engineering/bench-marks/</a></i></p>                                      | <p>Complete. Current Information is updated on the National Geodetic Survey Explorer website : <a href="https://www.ngs.noaa.gov/NGSDDataExplorer/">https://www.ngs.noaa.gov/NGSDDataExplorer/</a></p>  |

|  |  |
|--|--|
| <p><b>Database to Forecast Structure Vulnerability</b></p>   | <p>2017 Hazard Mitigation Plan included the preparation of a Risk and Vulnerability Assessment with a HAZUS analysis of critical infrastructure and structure vulnerability. Data collection and inventory of Elevation Certificates provide a database of structure elevations for future risk and mitigation actions regarding possible street elevation projects. <b>Nuisance Flood Plan thresholds established for flood frequency, depth, duration and extent. Exploring potential GIS applications.</b></p>  |
| <p><b>Policy to Increase Elevation of Streets in areas where feasible during local improvements</b></p>  | <p>Ongoing Activity. Mayor and City Council requested on May 1, 2017 building code revision recommendations mandating lot elevations in first -to -flood areas to allow enforcement of the Hazard Mitigation Plan and ultimately elevate streets in first -to -flood areas. Request extended until <b>October 2020</b> to coincide with a new State mandate to prepare a 'Nuisance Flooding Plan'. <b>Study of best practices identified Toms River, NJ street elevation projects as precedent. Green Team work group will continue to propose NFP recommendations for pilot projects.</b></p> |
| <p><b>Preparation and Implementation of the Maryland's Coastal Bays Program- Comprehensive Conservation and Management Plan.</b><br/> <i>Ocean City is an active member in the Maryland Coastal Bay Program.<br/> New Program Director in 2020: Kevin Smith</i></p>  | <p>Ongoing Activity. Town of Ocean City staff participated with the Maryland Coastal Bays Program in the preparation and adoption of the 2015-2025 Comprehensive Conservation &amp; Management Plan. Participate in EPA Climate Ready Estuaries program for coastal risk based adaptation planning. Provided extensive stormwater management data to Worcester County for TMDL watershed implementation plan. <b>Local support for Reedy Island restoration project.</b></p>   |
| <p><b>Public Information Activities Advisement</b><br/> <i>Community Newsletter providing Flood Hazard and Hurricane Preparedness Information annually. These programs are also advertised on Town website.</i></p>  | <p>Complete and Ongoing Activity, <b>Including OC University class of 2021</b></p>   |
| <p><b>Beach Sand Replenishment</b><br/> <i>Dune sustainability and management is an ongoing project. Current Phase completed - the beach and dune system were damaged during a series of storms including winter storm Jonas in early 2016. The dunes were fully restored by the Maryland Dept of Natural Resources in May 2016 and the beach and berm system was fully restored including 4 years of advance nourishment by the US Army Corps of Engineers in the fall of 2017.</i></p> | <p>Annual monitoring and environmental assessment of borrow sites completed in FY 2019-20. <b>The next sand placement event is anticipated to begin in 2021 / 2022. USACE anticipates dredging an average of approximately 1,070,000 cubic yards of sand from offshore shoals for each future sand placement event.</b></p>  |

| ACTION   | LOCATION/<br>RESPONSIBLE<br>ENTITY  | GOALS | TIMEFRAME         | HAZARD                  | RATING | 2021 IMPLEMETATION UPDATE  |
|--|---|-------|-------------------|-------------------------|--------|--|
| <b>PUBLIC EDUCATION AND AWARENESS:</b><br>Actions to inform and educate citizens, elected officials, and property owners about potential ways to mitigate for hazards that can occur in the County.  |   |       |                   |                         |        |  |
| Virus Outbreak – Protective Measures: Clothing, Education, Monitoring  | Emergency Management  |       | On-Going          | Epidemic                | HIGH   | COVID-19 response continued with local vaccination stations.   |
| Severe Weather Alert and Awareness – Rapidly Developing Weather Event Notification, Public presentations at special events/annual Town Hall meeting  | Beach Patrol/Police Department/ Communications                                |       | On-going          | High Wind/ Thunderstorm | MEDIUM | Alerts provided by EM staff with National Weather Service reports. Increased use of social media (FEMA recommendation #1)  |
| <b>NATURAL RESOURCE PROTECTION:</b><br>Actions that, in addition to minimizing hazard losses also preserve or restore the functions of natural protection systems.   |   |       |                   |                         |        |  |
| Dune Grass Management Plan (& Native Plants) – Annual inspection and replacement of dune grass and vegetation, fertilization, and application of minerals, etc., as needed.  | Public Works, and State Agency contract                                       |       | 1 Year, recurring | Flooding                | MEDIUM | Ongoing program managed by Town Environmental Engineer with assistance from volunteer network on annual basis  |
| <b>EMERGENCY SERVICES:</b><br>Actions that protect people and property during and immediately after a disaster or hazard event. Services include warning systems and emergency response services.  |   |       |                   |                         |        |  |
| <b>Radio System Upgrade</b>  | <b>Ocean City Communications</b>  |       | Complete          | All                     | MEDIUM | Completed and operational radio system for interoperability in event of disaster   |
| Extreme Temperatures: Heat Warnings – 3 Days or more   | Emergency Management  |       | On-Going          | Extreme Heat            | MEDIUM | Beach Patrol provides safety warning and advisories, NWS alerts by email blast   |
| <b>STRUCTURAL PROJECTS:</b><br>Actions that involve the construction of structures to reduce the impact of a hazard event.   |   |       |                   |                         |        |  |
| Secure Area of 33 <sup>rd</sup> Street – Investigate Methods to Prevent Breach   | Public Works  |       | TBD               | Coastal Hazards         | MEDIUM | Area strengthened by incremental new development construction to code  |
| Storm Surge – Implementation of Inlet Dredging and Beach Nourishment/Dune Construction to Minimize Storm Damage<br><br><b>Seawall Repair - 8,056 linear feet steel sheet pile recoating with structural repairs, excavation and backfill</b> | NPS Town of Ocean City – Engineering Worcester County, USACE projects, MD DNR |       | Ongoing           | Coastal Hazards         | HIGH   | Next Phase Beach and berm system restoration including 4 years of advance nourishment by the USACE begins in the fall of 2021. Other ongoing USACE projects: OC Inlet, Inlet and Coastal Bays, Inlet Projects, and ASIS Restoration. Seawall maintenance and repair contract for 21/22 off season. |

## 2016 MITIGATION ACTIONS ITEMS & RATINGS

During the 2017 Plan Update, the following mitigation actions were developed. Action item were ranked “High”, “Medium” or “Low”. Note - Timeframe Definitions: Short-term is less than 0-2 years and long-term is 2-5 years.

Table 12-2: 2016 Mitigation Action Items & Ratings

| ACTION   | LOCATION/<br>RESPONSIBLE<br>ENTITY                               | GOALS | TIMEFRAME | HAZARD             | RATING | 2021 IMPLEMENTATION UPDATE   |
|--|--|-------|-----------|--------------------|--------|--|
| <b>PREVENTION:</b><br>Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses.  |  |       |           |                    |        |  |
| <b>Roadway Flooding</b> – Roadway Flooding During Heavy Rain Events (Southbound) Coastal Highway @ Roadway 100 to 91 <sup>st</sup> & 130-136 <sup>th</sup> (Road Elevations and Drainage Issues) Standing Water, History of Flooding. Storm Drains located on straight need to be increased in size or multiple storm drains installed. Inventory of roadway flooding location expanded during preparation of Nuisance Flood Plan. | Town of Ocean<br>City/State<br>Highway<br>Administration         |       | Annual    | Flooding           | HIGH   | Coordinated project underway with SHA to complete <b>stormwater inlet and pipe cleanout</b> on state and local roads. Town street repaving projects regularly replace and upgrade stormwater infra-structure under a phased implementation program. <b>New CIP projects include Worcester Street, 5th Street stormwater outfall systems.</b> |
| <b>PROPERTY PROTECTION:</b><br>Actions that involve the modification of existing critical and public facilities, buildings, structures, and public infrastructure to protect them from hazards.  |  |       |           |                    |        |  |
| 65 <sup>th</sup> /Bayside Flooding, Heavy Rain (Public Works Complex) – Elevate Street, Improve Drainage, Bus Garage   | Town of Ocean<br>City/State<br>Highway<br>Administration         |       | TBD       | Flooding           | HIGH   | <b>Street elevation completed in 2018, 65<sup>th</sup> Street Public Safety/Public Works Campus complete 3/22/21</b>   |
| Property Protection – Shoreline improvements, Transformers to Higher Elevation or Relocate, Relocation and Elevation of Genset Transformer to Northside Park<br><br><b>Water and Wastewater station improvements with emergency generator backups</b>  | Public Works,<br>Engineering                                     |       | TBD       | Coastal<br>Hazards | HIGH   | Town of Ocean City policy to replace city owned bulkheads with elevation at or above FEMA Base Flood Elevation Delmarva Power continues to complete reliability improvement projects in Town. <b>Ongoing utility infrastructure upgrades.</b>  |
| Protection from Lightning Strikes – Lightning Arrestor System – Install Grounding Devices on Towers. Install Surge Protection Devices on Outreach to Condo. Information for Public Safety on Beach Patrol  | Town of Ocean<br>City Emergency<br>Management/Risk<br>Management |       | On-Going  | Coastal<br>Hazards | MEDIUM | TBD  |



**FEMA**

October 6, 2017

The Honorable Richard Meehan  
Mayor, Town of Ocean City  
301 Baltimore Avenue  
Ocean City, Maryland 21842

Municipality: Town of Ocean City  
County: Worcester, MD  
Adoption Date: 5/1/2017  
Date Approved: 5/1/2017  
Expiration Date: 4/30/2022

Re: Hazard Mitigation Plan Approval

Dear Mayor Meehan:

The Hazard Mitigation Plan for your community has been approved by the Federal Emergency Management Agency (FEMA). Your community is now eligible to apply for federal disaster assistance until the plan expires.

The plan was reviewed and approved based on the criteria contained in 44 Code of Federal Regulations, Part 201, as authorized by the Disaster Mitigation Act of 2000 (DMA2K). These criteria address the planning process, risk assessment (including hazard identification), mitigation strategy and plan maintenance process requirements. Enclosed is a list of specific recommendations for improving the plan. FEMA encourages communities to improve and update their plans as well as take mitigation actions by implementing strategies within the plan. Some resources to assist you include:

Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards  
<http://www.fema.gov/library/viewRecord.do?id=6938>

Integrating Hazard Mitigation Into Local Planning: Case Studies and Tools for  
Community Officials <http://www.fema.gov/library/viewRecord.do?id=7130>

If you have questions, please contact Chas Eby, Chief Strategy Officer, at 410-274- 6690. I commend you for your dedication demonstrated in preparing and adopting a strategy to reduce future disaster losses.

Sincerely,

A handwritten signature in blue ink that reads "Janice P. Barlow".

Janice P. Barlow  
Acting Director, Mitigation Division

Enclosure

cc: Chas Eby, Chief Strategy Officer, MEMA  
Amanda Lewis, Secretary, Department of Emergency Services, Town of Ocean City

**Recommendations for Future Improvements**  
**Local Hazard Mitigation Plan**  
for  
Town of Ocean City, Maryland  
*Plan Approval Date: 5/1/2017*

1. The committee should consider the use of social media sources to promote public awareness of the plan, and seek public comments through these media sources.
2. The planning committee should be increased to include other community organizations and interest such as watershed organizations, business owners, and other entities to provide additional information when the plan is updated next.
3. The lead for the updated plan should attempt to gain more participation from the many stakeholders involved in the planning process. More specifically, attendance by jurisdictions should be improved at committee meetings.
4. The planning team needs to provide specific information on how each jurisdiction participated in the updating of the plan, as well as providing specific information on what they provided for the updated plan.
5. The updated plan should include any documentation of the committee meetings that occurred during the five years of the plan.
6. The updated plan should include any data developed in the five years since the plan was last updated. Information could include lowest floor elevation of vulnerable structures, and other information that could be used in mitigation grant applications. This information could be kept as an appendix to the plan.
7. The updated plan needs to clearly document the status of any mitigation actions that have taken place during the five years of the plan. The committee should consider a narrative that celebrates the success of mitigation in the community.
8. The updated plan should include information on specific projects that the jurisdiction would like to implement. This information could be placed in an appendix that includes specific information on structures. Due to its sensitive nature, this information would not be considered public information, but would be provided to the State and Federal governments.
9. When the plan is updated next, a better integration with existing planning mechanisms needs to be included. For example, the County comprehensive plan should be analyzed to determine how this all hazard Mitigation Plan can be incorporated into that existing planning mechanism and how the comprehensive plan can be incorporated into the local hazard Mitigation Plan.
10. In the next plan update, the plan should include more in-depth information on how the NFIP is managed in each of the jurisdictions. Examples could include: process to ensure new construction is compliant with the local floodplain ordinances; how residents are assisted in mapping issues and how substantially damaged structures are managed to ensure compliance with the latest floodplain ordinance.