

Appendix Vol I.5 Atlantic Highlands 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

118 Policies In-force

97 Total Losses

\$4,080,895 Total Payments

6 Number of RL Properties

0 Number Mitigated
RL Properties

18 RL - Total Losses

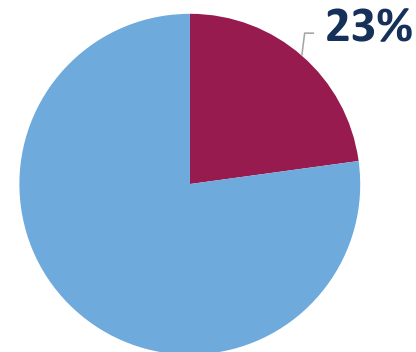
\$1,233,222 RL - Total Paid

0 Number of SRL Properties

0 Number Mitigated SRL
Properties

0 SRL - Total Losses

\$0 SRL - Total Paid



Percent Land Area Within SFHA

9

Total Mitigation
Actions

0



Education and Awareness Programs

8



Structure and Infrastructure Projects

0



Local Plans and Regulations

1



Natural Systems Protection

Critical Facilities

7 Critical Facilities

5 Critical Infrastructure

20 Historic & Cultural Resources



0 SV Population At Risk (2017)

987 Population at Risk (2017)

Atlantic Highlands, 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
05_01	Construct Proper Drainage Infrastructure to Eliminate High Velocity Overland Flows that Cause Slope Failure	Design and construct proper drainage to eliminate the high velocity overland flows that cause slope failure and loading along Hillside Rd & Paper St. There are three options to stabilize the slope: to carry the stormwater from the end of Hillside Rd and pipe it to the Bay, a detention basin, or stop the velocity of the stormwater.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Landslide	High	High	Borough Administrator	Local budget, grants, open space, HMA	\$2,000,000.00	1 year	Ongoing
05_02	Improve Infrastructure Flood Risk Reduction	Plan would be to take the Flood Risk Reduction suggestion and/or actions which may include the installation of gabion walls and drive sheathing into the ground to create a channel for water to follow. No further building will be allowed.		Structure and Infrastructure Project	Flood					\$1,000,000.00		Withdrawn
05_03	Provide Slope Stabilization along Bayside Dr. and Shoreline Protection along the Henry Hudson Trail	Provide hillside stabilization along 400+ feet of Bayside Drive, reduce erosive wave action, stabilize the Henry Hudson shoreline and coastal bluffs, protect the Regional trail access, and stabilize and protect the function of the Bayshore Regional Sewer outfall pipe. Additionally, the project will enhance the coastal experiences of the Trail and provide valuable coastal habitats for such coastal species as horseshoe crabs and beach nesting birds. Using wave attenuation devices/structures and the beneficial reuse of dredged sands the project will mitigate high energy waves and buffer the vulnerable coastline.	Mitigation - Risk Reduction	Structure and Infrastructure Project	All Hazards	High	High	Borough Administrator	FEMA HMA, FEMA Hazard Mitigation Assistance (HMA), The Nature Conservancy (TNC), National Oceanic	\$20,100,000.00	3 years	Ongoing
05_04	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Most of the homes that were flooded by Superstorm Sandy are now elevated. The Borough will work with the outstanding RL properties on mitigation options and any new RL/SRL properties that are added to the list.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	Medium	Individual homeowner	FEMA HMA	\$407,750.00	1 year	Ongoing
05_05	Purchase and Install a Natural Gas Generator for Atlantic Highlands Water & Sewer Utility	A new natural gas generator with transfer switch will be installed at the 1 million gallon holding tank on Observatory Place. This will allow continued power to the water well for public health and safety purposes.	Maintenance/Response/Recovery	Structure and Infrastructure Project	All Hazards			Borough Administrator		\$70,000.00		Completed
05_06	Purchase and Install Portable 100 KW Diesel Generator at Atlantic Highlands Harbor Utility	A new portable 100 KW diesel generator with transfer switch will be on a trailer and transfer switch will be installed at the Harbor Office. This will allow continued power to the harbor office which will allow refueling for all emergency service vehicles and vessels.	Maintenance/Response/Recovery	Structure and Infrastructure Project	All Hazards	Low	Low	Borough Administrator	Local budget, FEMA HMA	\$62,000.00	1 year	Ongoing
05_07	Floodproof First Avenue Sewer Pump Station	The pump station needs to be floodproofed with bulkheading at both the entrance door and garage door and install a bulkhead in front of the generator that keeps the plant up and running during power outages.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Nor'easter, Hurricane and Tropical Storm, All Hazards	High	Low	Borough Administrator	FEMA HMA	\$40,000.00	1 year	Ongoing

Atlantic Highlands, 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
05_08	Restore the Many Mind Creek Stream Corridor	Implement the mitigation actions from the Army Corp of Engineers Report and the Monmouth County Raritan/Sandy Hook Bay Coastal Resilience Planning Study, including but not limited to clearing the existing outlet to allow the creek to properly discharge into the Bay provide habitat for local fauna.	Maintenance/Response/Recovery	Natural Systems Protection	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	Low	Low	Borough	FEMA HMA, New Jersey Corporate Wetlands Restoration Partnership (NJCWRP), National Oceanic and		2 years	New
05_09	Extend the Existing Breakwall in the Raritan Bay to Protect the Marina	Extend the existing breakwall 150 LF to the east into the Raritan Bay, enclosing and protecting the marina.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge	High	High	Borough	FEMA HMA	\$8,000,000.00	2 years	New

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_01

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Construct Proper Drainage Infrastructure to Eliminate High Velocity Overland Flows that Cause Slope Failure
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Soil Stabilization
Action Description:	Design and construct proper drainage to eliminate the high velocity overland flows that cause slope failure and loading along Hillside Rd & Paper St. There are three options to stabilize the slope: to carry the stormwater from the end of Hillside Rd and pipe it to the Bay, a detention basin, or stop the velocity of the stormwater.

Evaluating the Action

Hazard(s) Addressed:	Landslide
Goals:	1, 2, 3, 5, 6
Risk Reduction:	The hillside has become progressively unstable. This action will protect structure, vacant land, and the roadway at bottom of hillside. Hillside Rd. and Paper St. have issues with high velocity overland flows (outside of mapped floodplains) that cause both slope failure and flooding. If the drainage of water continues to erode Paper St., the downhill properties will be in danger of failure as will the residents in the dwelling. If the wash out is severe, there is a possibility that the roadway will wash out and landlock over 12 homes. On Hillside Dr. municipal and four private properties are at risk.
Technical:	This action is very beneficial and technically feasible.
Political:	Residents of this area are in favor or a solid repair fix and the Mayor and Council understand the importance of this project but they do not have funds to commit.
Legal:	May require easements with private property owners and/or DEP permits.
Environmental:	It is a steep slope area which is governed by Borough Ordinance. This would take great care in engineering a permanent repair. It will have to comply with environmental rules.
Social:	This will affect some of the residents of Bayside Dr. but have an overall effect on the Borough. The homes along the water are very valuable as they pay a great deal of property taxes.
Administrative Capability:	The Borough would need engineering and financial assistance. The Borough could manage the bid and other limited resources.
Local Champion:	We believe the DEP will support as will our local Environmental Commission.
Other Community Objectives:	This will also allow the Environmental Commission to finish a walking trail which will connect the Bayside/Henry Hudson Trail to Lenape Woods which is a local walking trail preserve.
STAPLEE Evaluation:	9

Implementing the Action

Cost Estimate:	\$2,000,000.00
Priority:	High
Scale of Ease of Implementation:	High
Responsible Party:	Borough Administrator
Local Planning Mechanism:	Engineering, Building Department, Finance
Likely Funding Source(s):	Local budget, grants, open space, HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	Ongoing 2015 action; there has been no movement with this action and no budget available. The Borough ranks this action with the highest priority (in addition to Action 05_03) and will continue to search for funding.

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_02

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Improve Infrastructure Flood Risk Reduction
Action Category:	
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Soil Stabilization
Action Description:	Plan would be to take the Flood Risk Reduction suggestion and/or actions which may include the installation of gabion walls and drive sheathing into the ground to create a channel for water to follow. No further building will be allowed.

Evaluating the Action

Hazard(s) Addressed:	Flood
Goals:	1, 2, 3, 5, 6
Risk Reduction:	Flooding is an issue at Fireman's Memorial Field on West Highland Avenue (south of Avenue B). This specific location is adjacent to the Many Mind Creek. The site is owned by the Borough's Firemen's association. 3 baseball fields, converted for football in fall, soccer as well. While damages to the fields themselves are an issue, the affected area also includes the following improvements: bleachers, dugouts, electric scoreboards, PA system, night lights, cinder track at border and beside Many Mind Creek, tot lot near Leonard Avenue entrance, parking lot, chute, slide, monkey bars, climbing, other devices, field house with restrooms, and concession stand. In addition, the streets and surrounding homes are effected on Ave A. South Ave, Center Ave, Boy Ave and Harbor View Drive. The creek was desnagged in these specific area since the initial version of the pion, but flooding problems continue. In addition, the bridge hasn't changed thus the continuance of problems.
Technical:	This action is very beneficial and technically feasible.
Political:	Yes. Residents of this area are in favor of a solid repair/fix. The Mayor and Council understand the importance of this project but they do not have funds to commit.
Legal:	Yes but there are DEP permits required.
Environmental:	This specific site is a part of a remediation clean up by NJ Natural Gas Co. The DEP is overseeing the cleanup. Permitting will be necessary and the handling of materials will require training.
Social:	This action will actually assist several areas of the Borough so as to limit the amount of flooding in areas. There are approximately 12 businesses that are along this portion of the creek which will now have limited flood damage.
Administrative Capability:	The Borough would need engineering, permitting and financial assistance. The Borough could manage the bid and other limited resources.
Local Champion:	DEP will support as will our loco/ Environmental Commission and Fire Department
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$1,000,000.00
Priority:	
Scale of Ease of Implementation:	
Responsible Party:	
Local Planning Mechanism:	
Likely Funding Source(s):	
Timeline:	
Action Status:	Withdrawn
Notes:	Moving this action to 05_01.

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_03

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Provide Slope Stabilization along Bayside Dr. and Shoreline Protection along the Henry Hudson Trail
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Soil Stabilization
Action Description:	Provide hillside stabilization along 400+ feet of Bayside Drive, reduce erosive wave action, stabilize the Henry Hudson shoreline and coastal bluffs, protect the Regional trail access, and stabilize and protect the function of the Bayshore Regional Sewer outfall pipe. Additionally, the project will enhance the coastal experiences of the Trail and provide valuable coastal habitats for such coastal species as horseshoe crabs and beach nesting birds. Using wave attenuation devices/structures and the beneficial reuse of dredged sands the project will mitigate high energy waves and buffer the vulnerable coastline.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 2, 3, 5, 6
Risk Reduction:	The Atlantic Highlands coastal bluffs, Henry Hudson Trail, the Bayshore Outfall Authority's force main pipe are at risk of current and future coastal flooding and erosion during storm events with damaging wave erosion and shoreline failure. Slope stabilization is needed on Bayside Drive; this is an area of historic slump blocks, particularly where hillsides are disturbed during construction activities, and or times where the soil is saturated and there is increased surface runoff. Roadway is at risk of being washed away land locking 12 single-family dwellings.
Technical:	This action is very beneficial and technically feasible.
Political:	Residents of this area are in favor of a solid repair fix and the Mayor and Council understand the importance of this project but they do not have funds to commit.
Legal:	Potential for DEP permits.
Environmental:	This specific area is located in on environmentally sensitive area and in a steep slope zone. Area has to be monitored and worked on in a very careful way.
Social:	This action will actually assist 12 homes on Bayside Dr.
Administrative Capability:	The Borough would need engineering, permitting and financial assistance. The Borough could manage the bid and other limited resources
Local Champion:	DEP will support as will the local Environmental Commission and the residents of Bayside Drive.
Other Community Objectives:	This will bolster the hillside along the Bayside Drive. This will bring much needed stability to the area and will allow residents continued access to their homes as the other end of the road is closed off due to landslide issues.
STAPLEE Evaluation:	9

Implementing the Action

Cost Estimate:	\$20,100,000.00
Priority:	High
Scale of Ease of Implementation:	High
Responsible Party:	Borough Administrator
Local Planning Mechanism:	Engineering, Building Department, Finance
Likely Funding Source(s):	FEMA HMA, FEMA Hazard Mitigation Assistance (HMA), The Nature Conservancy (TNC), National Oceanic and Atmosp
Timeline:	3 years
Action Status:	Ongoing
Notes:	As of 2019, this project is one of 11 projects listed in the Raritan/Sandy Hook Bay Coastal Resilience Planning Study (by Monmouth County) and is supported by the County, the Borough, NWS Earle, and the Planning Study Technical Advisory Committee. The Henry Hudson Trail was awarded FEMA Funding 406 Public Assistance of \$366,158 for Asphalt Trail and Embankment after Sandy. HGMP funding of \$255,392 for Residential Bluff Stabilization and \$579,501 for Roadway Bluff Stabilization is pending

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_04

Atlantic Highlands, 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:	Most of the homes that were flooded by Superstorm Sandy are now elevated. The Borough will work with the outstanding RL properties on mitigation options and any new RL/SRL properties that are added to the list.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	1, 2, 3, 6
Risk Reduction:	Several residential structures throughout the community are prone to flooding, with their first-floor elevations below current BFEs. Sea Level Rise and climate change will contribute to more frequent and severe flooding and surge events.
Technical:	Technically feasible.
Political:	Political leadership supports this type of project.
Legal:	While the municipality does not own the structures in questions ,they fully support the homeowners in moving forward.
Environmental:	No environmental impacts are anticipated as a result of elevating the homes.
Social:	No particular social group in our community is likely to be disproportionately impacted by this project.
Administrative Capability:	Our municipality has the administrative capabilities to manage an elevation project.
Local Champion:	Affected homeowners and the Borough Council
Other Community Objectives:	The Borough is trying to reduce the flooding in this area and are working with the NJDEP and Army Corps of Engineers. They want residents to stay in their homes and not be displaced after storms.
STAPLEE Evaluation:	12

Implementing the Action

Cost Estimate:	\$407,750.00
Priority:	High
Scale of Ease of Implementation:	Medium
Responsible Party:	Individual homeowner
Local Planning Mechanism:	Atlantic Highlands Building Department
Likely Funding Source(s):	FEMA HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	HMGP funding of \$305,812 for elevation of five homes post-Sandy is pending obligation as of 2020.

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_05

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Purchase and Install a Natural Gas Generator for Atlantic Highlands Water & Sewer Utility
Action Category:	Maintenance/Response/Recovery
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Generators
Action Description:	A new natural gas generator with transfer switch will be installed at the 1 million gallon holding tank on Observatory Place. This will allow continued power to the water well for public health and safety purposes.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 3, 6, 7
Risk Reduction:	The Atlantic Highlands Water & Sewer Utility is owned and operated by the Borough of Atlantic Highlands. Without the install and use of a generator, the water wells can't fill water in the holding tanks. They can only hold enough water to last for up to two days. Without the generator during a power failure, the Borough would be faced with unsanitary conditions throughout the Borough.
Technical:	Very beneficial and technically feasible.
Political:	No adverse political ramifications are expected.
Legal:	No legal impediments anticipated.
Environmental:	The Borough would apply for an air quality permit from the NJDEP
Social:	This action will assist and continue to provide clean potable water to over 1900 homes who are serviced by the Utility.
Administrative Capability:	The Borough of Atlantic Highlands maintains a staff of five full time employees in the Water & Sewer Utility.
Local Champion:	DEP will support this as will our local Environmental Commission, Mayor and Council and the residents.
Other Community Objectives:	This will bring much needed relief to our community, as a whole, when we experience frequent power outages during storms and unusual events.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$70,000.00
Priority:	
Scale of Ease of Implementation:	
Responsible Party:	Borough Administrator
Local Planning Mechanism:	Engineering, Building Department, Finance
Likely Funding Source(s):	
Timeline:	
Action Status:	Completed
Notes:	Awarded \$77,332 of HMGP funding for Observatory Place. The Water Treatment Plant was also rewarded FEMA Funding 406 Public Assistance of \$77,000 to repair damaged electrical wiring, fuses, relays, and controls of Motor Control Center.

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_06

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Purchase and Install Portable 100 KW Diesel Generator at Atlantic Highlands Harbor Utility
Action Category:	Maintenance/Response/Recovery
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Generators
Action Description:	A new portable 100 KW diesel generator with transfer switch will be on a trailer and transfer switch will be installed at the Harbor Office. This will allow continued power to the harbor office which will allow refueling for all emergency service vehicles and vessels.

Evaluating the Action

Hazard(s) Addressed:	All Hazards
Goals:	1, 3, 6, 7
Risk Reduction:	The Atlantic Highlands Harbor Utility is owned and operated by the Borough of Atlantic Highlands. Without the install and use of a generator, during power outages emergency vehicles (i.e. police, fire, EMS & OEM) cannot refuel for continued 24/7 emergency use. In addition, the Harbor refuels the vessels for the New Jersey State Police and the US Coast Guard in times of emergency and need.
Technical:	Technically feasible.
Political:	Fully supported by the Mayor, Council, Harbor Commissioners, Police, Fire, EMS, and OEM.
Legal:	No legal impediments anticipated.
Environmental:	The Borough would not have to apply for an air quality permit from the NJDEP since this unit is mounted on a portable trailer
Social:	This action will allow continued emergency services protection.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	DEP, Environmental Commission, Mayor, Council, and the Commission.
Other Community Objectives:	This will bring much needed planning assistance to our emergency services and community as a whole.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$62,000.00
Priority:	Low
Scale of Ease of Implementation:	Low
Responsible Party:	Borough Administrator
Local Planning Mechanism:	Engineering, Building Department, Finance
Likely Funding Source(s):	Local budget, FEMA HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	HMGP funding \$32,625 for Emergency Generator pending obligation as of 2020.

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_07

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Floodproof First Avenue Sewer Pump Station
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Dry Floodproofing of Non-residential Structures
Action Description:	The pump station needs to be floodproofed with bulkheading at both the entrance door and garage door and install a bulkhead in front of the generator that keeps the plant up and running during power outages.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm, All Hazards
Goals:	1, 3, 6, 7
Risk Reduction:	The Borough controls the collection system (under the ground/roadways) and the sewer pump station which is located on First Avenue. The product pumps from the pump house to the Township of Middletown Sewer Authority where the product is processed and treated. If this facility is not protected, the Borough would be faced with unsanitary conditions of sewer product would free flow onto the roadways and into the waterways.
Technical:	Technically feasible.
Political:	The Mayor and Council understand the importance of this project that is being requested by the Water & Sewer Superintendent.
Legal:	No legal impediments anticipated.
Environmental:	It will comply with all environmental regulations and it will greatly reduce, if not totally eliminate, any environmental future disaster.
Social:	This action will assist and protect all of the population in Atlantic Highlands and those surrounding municipalities that are on the sandy Hook Bay. This action will protect other towns and neighborhoods because it will reduce or eliminate the raw sewer flowing into the streets and nearby creek.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	DEP will support this as will our local Environmental Commission, Mayor and Council and the residents.
Other Community Objectives:	This is a public health and safety matter that our community will support.
STAPLEE Evaluation:	11

Implementing the Action

Cost Estimate:	\$40,000.00
Priority:	High
Scale of Ease of Implementation:	Low
Responsible Party:	Borough Administrator
Local Planning Mechanism:	Engineering, Building Department, Finance
Likely Funding Source(s):	FEMA HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	The First Ave Pump Station was awarded FEMA 406 Public Assistance money. The foundation was floodproofed. However, more mitigation work at the pump station is required.

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_08

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Restore the Many Mind Creek Stream Corridor
Action Category:	Maintenance/Response/Recovery
Action Type:	Natural Systems Protection
HMA Eligible Activity:	Floodplain and Stream Restoration
Action Description:	Implement the mitigation actions from the Army Corp of Engineers Report and the Monmouth County Raritan/Sandy Hook Bay Coastal Resilience Planning Study, including but not limited to clearing the existing outlet to allow the creek to properly discharge into the Bay provide habitat for local fauna.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	3, 6
Risk Reduction:	Many Mind Creek is a natural waterway which receives rain water that drains from a large land area of Atlantic Highlands and parts of neighboring Middletown. The mouth of the creek has issues with shoaling which also can result in flooding.
Technical:	Technically feasible.
Political:	No adverse political ramifications are expected.
Legal:	This action may require coordination with Army Corp of Engineers and NJDEP permits.
Environmental:	The mitigation of Many Mind Creek will restore the natural environment.
Social:	Does not adversely affect any particular social group. Perceived by the public to be a good thing because it protects property along the creek.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	OEM, residents that live along the Creek.
Other Community Objectives:	
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	
Priority:	Low
Scale of Ease of Implementation:	Low
Responsible Party:	Borough
Local Planning Mechanism:	Hazard Mitigation Plan, Monmouth County Raritan/Sandy Hook Bay Coastal Resilience Planning Study, Army Corp of
Likely Funding Source(s):	FEMA HMA, New Jersey Corporate Wetlands Restoration Partnership (NJCWRP), National Oceanic and Atmospheric A
Timeline:	2 years
Action Status:	New
Notes:	

Monmouth County Mitigation Action Worksheets

Community Action Number: 05_09

Atlantic Highlands, Borough of

Describing the Action

Action Name:	Extend the Existing Breakwall in the Raritan Bay to Protect the Marina
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Localized Flood Risk Reduction Projects
Action Description:	Extend the existing breakwall 150 LF to the east into the Raritan Bay, enclosing and protecting the marina.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	2, 3, 5, 6
Risk Reduction:	A closed breakwall will protect the harbor where a lot of emergency vehicles are stored. The municipal harbor is the largest harbor in the state of New Jersey. The harbor is a large complex which includes the Seastreak Ferry Terminal, Shore Casino, two restaurants, a catering business, active recreation park, senior center, and fishing pier. The harbor includes 482 boat slips, 172 moorings, land storage for 140 boats on trailers, and six-vehicle wide boat launch.
Technical:	Technically feasible.
Political:	No adverse political ramifications are expected.
Legal:	This action may require coordination with Army Corp of Engineers and NJDEP permits.
Environmental:	No adverse environmental effects from the breakwall extension.
Social:	Does not adversely affect any particular social group. Perceived by the public to be a good thing because it protects the harbor.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	Borough Administrator, Army Corp of Engineers
Other Community Objectives:	
STAPLEE Evaluation:	9

Implementing the Action

Cost Estimate:	\$8,000,000.00
Priority:	High
Scale of Ease of Implementation:	High
Responsible Party:	Borough
Local Planning Mechanism:	GTR, Army Corp
Likely Funding Source(s):	FEMA HMA
Timeline:	2 years
Action Status:	New
Notes:	The municipal harbor experienced extreme damage during Sandy. The Atlantic Highlands Harbor was awarded 20 separate FEMA Funding 406 Public Assistance grants, totaling over 20 million dollars.

CAPABILITY ASSESSMENT WORKSHEET

Name: Adam Hubeny

Title: Borough Administrator / OEM Coordinator

Jurisdiction: Atlantic Highlands Borough

Organization: Borough of Atlantic Highlands

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? 2. Does the plan address hazards? 3. Does the plan identify projects to include in the mitigation strategy? 4. Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes	Master Plan Updated and Adopted by Municipality and County July 2019
Capital Improvements Plan	Yes	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Post-Disaster Recovery Plan	Yes	
Transportation Plan	Yes	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	No	



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"> • Municipal Coastal Vulnerability Assessment (2016) • Getting to Resilience (2015) • Raritan/Sandy Hook Bay Coastal Resilience Planning Study
Building Code, Permitting, and Inspections	Yes/No	Are codes adequately enforced?
Building Code	Yes	Version/Year: 2015 ICC NJ Edition
Building Code Effectiveness Grading Schedule (BCEGS) Score		Score: ISO 3 for One and Two Family; 3 for Commercial
Fire Department ISO rating		Rating: 4/6
Site Plan Review Requirements	Yes	
Land Use Planning and Ordinances	Yes/No	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	2013
Natural hazard ordinance (stormwater, steep slope, wildfire)	Yes	Steep Slope
Flood Insurance Rate Maps	Yes	
Acquisition of Land for Open Space and Public Recreation Uses	Yes	
Post-Disaster Recovery Ordinance	No	
Real Estate Disclose Ordinance	No	



CAPABILITY ASSESSMENT WORKSHEET

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

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 Is coordination effective?
Planning Commission	Yes	
Mitigation Planning Committee	No	
Maintenance Programs to Reduce Risk (e.g., tree trimming, clearing drainage systems)	Yes	Stormwater management maintenance
Mutual Aid Agreements	Yes	Fire, EMS, Municipal with Monmouth County
Staff	Yes/No FT/PT	Is the staff full time or part time? Is staffing adequate to enforce regulations? Is the staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	Yes P/T	1. Part Time 2. Yes 3. Yes 4. Yes
Floodplain Administrator	Yes P/T	1. Part Time 2. Yes 3. Yes 4. Yes
Emergency Manager	Yes P/T	1. Part Time 2. Yes 3. Yes 4. Yes
Community Planner	Yes P/T	1. Part Time 2. Yes 3. Yes 4. Yes



CAPABILITY ASSESSMENT WORKSHEET

Civil Engineer	Yes P/T	1. Part Time 2. Yes 3. Yes 4. Yes
Surveyor	Yes	As needed
GIS Coordinator	Yes	As needed
Scientists familiar with the hazards of the community	Yes	As needed
Other	No	
Technical	Yes/No	Describe capability Has capability been used to access/mitigate risk in the past?
Warning Systems/Services (Reverse 911, outdoor warning signals)	Yes	Siren, phone, text
Hazard Data and Information	Yes	Website has several hazard information links
Grant Writing	Yes	Part-time
Hazus Analysis	Yes	
Other		
How can the above capabilities be expanded and improved to reduce risk?		



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? Could the resource be used to fund future mitigation actions?
Capital Improvements Project Funding	Yes	Budget as needed
Authority to Levy Taxes for Specific Purposes	Yes	
Fees for Water, Sewer, Gas, or Electric Services	Yes	
Impact Fees for New Development	Yes	Affordable Housing
Stormwater Utility Fee	No	
Incur Debt Through Private Activities	No	
Community Development Block Grant	Yes	
Other Federal Funding Programs	Yes	
State Funding Programs	Yes	DOT/DCA/Recycle/ Clean Com
Other (e.g., withhold spending in hazard-prone areas)	Yes	Incur Debt through Special Tax and Revenue Bonds and Incur Debt through General Obligation Funds
How can these capabilities be expanded and improved to reduce risk?		



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. 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.	Yes	Environmental Commission, Clean Ocean Action
Ongoing Public Education or Information Programs (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Fire Marshal, Recycling, Clean Community
Natural Disaster or Safety Related School Programs	Yes	
StormReady Certification	No	
Firewise Communities Certification	No	
Public-Private Partnership Initiatives Addressing Disaster Related Issues	Yes	Monmouth County OEM, Red Cross, NJ State Police, NJ OEM
Other		
How can these capabilities be expanded and improved to reduce risk?		





ATLANTIC HIGHLANDS BOROUGH FLOOD VULNERABILITY

MONMOUTH COUNTY HAZARD MITIGATION PLAN



Building Classification

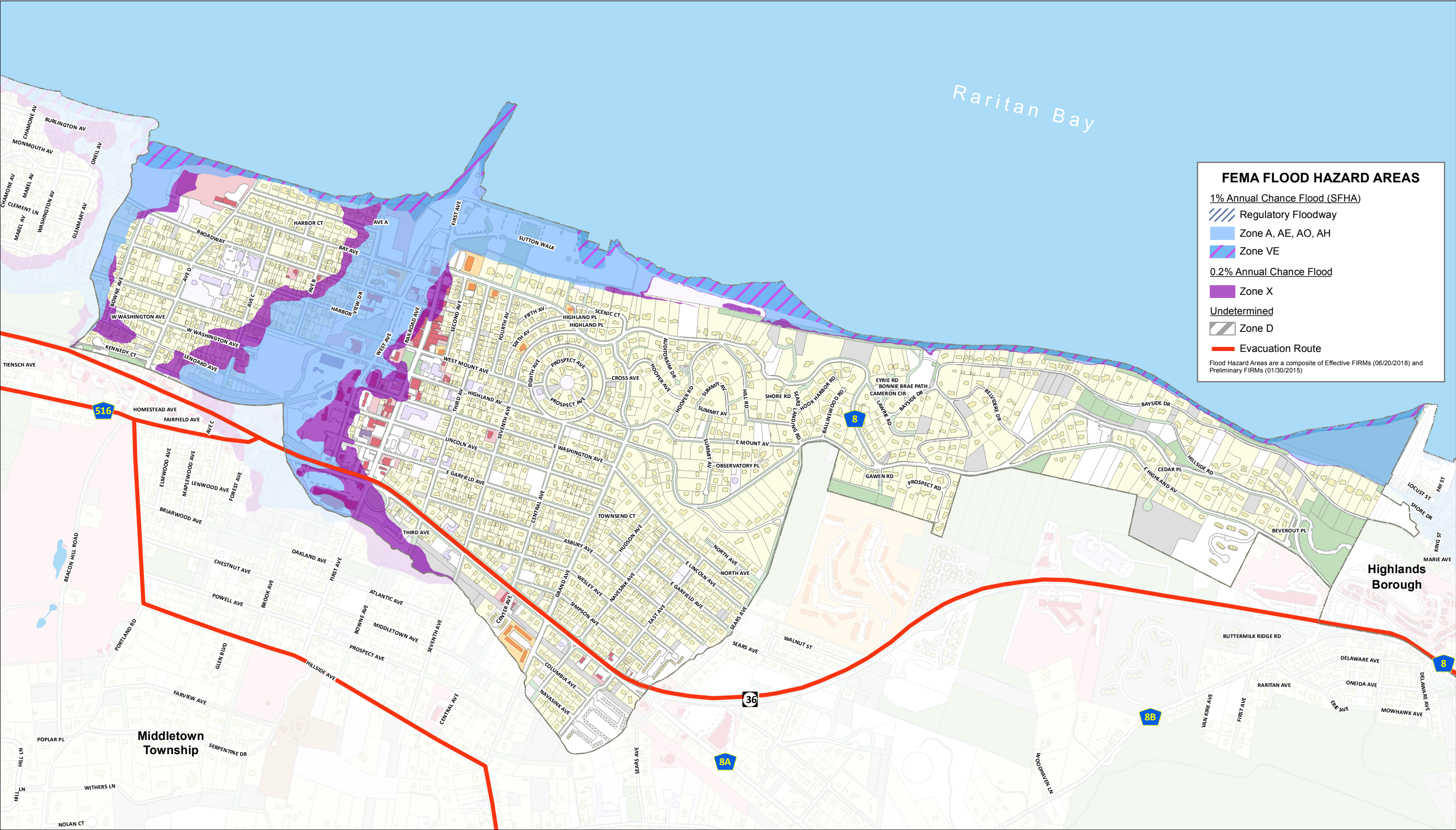
Industrial	Commercial	Apartment	Residential (four families or less)
Farm	Vacant	Civic/Public (Tax Exempt)	Unclassified

Parcel Classification

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

0 450 900 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.



Building Classification

Industrial	Commercial	Apartment	Residential (four families or less)
Farm	Vacant	Civic/Public (Tax Exempt)	Unclassified

Parcel Classification

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MEETING NOTES

Topic: Atlantic Highlands- Monmouth County HMP Meeting

Date: May 22, 2019

Time: 5:00 PM- 8:00 PM

Location: Atlantic Highlands Borough Hall, 100 First Avenue, Atlantic Highlands, NJ 07716

Attendees: Adam Hubeny, OEM Coordinator/ Administrator

Joe Barris, Assistant Director of Monmouth County Planning

Michael Opegard, Monmouth County OEM Coordinator

Brittany Ashman, MB Planner

Drafted by: Paige Kaspar

Introductions (Brittany):

- What is Hazard Mitigation?
- Matching actions with Goals
- New Hazards
- HMP Pamphlet
- Funding

Repetitive Loss Properties:

- Come up with mitigation action to address the 6 RL properties.

2015 Mitigation Actions:

1. Soil Stabilization (Runoff from Hillside Rd.)→ Ongoing 2015 action; there has been no movement with this action and no budget available. The Borough ranks this action with the highest priority (in addition to Action 05_03) and will continue to search for funding.
2. Flood Risk Reduction Infrastructure Improvements→ Withdrawn Moving this action to 05_01.
3. Slope Stabilization (along Bayside Dr.)→ Ongoing. Slope stabilization is needed on Bayside Drive; this is an area of historic slump blocks (a type of landslide where the moving material moves in a block, more or less), particularly where hillsides are disturbed during construction activities, and or times where the soil is saturated and there is increased surface runoff. Roadway will be washed away and locking 12 single family dwellings.



4. Elevate Residential Structures in Flood-prone Areas→Ongoing. Most of the homes that were flooded by Superstorm Sandy are now elevated. The Borough will work with the outstanding RL properties on mitigation options.
5. Natural Gas Generator for Atlantic Highlands Water & Sewer Utility→ Completed. A new natural gas generator with transfer switch will be installed at the 1 million gallon holding tank on Observatory Place. This will allow continued power to the water well for public health and safety purposes.
6. Portable 100 KW Diesel Generator at Atlantic Highlands Harbor Utility→ Ongoing. A new portable 100 KW diesel generator with transfer switch will be on a trailer and transfer switch will be installed at the Harbor Office. This will allow continued power to the harbor office which will allow refueling for all emergency service vehicles and vessels.
7. Installation of bulkheading in doorways around generator→ Ongoing. The pump station needs to be floodproofed with bulkheading at both the entrance door and garage door and install a bulkhead in front of the generator that keeps the plant up and running during power outages.

2020 Mitigation Actions (NEW):

1. Mitigate Many Mind Creek. → Implement the mitigation actions from the Army Corp of Engineers Report, including living shorelines.
2. Extend the Existing Breakwall in the Raritan Bay→ Extend the existing breakwall 150 LF to the east into the Raritan Bay, enclosing and protecting the harbor.

Capabilities:

- Transportation Evacuation Plan
- Municipal Coastal Vulnerability Assessment (2016)
- Getting to Resilience (2015)
- Army Corp Report (name? couldn't find it)
- Steep Slope Ordinance
- Stormwater management maintenance
- Website has several hazard information links
- Siren, phone, text alert system in place
- Environmental Commission, Clean Ocean Action



Monmouth County
Multi-Jurisdictional Hazard Mitigation Plan Update



Michael Baker
INTERNATIONAL

Meeting: Atlantic Highlands HMP Mtg

Date: 05-22-19

Initial	Last Name	First Name	Title	Organization	Email Address
	HUBENY	Adam	Admin/OEM	Atlantic Highlands	AHUBENY@AHNJ.COM
	Oppgaard	Michael	Coordinator	Monmouth OEM	MOOppgaard@monmouthnj.org
	BARRIS	Joe	Asst Dir Planning	Monmouth Co.	JOE.BARRIS@CO.MONMOUTH.NJ.GOV
	Ashman	Brittany	Planner	MRB	