

Appendix Vol I.27 Loch Arbour Village

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

48 *Polices In-force*

87 *Total Losses*

\$2,935,243 *Total Payments*

18 *Number of RL Properties*

1 *Number Mitigated
RL Properties*

40 *RL - Total Losses*

\$931,190 *RL - Total Paid*

0 *Number of SRL Properties*

0 *Number Mitigated SRL
Properties*

0 *SRL - Total Losses*

\$0 *SRL - Total Paid*

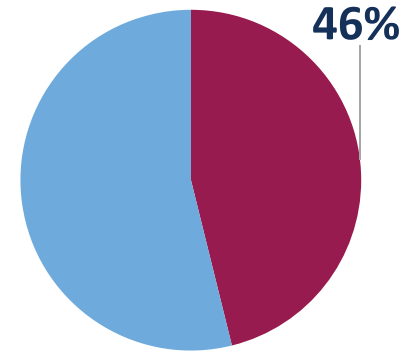


Critical Facilities

0 *Critical Facilities*

0 *Critical Infrastructure*

8 *Historic & Cultural Resources*



Percent Land Area Within SFHA

6

*Total Mitigation
Actions*

0



Education and Awareness Programs

6



Structure and Infrastructure Projects

0



Local Plans and Regulations

0



Natural Systems Protection



0 *SV Population At Risk (2017)*

90 *Population at Risk (2017)*

Loch Arbour, Village 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
27_01	Automatic Flume Gate for Deal Lake	Deal Lake Commission is actively in the process of design for the development of automatic flume gate.		Structure and Infrastructure Project	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge			Deal Lake Commission - Engineer	Army Corp	\$550,000.00		Completed
27_02	Deal Lake Stream Maintenance and Clearing	Reduce the possibility of flood damage by conducting regular stream maintenance and clearing sediment from Deal Lake and surrounding streams in the watershed. Deal Lake Commission is actively installing manufactured treatment devices around key outfall locations to aid in the elimination of trash and debris.		Structure and Infrastructure Project	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge			Deal Lake Commission - Engineer		\$125,000.00		Completed
27_03	Conduct a Study on the Need for Stormwater Basins and Construct New Infrastructure (if needed)	Deal Lake Commission is proposing: (1) a study to research the possibility of building several stormwater basins on DOT land; and (2) construction of stormwater basins.	Administrative	Structure and Infrastructure Project	Flood	Medium	Low	Deal Lake Commission - Engineer, Environmental Consultant and	Municipal budget	\$1,250,000.00	2 years	Ongoing
27_04	Acquire the Beach Club Property and Protect the Shoreline with Dunes and Living Shorelines	Acquire Block 8 Lot 1 ; Block 7 Lots 1 & 2 and construct a sand dunes and living shorelines along the entire beach frontage.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Wave Action, Coastal Erosion, Nor'easter, Storm Surge	High	Medium	Village Engineer	FEMA HMA, The Nature Conservancy (TNC)	\$3,000,000.00	2 years	Ongoing
27_05	Construct an Automatic Tide Gate at Deal Lake	Deal Lake Commission is actively in the process of design for the development of automatic Tide Gate. The tide gate will be inserted within the 5' x 10' flume.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood	Medium	Medium	Deal Lake Commission - Engineer	FEMA HMA	\$500,000.00	1 year	Ongoing
27_06	Acquire, elevate, or relocate buildings and infrastructure in flood prone areas, with a focus on Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties	Coordinate with residents to mitigate RL/SRL properties through structure elevation, demolition to open space, or other type of mitigation.	Mitigation - Risk Reduction	Structure and Infrastructure Project	Flood, Nor'easter, Hurricane and Tropical Storm	High	Medium	Village and Property Owners	FEMA HMA		5 + years	New

Monmouth County Mitigation Action Worksheets

Community Action Number: 27_01

Loch Arbour, Village of

Describing the Action

Action Name: Automatic Flume Gate for Deal Lake

Action Category:

Action Type: Structure and Infrastructure Project

HMA Eligible Activity: Localized Flood Risk Reduction Projects

Action Description: Deal Lake Commission is actively in the process of design for the development of automatic flume gate.

Evaluating the Action

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

Goals: 2, 3, 5, 6

Risk Reduction: Over 50% of the Village of Loch Arbour is within mapped storm surge hazard areas. Deal Lake continues to be a major source of flooding in the Village. During severe storms, water drains into the lake but outfall design constraints prevent the water from making its way into the ocean. Therefore, water overflows the banks and floods back into surrounding areas. In order to respond quicker to significant rain events and prevent flooding, an automated open and closing mechanism of the flume gates should be installed. During significant storm events when tidal surges occur, it becomes necessary to close the gates quickly to minimize ocean water infiltrating into the lake. The normal level of Deal Lake is only 3.2 feet above mean high tide.

Technical: Technically feasible.

Political: Multiple municipal agencies involved with Deal Lake Commission. Municipalities include Allenhurst, City of Asbury Park, Borough of Deal, Borough of Interlaken, Neptune Township, Ocean Township and Village of Loch Arbour.

Legal: No apparent legal issues.

Environmental: No adverse environmental effects. Will help improve flood control.

Social: Will help residents along shoreline area of the Village and within the Deal Watershed, Deal Lake Commission.

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

Local Champion: Deal Lake Commission, Friends of Deal Lake, Residents within Village and within Deal Watershed

Other Community Objectives: Regional Stormwater Management Plan for Deal Lake Watershed, Municipal Stormwater Management Regulation Program, Flood Damage Prevention Ordinance.

STAPLEE Evaluation: N/A

Implementing the Action

Cost Estimate: \$550,000.00

Priority:

Scale of Ease of Implementation:

Responsible Party: Deal Lake Commission - Engineer

Local Planning Mechanism: Flood Damage Prevention Ordinance

Likely Funding Source(s): Army Corp

Timeline:

Action Status: Completed

Notes: Army Corp grant awarded; under construction

Monmouth County Mitigation Action Worksheets

Community Action Number: 27_02

Loch Arbour, Village of

Describing the Action

Action Name:	Deal Lake Stream Maintenance and Clearing
Action Category:	
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Floodplain and Stream Restoration
Action Description:	Reduce the possibility of flood damage by conducting regular stream maintenance and clearing sediment from Deal Lake and surrounding streams in the watershed. Deal Lake Commission is actively installing manufactured treatment devices around key outfall locations to aid in the elimination of trash and debris.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm, Storm Surge
Goals:	2, 5, 6
Risk Reduction:	Sedimentation and debris in Deal Lake and its tributaries impedes flood flows. Will help to eliminate debris from blocking and displacement of stormwater runoff.
Technical:	Technically feasible.
Political:	No apparent political issues.
Legal:	No apparent legal issues.
Environmental:	No adverse environmental effects. Will help improve flood control and pollutants within the watershed.
Social:	Will help residents along shoreline area of the Village, Deal Lake Commission.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	Deal Lake Commission, Friends of Deal Lake, Residents within Village and along shoreline.
Other Community Objectives:	Regional Stormwater Management Plan for Deal Lake Watershed, Municipal Stormwater Management Regulation Program.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$125,000.00
Priority:	
Scale of Ease of Implementation:	
Responsible Party:	Deal Lake Commission - Engineer
Local Planning Mechanism:	Municipal Stormwater Management Regulation Program
Likely Funding Source(s):	
Timeline:	
Action Status:	Completed
Notes:	There is a successful manufactured treatment device by the Asbury Park High School (west side of lake); Loch Arbour would like devices on their side of the lake. Biofilters are in the process of being built. The Borough would like wetlands near the lake to prevent pollution from stormwater runoff. Deal Lake Commission has received a NJDEP 319 grant to construct manufactured treatment device at East Side Asbury Park High School and at Sunset Lake. Sunset Lake will also have Floating Wetlands to address water quality in both lakes. Project is in design stage, awarded by 319 Grant.

Monmouth County Mitigation Action Worksheets

Community Action Number: 27_03

Loch Arbour, Village of

Describing the Action

Action Name:	Conduct a Study on the Need for Stormwater Basins and Construct New Infrastructure (if needed)
Action Category:	Administrative
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Miscellaneous/Other/NA
Action Description:	Deal Lake Commission is proposing: (1) a study to research the possibility of building several stormwater basins on DOT land; and (2) construction of stormwater basins.

Evaluating the Action

Hazard(s) Addressed:	Flood
Goals:	2, 5, 6
Risk Reduction:	Presently there are no storm water retention basins with the ability to correctly control the rate, quantity, or quality of runoff generated from any of the State of NJ Highways that transverse the Deal Lake Watershed. As a result, waterfront properties within watershed flood regularly. Sea Level Rise and climate change will contribute to more frequent and severe flooding and surge events over a larger area. Climate change will contribute to more frequent and severe weather events.
Technical:	Technically feasible.
Political:	Multiple municipal agencies involved with Deal Lake Commission. Municipalities include Allenhurst, City of Asbury Park, Borough of Deal, Borough of Interlaken, Neptune Township, Ocean Township and Village of Loch Arbour.
Legal:	Obtain land grants and approval from NJ DOT to properly construct basin.
Environmental:	No adverse environmental effects. Will help improve flood control and pollutants within the watershed.
Social:	Does not adversely affect any particular social group.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	Deal Lake Commission, Friends of Deal Lake, Residents within Deal Watershed
Other Community Objectives:	Regional Storm water Management Plan for Deal Lake Watershed, Municipal Stormwater Management Regulation Program.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$1,250,000.00
Priority:	Medium
Scale of Ease of Implementation:	Low
Responsible Party:	Deal Lake Commission - Engineer, Environmental Consultant and Attorney
Local Planning Mechanism:	Flood Damage Prevention Ordinance
Likely Funding Source(s):	Municipal budget
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; the Borough wants to improve the regional basin and is working on coordination and possible funding.

Monmouth County Mitigation Action Worksheets

Community Action Number: 27_04

Loch Arbour, Village of

Describing the Action

Action Name:	Acquire the Beach Club Property and Protect the Shoreline with Dunes and Living Shorelines
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Mitigation Reconstruction
Action Description:	Acquire Block 8 Lot 1 ; Block 7 Lots 1 & 2 and construct a sand dunes and living shorelines along the entire beach frontage.

Evaluating the Action

Hazard(s) Addressed:	Flood, Wave Action, Coastal Erosion, Nor'easter, Storm Surge
Goals:	2, 3, 5, 6, 7
Risk Reduction:	During Superstorm Sandy, the beachfront was eroded away into the surf. The Shoreline was left exposed causing extensive property and roadway infrastructure damage limiting the Village's ability to provide critical emergency services. Ocean Avenue was undermined in the vicinity of an oceanfront tract at its border with Asbury Park. A private beach club on this tract was heavily damaged. The tract is bounded on one side by a Village-owned beach club, and on the south by a parcel that is being considered for open space acquisition. The Village views this property as an ideal location for a shore protection project; it is where the worst flooding of Superstorm Sandy occurred. The ocean come over land into Deal Lake and undermined Ocean Avenue in the vicinity of this property.
Technical:	Technically feasible.
Political:	No apparent political issues.
Legal:	Property Acquisition: Block 8 Lot 1 ; Block 7 Lots 1 & 2.
Environmental:	No adverse environmental effects. Will help improve flood control and flooding within Coastal Area.
Social:	Will help residents along shoreline area of the Village.
Administrative Capability:	Borough has sufficient capacity and experience to administer this action.
Local Champion:	Deal Lake Commission, Friends of Deal Lake, Residents within Village
Other Community Objectives:	Flood Damage Prevention Ordinance
STAPLEE Evaluation:	12

Implementing the Action

Cost Estimate:	\$3,000,000.00
Priority:	High
Scale of Ease of Implementation:	Medium
Responsible Party:	Village Engineer
Local Planning Mechanism:	Flood Damage Prevention Ordinance
Likely Funding Source(s):	FEMA HMA, The Nature Conservancy (TNC)
Timeline:	2 years
Action Status:	Ongoing
Notes:	Ongoing 2015 action; Village is working on developing winter berms during hurricane season to address hazard. Annual Permit with NJDEP is pending. HMGP pending obligation as of 2020 for Dune System and Upgrade to Public Shoreline.

Monmouth County Mitigation Action Worksheets

Community Action Number: 27_05

Loch Arbour, Village of

Describing the Action

Action Name:	Construct an Automatic Tide Gate at Deal Lake
Action Category:	Mitigation - Risk Reduction
Action Type:	Structure and Infrastructure Project
HMA Eligible Activity:	Localized Flood Risk Reduction Projects
Action Description:	Deal Lake Commission is actively in the process of design for the development of automatic Tide Gate. The tide gate will be inserted within the 5' x 10' flume.

Evaluating the Action

Hazard(s) Addressed:	Flood
Goals:	2, 6, 7
Risk Reduction:	Over 50% of the Village of Loch Arbour is within mopped storm surge hazard areas. Deal Lake continues to be a major source of flooding in the Vi/loge. During severe storms, water surges into the Lake but outfall design constraints prevent the water from making its way into the ocean before water overflows the banks and floods back into surrounding areas. In order to respond quicker to significant tidal events and prevent flooding, tidal flood gate with the ability to open and close with automation mechanism should be developed. During significant storm events when tidal surges occur, it becomes necessary to close the gates quickly to minimize ocean water infiltrating into the lake. The normal level of Deal Lake is only 3.2 feet above mean high tide.
Technical:	Technically feasible.
Political:	Multiple municipal agencies involved with Deal Lake Commission. Municipalities include Allenhurst, City of Asbury Park, Borough of Deal, Borough of Interlaken, Neptune Township, Ocean Township and Village of Loch Arbour.
Legal:	No apparent legal issues.
Environmental:	No adverse environmental effects. Will help improve flood control.
Social:	Will help residents along shoreline area of the Village and within the Deal Watershed; Deal Lake Commission
Administrative Capability:	Need at least three people to administer (after technical assistance from the State)
Local Champion:	Deal Lake Commission, Friends of Deal Lake, Residents within Village and within Deal Watershed
Other Community Objectives:	Regional Stormwater Management Pion for Deal Lake Watershed, Municipal Storm water Management Regulation Program, Flood Damage Prevention Ordinance.
STAPLEE Evaluation:	N/A

Implementing the Action

Cost Estimate:	\$500,000.00
Priority:	Medium
Scale of Ease of Implementation:	Medium
Responsible Party:	Deal Lake Commission - Engineer
Local Planning Mechanism:	Flood Damage Prevention Ordinance
Likely Funding Source(s):	FEMA HMA
Timeline:	1 year
Action Status:	Ongoing
Notes:	Same action as 27_01. This project is under construction and will be completed by Spring 2020.

Monmouth County Mitigation Action Worksheets

Community Action Number: 27_06

Loch Arbour, Village 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:	Coordinate with residents to mitigate RL/SRL properties through structure elevation, demolition to open space, or other type of mitigation.

Evaluating the Action

Hazard(s) Addressed:	Flood, Nor'easter, Hurricane and Tropical Storm
Goals:	1, 2, 3, 6
Risk Reduction:	Risk of future destruction and property loss in repetitive flooded areas.
Technical:	Technically feasible.
Political:	No adverse political ramifications are expected.
Legal:	If structures are elevated, they must be built in compliance with the FEMA flood maps.
Environmental:	Positively impacts the environment by increasing the permeable surface for each homeowner property.
Social:	Does not adversely affect any particular social group. Perceived by the public to be a good thing because of repetitive nature of flooding in the project area.
Administrative Capability:	There is sufficient capacity and experience to administer this action.
Local Champion:	OEM
Other Community Objectives:	
STAPLEE Evaluation:	10

Implementing the Action

Cost Estimate:	
Priority:	High
Scale of Ease of Implementation:	Medium
Responsible Party:	Village and Property Owners
Local Planning Mechanism:	Hazard Mitigation Plan
Likely Funding Source(s):	FEMA HMA
Timeline:	5 + years
Action Status:	New
Notes:	

CAPABILITY ASSESSMENT WORKSHEET

Name: Marilyn Simons

Title: Village Clerk

Jurisdiction: Village of Loch Arbour

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? 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		
Capital Improvements Plan	Yes	Yes; no specific plan, done with annual budget
Economic Development Plan		
Local Emergency Operations Plan	Yes	Yes, this is handled by the Chief of Police borough of Deal
Continuity of Operations Plan		
Post-Disaster Recovery Plan		
Transportation Plan		
Stormwater Management Plan	Yes	Ord 318, 319, 320, 321, 322, 324
Community Wildfire Protection Plan		



CAPABILITY ASSESSMENT WORKSHEET

Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)		
Building Code, Permitting, and Inspections	Yes/No	Are codes adequately enforced?
Building Code	Yes	Version/Year: NJAC 5:23-3.14 September 21, 2015
Building Code Effectiveness Grading Schedule (BCEGS) Score		Score:
Fire Department ISO rating		Rating:
Site Plan Review Requirements	Yes	Ordinance 156
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	Ordinance 156
Subdivision Ordinance	Yes	Ordinance 156
Floodplain Ordinance	Yes	Ordinance 158: An Ordinance Establishing Requirements for Construction Within the Special Flood Hazard Areas
Natural hazard ordinance (stormwater, steep slope, wildfire)	Yes	Ordinance 349-Stormwater
Flood Insurance Rate Maps	Yes	FEMA Map 34025C0322F and 34025C0351F Effective date 09/25/2009
Acquisition of Land for Open Space and Public Recreation Uses		
Post-Disaster Recovery Ordinance		
Real Estate Disclose Ordinance	Yes	NJAC 45:15-16.27 January 2, 1990



CAPABILITY ASSESSMENT WORKSHEET

Other (ie. Special Purposes Ordinance)		Special Purposes 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		
Mitigation Planning Committee		
Maintenance Programs to Reduce Risk (e.g., tree trimming, clearing drainage systems)		
Mutual Aid Agreements		Share Fire w/ Allentown Share Public Works w/ Deal Shares Police w/ Deal & Interlaken Shares equipment w/ Deal & Interlaken Shares broadband & radio reporters w/ Deal & Interlaken Shares solid waste management w/ Allenhurst & Interlaken
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		
Floodplain Administrator	Yes	
Emergency Manager	Yes	Chief of Police-Borough of Deal
Community Planner	Yes	



CAPABILITY ASSESSMENT WORKSHEET

Civil Engineer	Yes	Peter R. Arckian, PE, PLS Leon S. Arckian, Inc
Surveyor	Yes	Peter R. Arckian, PE, PLS Leon S. Arckian, Inc
GIS Coordinator	Yes	Leon S. Arckian, Inc
Scientists familiar with the hazards of the community	Yes	Stephan J. Sovzc, PhD Clean Water consulting, LLC
Other		
Technical	Yes/No	Describe capability Has capability been used to access/mitigate risk in the past?
Warning Systems/Services (Reverse 911, outdoor warning signals)		
Hazard Data and Information		
Grant Writing	Yes	NJDEP 319 Grant Water Quality Improvements Army Corps Grant for Flume Gate Improvements
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	
Authority to Levy Taxes for Specific Purposes		
Fees for Water, Sewer, Gas, or Electric Services		
Impact Fees for New Development		
Stormwater Utility Fee		
Incur Debt Through Private Activities		
Community Development Block Grant	Yes	
Other Federal Funding Programs		
State Funding Programs		
Other (e.g., withhold spending in hazard-prone areas)		
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	Deal Lake Commission chartered in 1974 by the seven shoreline towns. Mission is to provide leadership, guidance and resources to preserve Deal Lake.
Ongoing Public Education or Information Programs (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Deal Lake Commission chartered in 1974 by the seven shoreline towns. Mission is to provide leadership, guidance and resources to preserve Deal Lake.
Natural Disaster or Safety Related School Programs		
StormReady Certification		
Firewise Communities Certification		
Public-Private Partnership Initiatives Addressing Disaster Related Issues		
Other		
How can these capabilities be expanded and improved to reduce risk?		





LOCH ARBOUR VILLAGE 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

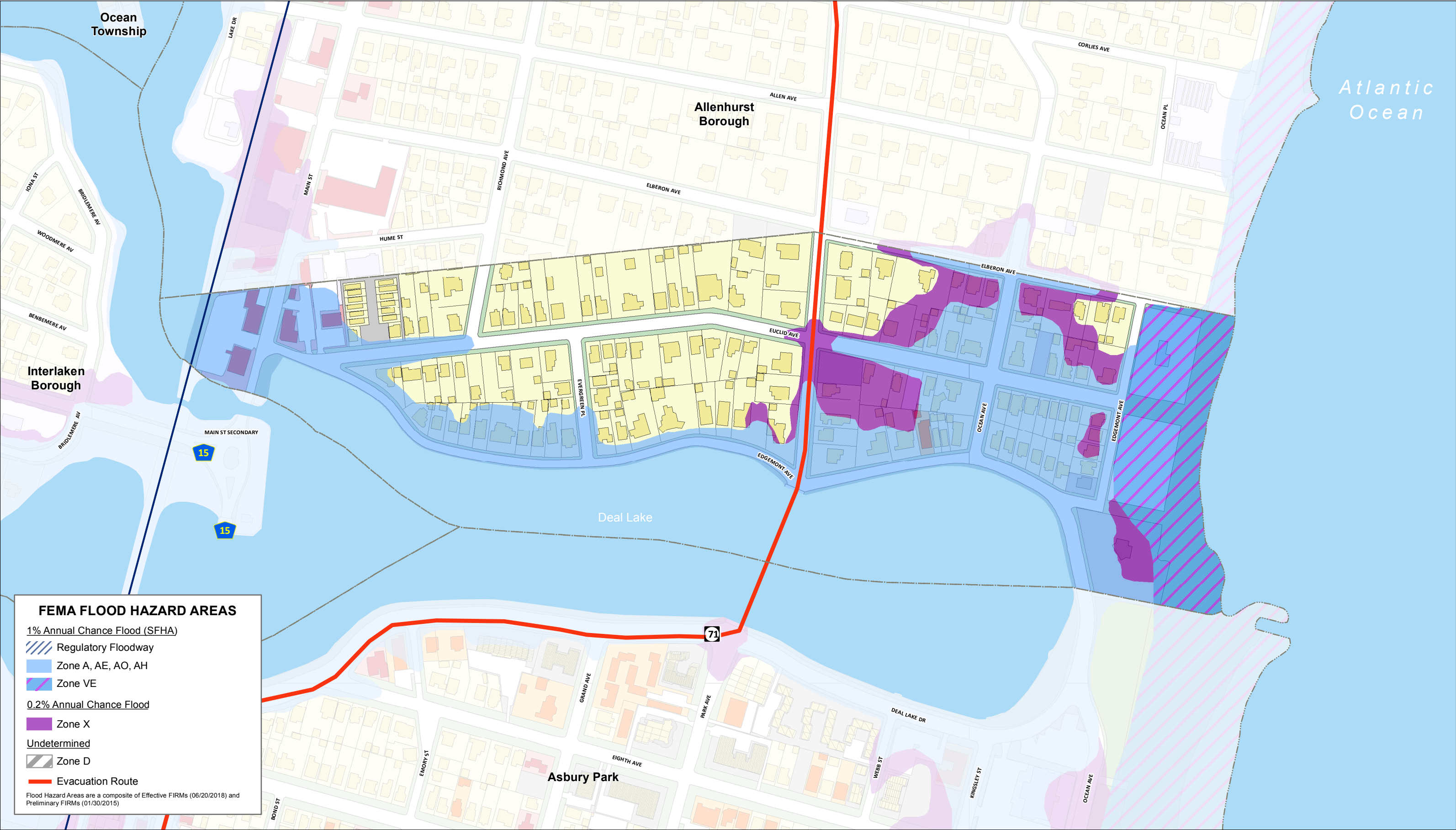
0150300

Feet

N

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

Projection: New Jersey State Plane, NAD 1983



FEMA FLOOD HAZARD AREAS

1% Annual Chance Flood (SFHA)

Regulatory Floodway

Zone A, AE, AO, AH

Zone VE

0.2% Annual Chance Flood

Zone X

Undetermined

Zone D

Evacuation Route

Flood Hazard Areas are a composite of Effective FIRMs (06/20/2018) and Preliminary FIRMs (01/30/2015)



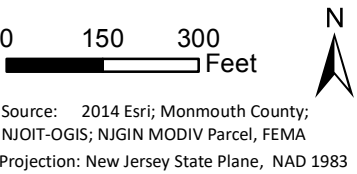
A map of Monmouth County, New Jersey, with Loch Arbour Village highlighted in a darker shade. The text "Monmouth County" is in the upper left, and "Loch Arbour Village" is in the lower right.

Building Classification

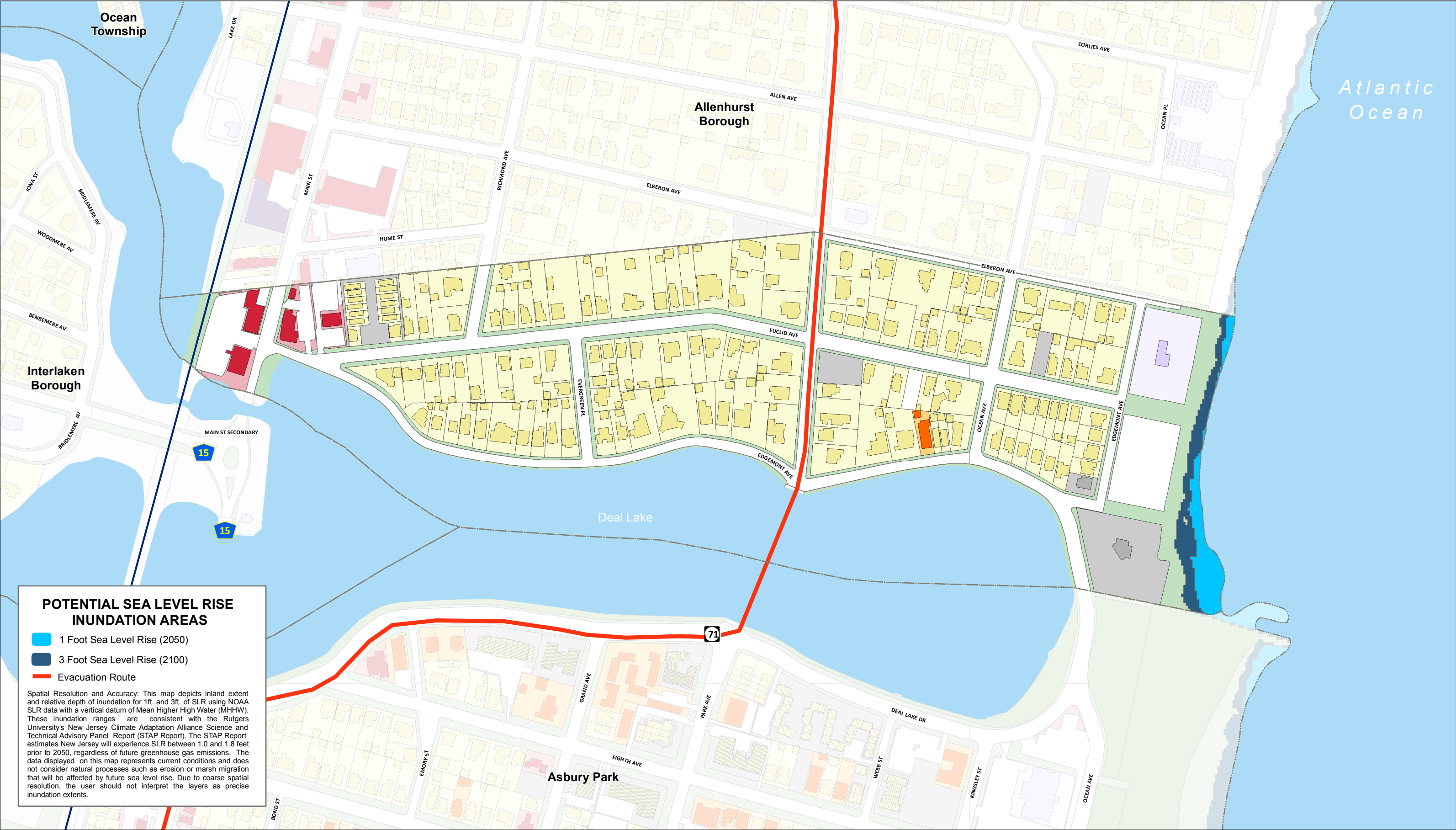
Industrial Commercial Apartment Residential (four families or less)
Farm Vacant Civic/Public (Tax Exempt) Unclassified

Parcel Classification

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



Michael Baker
INTERNATIONAL



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.



MEETING NOTES

Topic: Deal and Loch Arbour and Interlaken- Monmouth County HMP Update Meeting

Date: June 12, 2019

Time: 11:00 AM- 12:00 PM

Location: Deal Borough Hall 190 Norwood Ave, Deal, NJ 07723

Attendees:

Stephen	Carasia	Borough Clerk/Administrator	Deal Borough
James	Foley	Superintendent of Beaches	Deal Borough
Matthew	Meriano	Engineer	LSA Inc.
Ronen	Neuman	Chief of Police	Deal Borough
Lori	Reibrich	Administrator/Clerk	Interlacken
Matthew	Sharin	OEM Coordinator	Deal Borough
Marilyn	Simons	Village Clerk	Loch Arbour

Drafted by: Paige

Introductions

Britney Intro

- Goals
- Hazards
- Packet:
 - Hazard Mitigation Introduction
 - Funding Available
 - What the state is prioritizing
 - Example mitigation actions

Mitigation Actions (2015):

Deal:

- Drainage Improvements at Norwood Ave & Alymar Ave → Ongoing 2015 action; getting close to funding stage. Norwood Ave.: \$700,000 for new pipes, design plan in process, clean swell, pipe to Ocean Ave, where pipe is larger, currently takes in Ocean Twp. & Deal's stormwater. Alymar Ave.: no design yet, culverts need to enlarge and expected to be \$1,600,000 Cost benefit can't



get over 1; funding is a challenge.

- Seawall Around Sewerage Facility→ Completed
- Elevation and/or Acquisition of Flood-prone Residential Structures→ Ongoing 2015 action; there are two RL properties. One has been demolished and the second will hopefully be mitigated by action Community Action 11_01.

Loch Arbour:

- Drainage Improvements→ Ongoing 2015 action; in the process of going out to bid; funding ends September 2019.
- Deal Lake Stream Maintenance and Clearing→ Ongoing 2015 action; there is a successful manufactured treatment device by the Asbury Park High School (west side of lake); Loch Arbour would like devices on their side of the lake. Biofilters are in the process of being built. The Borough would like wetlands near the lake to prevent pollution from stormwater runoff.
- Study and New Construction of Stormwater Basins→ Ongoing 2015 action; the Borough wants to improve the regional basin and is working on coordination and possible funding.
- Acquisition of Beach Club Property and Shoreline Protection→ Ongoing
- Automatic Tide Gate→ Ongoing; same as action 27_01?

Interlaken:

- Improve Sewer and Stormwater Management Systems→ Ongoing 2015 action; out to bid on automatic tidal valve. Problem with remaining projects in this action is the funding; local budget is only sewer taxes and income from residential taxes, no commercial tax base. New water main in the boroughs by American Water. Looking at manhole project, which is about \$1 million to stop infiltration.
- Elevation and/or Acquisition of Flood-prone Residential Structures→ Ongoing 2015 action; two RL properties still need to be mitigated.



Monmouth County
Multi-Jurisdictional Hazard Mitigation Plan Update



Michael Baker
INTERNATIONAL

Meeting: Deal/Loch Arbour/Interlaken HMP

Date: 06-12-19

Initial	Last Name	First Name	Title	Organization	Email Address
LC	CARRASIA	STEPHAN	Borough Clerk / ADMINISTRATOR	DEAL	ADMINISTRATOR @ DEALBOROUGH.COM
MS	Sharin	Matthew	DEP. OF EM COORDINATOR	Deal Arbour Interlaken	msharin@ Dealpolice.org
NR	NEUMAN	RONEN	CHIEF OF POLICE DEM	DEAL, INTERLAKEN LOCH ARBOUR	RNEUMAN@DEALPOLICE.ORG
ML	MERICANO	MATTHIAS	Engineering Firm	Deal, Loch Arbour Interlaken	MERICANO@leuisevickien.com
RL	Reibrich	LOVI	Administrator / Clerk	Interlaken	lreibrich@interlakenbor.com
SN	Simons	MARELYN	Village Clerk	Loch Arbour	msimons@lochharbour.us
FF	Foley	JAMES	Superintendent of Borough	Deal	jfoley@DealBorough.com
BA	Ashman	Brittan	Planner	MB	