



Advisory Base Flood Elevations (ABFEs) - Preview of Data

December 2012

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What We Want to Achieve

Help communities rebuild to be more resilient while preserving the unique character that makes New Jersey New Jersey.

Advisory Base Flood Elevations (ABFE) are the predicted water levels for storms with a 1% annual chance of being equaled or exceeded in any given year.

General ABFE Messaging:

- ABFEs and updated flood maps **offer the best available data** for post disaster recovery and building.
- They were created using **more recent and improved coastal data**
 - Communities' existing Flood Insurance Rate Maps (FIRMs) are based on data developed more than 20-30 years ago and do not adequately reflect the current coastal flood hazard risk.
- Elevating to or above the ABFE is a good way to reduce flood risk and has a **good return on investment for rebuilding homes** damaged in Sandy.

The Need for Updated Flood Information Post-Sandy

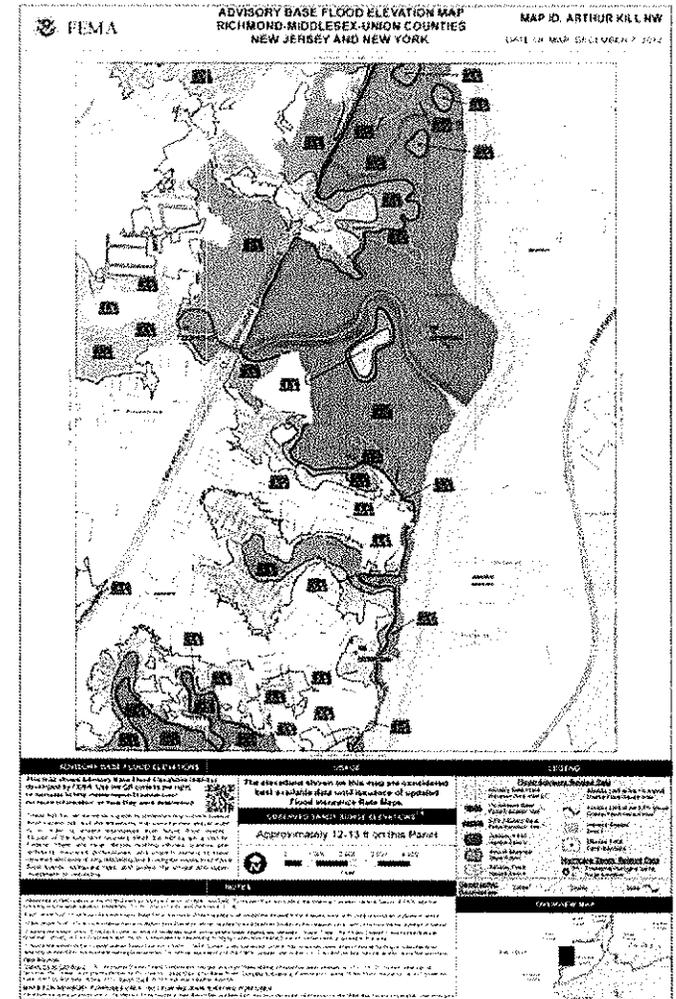
- **State and local officials face major decisions as they plan the rebuilding and recovery efforts throughout local communities.**
- **Property and business owners with damage or destroyed property face major decisions about the rebuilding of their homes or businesses.**
- **Decisions made today can help provide a safer, stronger future for communities, families, and business owners.**

Providing reliable and timely flood hazard data is just one way FEMA is helping decision makers ensure that New Jersey and New York coastal communities recover smarter and stronger in the wake of this devastating event.

Advisory Base Flood Elevation (ABFE) Overview

What are ABFEs?

- ABFEs are the predicted water levels for storms with a 1% annual chance of being equaled or exceeded in any given year. They are based on sound engineering and science
- ABFEs are derived from updated coastal flood analyses and data as compared to the coastal elevations shown on the current effective Flood Insurance Rate Maps (FIRMs)
- For coastal areas in New Jersey and New York affected by Hurricane Sandy, ABFEs can serve as a guide to understanding current coastal flood hazard risk and the higher elevations that communities should build to in order to protect themselves from future flooding.
- ABFEs were developed using updated coastal study methodologies and topographic data, and leverage work already underway to update Flood Insurance Rate Maps (FIRMs), planned for preliminary release mid-2013.



Prototype for illustrative purposes.

Why ABFEs Are Important

In General:

- Provides the State, Communities, and Property owners with the best available data for making smart rebuilding decisions.
- Enables New Jersey to build back safer, stronger, and more resilient.....to build back **“Jersey Strong”**



Specifically:

- Even though the cost of rebuilding to higher standards may be higher, the long term cost is lower due to structures being more flood resilient and flood insurance costs being reduced.
- Over the next few years, flood insurance premiums may dramatically increase for structures that are not built to at least final Base Flood Elevations (BFEs), as adopted by a community. Such BFEs will likely reflect elevations put forth in ABFEs.

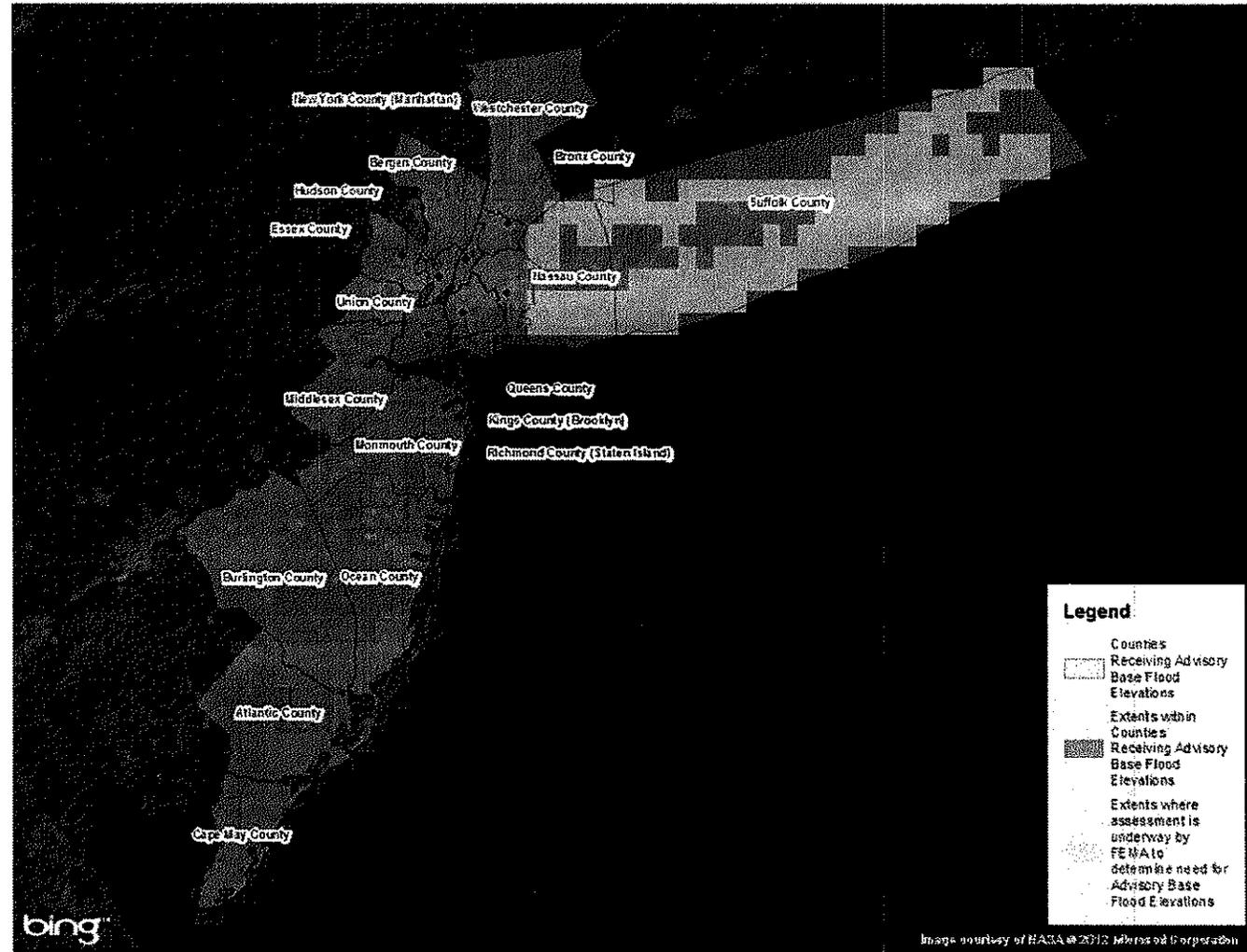
Advisory Methodology

- **Requirements:**
 - Needed a quick way to estimate wave heights in order to leverage updated Still Water Elevations (SWELs)
 - Advisory data needed within weeks, not months
 - Consistent with methodologies used for Flood Insurance Studies (FIS)
 - Generally, but not overly, conservative
 - Strong interest in 0.2% annual chance advisory elevations for critical facilities

- **Based in part on the methodology recommended by National Academy of Sciences**
 - Waves assumed to be depth-limited, same coefficient used as Wave Height Analysis for Flood Insurance Studies (WHAFIS)
 - Adjust for portion of wave above the SWEL
 - Applied using both 1% and 0.2% annual chance SWELs

Where Are ABFEs Available?

- Atlantic County
- Bergen County
- Burlington County
- Cape May County
- Essex County
- Hudson County
- Middlesex County
- Monmouth County
- Ocean County
- Union County



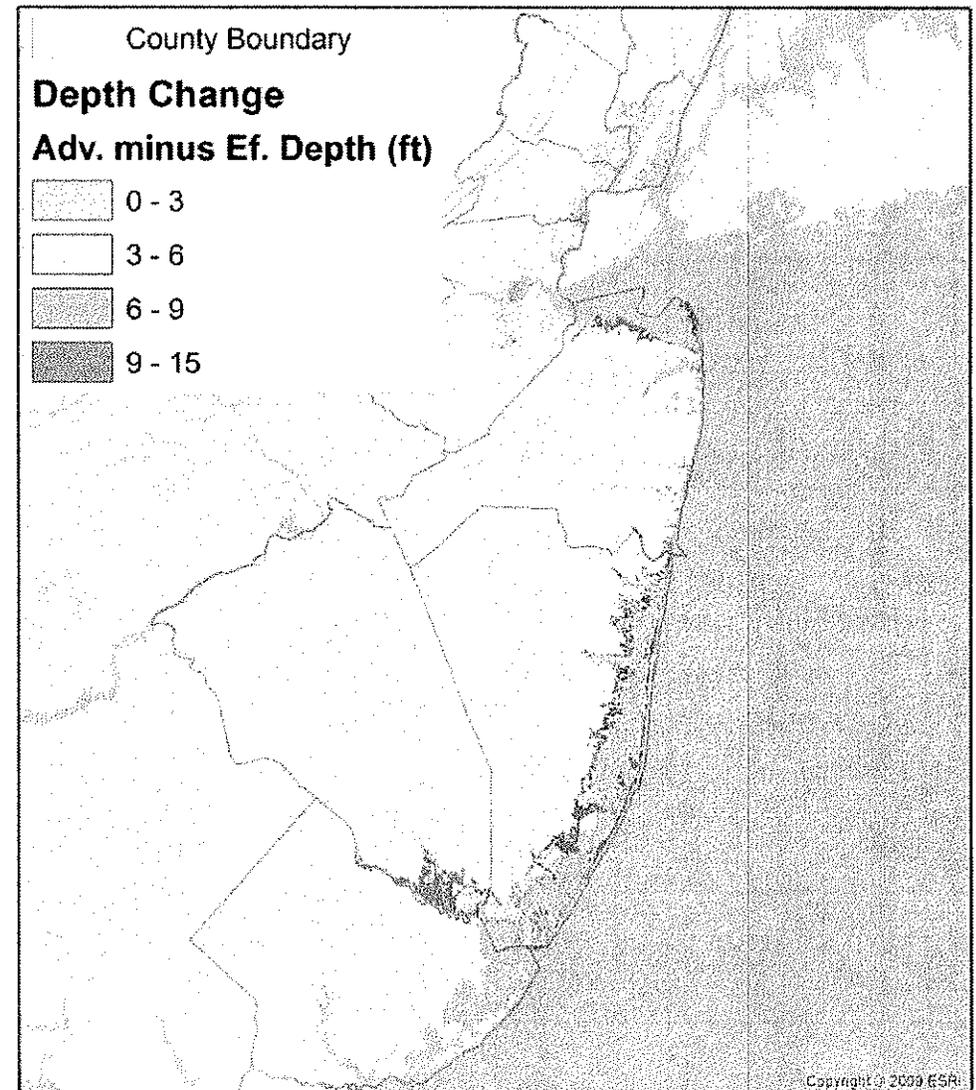
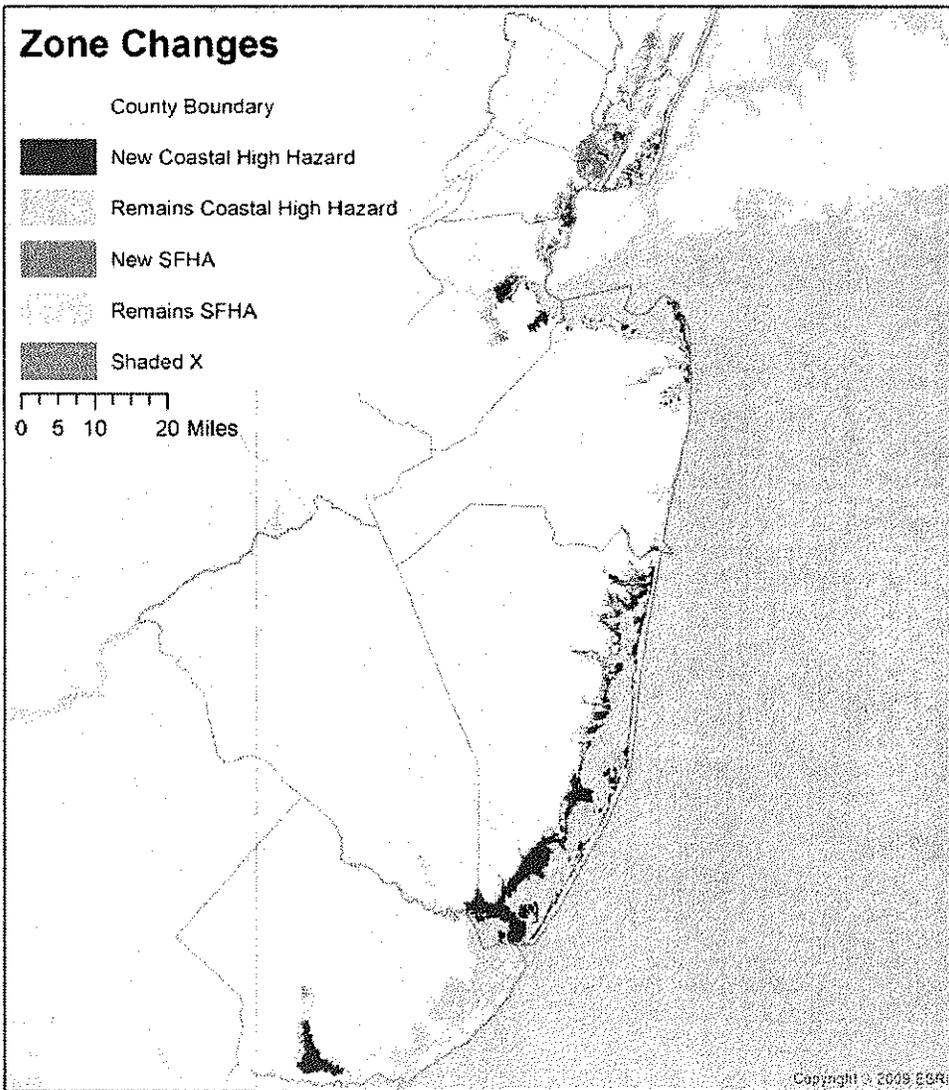
ABFE Map Overview

- **Modeling for 1,800 miles of New Jersey and New York tidal coastline**
- **126 miles along Atlantic oceanfront from Sandy Hook to Cape May**
- **Predominant amount of advisory data show increases in Base Flood Elevations of 1 to 4 feet**
 - Corresponding increases in Advisory V Zone areas
 - Some X Zone areas change to A Zone areas
- **79% of mapped ABFE areas show Hurricane Sandy impact**
 - 46% V Zones, 53% A Zones, 1% Shaded X Zones
- **No digitized effective data are available for comparison in Atlantic, Burlington, and Cape May Counties**

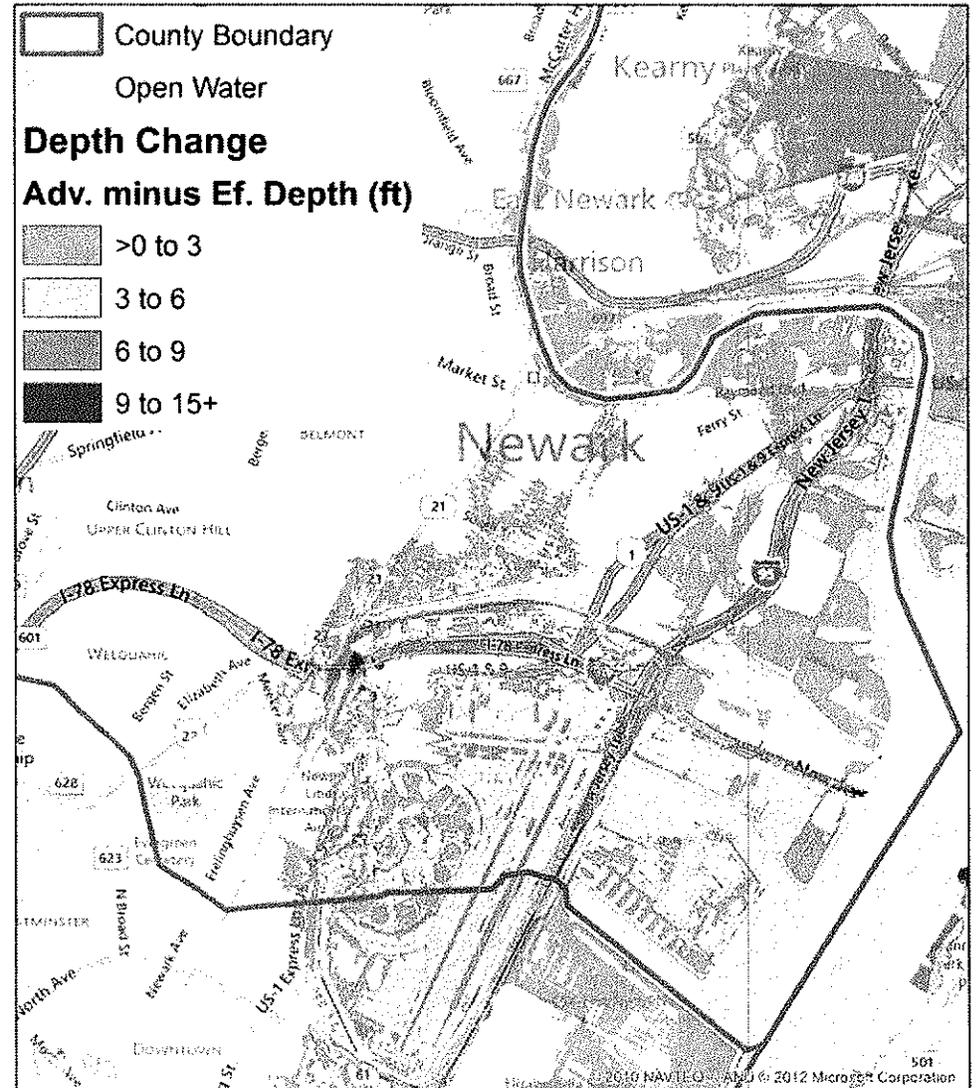
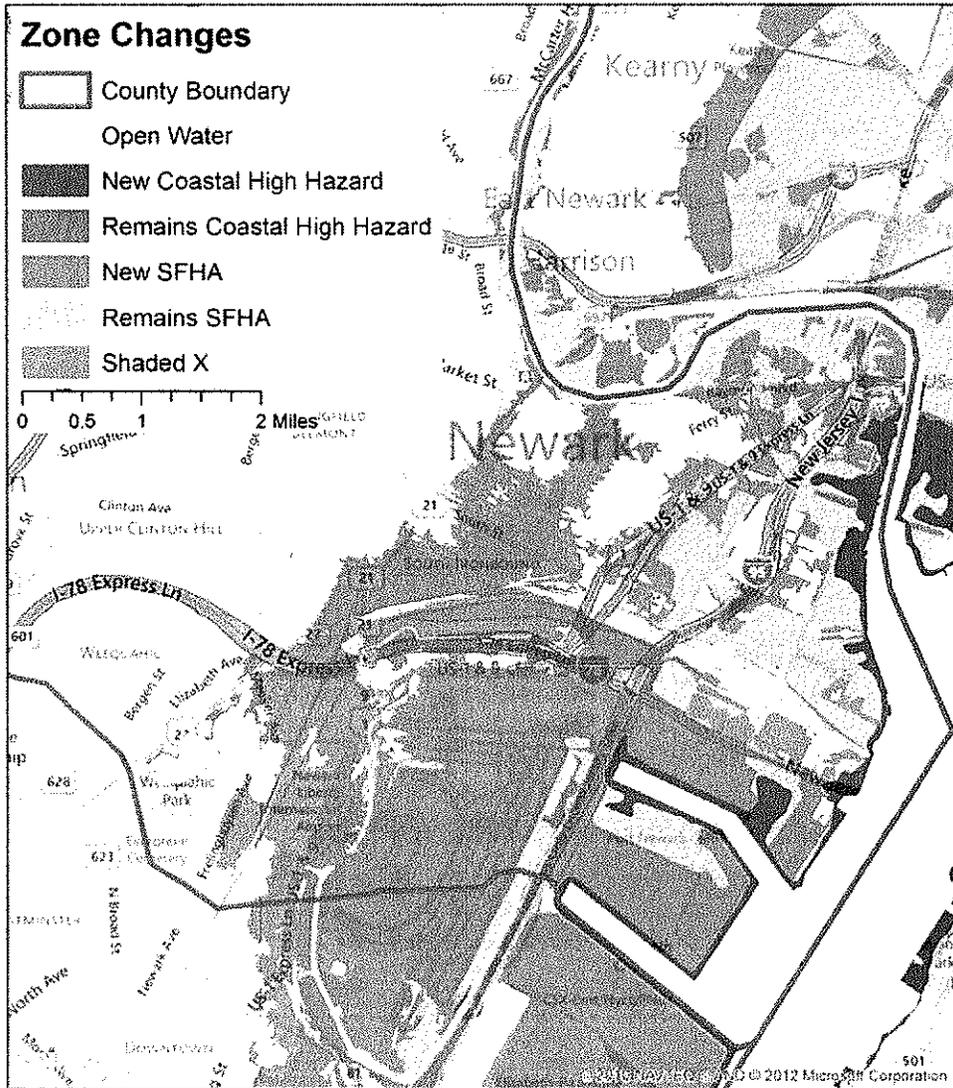
How do ABFEs Compare to Effective BFEs?

County	Range of Increase	Average Increase
Bergen	1-3 ft	2 ft
Essex	1-5 ft	3 ft
Hudson	1-5 ft	3 ft
Middlesex	4-8 ft	6 ft
Monmouth	0-6 ft	3 ft
Ocean	1-5 ft	3 ft
Union	2-8 ft	5 ft

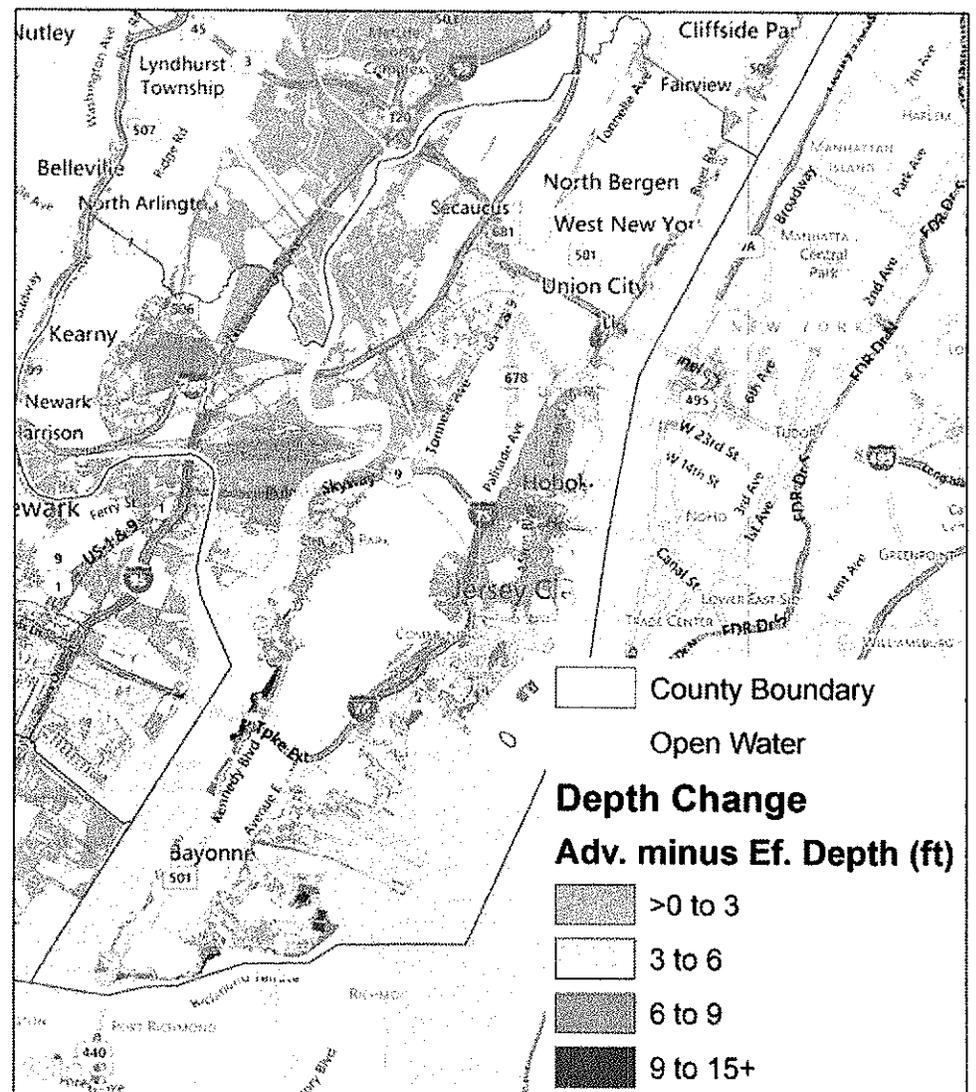
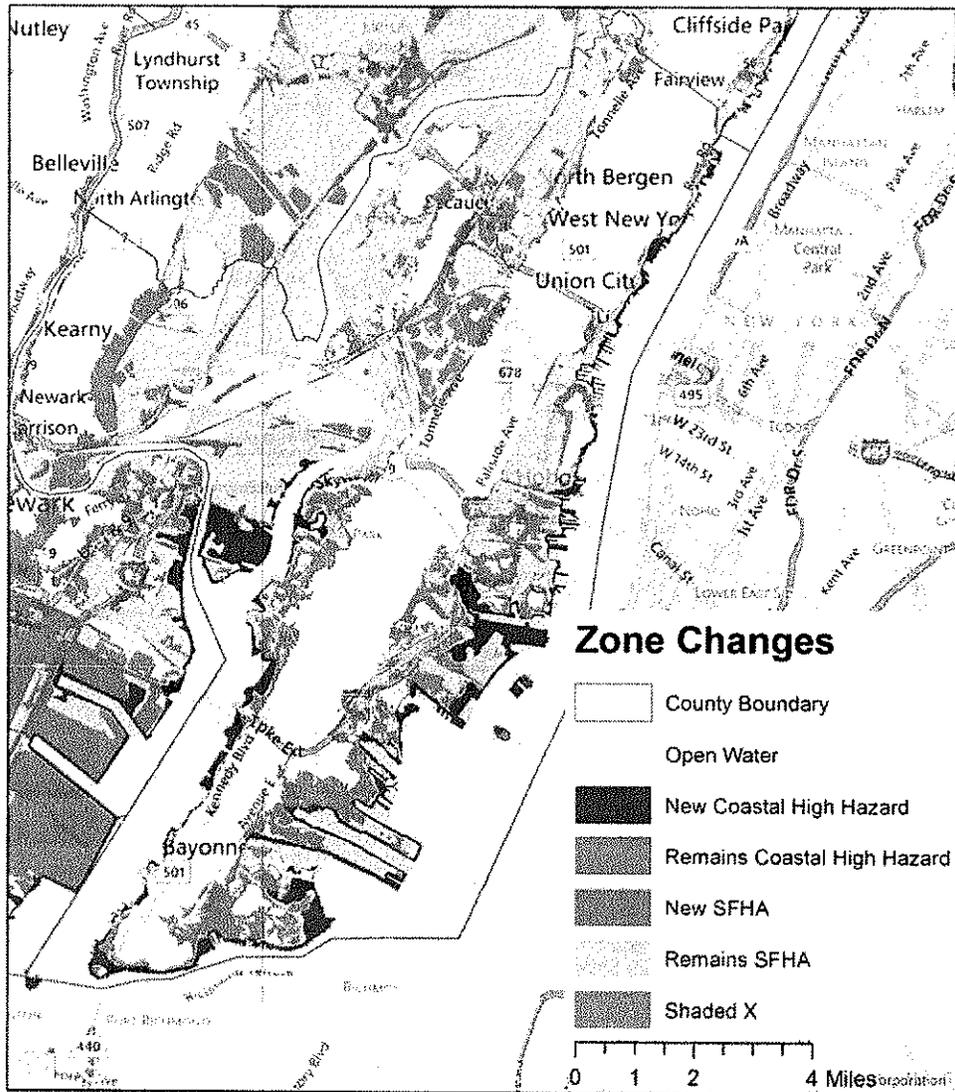
State Overview



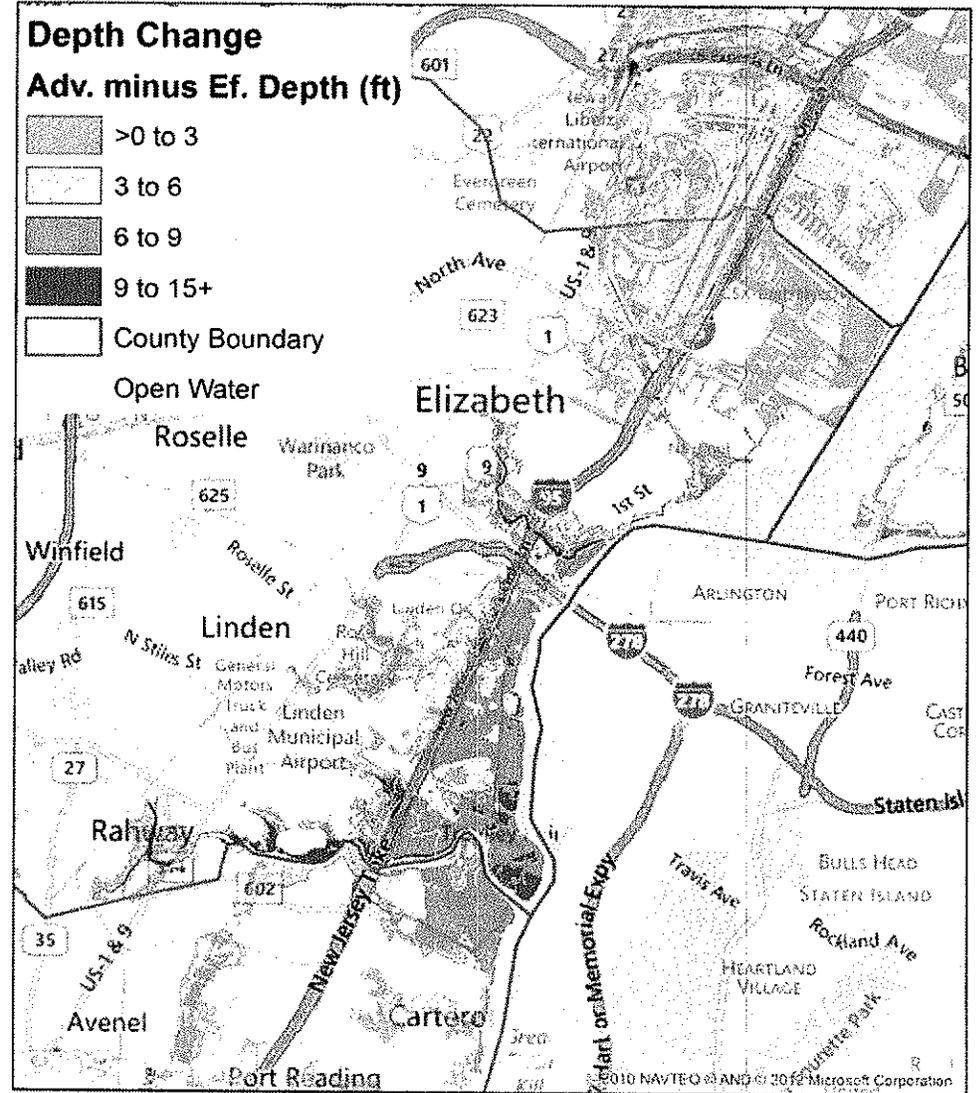
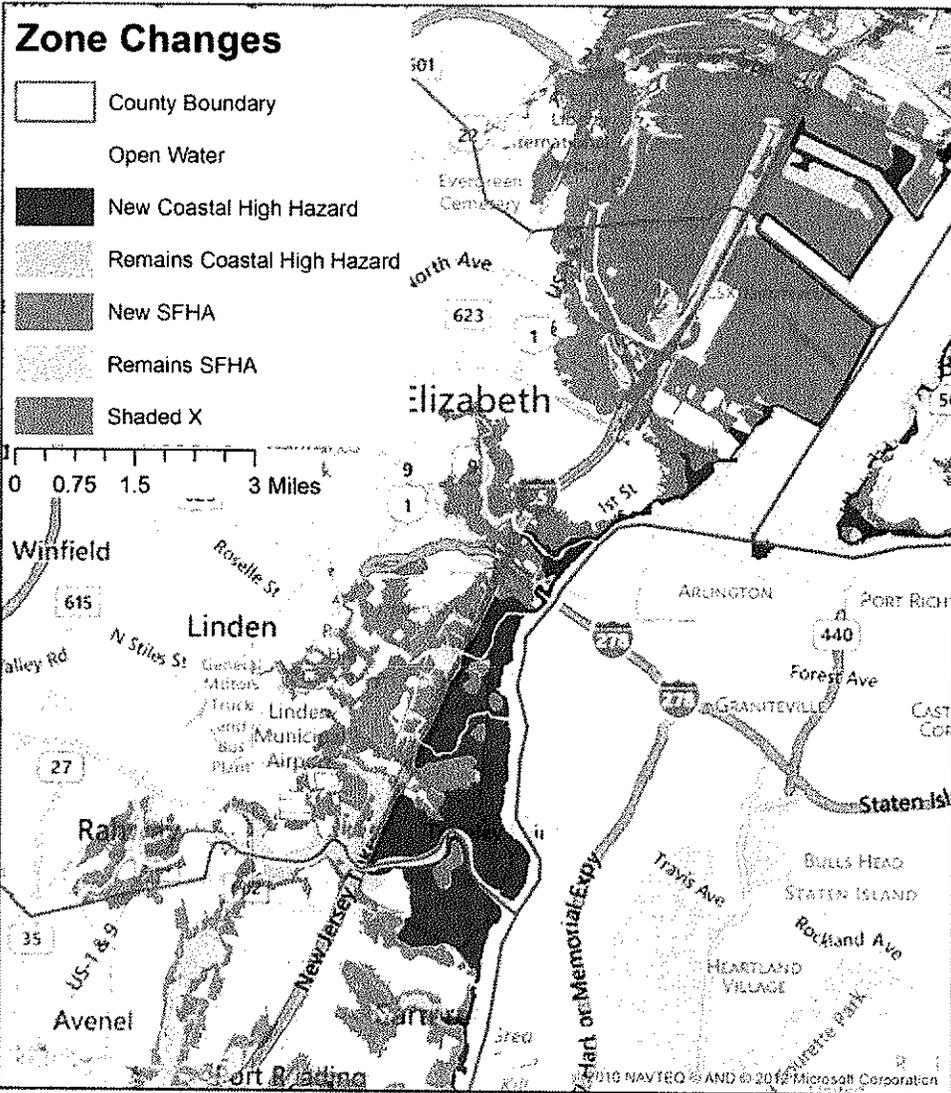
Essex County



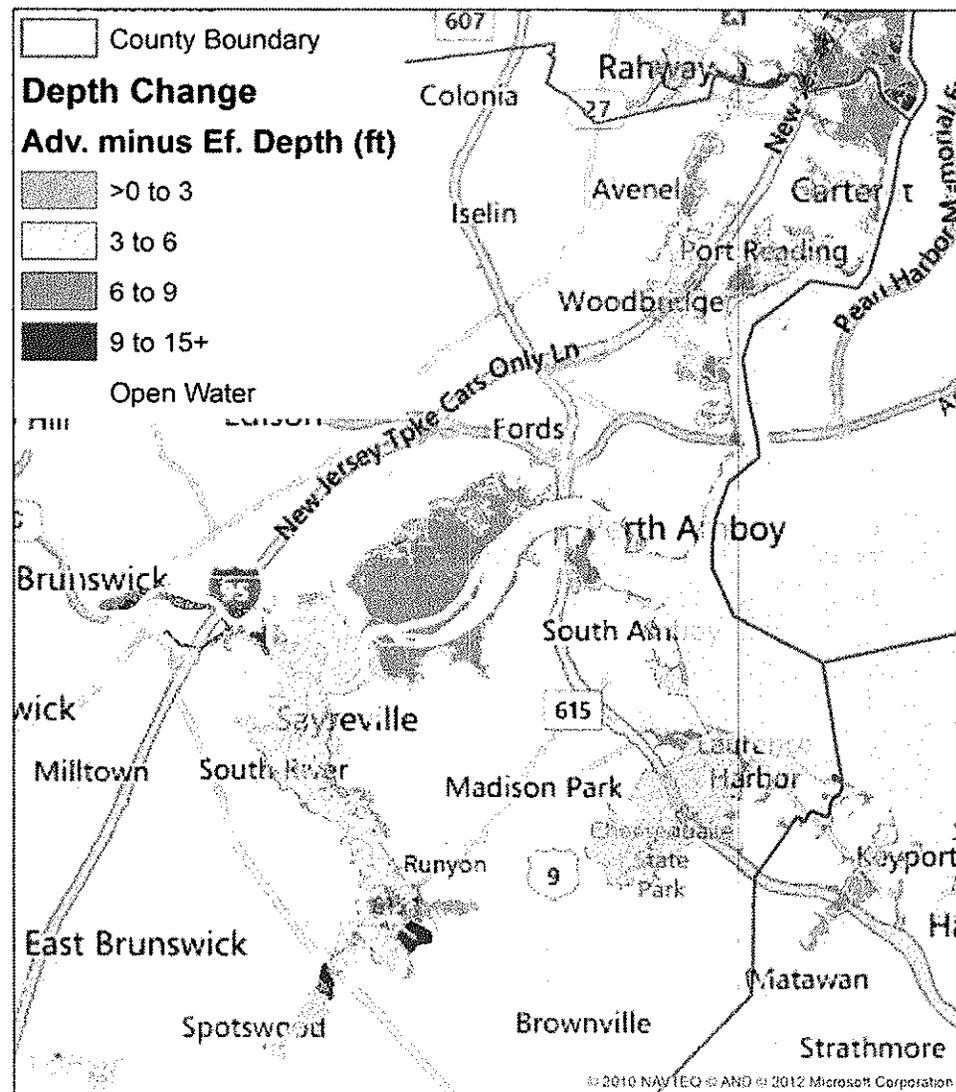
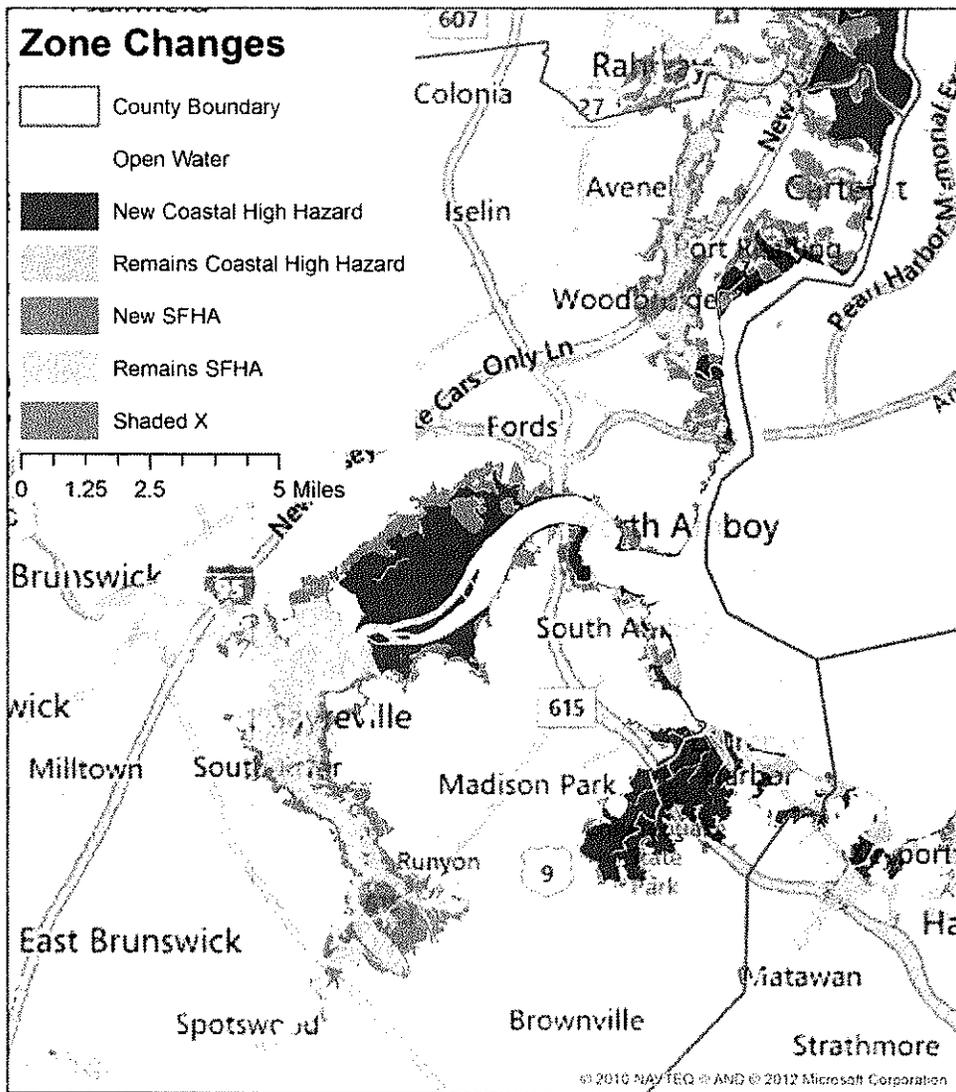
Hudson County



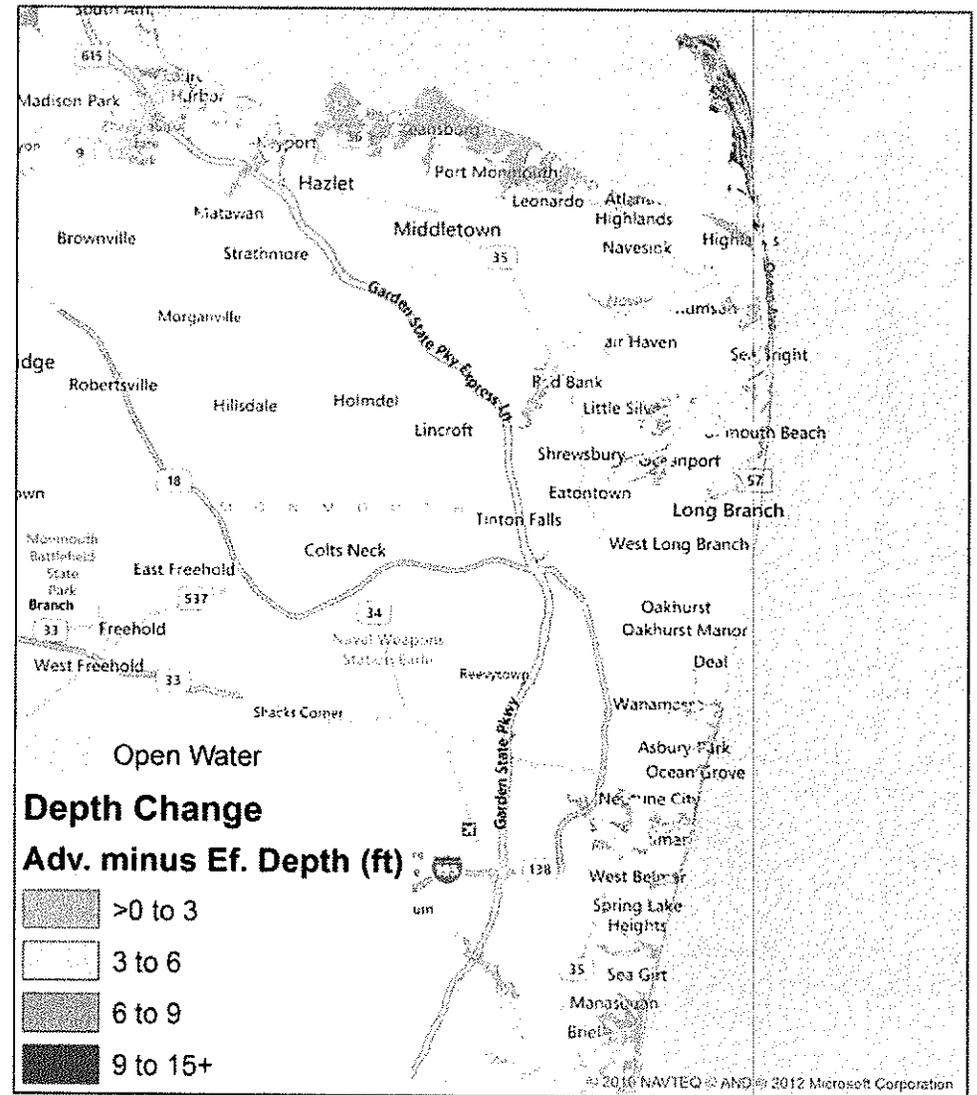
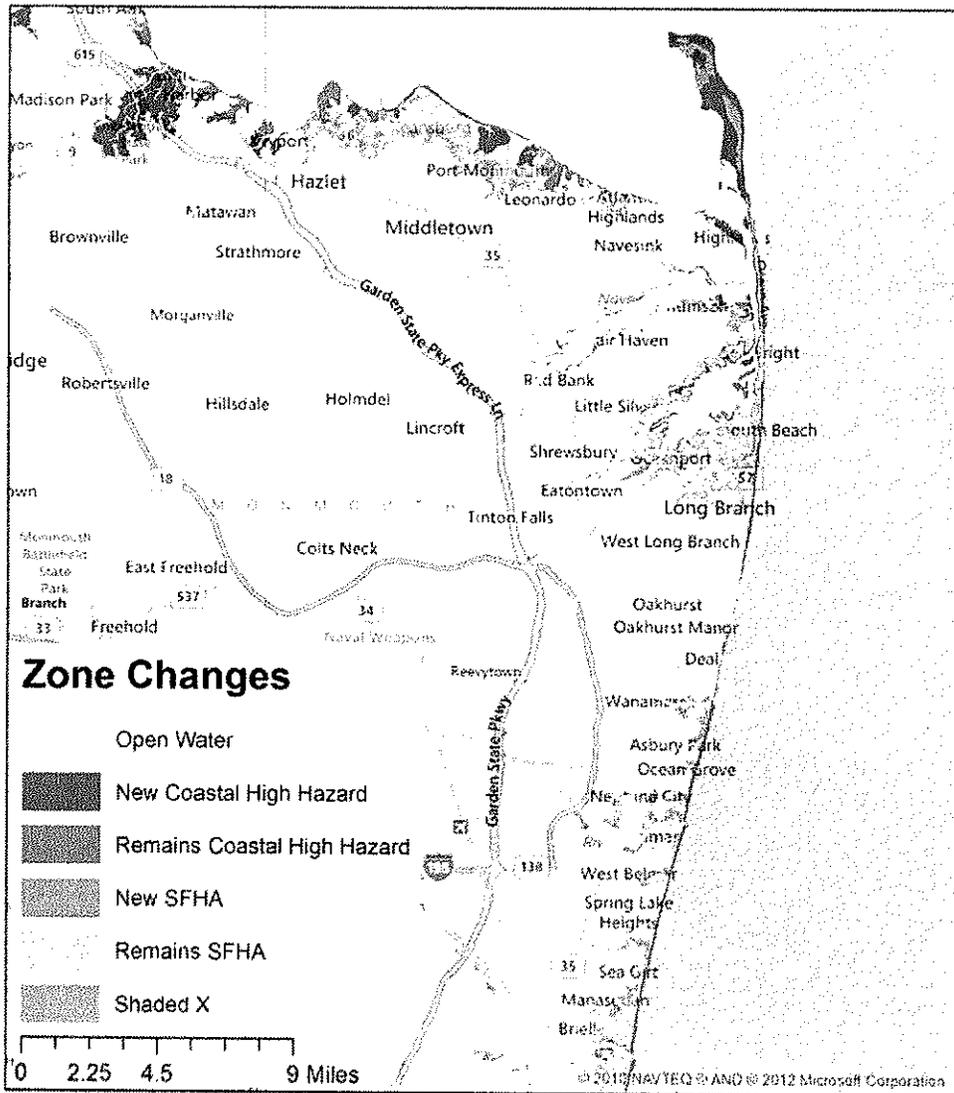
Union County



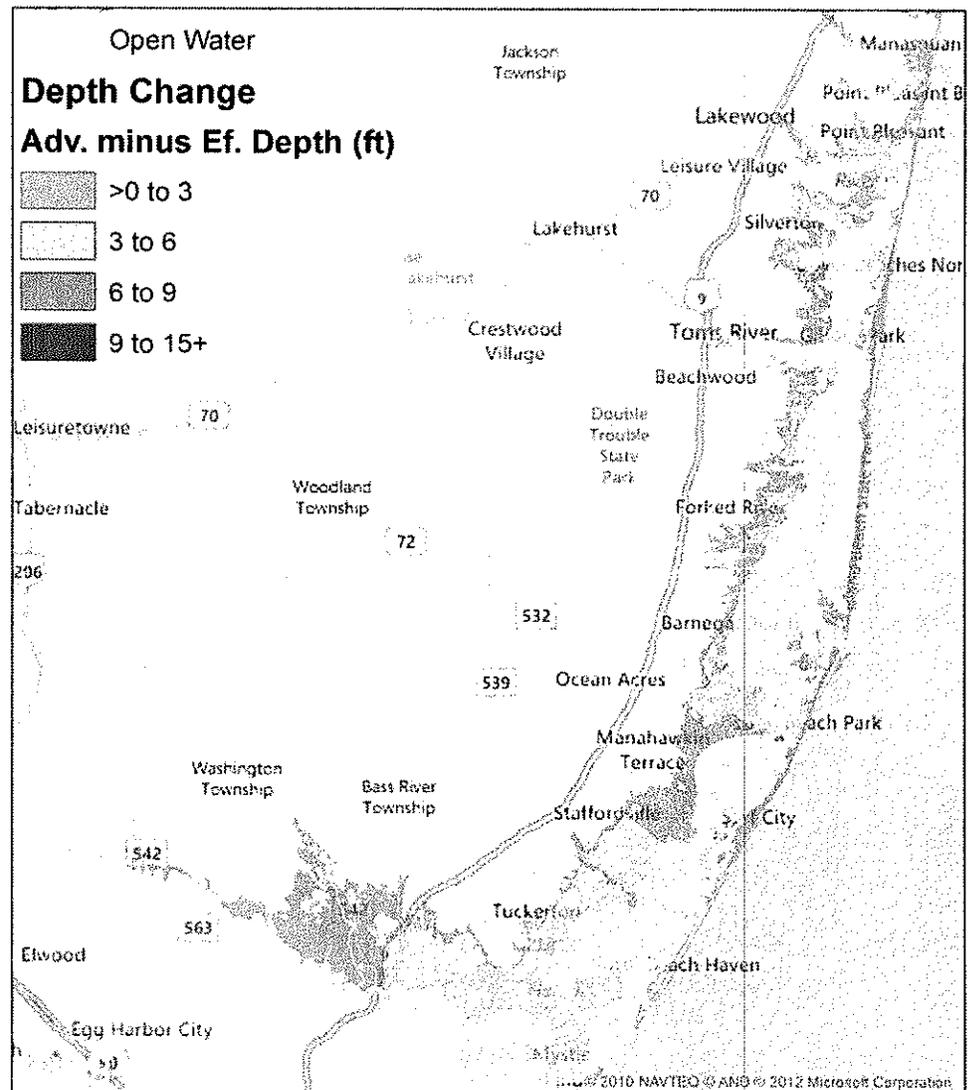
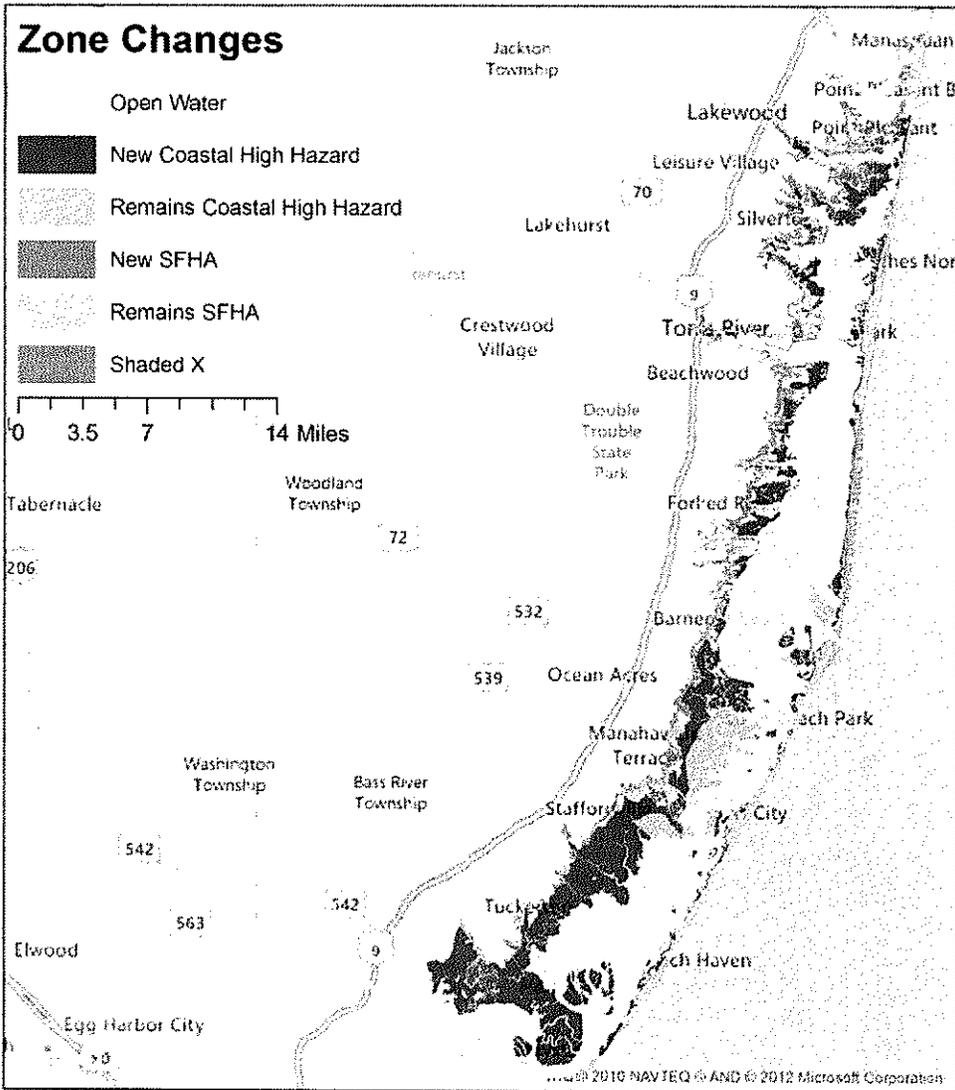
Middlesex County



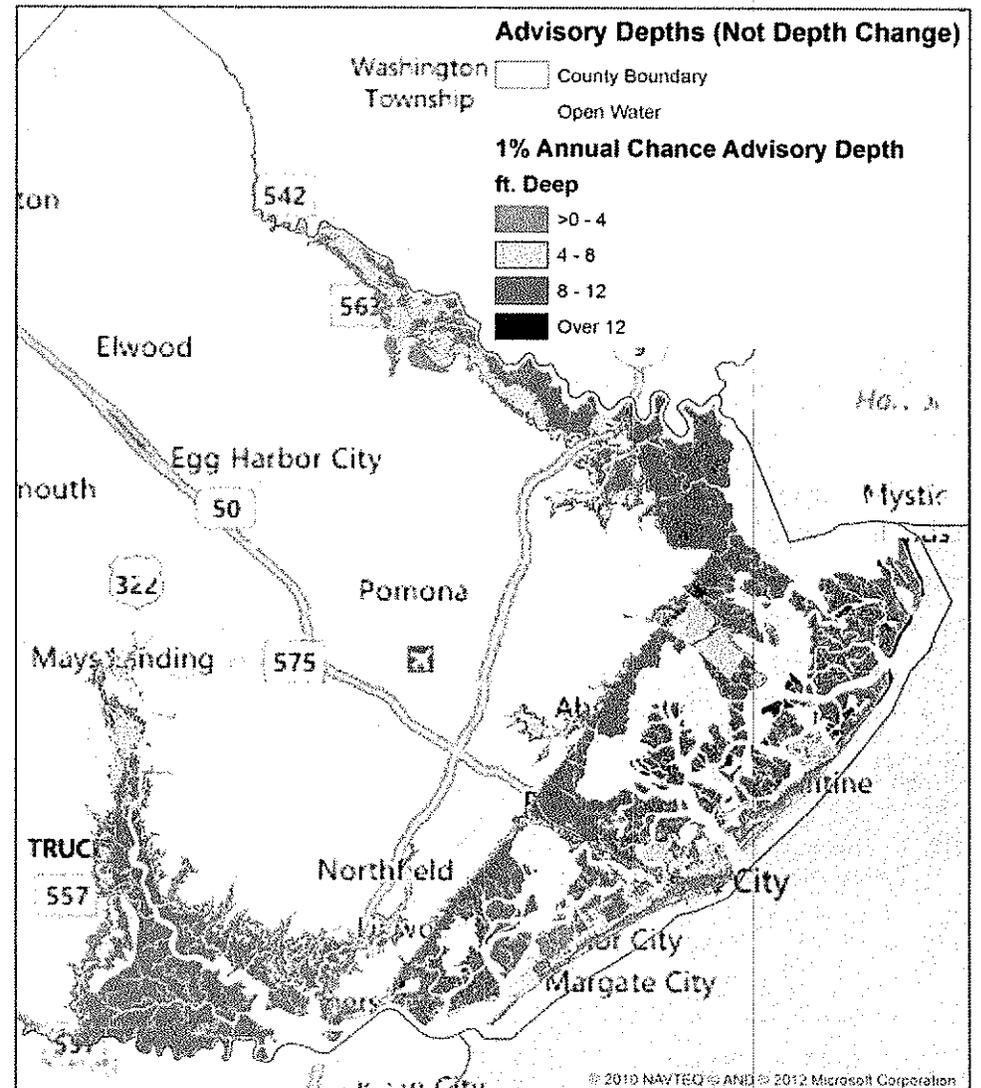
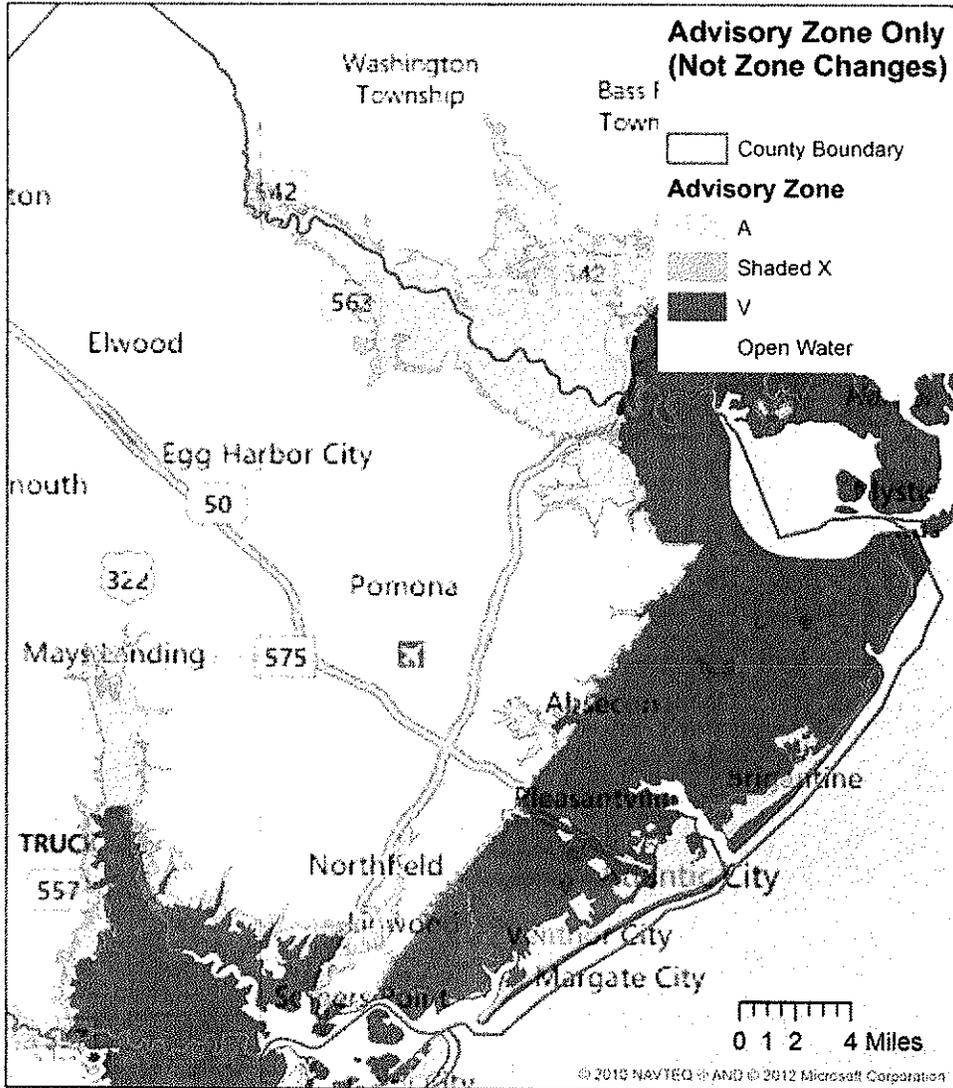
Monmouth County



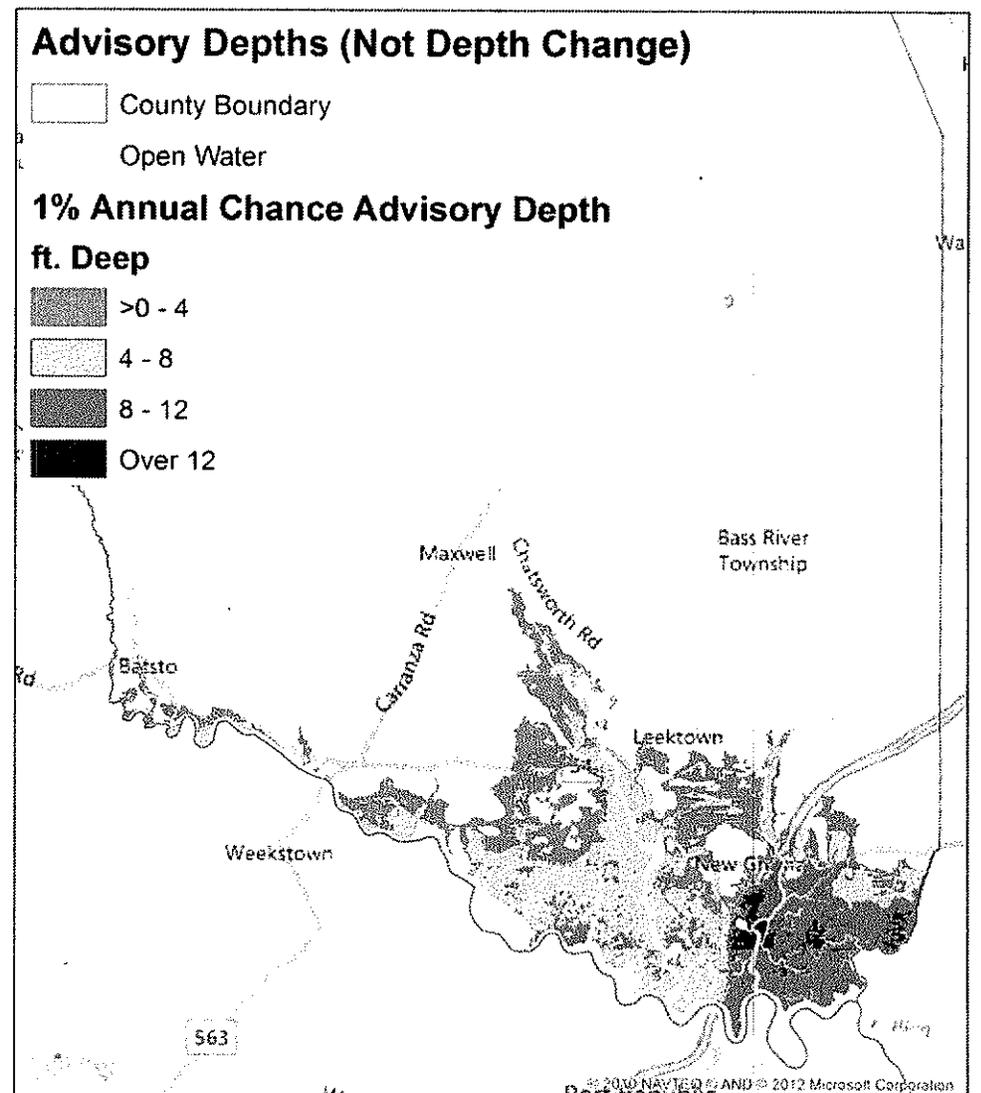
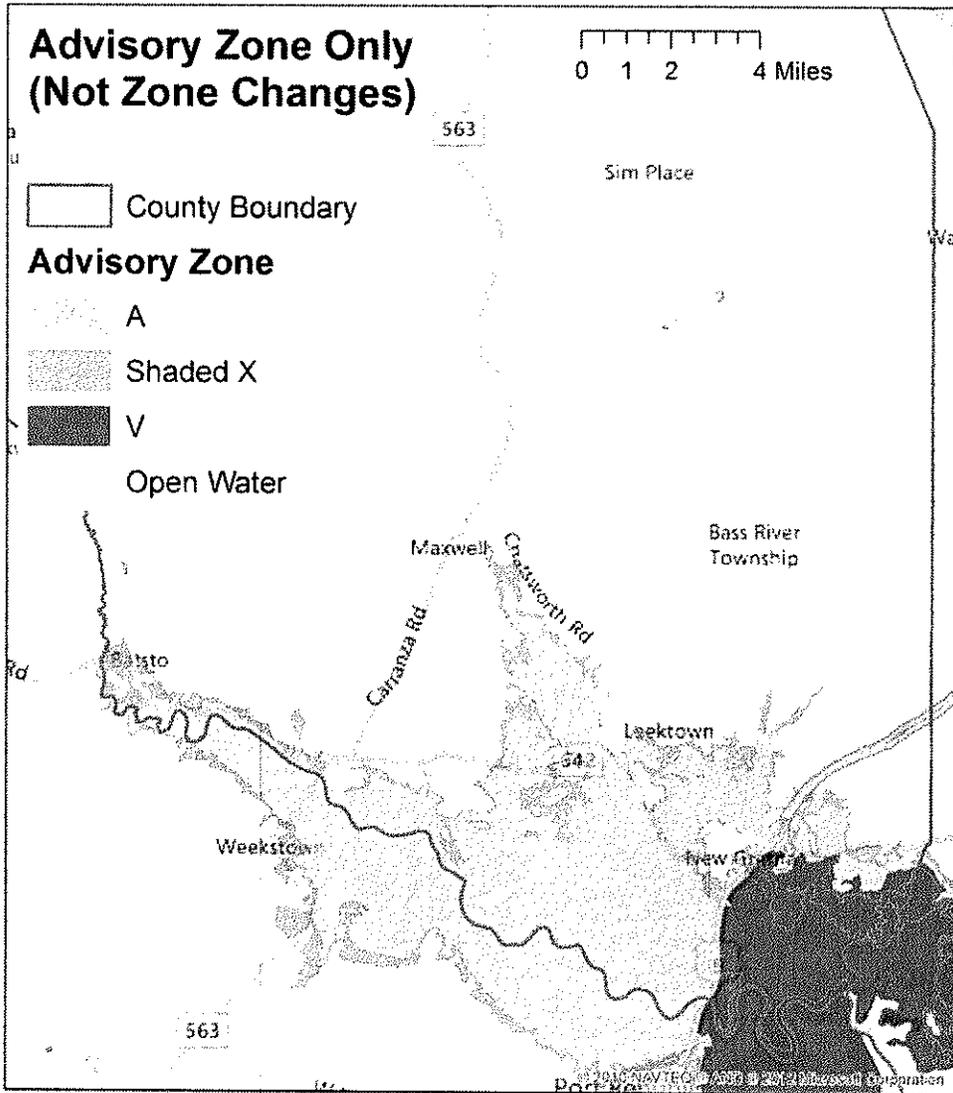
Ocean County



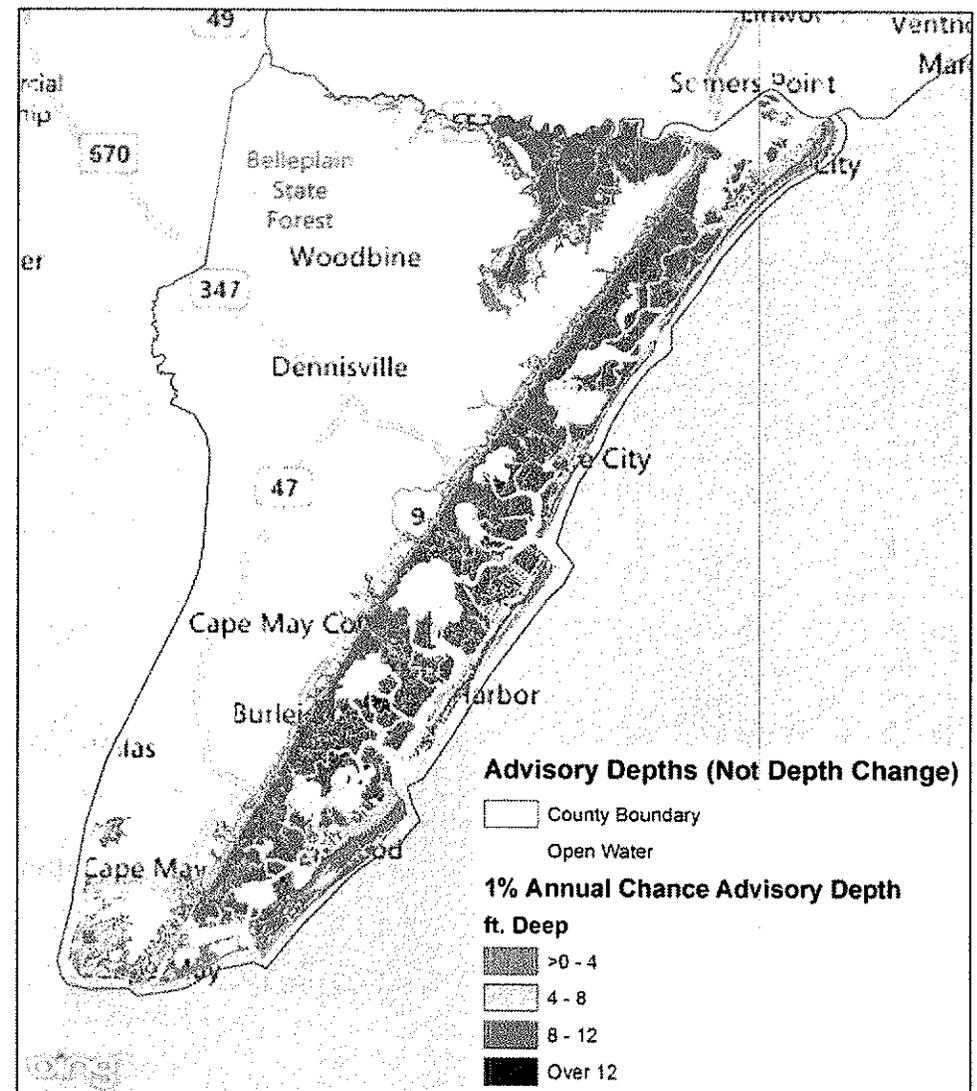
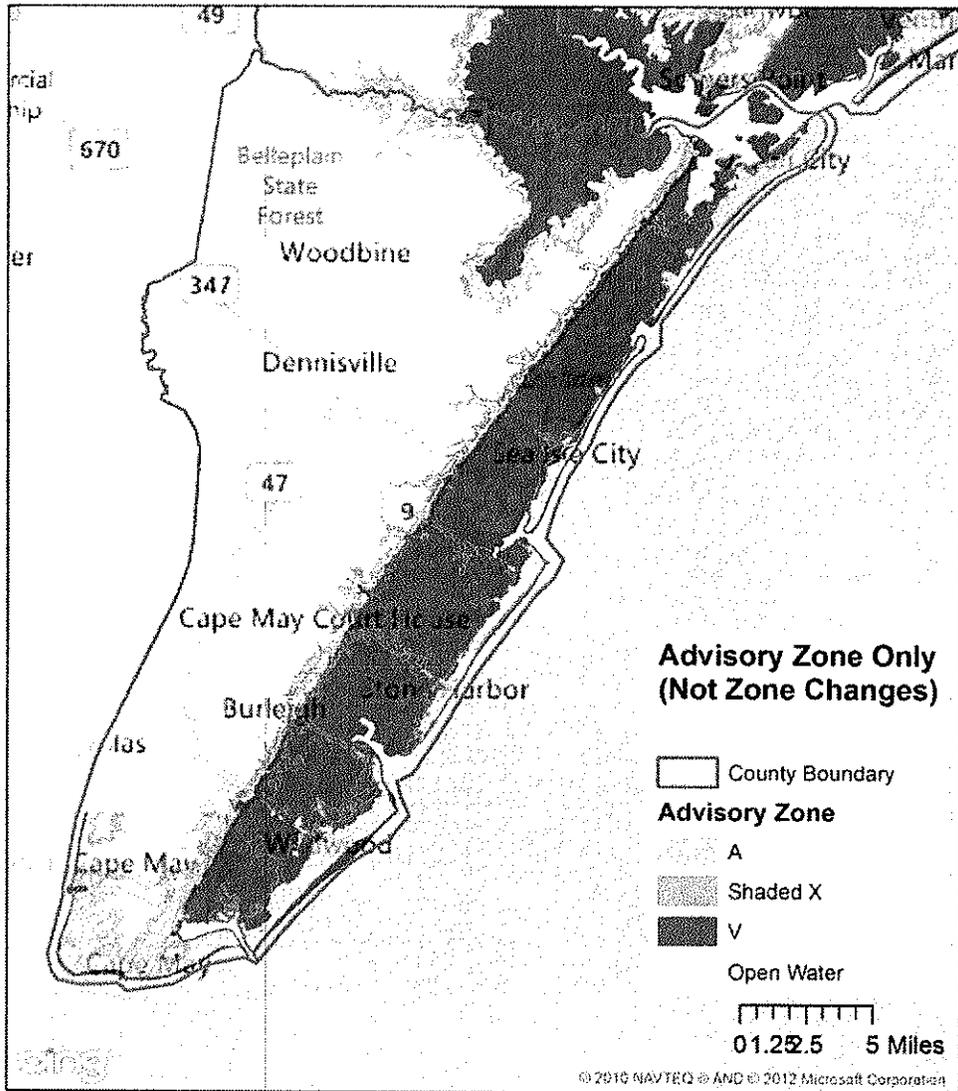
Atlantic County (Advisory Only)



Burlington County (Advisory Only)



Cape May County (Advisory Only)



V and A Zone Regulatory Impacts

- V zone areas are subject to storm surge and waves three feet or greater in height. Buildings in the V zone are required to be supported on pile or column foundations.
- A zone areas are subject to storm surge and waves less than 3 feet in height. Buildings in the A zone are also subject to flood resistant construction requirements and elevation is dependent on the Base Flood Elevation at the location.
- ABFE maps show Coastal A Zone areas where waves are between 1 ½ and 3 feet in height. Buildings in the Coastal A zone should be elevated on piles or columns.
- Future cost of flood insurance will decrease if ABFE maps are adopted and used for compliance.

ABFE Implications: Flood Insurance & Freeboard

Elevating above the Regulatory BFE has substantial implications on flood insurance premiums for property owners

Flood Insurance Rates for \$250,000 Residential Coverage in Zone AE *		
Floor Elevation	Annual Insurance Premium	Impact
3' above	\$376	73% savings
2' above	\$448	66% savings
1' above	\$660	51% savings
At 100-year flood	\$1,359	
1' below	\$4,527	333% increase
2' below	\$5,924	435% increase
3' below	\$7,204	530% increase

* May 2010 FEMA flood insurance rates.

Outreach Support

- **Success in rebuilding a better, safer, stronger New Jersey depends on communities having the best available data about the flood risks they face**
- **FEMA is available to provide tools and support for informed planning and decisions that fit a community's specific needs**
- **Resources FEMA can provide include:**
 - **Advisory Flood Risk Information materials and resources**
 - **Industry-specific workshops and guides on rebuilding (builders, architects, insurance, and more)**
 - **Mitigation planning and assistance expertise**
 - **Communications and outreach templates, sample content, and plans**

ABFE Outreach: Near-Term

Mon 12-10	Tues 12-11	Wed 12-12	Thurs 12-13	Fri 12-14	Sat 12-15
	State Briefing			Congressional Briefing State Legislature Briefing Elected Officials Briefing Media Briefing <i>ABFE Data Available Online</i>	ABFE Data Goes Live Online Q&A Sessions Offered for Elected Officials
Mon 12-17	Tues 12-18	Wed 12-19	Thurs 12-20	Fri 12-21	Sat 12-22
Atlantic County Public Officials Mtg Monmouth County Public Officials Mtg	Monmouth County Public Officials Mtg Hudson County Public Officials Mtg	Ocean County Public Officials Mtg	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Additional counties to be scheduled </div>		

ABFE Outreach: Public Officials Meetings

During two-hour sessions, a joint FEMA-State team will provide a brief overview presentation on ABFEs and then break participants into groups to move through workshop stations to plan for the roll out of ABFEs.

Topic	Objectives
Introductions	
ABFE Overview	Gain baseline understanding of ABFEs and implications for communities
Begin Station Rotations	Groups have time to become familiar with different aspects of ABFE implementation
#1: Technical Review	Ensure understanding of the maps and what they mean in the specific community; basic instruction on how to interact with the ABFE data on the Web Map; how to use key features like home locator, etc.
#2: Action Planning	Work with communities to plan how they will use ABFE information
#3: Insurance	Review of implications and Q&A
#4: Community Engagement	Create a plan for how community will engage with its citizens on ABFEs
Wrap-Up	Define best way to engage participants moving forward

Overall Messages

General ABFE Messaging:

- Advisory Base Flood Elevations and updated flood maps offer the **best available data** for post disaster recovery and building.
- They were created using **more recent and improved data** than the communities' existing Flood Insurance Rate Maps (FIRMs) which do not adequately reflect the current coastal flood hazard risk.
- Elevating to or above the ABFE is a good way to reduce flood risk and has a **good return on investment** for rebuilding homes damaged in Sandy.

ABFEs and Flood Insurance:

- By building to ABFEs, property owners avoid the potential regret and devastating financial consequences of future floods.
- By elevating higher, property owners may have a flood insurance premium that is significantly lower than without the extra elevation.
- Flood Insurance Reform, otherwise known as Biggert-Waters 2012 (BW-12), will have an impact on flood insurance premiums starting in January 2013.

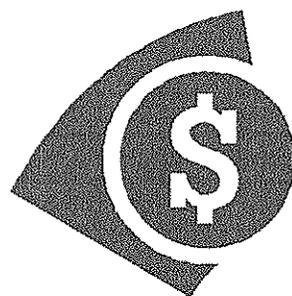
National Disaster Recovery Framework (NDRF)

FEMA is only one part of our nation's emergency management team. Under the NDRF, we work collectively with other Federal Agencies to provide recovery support to disaster-impacted communities.

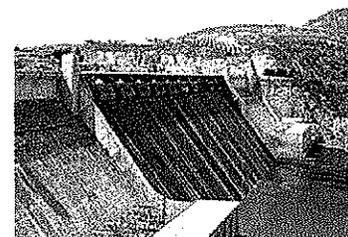
The National Disaster Recovery Framework



Housing



Economic



Infrastructure



Community Planning &
Capability Building



Natural & Cultural
Resources



Health & Social
Services

ABFE Public Access

www.Region2Coastal.com/Sandy



FEMA Region II

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Home

HURRICANE SANDY

Project Overview

Communities Affected

Coastal Mapping Basics

FAQs

Additional Resources

Contacts

[HURRICANE SANDY >](#)

What is my Advisory Base Flood Elevation?

As communities, residents and business owners along the coastlines of New York and New Jersey begin to recover from the effects of Hurricane Sandy, it is important for individuals to understand their flood risk. The Federal Emergency Management Agency (FEMA), as the administrator of the National Flood Insurance Program (NFIP), has prepared Advisory Base Flood Elevations (ABFE) utilizing on-going coastal studies that were underway for the North Atlantic Coast prior to Hurricane Sandy. This advisory information will provide the communities, residents and business owners in the ABFE mapping area with more precise information about the flood risk they face, allowing them to make more informed decisions to reduce their personal risk to life and property.

This may have you wondering...

What is My Property's ABFE?

The interactive tool below can assist you in determining the current and advisory flood risk of your property*. To find out what information is available for your property, follow these three easy steps:

1. Enter your address into the field below and click the "Get Details" button.
2. A "flag" (graphic) will be added to the map banner below indicating the location the tool will provide information at. Find your home on the map and click on your house.
3. The data fields below the map banner will provide you with an overview of ABFE and related information at the location you placed the flag (graphic). Print the report and take it to your local building and permitting authority to understand the building requirements for your property.

Below the report, you will find information on what you can do with the ABFE information. For more detailed information about ABFEs visit the [Hurricane Sandy ABFE Homepage](#) and read the [ABFE FAQ](#).



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