

# Recreational Boating in NY/NJ

## Post Sandy

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Vice President  
BoatU.S. Foundation

# Overview

- BoatU.S.'s role in Hurricane prep and response
- Analyzing Lessons Learned to increase marina resiliency
- Sandy's Impacts on Recreational Boating
- Other issues in Recreational Boating



# Goals of Hurricane Preparation:



Prevent Loss of Life



# Limit Damage to Boats



# Limit Damage to Marina Infrastructure





Mansion Avenue  
Staten Island

# Limit Damage to Other Infrastructure





# Limit Damage to the Environment

Crescent Beach,  
Staten Island



# Role in Hurricane Prep

## Resources

- Planning guidance for boaters and marinas
- Storm tracking and notification

## Response

- CAT Team
- Post Storm Management
- Marina Webinars post Sandy

## BoatU.S. Hurricane Resource Center

Boat Owners Association of The United States

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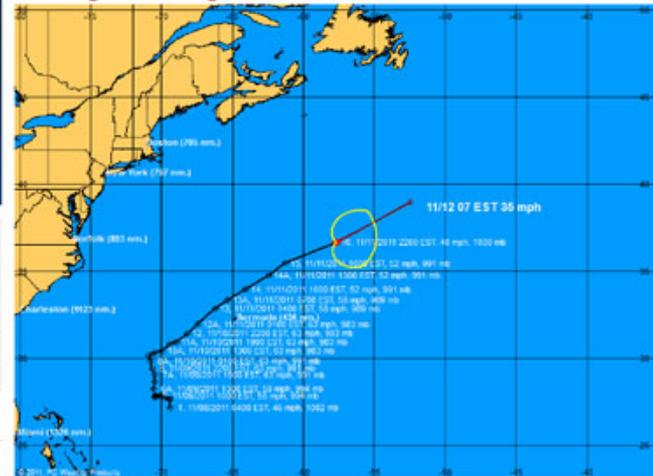
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No longer tracking Sean.



Last Updated: 11/11/2011 9:38:43 PM

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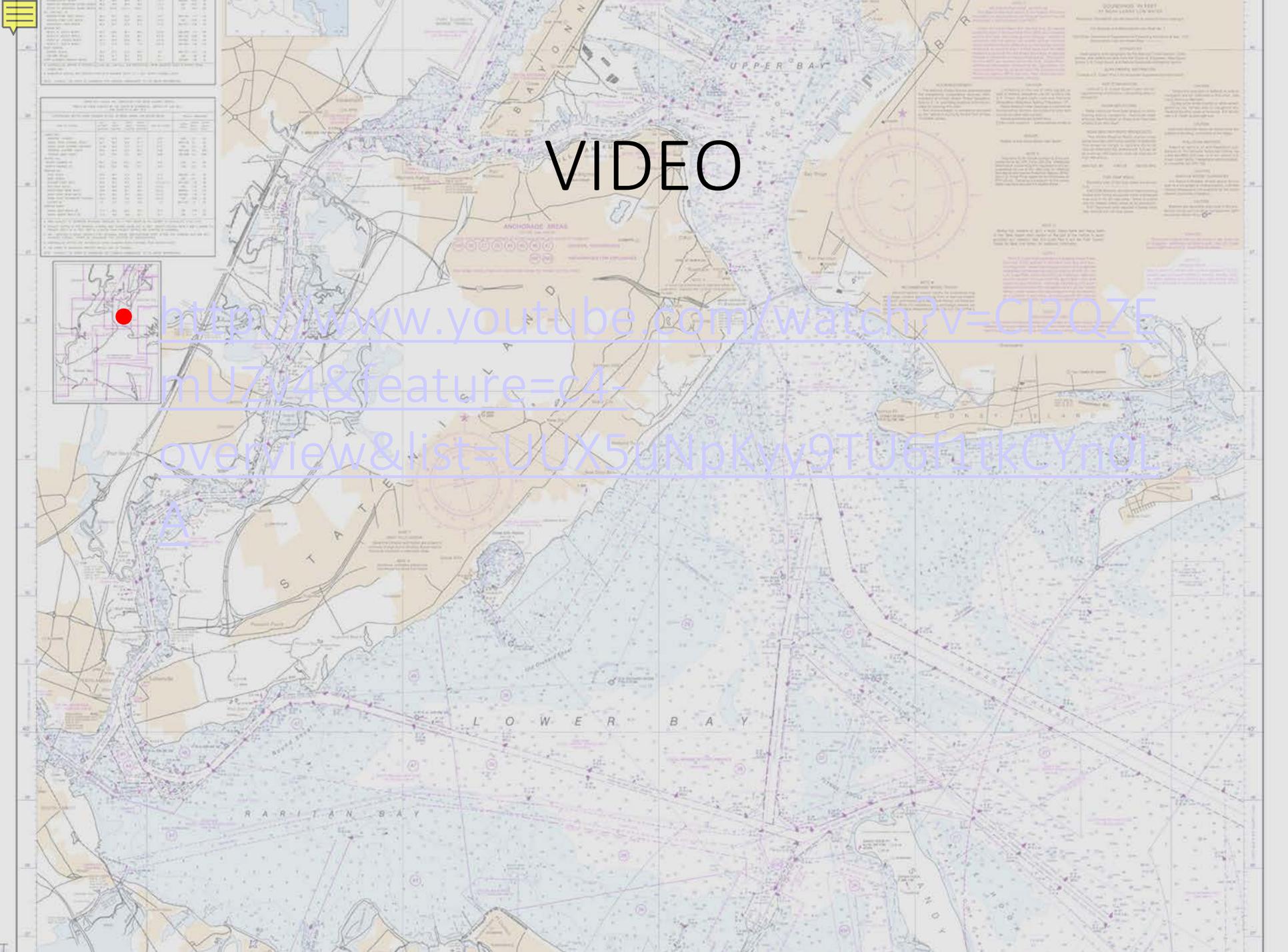
# BoatU.S. Catastrophe (CAT) Teams

- First deployed after Hurricane Alicia hit Houston in 1983
- Team of experienced surveyors, salvors, and claims adjustors
- On the ground after every major weather event where large numbers of boats were destroyed for the past 30 years
- Debrief after the fact to develop hurricane preparation best practices
- First members reached marinas in NY and NJ less than 24 hours after Sandy made landfall; CAT Teams in the field through Christmas
- Debrief after each storm to determine what we can learn

# VIDEO

<http://www.youtube.com/watch?v=CI2OZE-mU7v4&feature=c4-overview&list=UUX5uNpKyy9TU6f1tkCYn0L>

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# What Made Sandy Different?



It was NOT a high wind event

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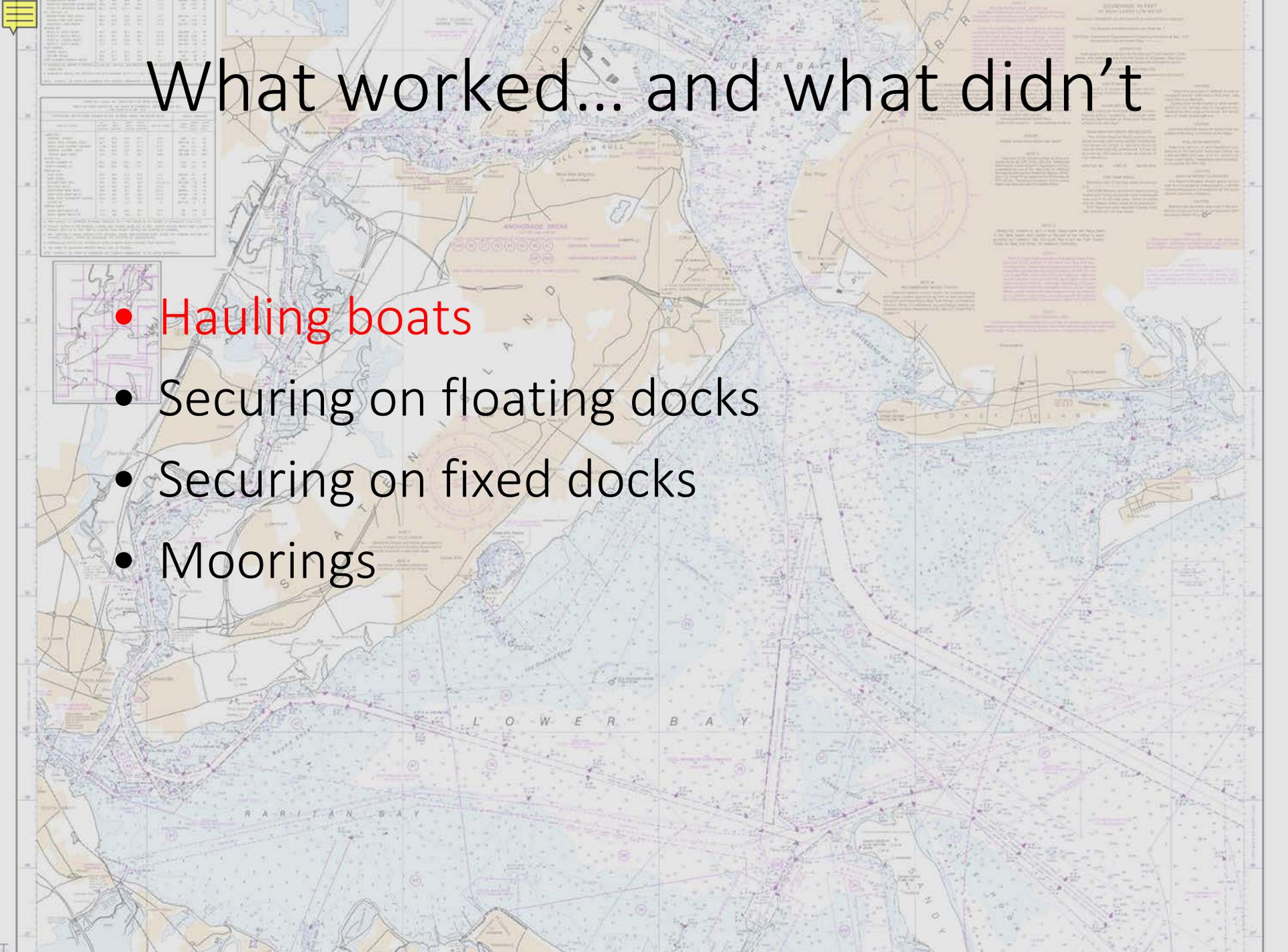
Stuyvesant YC  
Betsy Haggerty



Widespread Surge Damage in an area with older marina infrastructure

# What worked... and what didn't

- Hauling boats
- Securing on floating docks
- Securing on fixed docks
- Moorings



Atlantic Highlands Municipal Marina  
Atlantic Highlands, NJ

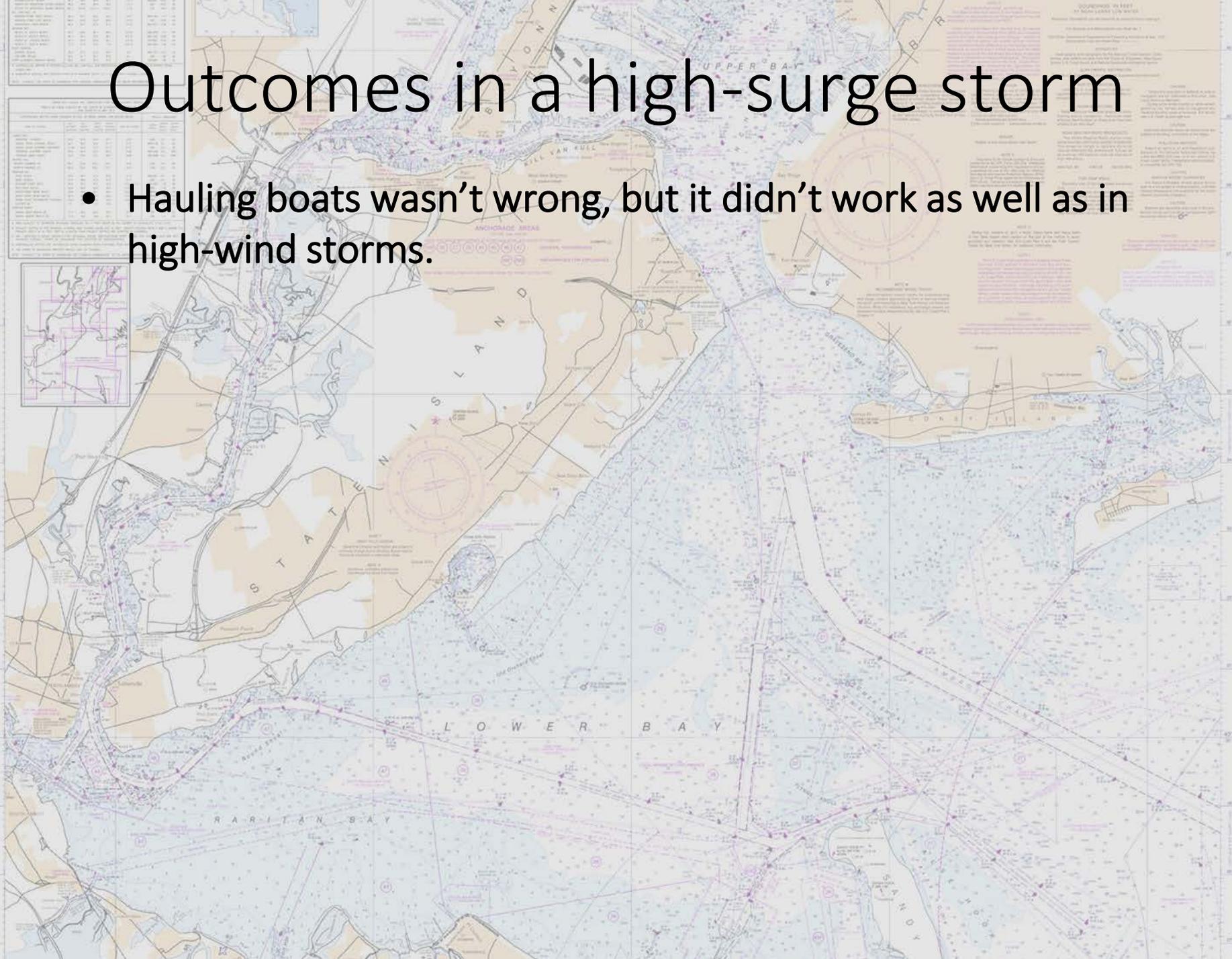


# Mansion Marina, Staten Island



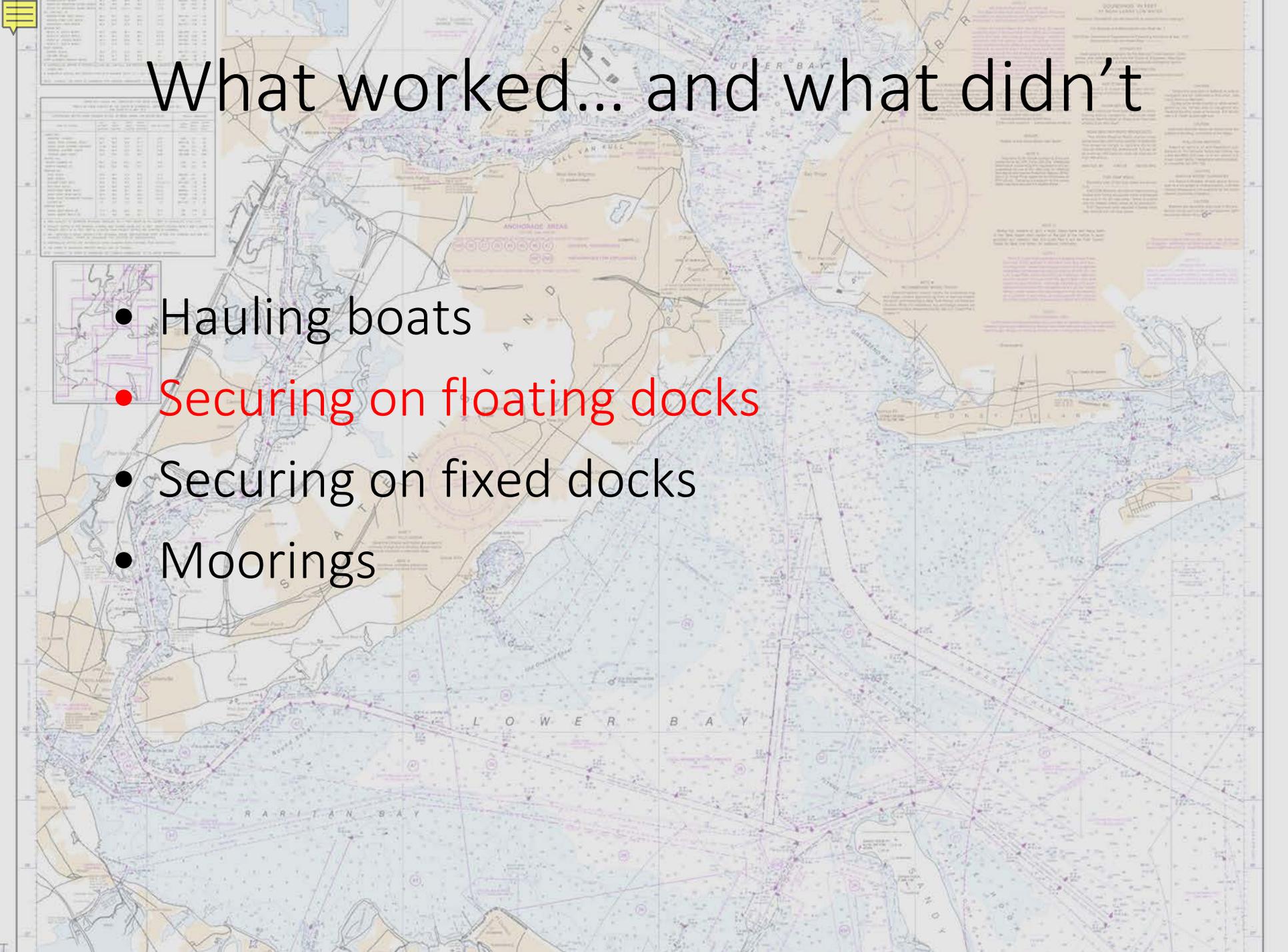
# Outcomes in a high-surge storm

- Hauling boats wasn't wrong, but it didn't work as well as in high-wind storms.



# What worked... and what didn't

- Hauling boats
- **Securing on floating docks**
- Securing on fixed docks
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Mansion Marina,  
Staten Island



Mansion Marina,

Staten Island





# Crescent Beach, Staten Island





# Staten Island

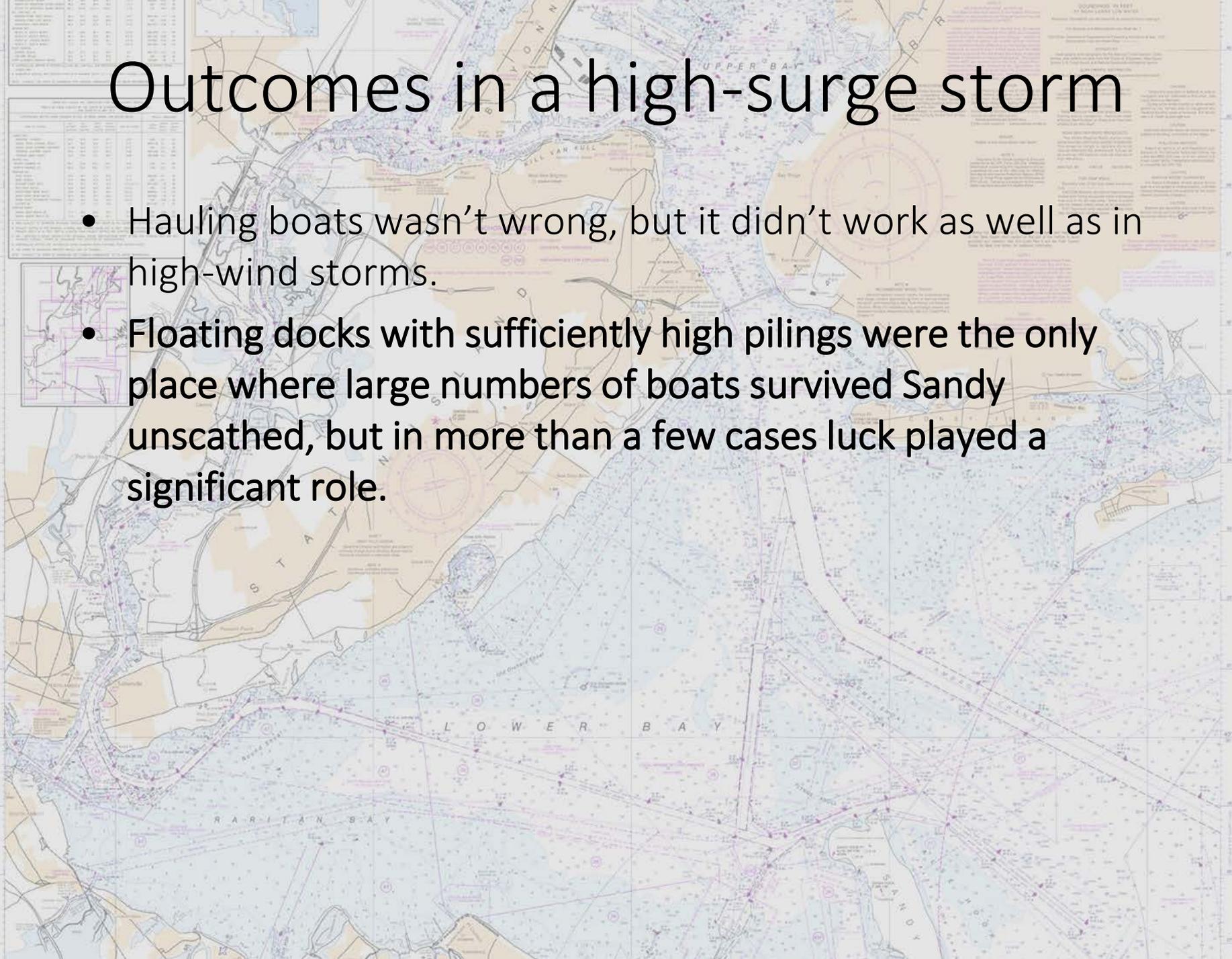


# Staten Island Yacht Sales Staten Island



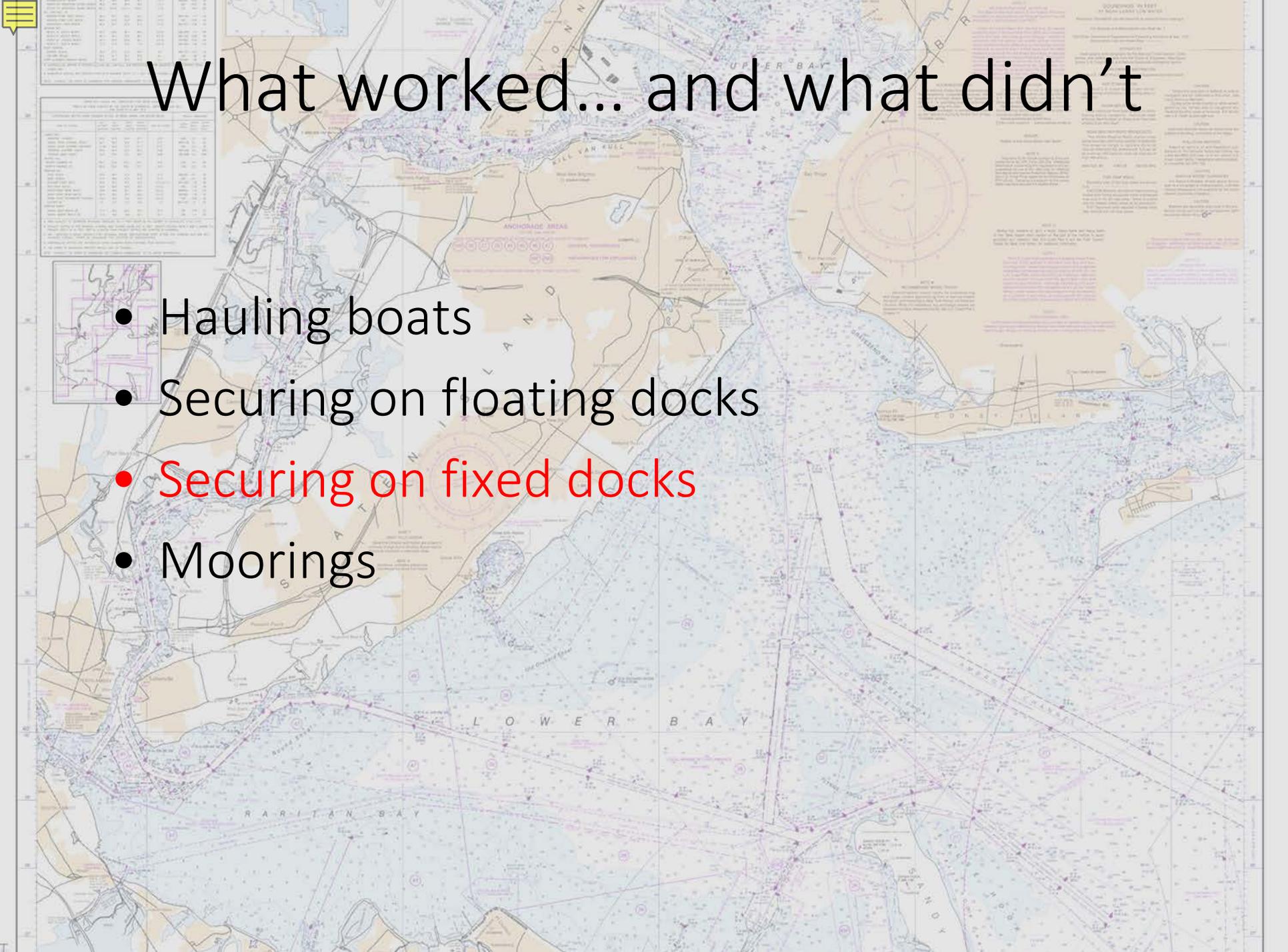
# Outcomes in a high-surge storm

- Hauling boats wasn't wrong, but it didn't work as well as in high-wind storms.
- **Floating docks with sufficiently high pilings were the only place where large numbers of boats survived Sandy unscathed, but in more than a few cases luck played a significant role.**



# What worked... and what didn't

- Hauling boats
- Securing on floating docks
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Piermont Marina  
Piermont, NY  
Larry Wilson

VILLAGE DOG LAW  
DOG LEASHED  
DOG CURBED  
YOU MUST REMOVE  
DOG WASTE  
SUBJECT TO FINE





Piermont Marina  
Piermont, NY  
Larry Wilson





Diermont Marina

Private residence  
Bayville, NJ





Diermont Marina

Good Luck Point Marina  
Bayville, NY





Diermont Marina

Nelson Marine Basin  
Tom's River, NJ

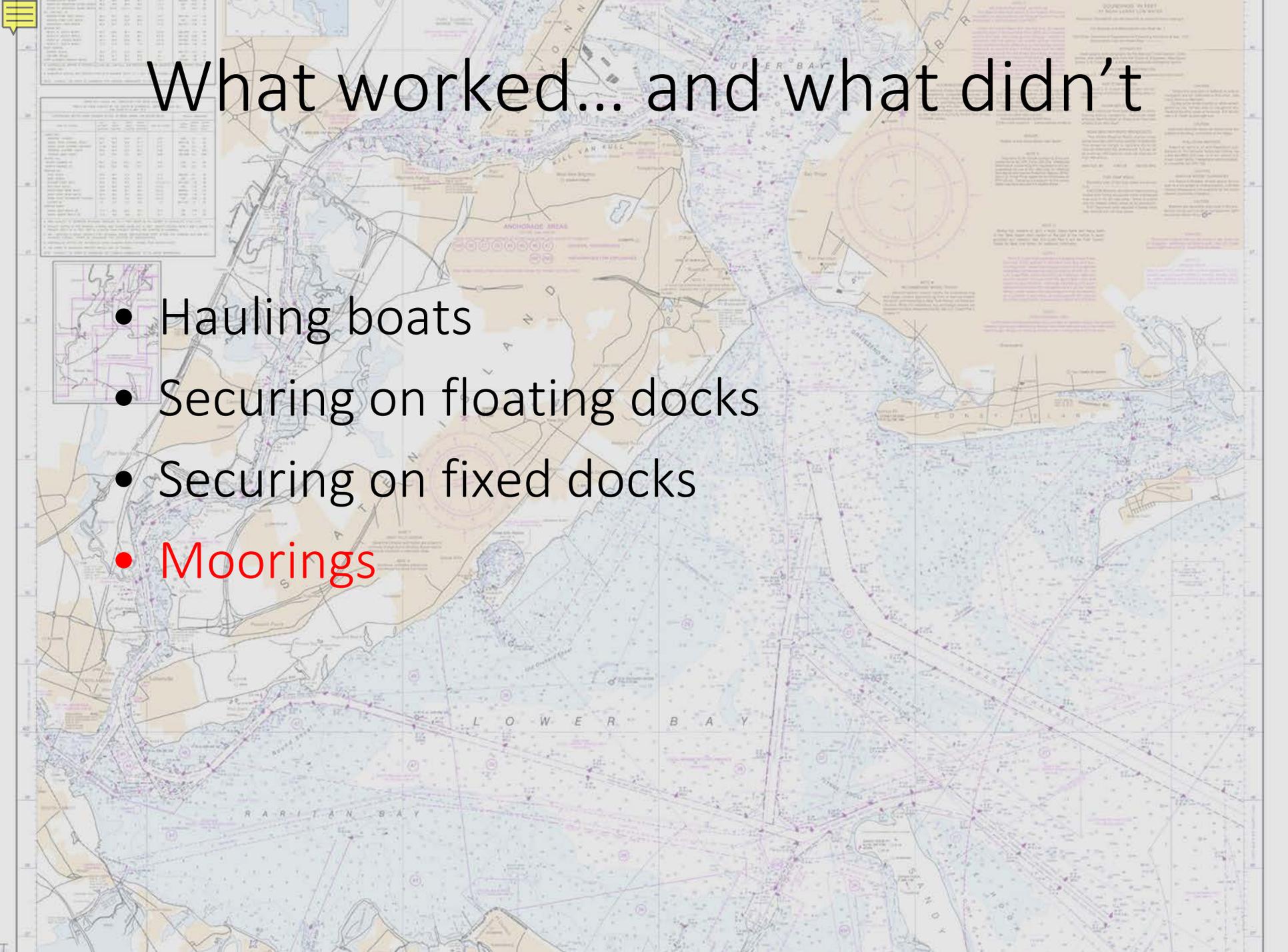


# Outcomes in a high-surge storm

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- Floating docks with sufficiently high pilings were the only place where large numbers of boats survived Sandy unscathed, but in more than a few cases luck played a significant role.
- A higher percentage of boats survived on fixed docks than in high-wind storms, but where they didn't they were often wrecked completely and recovery was harder than from hardstand areas.

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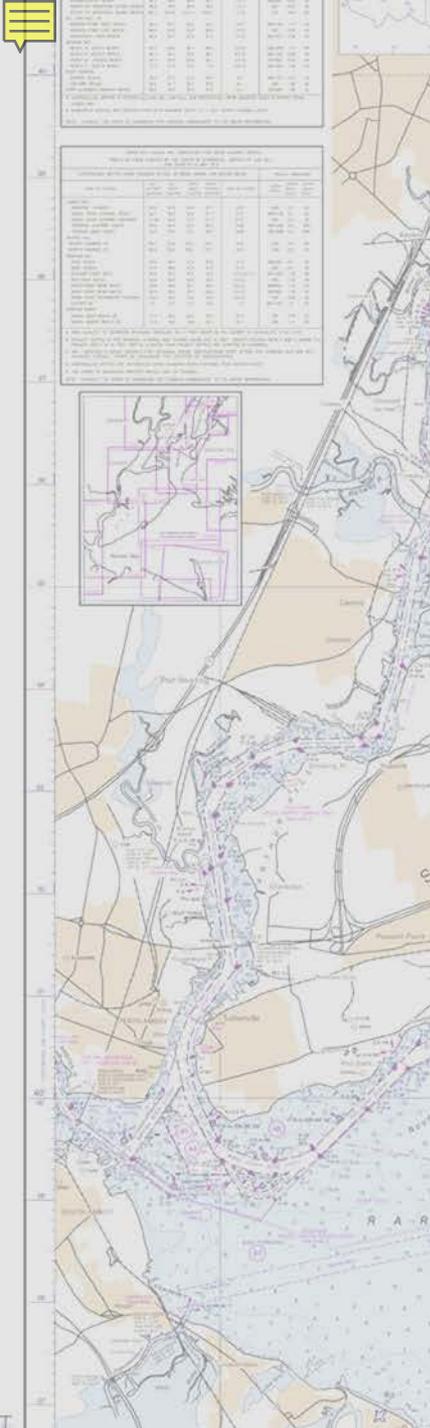




Courtesy Warren Frerichs  
Nyack Boat Club



Courtesy Warren Frerichs  
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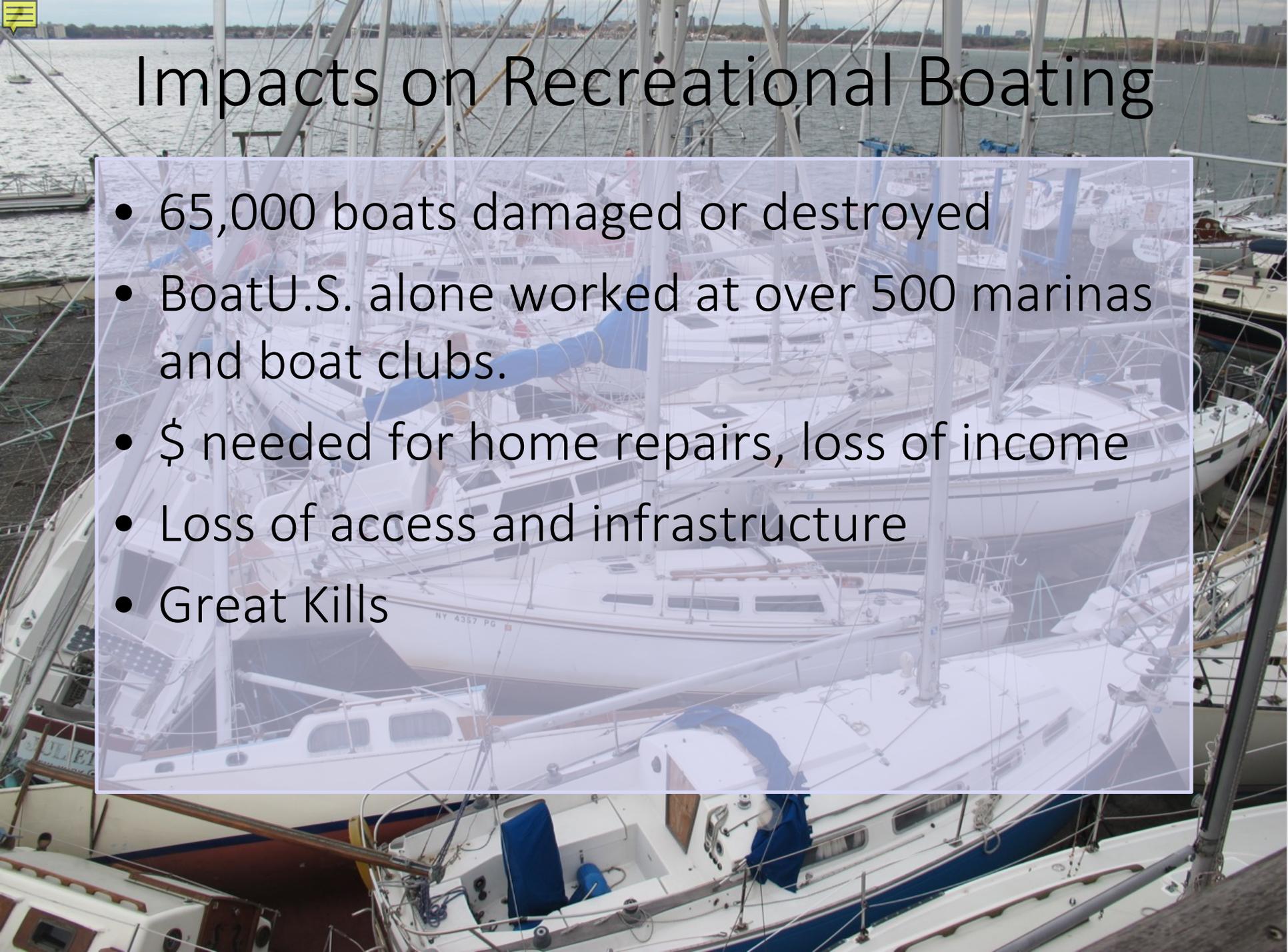


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- Floating docks with sufficiently high pilings were the only place where large numbers of boats survived Sandy unscathed, but in more than a few cases luck played a significant role.
- A higher percentage of boats survived on fixed docks than in high-wind storms, but where they didn't they were often wrecked completely.
- **Moorings offer a viable alternative for keeping boats safe in high-surge storms, but only if ALL moorings in the basin are properly constructed, maintained, and prepared for the actual conditions.**

# Limit Damage to Boats



An aerial photograph of a marina filled with numerous sailboats of various sizes, mostly white with blue accents. The boats are docked in rows, and their masts and rigging are visible against the sky. In the background, a body of water extends to a distant shoreline with some buildings under a clear sky.

# Impacts on Recreational Boating

- 65,000 boats damaged or destroyed
- BoatU.S. alone worked at over 500 marinas and boat clubs.
- \$ needed for home repairs, loss of income
- Loss of access and infrastructure
- Great Kills

# Two Improvements

A surge model that shows the worst case on an easy to access interface like Google maps.

- inundation above ground level not sea level.
- historical data and predictive

Better communicate the warning and risk so that people will understand and do the right thing.

- surge vs. wind
- terminology use of the term “hurricane”

# Other Boating Issues

## Move to Print On Demand Charts

The Washington Post PostTV Politics Opinions Local Sports National World Business

### In the Loop

By Al Kamen

Archives

In the Loop

## NOAA tosses sailors in digital seas, ends printing nautical charts

BY EMILY HEIL November 6 at 4:07 pm

They were good enough for the likes of Captain Ahab of "Moby Dick" or Captain Stubb (from that other classic, "The Love Boat"), but old-timsey nautical charts are on the way out.

At least the ones provided by the National Oceanic and Atmospheric Administration are. NOAA recently marked the end of a century-plus era by announcing that it would no longer offer print versions of the charts it maintains of U.S. coastal waters.

The government has been printing such maps since



## In Cost-Cutting Move, NOAA To Stop Printing Nautical Charts

By SCOTT SIMON  
October 22, 2013 4:07 PM



## Federal government to stop printing nautical charts

Published October 22, 2013 / Associated Press



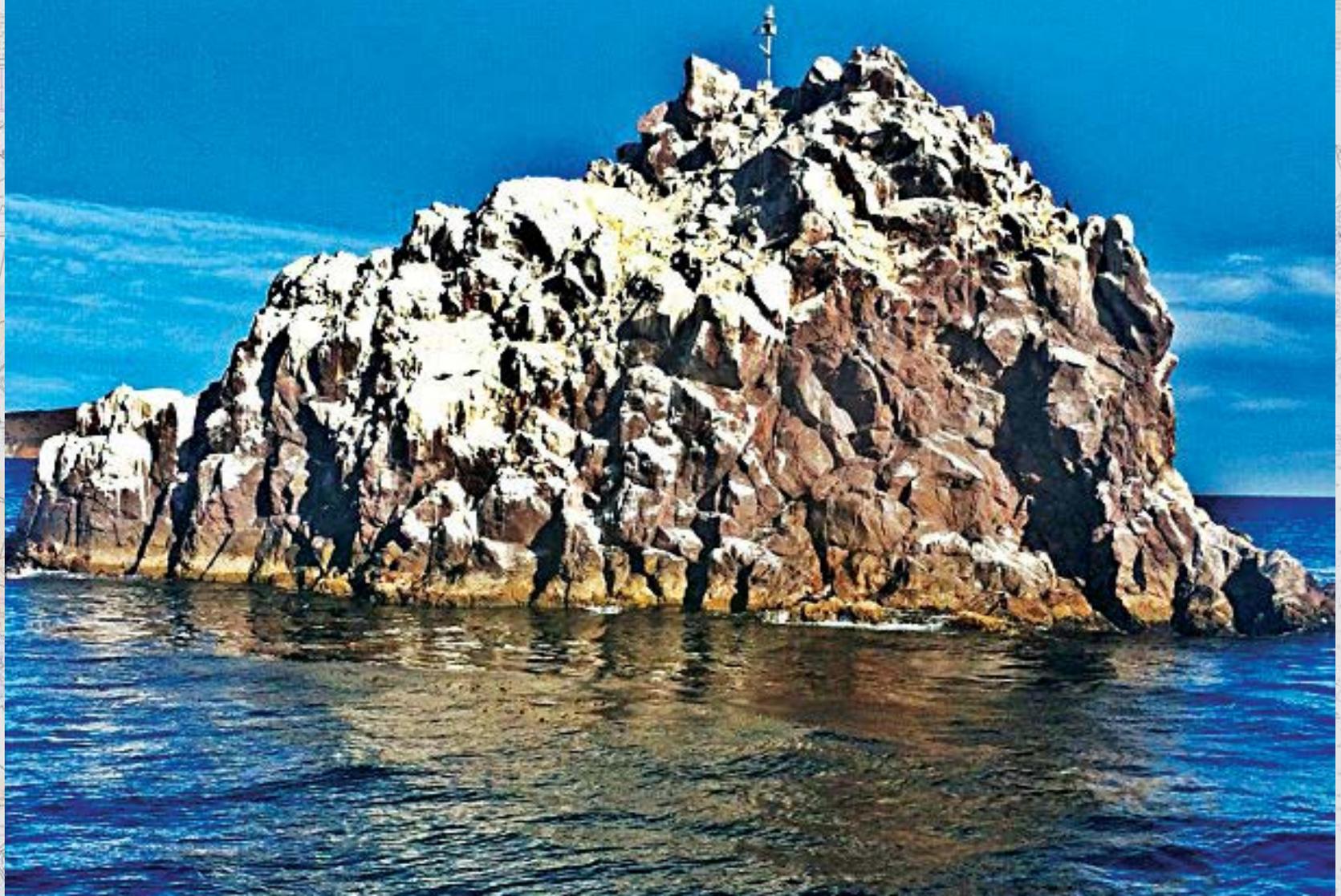
# Other Boating Issues

Magenta Line and ICW



# Other Boating Issues

Aids to Navigation and Lighting obstacles





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<http://www.boatus.com/hurricanes/>