



# Can Moorings Protect Eelgrass and Boats?

Bion Pike  
Manchester-by-the-Sea Harbormaster

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Salem Sound Coastwatch  
Symposium:

“Finding Solutions  
to Our Coastal Challenges”

# MASSPORT and Mooring Replacement

- \* In 2013 Massport approached Manchester with an offer to fund the replacement of all traditional moorings located in eelgrass with environmentally friendlier mooring systems. As a result 70 block and chain moorings were replaced and Eco-moorings were installed in the fall of 2014. Monitoring of these moorings and the surrounding eelgrass will take place over the next five years to determine the effectiveness, hopefully positive, of the new mooring system.



Moorings in  
Eelgrass

Google earth

1995

Imagery Date: 6/6/2015 42°33'46.79" N 70°47'02.31" W elev 0 ft eye alt 3896 ft

# Mooring Scars



# The Options and the Anchor

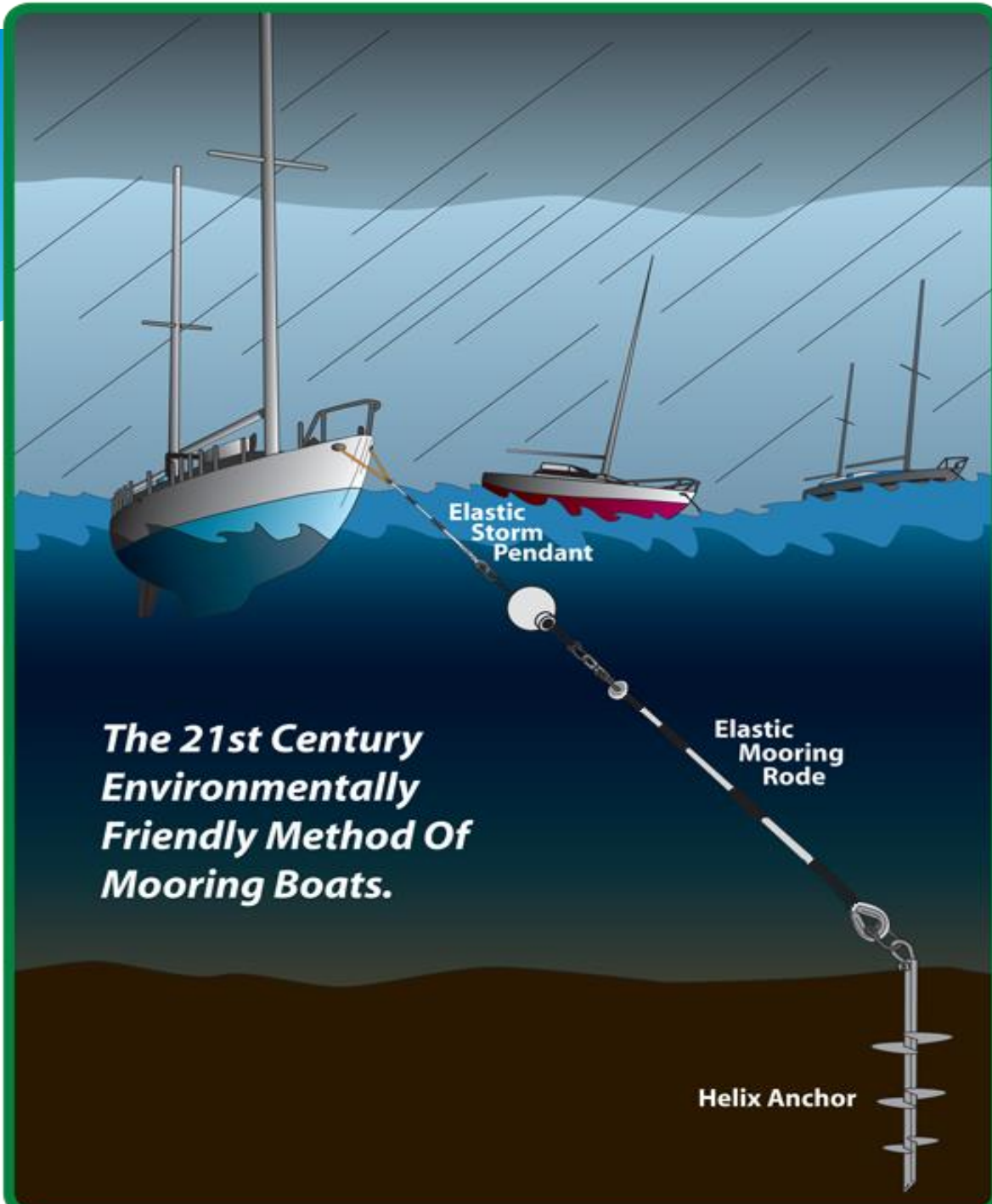


Screw Anchor

Hazlett Rode

Eco Mooring Rode

**Why did  
Manchester choose  
Eco-mooring over  
Hazlett  
or some other  
system?**



***The 21st Century  
Environmentally  
Friendly Method Of  
Mooring Boats.***

**Helix Anchor**

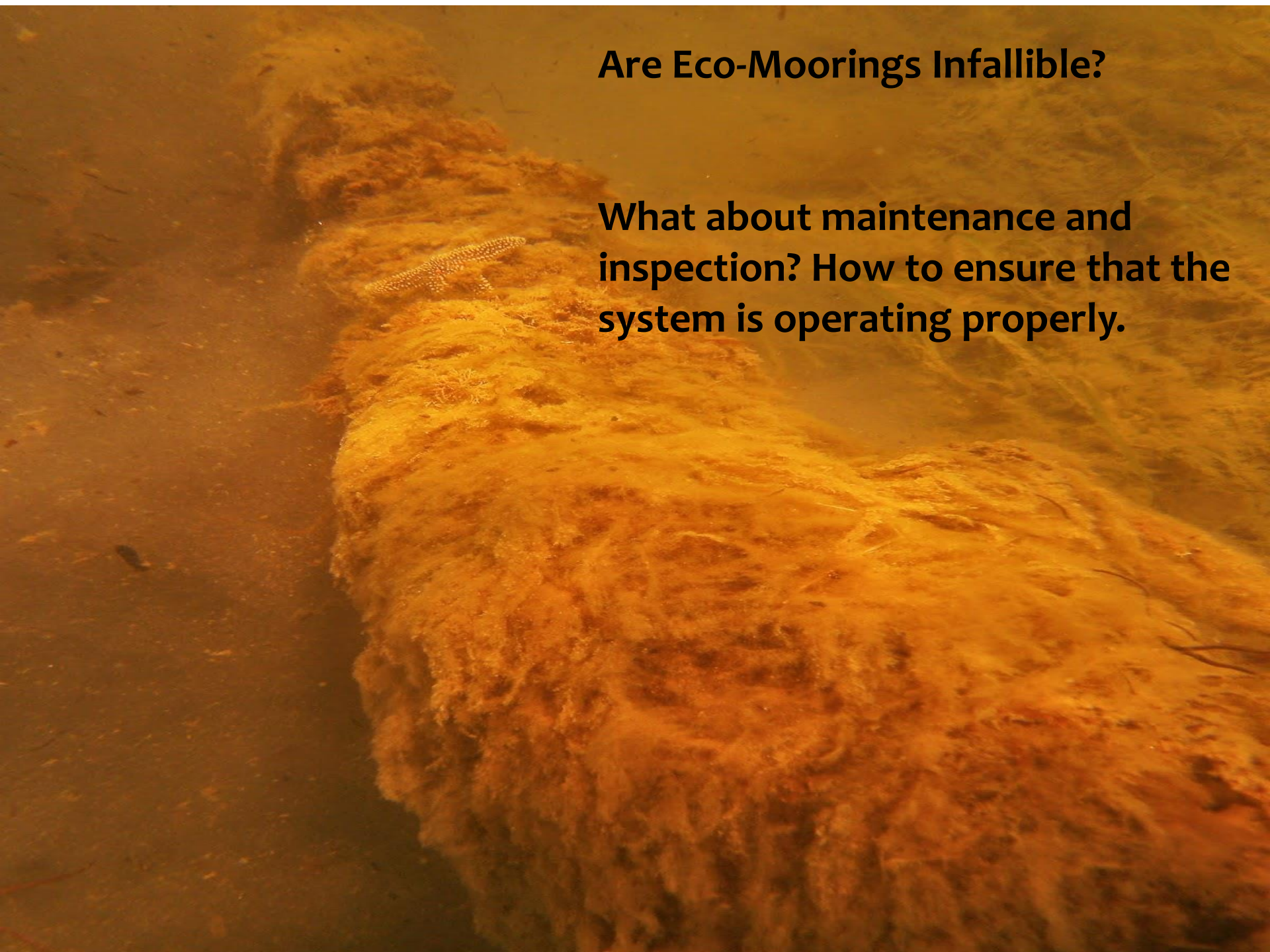
**Elastic  
Storm  
Pendant**

**Elastic  
Mooring  
Rode**

What Do  
The Eco-  
Moorings  
Look Like?

## **Are Eco-Moorings Infallible?**

**What about maintenance and inspection? How to ensure that the system is operating properly.**



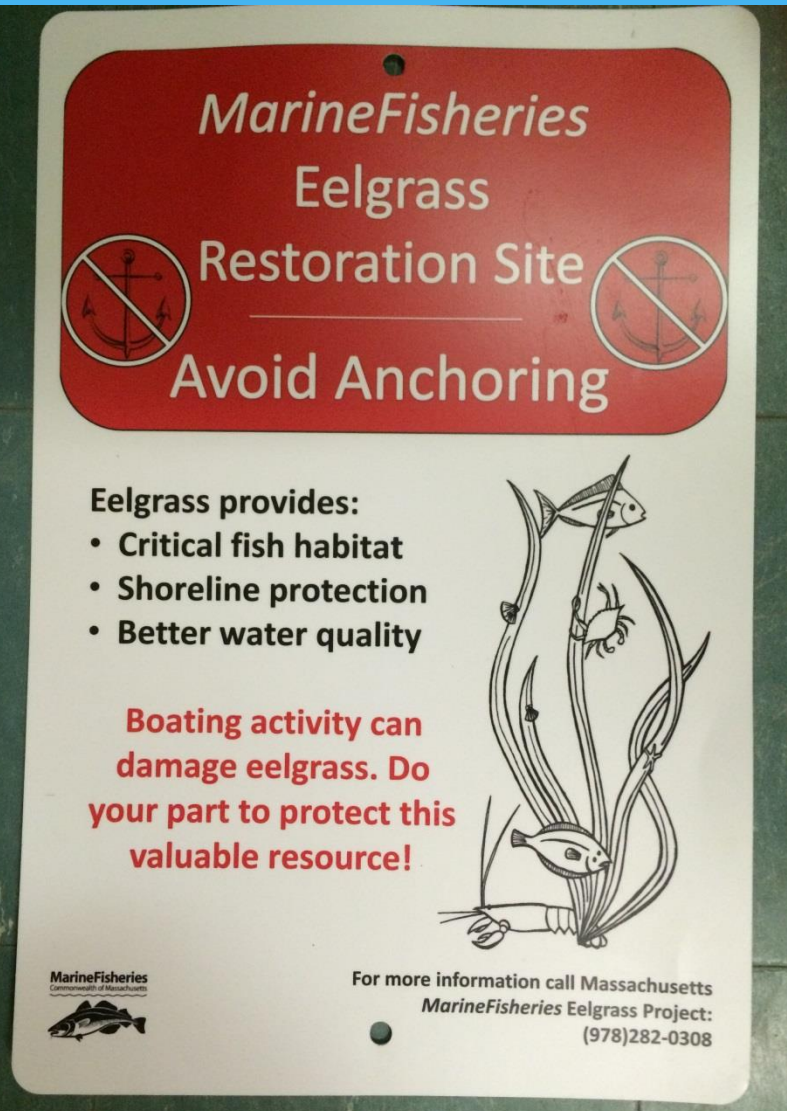
# Propeller Strike





# Regulation

While moorings in eelgrass are regulated by the Army Corps anchoring is not. This is especially evident in Manchester. The Massachusetts Department of Marine Fisheries does request that boaters avoid anchoring in eel grass.



# Long Beach, What About Anchors?



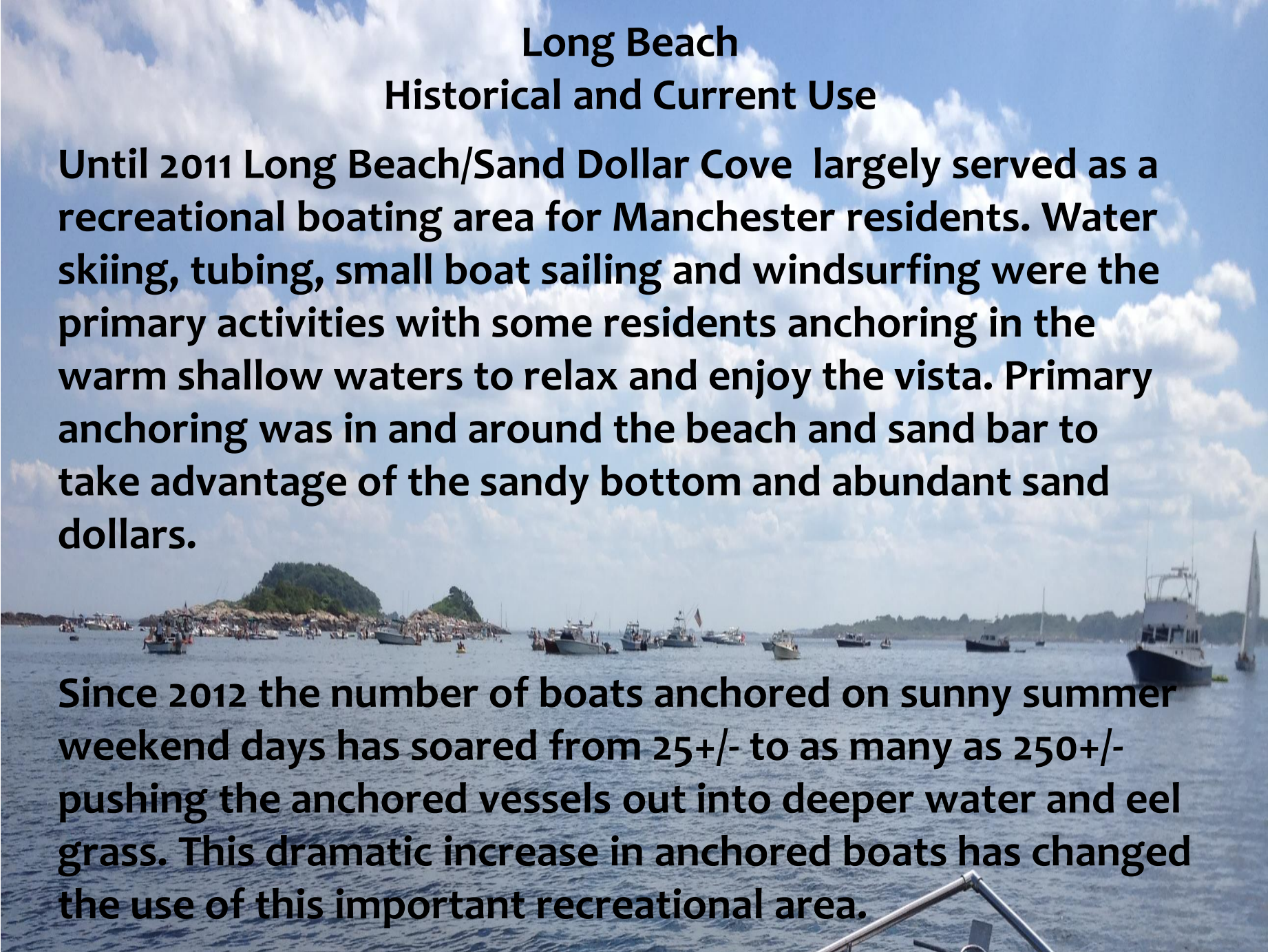
**Hundreds of anchors impact the eel grass bed at Long Beach.**

**Noise and floating debris also impact the area of Long Beach.**

## Long Beach Historical and Current Use

Until 2011 Long Beach/Sand Dollar Cove largely served as a recreational boating area for Manchester residents. Water skiing, tubing, small boat sailing and windsurfing were the primary activities with some residents anchoring in the warm shallow waters to relax and enjoy the vista. Primary anchoring was in and around the beach and sand bar to take advantage of the sandy bottom and abundant sand dollars.

Since 2012 the number of boats anchored on sunny summer weekend days has soared from 25+/- to as many as 250+/- pushing the anchored vessels out into deeper water and eel grass. This dramatic increase in anchored boats has changed the use of this important recreational area.





Private  
Private  
Private  
Private

Day Transient 1  
DT20

Google earth

1995

Imagery Date: 6/6/2015 42°33'37.61" N 70°47'03.03" W elev -3 ft eye alt 7127 ft

# Conclusion

Long term observation is the only way to determine how well any so called environmentally friendly mooring system protects eelgrass. In some cases yes and in others apparently not. Depth of water, water quality, attention to maintenance and other factors all impact these systems. What other boating related impacts threaten eelgrass?

Science and history indicate that these systems are a viable replacement for traditional block and chain even for the largest vessels, with some caveats. Does the bottom shift potentially uncovering the helix anchor? Can a propeller strike compromise the system?

More work needs to be done to find the right products for all conditions. We are not there yet, we are closer than we were a decade ago. Continue to encourage development of new ideas and provide a place for testing these ideas. Solutions are waiting to be discovered.



\*Questions and Comments?