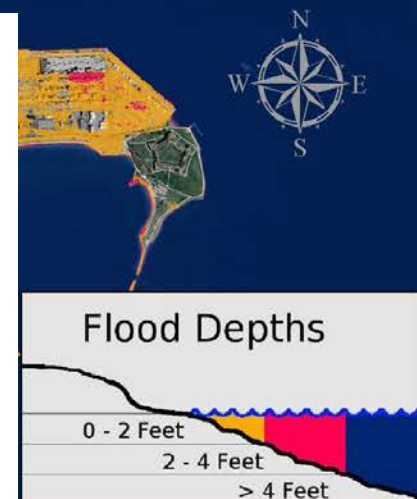


IMPORTANT NOTE: THIS MAP IS FOR DISCUSSION AND RESEARCH PURPOSES ONLY. IT IS NOT APPROPRIATE TO USE THIS MAP FOR DETAILED ANALYSIS (I.E., AT THE COMMUNITY OR PARCEL-LEVEL). PLEASE CONTACT TBHA FOR ADDITIONAL INFORMATION ON METHODOLOGY AND LIMITATIONS.



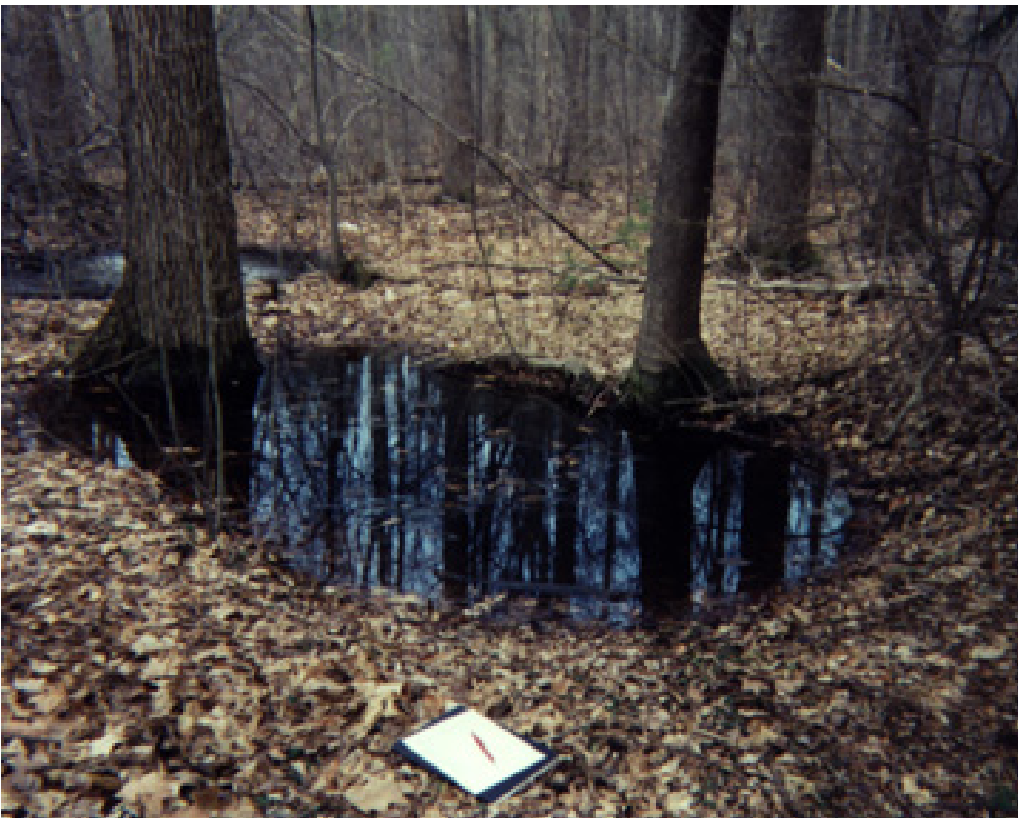
LOCAL WETLANDS ORDINANCE LISTENING SESSION: SEA LEVEL RISE

Boston Conservation Commission
June 5, 2013



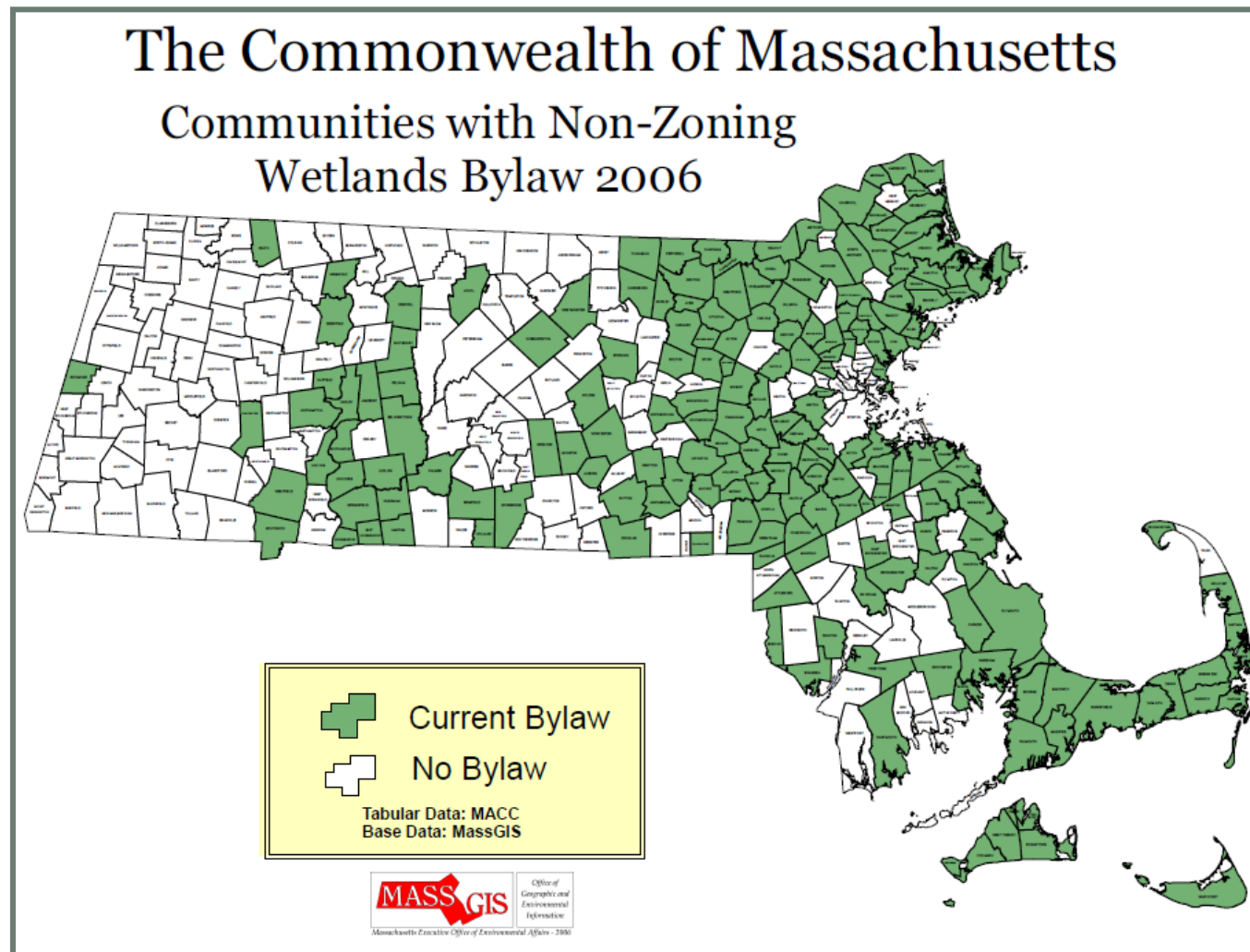
Why do we need a Local Wetlands Ordinance?

- Protect more resource areas
- Protect existing resource areas to a greater degree
- Consider how future conditions will affect resource areas



Why do we need a Local Wetlands Ordinance?

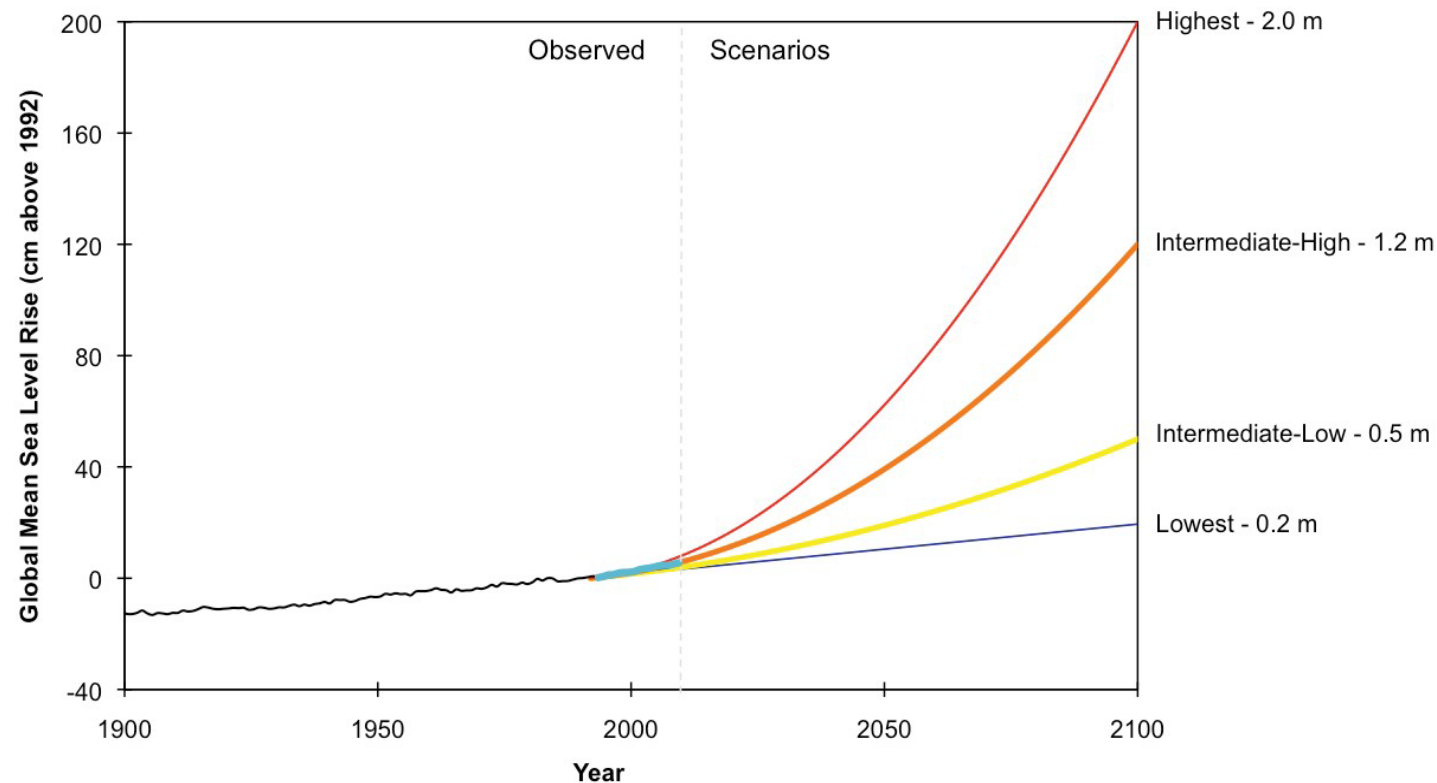
- More than half of the 351 cities and towns in MA already have a LWO.
- Of the 78 municipalities in the Coastal Zone, Boston is 1 of only 6 that does not already have a LWO.



What is happening?

- Between the last ice age and a few decades ago, the rate of sea level rise (SLR) had been on average 10" per century.
- The rate of SLR has been increasing, and is expected to increase globally between 0.2 and 2.0 meters (8" – 80") per century.

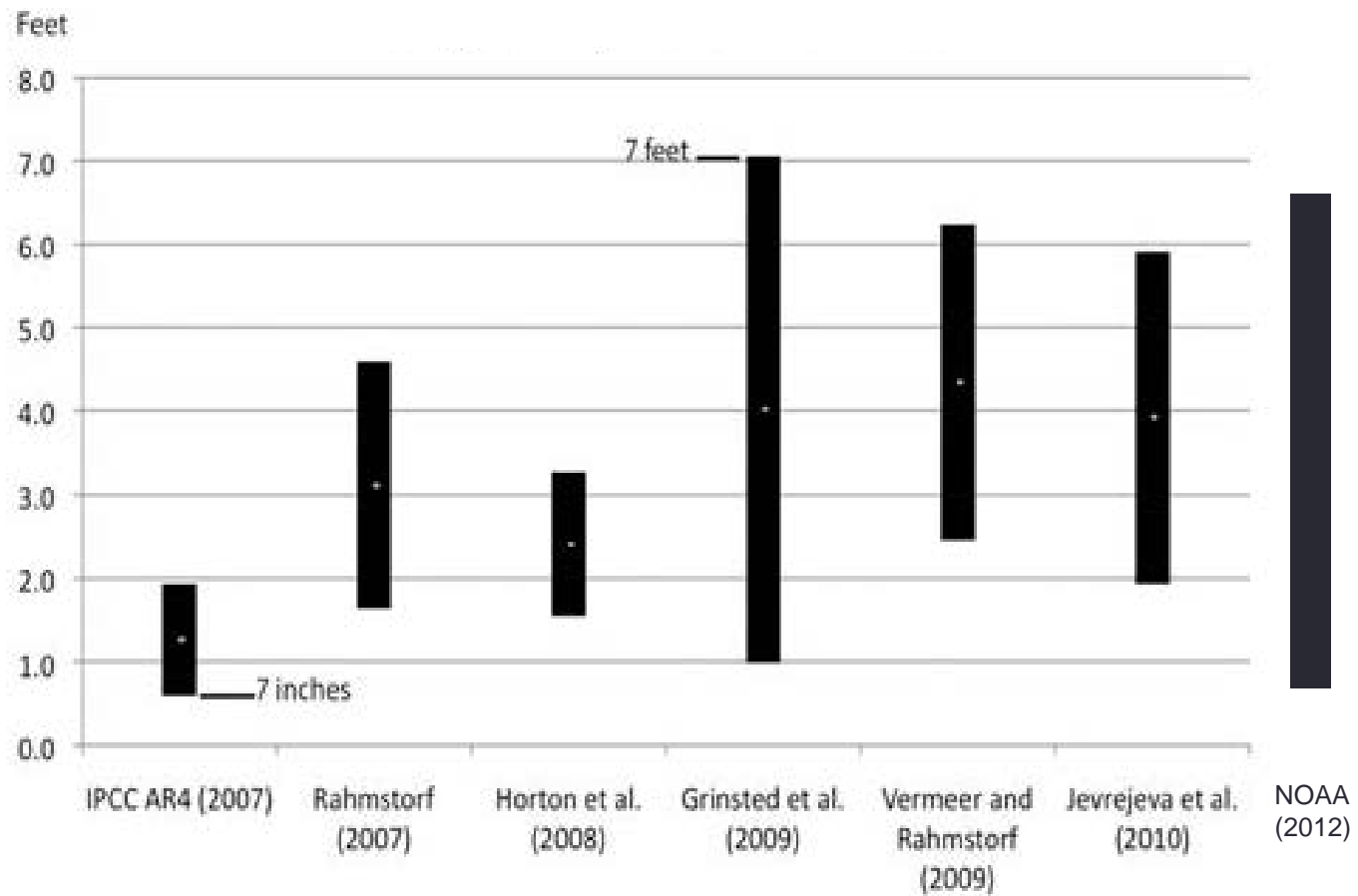
NOAA 2012 report
*"Global Sea Level Rise
Scenarios for the
United States National
Climate Assessment"*



How do we know what to plan for?

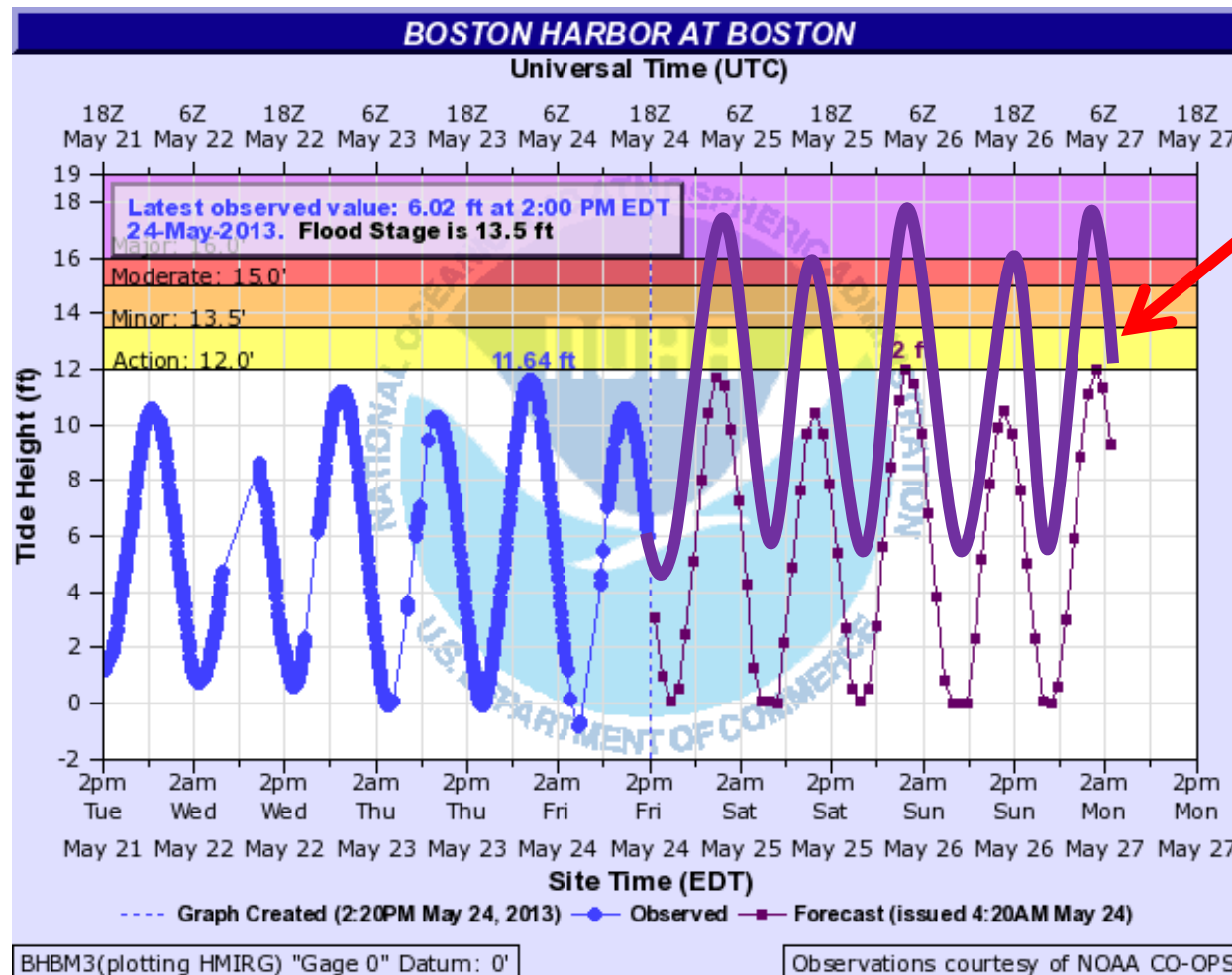
- We should act on the best scientific consensus about sea level rise, as it exists today, knowing that forecasts will shift as each decade validates or causes modifications to our projections.

Ranges of Projected Sea Level Rise by 2100



How do we know what to plan for?

- In Boston, SLR may reach 4.5 - 7 feet by 2100, and continue to rise for several hundred more years.



In about 80-90 years...

How will this impact Boston?

- Daily tidal inundation of low lying areas

High Tide at Long Wharf
November 2011



High tide
11.24.11
Photo by Ann Moritz

How will this impact Boston?

- Significant coastal flooding of inland areas with storm events and associated storm surge

UMass Harborwalk & Fort Point Channel during Superstorm Sandy, October 2012



How will this impact Boston?

- Significant Erosion

Columbia Point Shoreline Erosion



Coastal Beach Erosion at Day Boulevard



How will this impact Boston?

- Landward migration of wetland resource areas

Developing tidal marsh at Bayswater Street
Urban Wild

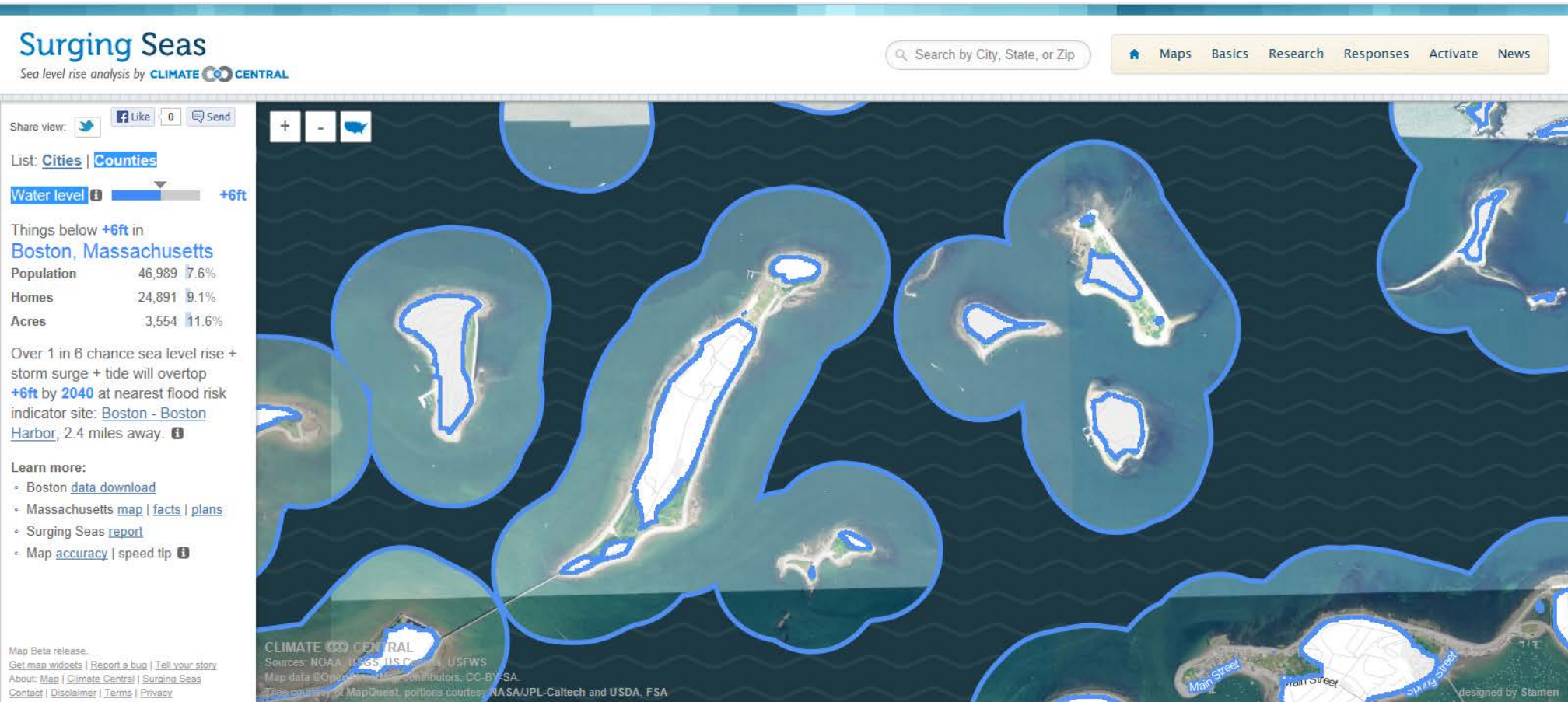


Wood Island Bay Marsh



How will this impact Boston?

- Permanent loss of land



Planning ahead...

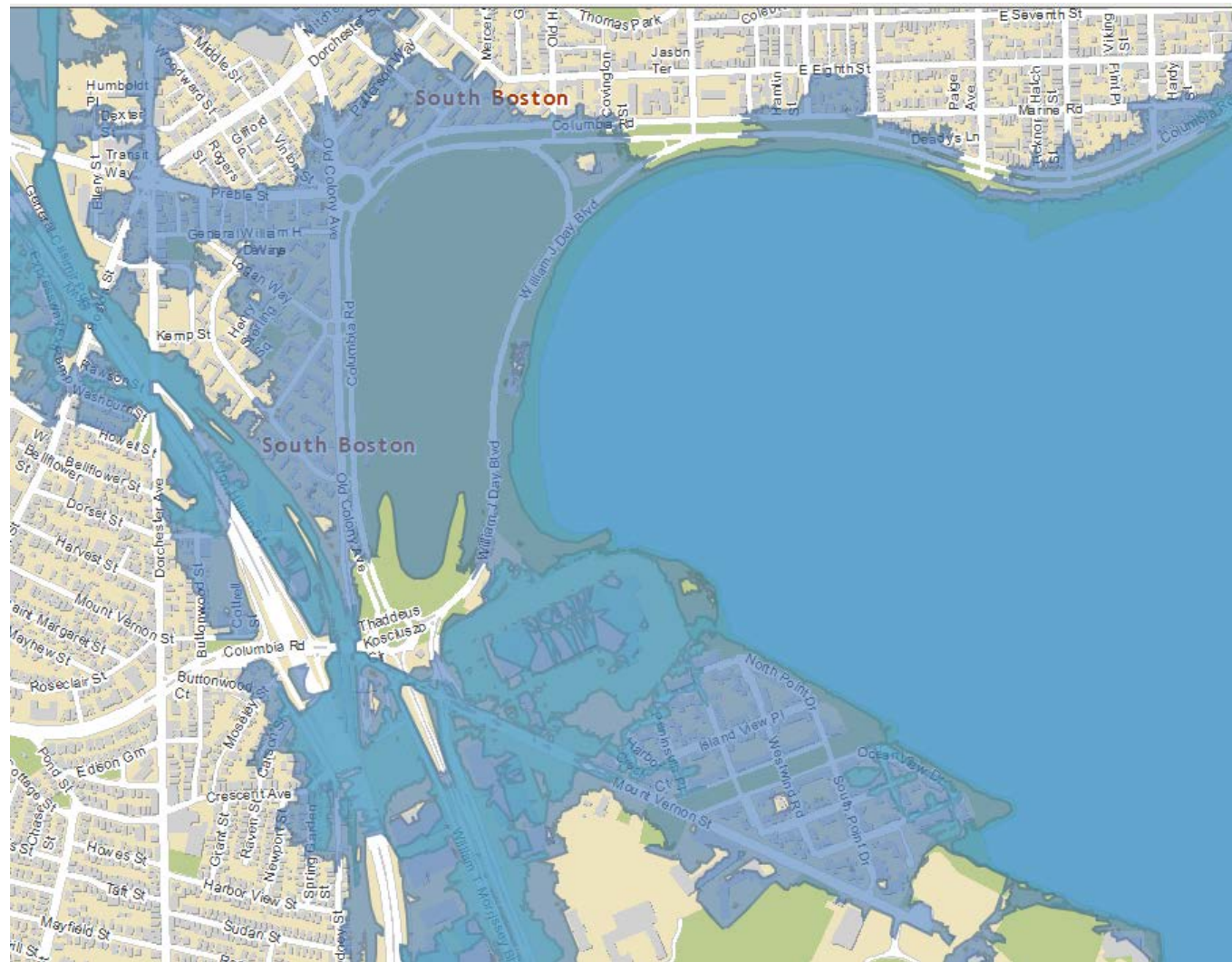
- Technology will allow us to more and more accurately predict the areas at risk of flooding and storm surge resulting from SLR years before they are actually impacted.
- This means we have some time to plan, prepare and adapt.
- We do not need to panic, but we do need to act now.



How can we protect resources as sea level rises?

- Delineate **future** “Land Subject to Coastal Storm Flowage” instead of relying solely on maps of past storms.

Potential future storm flooding with SLR

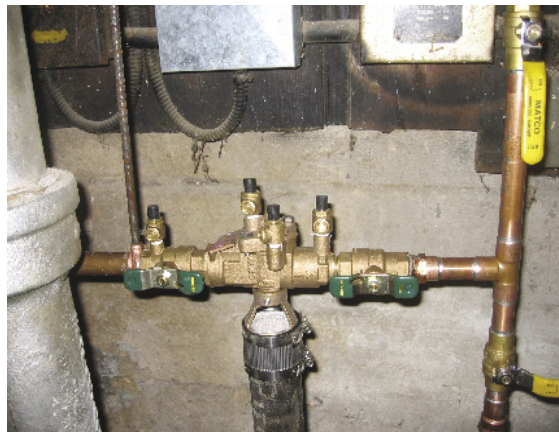


How can we protect resources as sea level rises?

- Create Performance Standards for Projects in LSCSF
 - Require buildings & structures to demonstrate an ability to function in an environment with higher sea levels without causing damage to wetland resource areas



Flood vents allow water to flow through buildings, reducing waterborne debris.



Sanitary sewer backflow devices prevents contaminated water from flowing back into basements, protecting water quality.



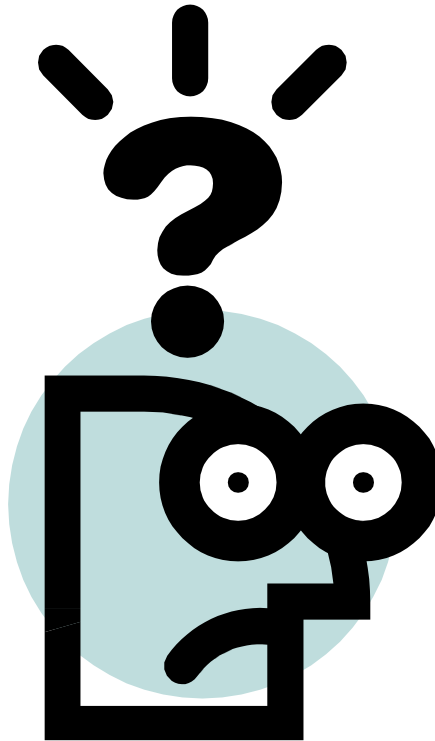
The Spaulding Rehab Hospital was built high above the floodplain with the mechanical suite on the roof. This reduces pollution and contamination caused by storm surges.



Next Steps

- Additional Listening Sessions:
 - June 19th
 - July 10th
- Steering Committee will submit Guiding Principles for the Local Wetlands Ordinance to the Conservation Commission
- The Commission will endorse them and submit them to Mayor Menino
- The Mayor will direct staff to draft the ordinance
- The Mayor will submit the ordinance to City Council
- City Council will hold a public hearing

Questions & Concerns...



<http://www.cityofboston.gov/environment/Conservation/wetlands.asp>

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