



City of Portsmouth, New Hampshire
COASTAL RESILIENCE INITIATIVE

**Climate Change Vulnerability Assessment
and Adaptation Plan**

April 2, 2013



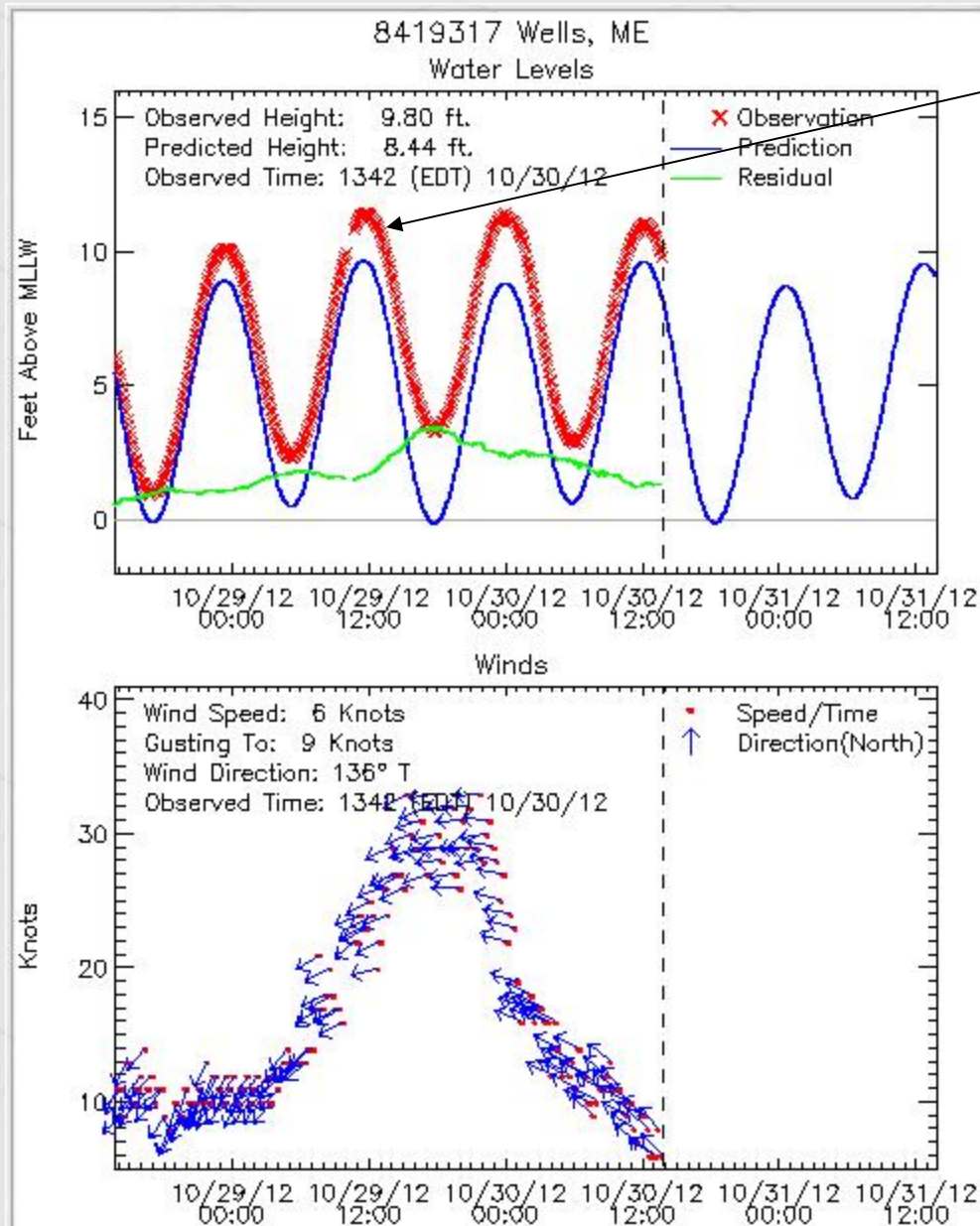
This project was funded by the Gulf of Maine Council through a grant from the National Oceanic and Atmospheric Administration (NOAA).





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8419317 Wells, ME



Tidal Surge as recorded in Wells, ME at the outset of Hurricane Sandy as shown in photos.









Climate Change in the Piscataqua/Great Bay Region: Past, Present, and Future

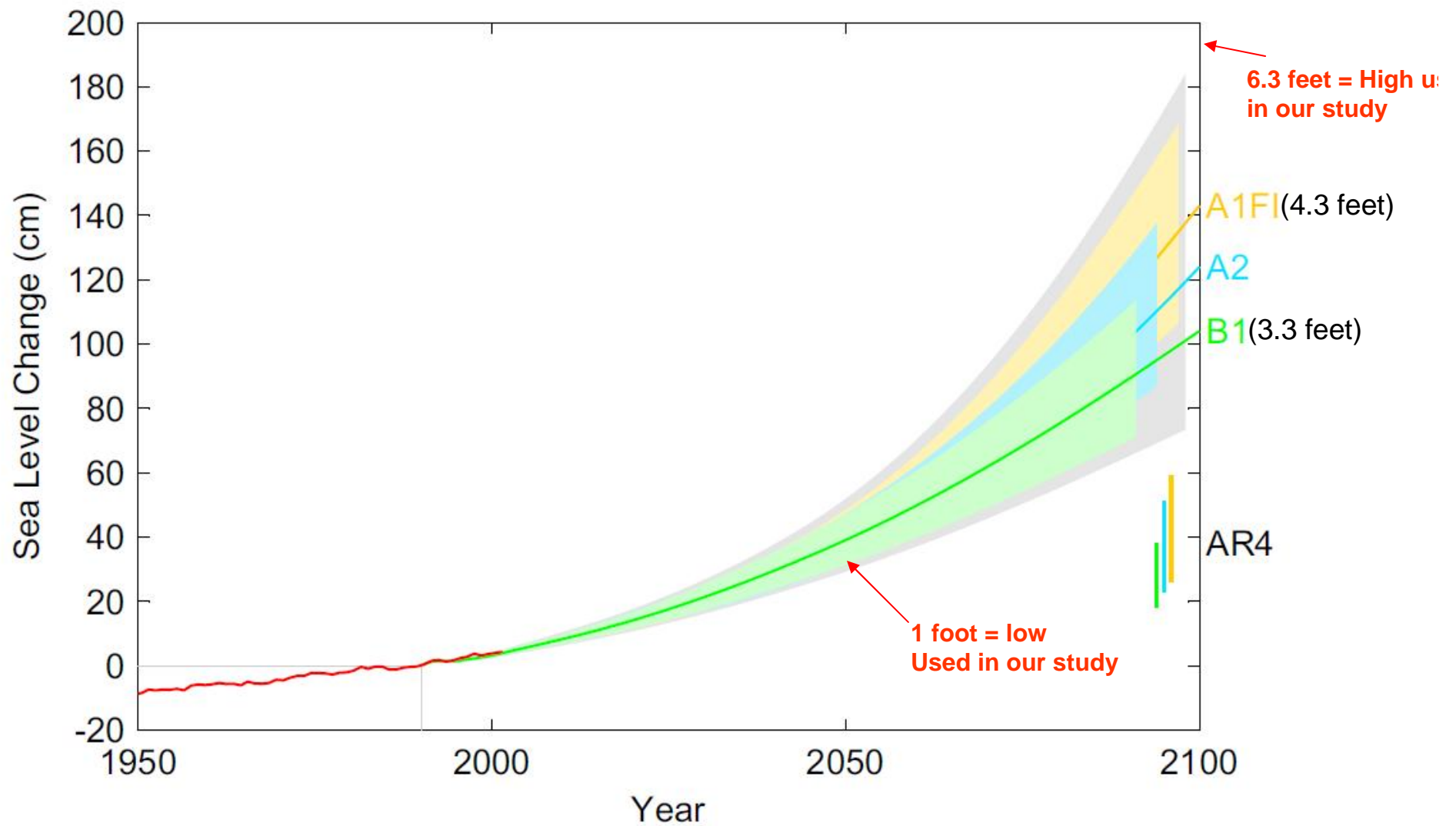


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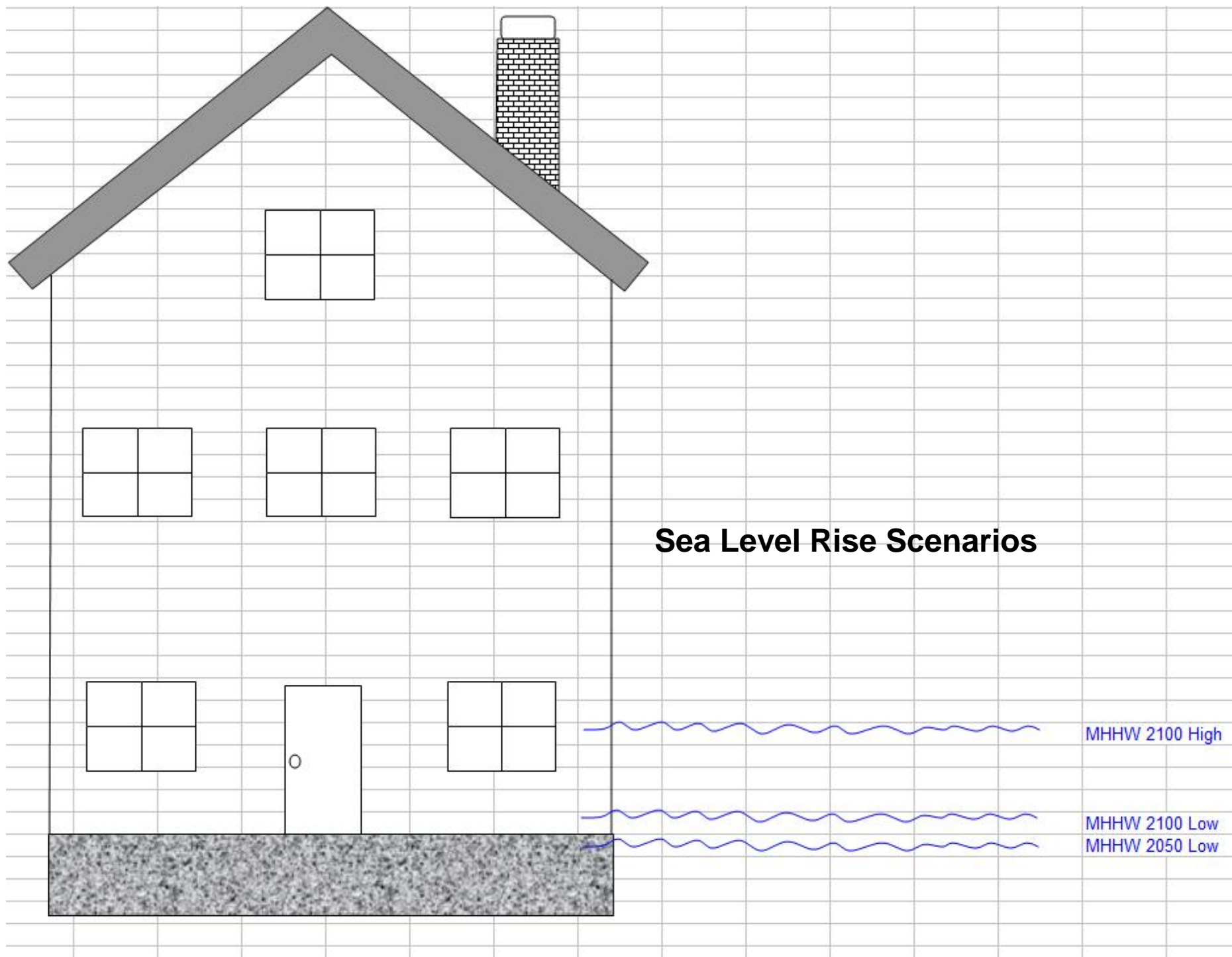
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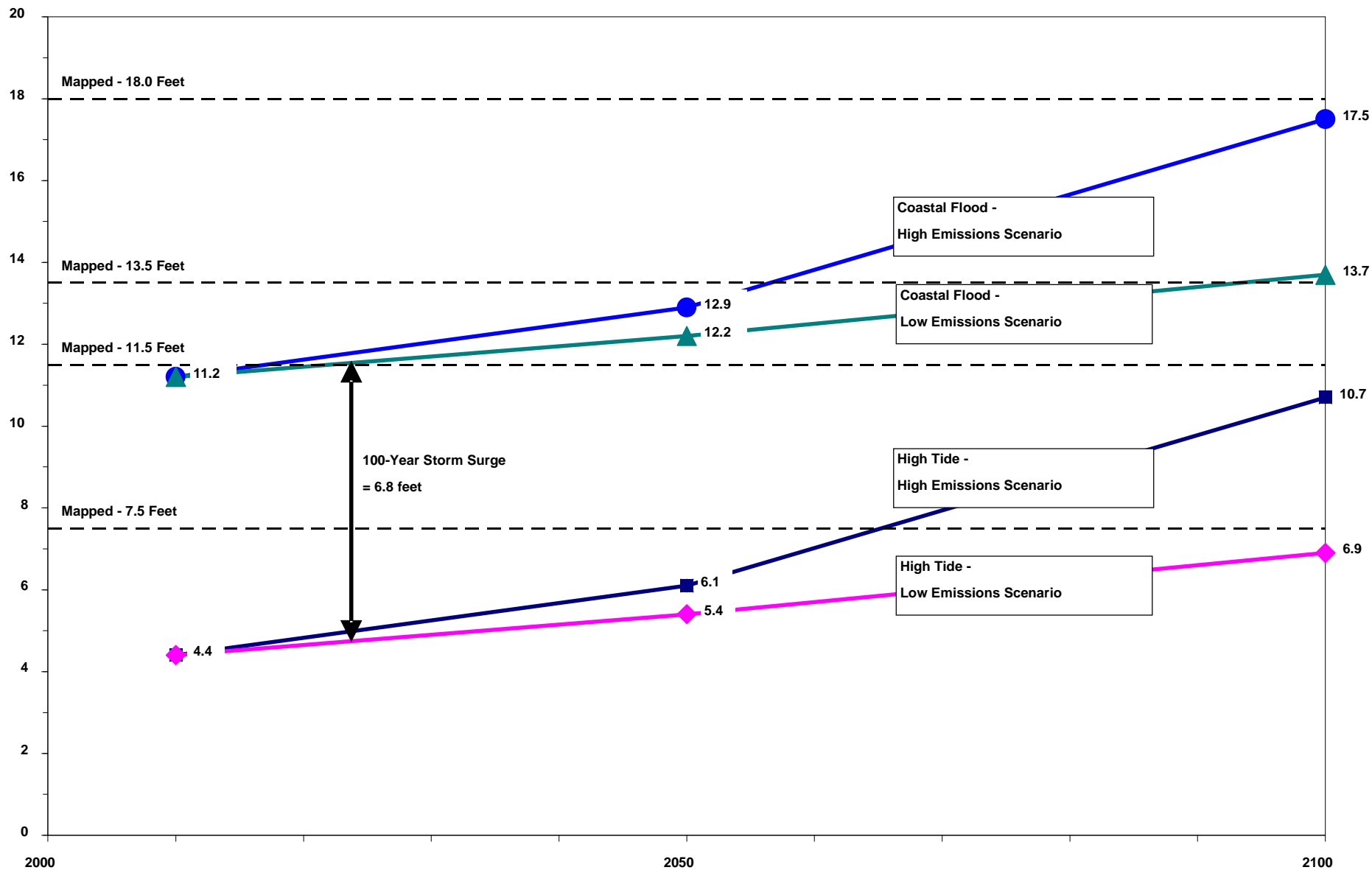


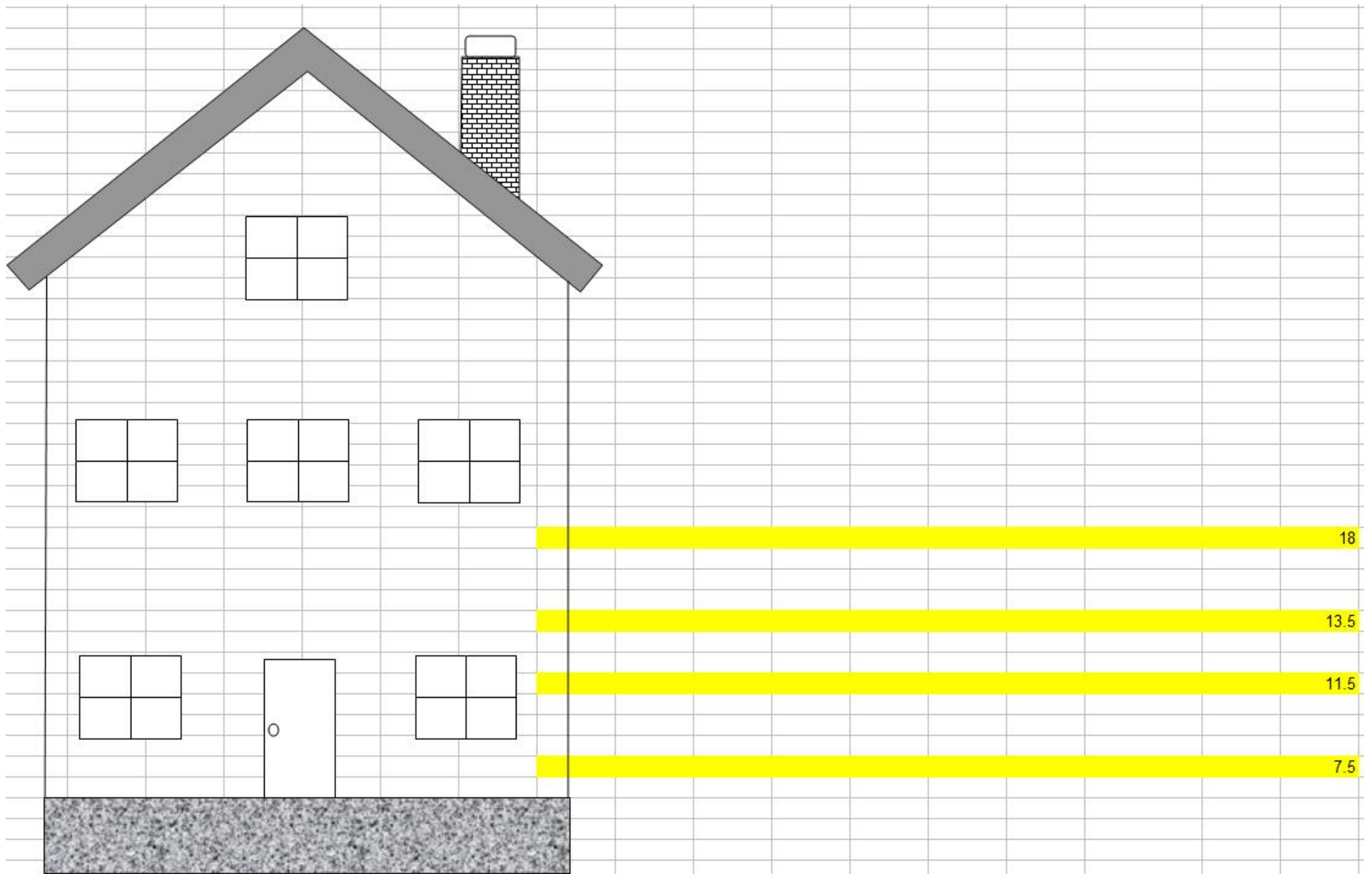
In this table by Vermeer M and Rahmstorf S (2009) Global sea level is linked to global temperature





Elevation (feet above NAVD)





Flood Scenarios Buildings – South End

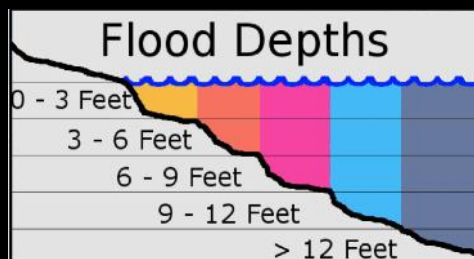


7.5 Feet

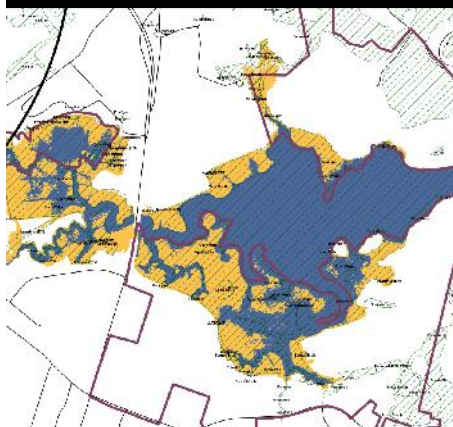
11.5 Feet

13.5 Feet

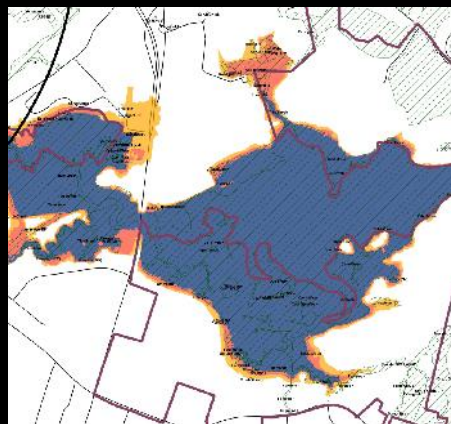
18.5 Feet



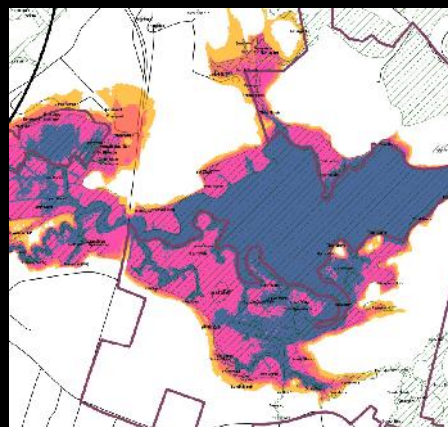
Flood Scenarios Wetland Impacts: Sagamore Creek



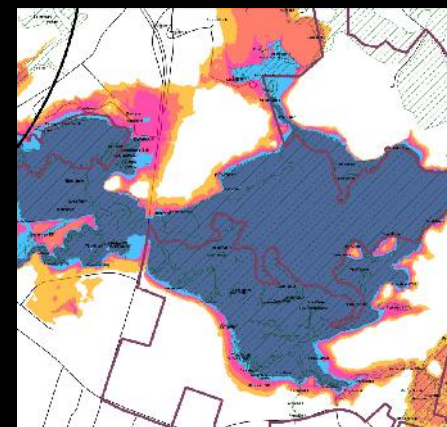
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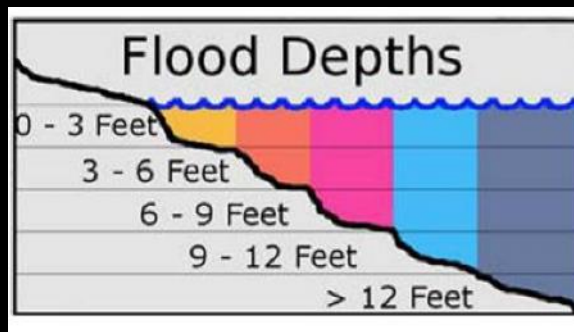
11.5 Feet



13.5 Feet



18.5 Feet



Categories of Recommendations

Zoning Ordinance Overlays

- Floodplain Standards
 - *i.e: Extended Flood Hazard Overlay District*
- Historic District
 - *i.e: Inventory historic properties*
- Setbacks and Buffers
 - *i.e: Larger buffers adjacent to saltmarsh areas*
- Redevelopment Standards
 - *i.e. Cost benefit analysis of infrastructure improvements*
- Shoreland Protection Options
 - *i.e. Begin discussion and approval requirements for shoreline protection*

Master Plan

i.e. include results of coastal resilience study

Coastal Wetlands

i.e. inventory key conservation parcels to plan for marsh migration

Public Health

i.e. develop and implement response plans for changing health impacts

Emergency Management and Hazard Mitigation Planning

i.e. amend hazard mitigation plan and evacuation routes.



Join a Walking Tour of Flood Risk Areas

October 22, 2013; 4:00-6:30p.m.
Player's Ring Theatre on Prescott Park
105 Marcy Street, Portsmouth, N.H.

**PREPARE.
PROTECT.
PORTSMOUTH.**



This photo of homes in Portsmouth's South End was taken at the highest tide of the year, also known as King Tide, in October 2011. It was part of the Piscataqua Region Estuaries Partnership "King Tide Photo Contest." Photo by Tim Hayes.

Join with neighbors, Portsmouth's Planning Department, and the N.H. Coastal Adaptation Workgroup for a walking tour to get a firsthand look at some of the areas with predicted impacts from storm surge and sea level rise. Learn about the City's Coastal Resiliency Initiative. **Neighboring communities are invited to participate and learn from Portsmouth's effort.**

Light refreshments provided.

Please RSVP at:

www.criwalkingtour.eventbrite.com

or call Peter Britz at
(603) 610-7215

What to Expect at this Event

- Walk to sites in Portsmouth's historic South End and hear about how they are vulnerable to flooding impacts.
- Gather inside the Player's Ring Theatre and join in a discussion with other concerned citizens about what you saw.
- Find out the next steps Portsmouth plans to take to address flooding impacts and climate change.

Coastal Resiliency Initiative Background

The Portsmouth Planning Department has completed a study that identifies the location and extent of current flooding and areas vulnerable to sea level rise and storm surge in the future. Funding for the project came from the Gulf of Maine Council through a grant from the National Oceanic and Atmospheric Administration.

More info is available on the project website:

www.planportsmouth.com/cri



Thank You

For more information:

- City of Portsmouth Planning Department
Planportsmouth.com/CRI
- NH Coastal Adaptation Workgroup
nh.stormsmart.org
- **Peter Britz, plbritz@cityofportsmouth.com**

