Climate Change Issues and Challenges for Municipalities

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Old Saybrook, CT

What I'll touch upon

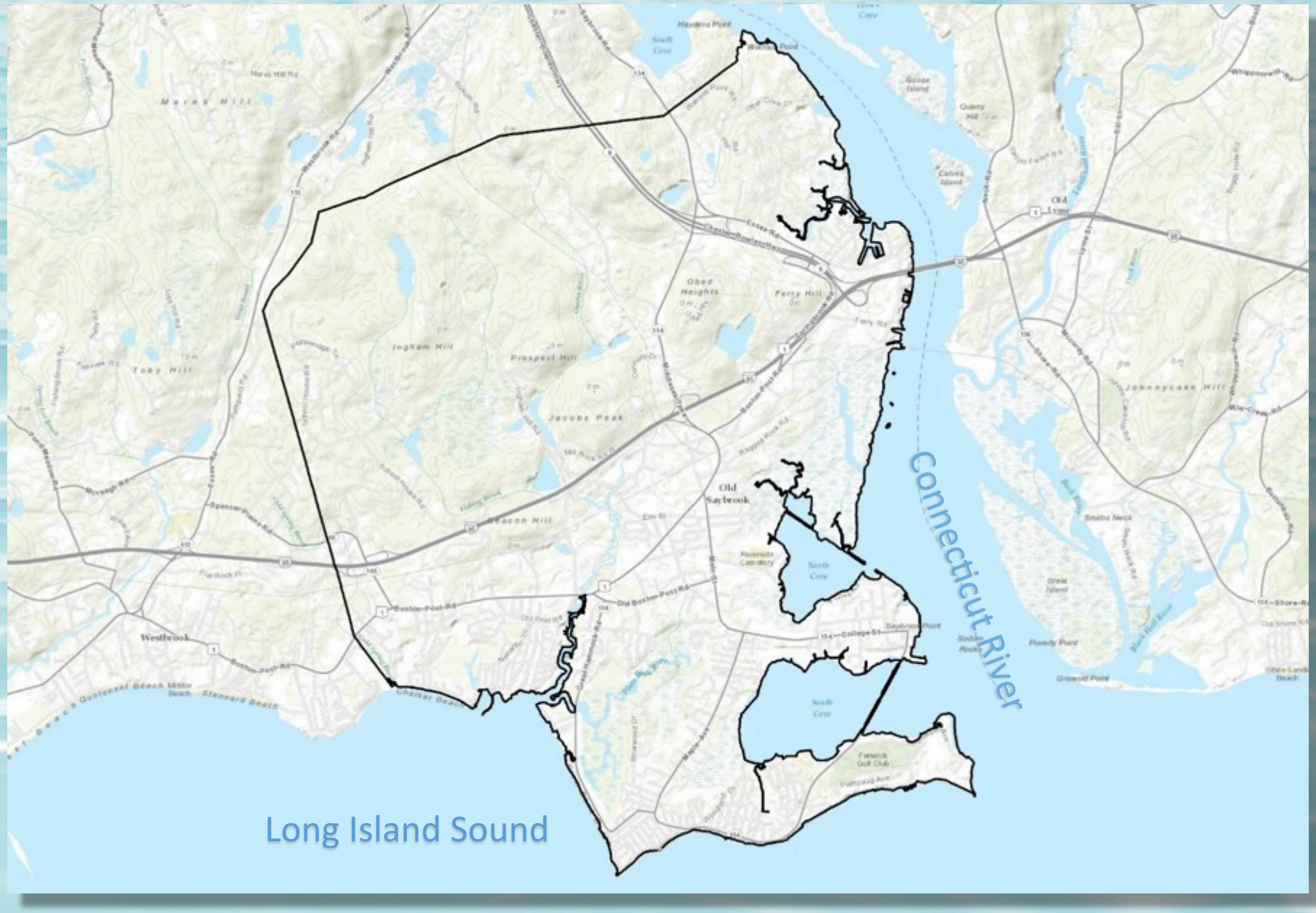
- Current critical issues
  - Sea-level rise
  - Storm-related increased coastal flooding
  - Stormwater management
- Potential future impacts
  - Sea-level rise
  - Increased nuisance coastal flooding
  - More extreme weather events – increased coastal and inland flooding
- What currently is being done
  - Flood Plain Management Ordinance
  - Natural Hazard Mitigation Plan
  - Sea-Level Rise / Climate Adaptation Committee
- Challenges – what needs to be done

Old Saybrook

Abuts
Long Island Sound
at the mouth of
the CT River

2010 Population
10,242

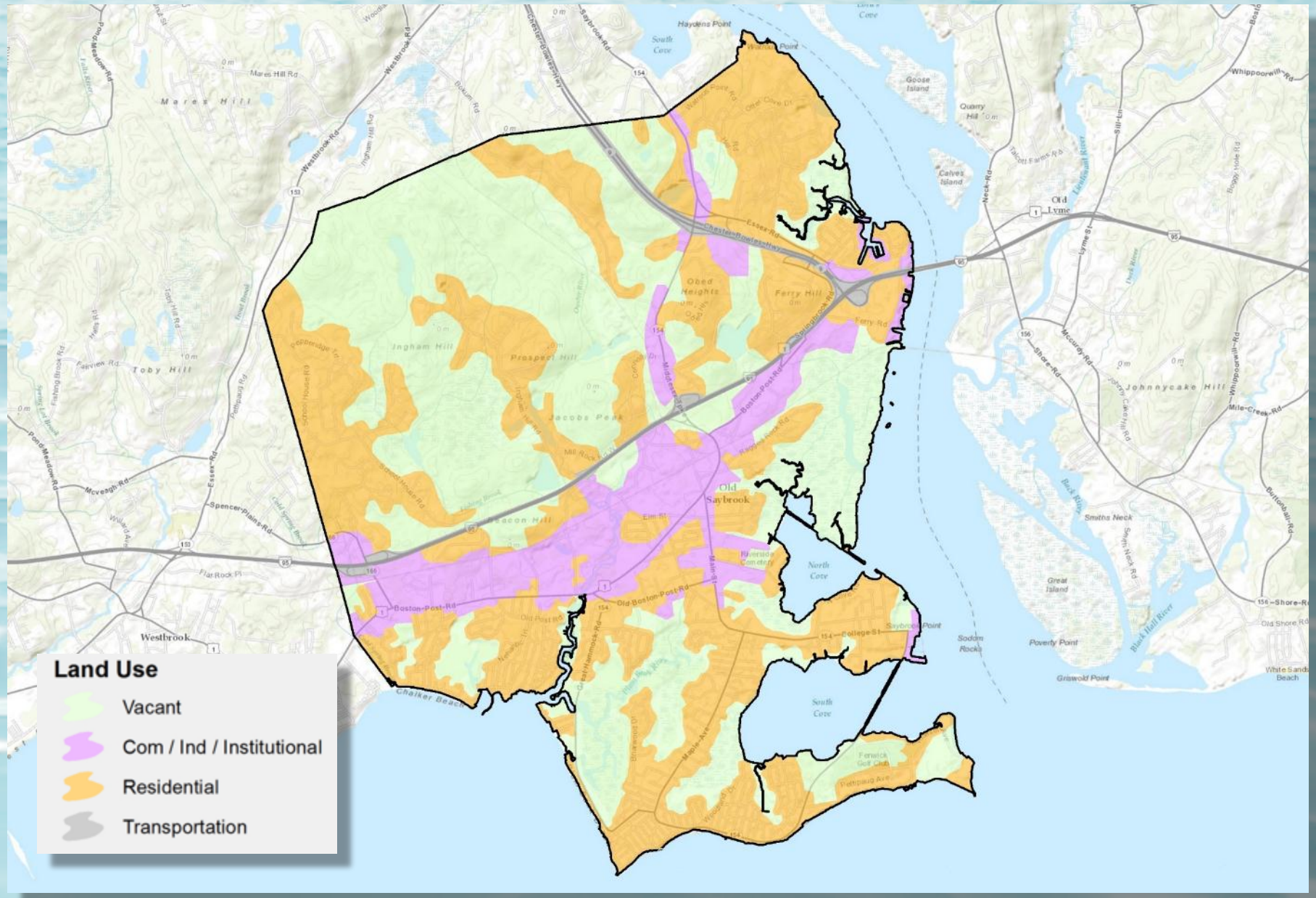
Coastline
6 miles on LIS
17 miles on CT
River



General Land Use

The densest development is south of Rt 95

Residential development along the coast typically is on very small lots



Beach Communities

Most development was pre-1970

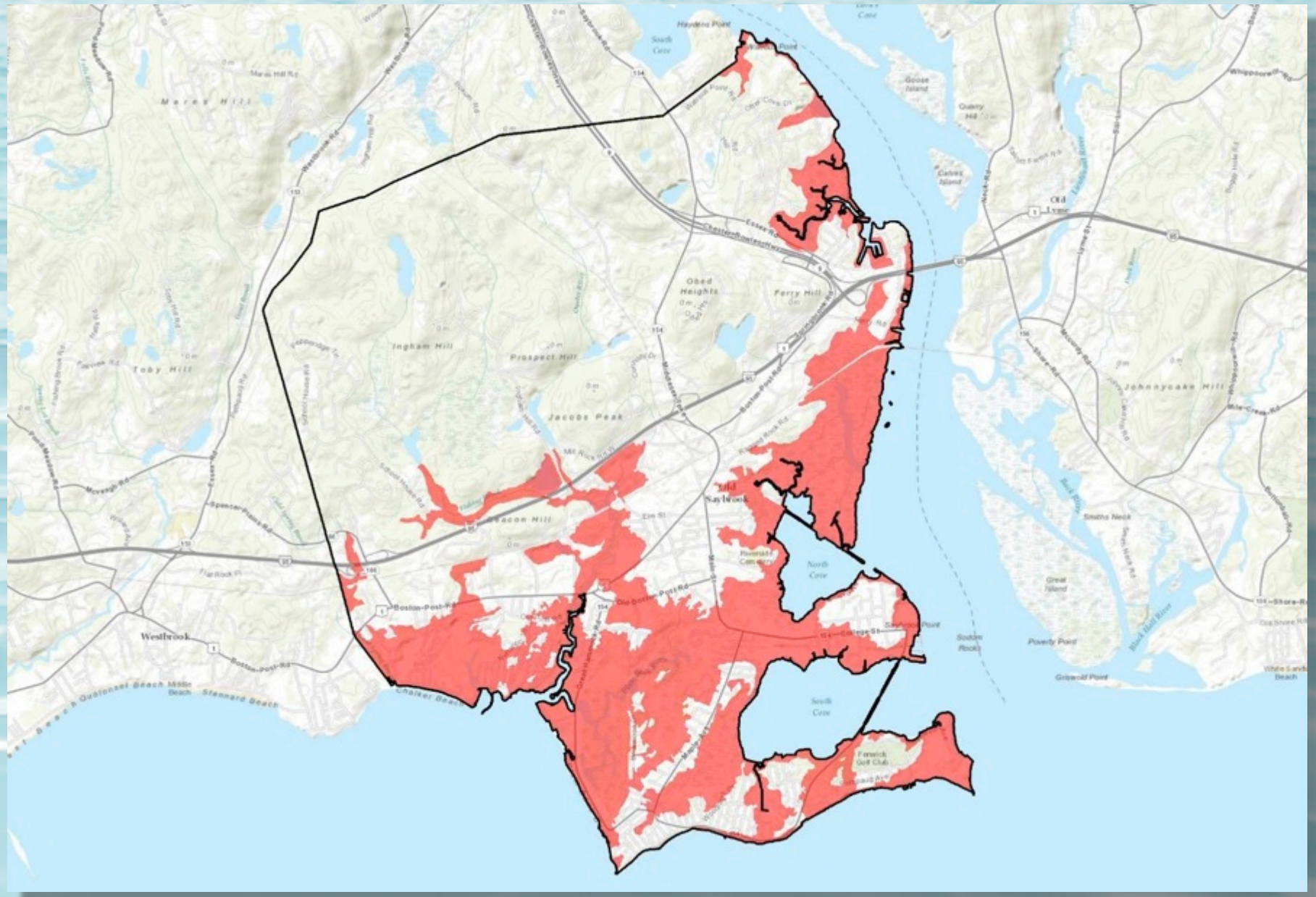
Most buildable land has been developed

Vacant land is mostly tidal wetlands



Coastal at-risk Areas

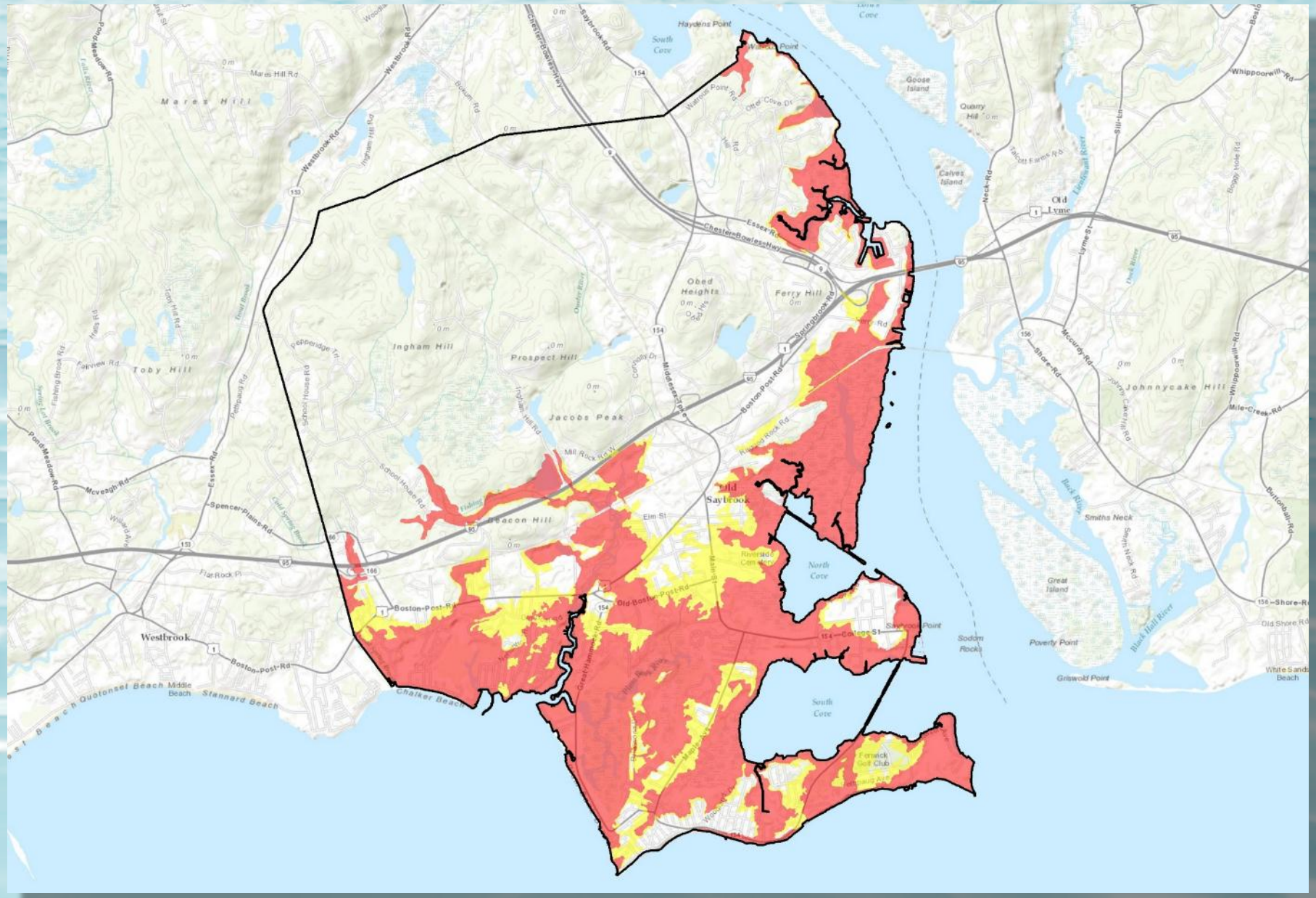
100-year flood zone
29% of the area of the town



Coastal at-risk Areas

100-year flood zone
29% of the area of the town

500-year flood zone
8% of the area of the town

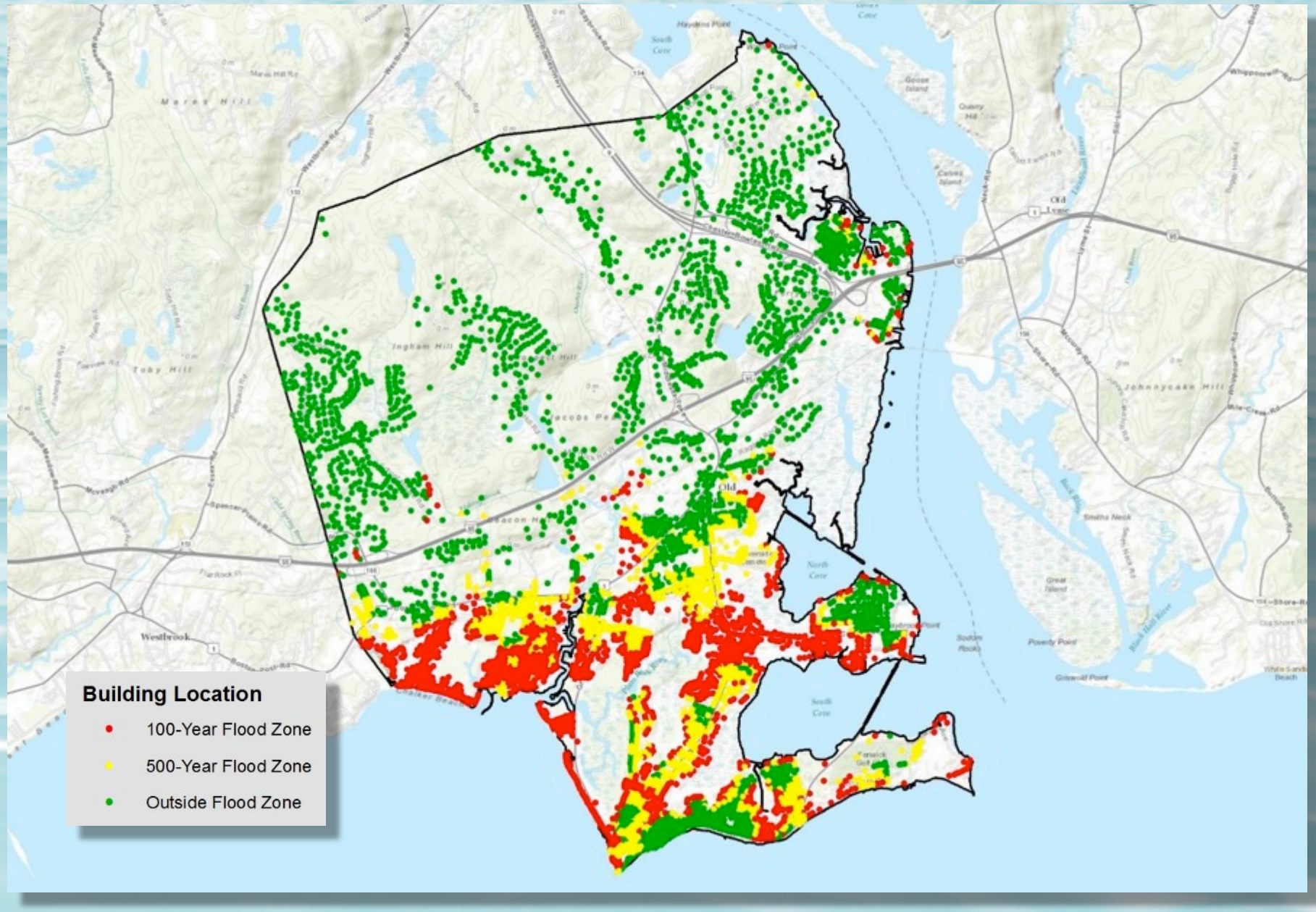


Buildings at Risk

> 2000 homes (~35%) are in the 100-year flood zone

> 1200 homes (~21%) are in the 500-year flood zone

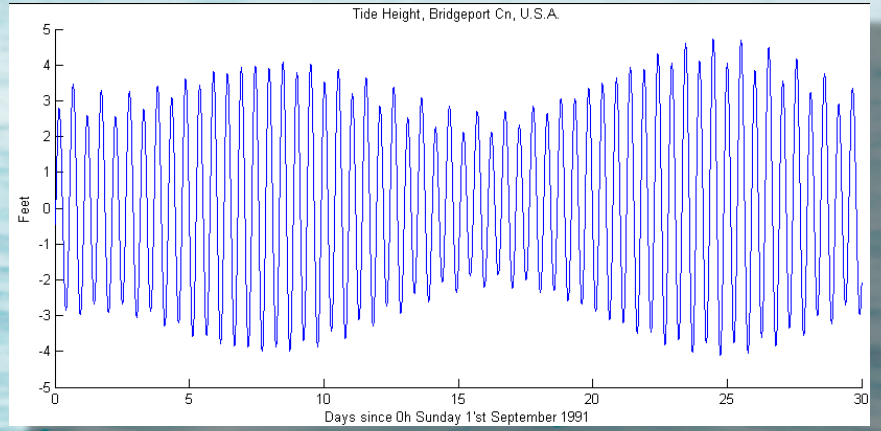
This represents > 55% of all residences in Old Saybrook



Recent Coastal Floods



SLR - Future Impacts





Current conditions

Average monthly maximum water level – darker blues indicate greater water depths.



2’ increase in sea level



5’ increase in sea level

Data from DEEP’s Coastal Hazards Mapping Tool

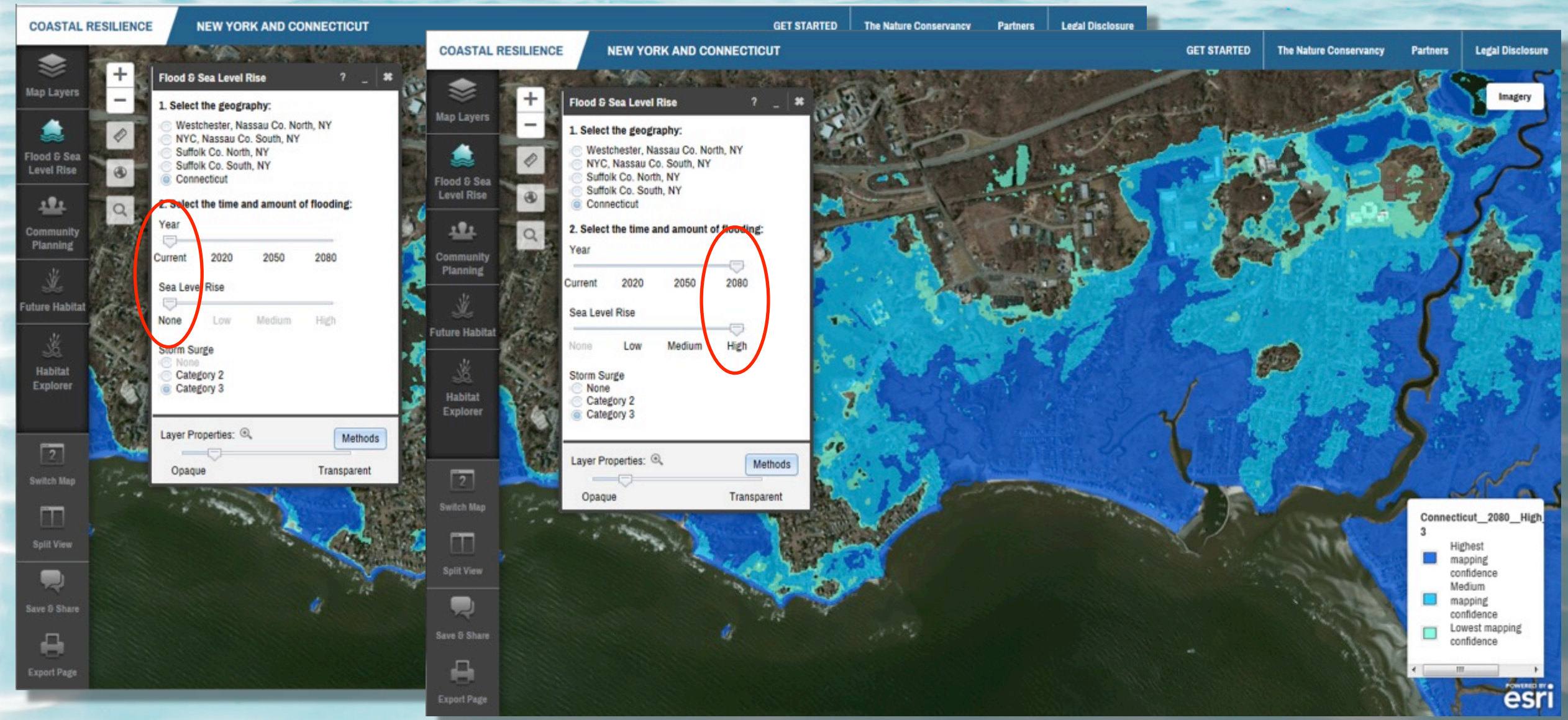
Nuisance Flooding
High Tide







SLR - TNC's Coastal Resilience Program

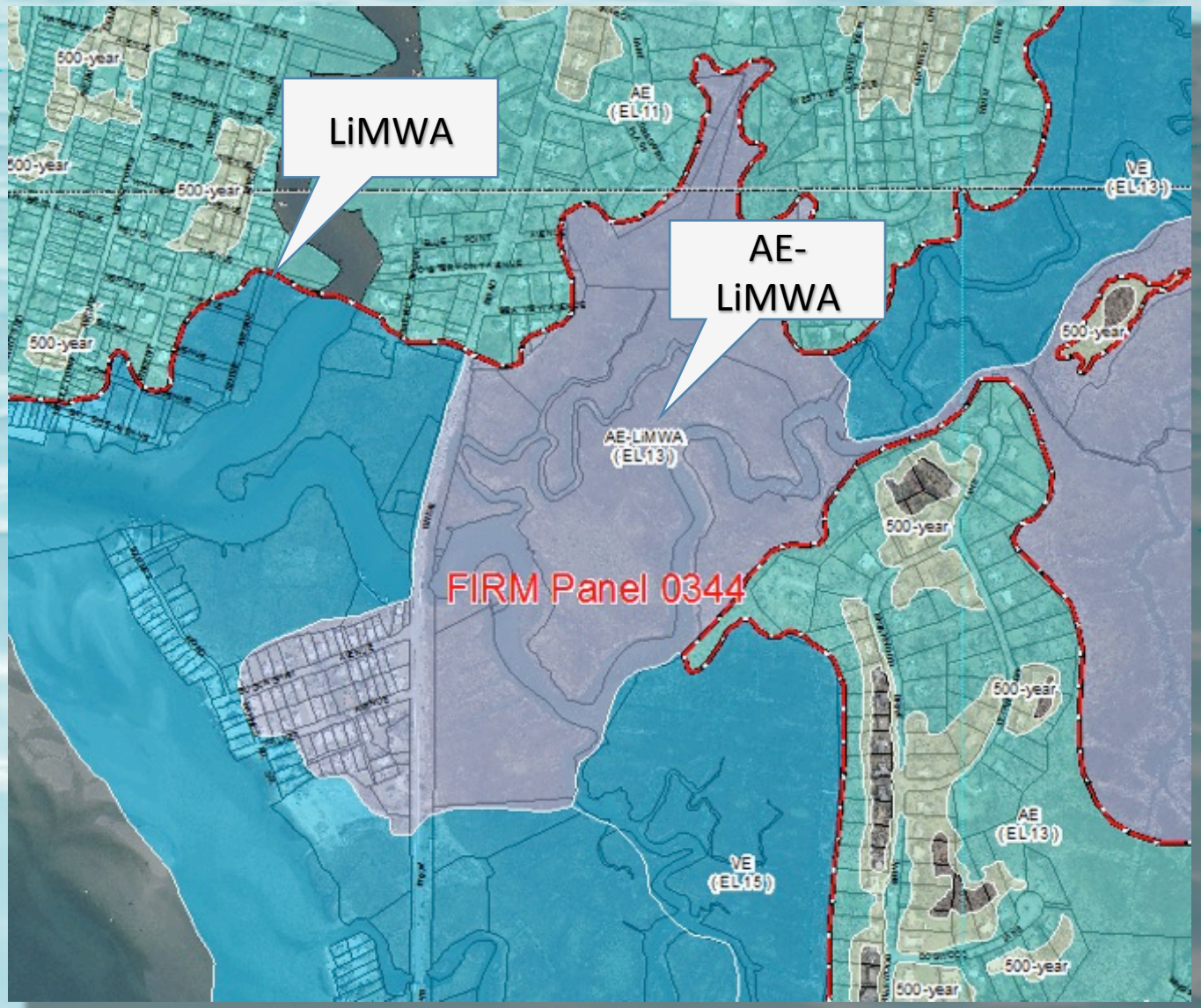


What's Being Done

- Regulatory
  - Building Code
  - Flood Plain Ordinance / National Flood Insurance Program
    - Have adopted VE standards within AE zones waterward of FEMA's LiMWA
    - VE and AE/LiMWA require 1' of freeboard, breakaway walls, higher standards for critical facilities…
- Planning
  - Natural Hazard Mitigation Plan (approved by FEMA)to become part of POCD
  - Sea Level Rise Climate Adaptation Committee (***NEW*** – *first meeting May 8*)
    - Raise awareness of SLR problem
    - Utilize best available science, data and models to identify impacted areas and problems
    - Recommend municipal actions

Flood Ordinance – Higher Standards

Old Saybrook was the first CT town to adopt FEMA's Limit of Moderate Wave Action (LiMWA) in the AE Zone and requires that construction meet the higher standards of the VE Zone.



Flood Ordinance – Elevating Structures

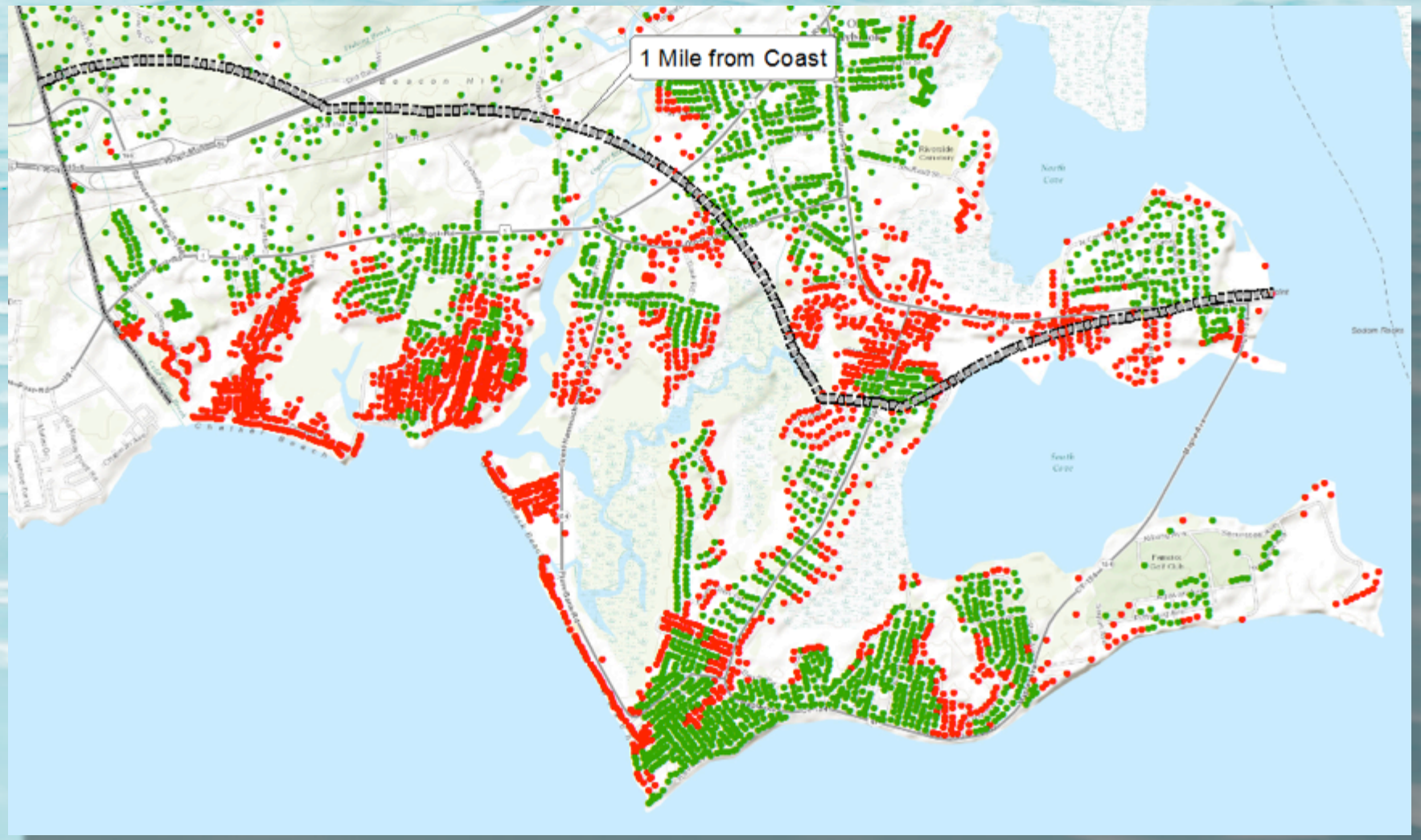






Building Code – Impact Resistant Windows

New construction or remodeling now requires the use of impact resistant windows within 1 mile of the LIS coast. This applies to > 3,100 homes or 54% of all homes in Old Saybrook.



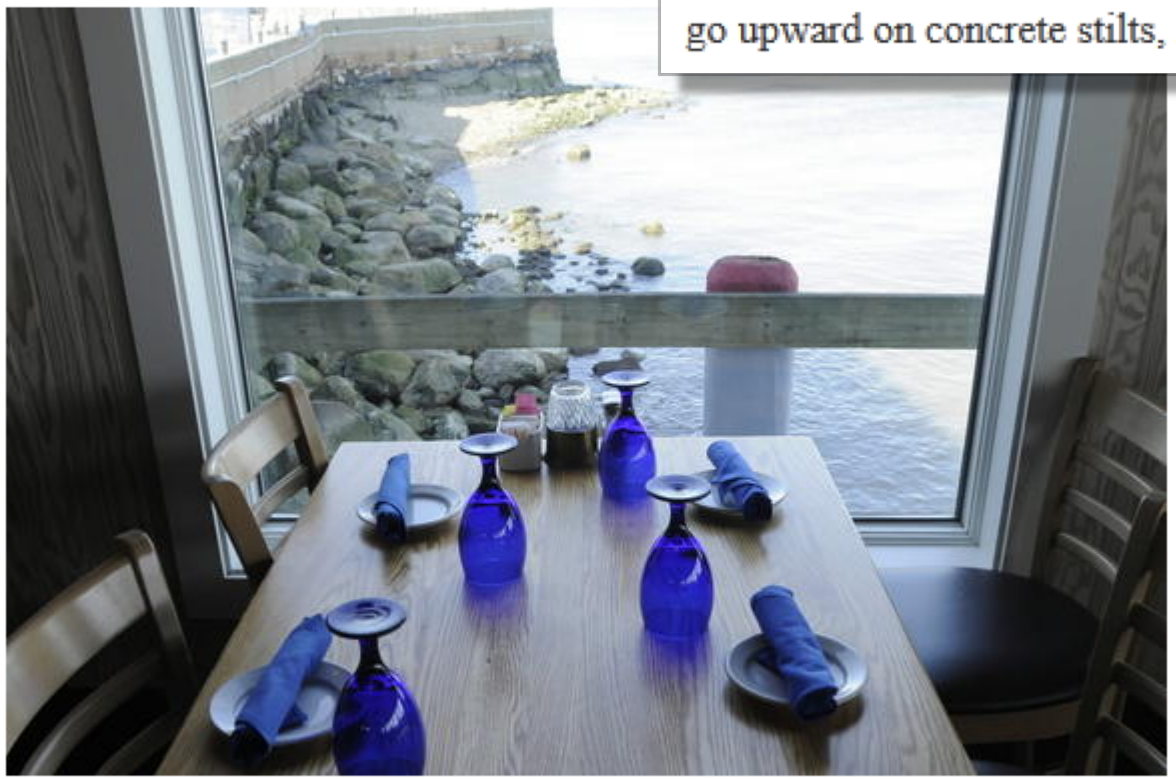
Challenges – a short list

- Nature of the problem – It's a slow-motion disaster
- Skepticism and resistance – is CC real, is SLR real, opposition to regulations
- Past practices – dense development in SFHA, seawalls, groins
- Staff – no one individual is focused on SLR and CC
- Time – too many pressing day to day responsibilities
- Politics – tendency to deal with the "in-your-face" problems
- Costs – tax consequences, grand list impacts, cost of construction, infrastructure improvements, storm response & clean up, long wait times for post storm insurance settlements
- FEMA – only considers current conditions and not SLR
- Base Flood Elevations – have changed as newer data has become available
- Engineering – sizing stormwater structures to handle > storm volumes

Best Defense Against Advancing Sea? Retreat

Comments 8 Email Share 10 Tw

Unfortunately, our system of property ownership is based on fixed geographic coordinates, rather than fixed environmental conditions. Owners can't migrate with the conditions, like surfers on a good wave. Instead, they stand their ground with an escalating series of defensive moves. The Hail Mary play is to go upward on concrete stilts, letting the environment pass beneath them.



A view from the renovated Dock & Dine Restaurant at Saybrook Point is seen in fall 2012 after the restaurant was heavily damaged by storm Irene in 2011. The popular eatery was devastated again by Sandy last year and is being rebuilt. (Rick Hartford / Hartford Courant / April 30, 2014)

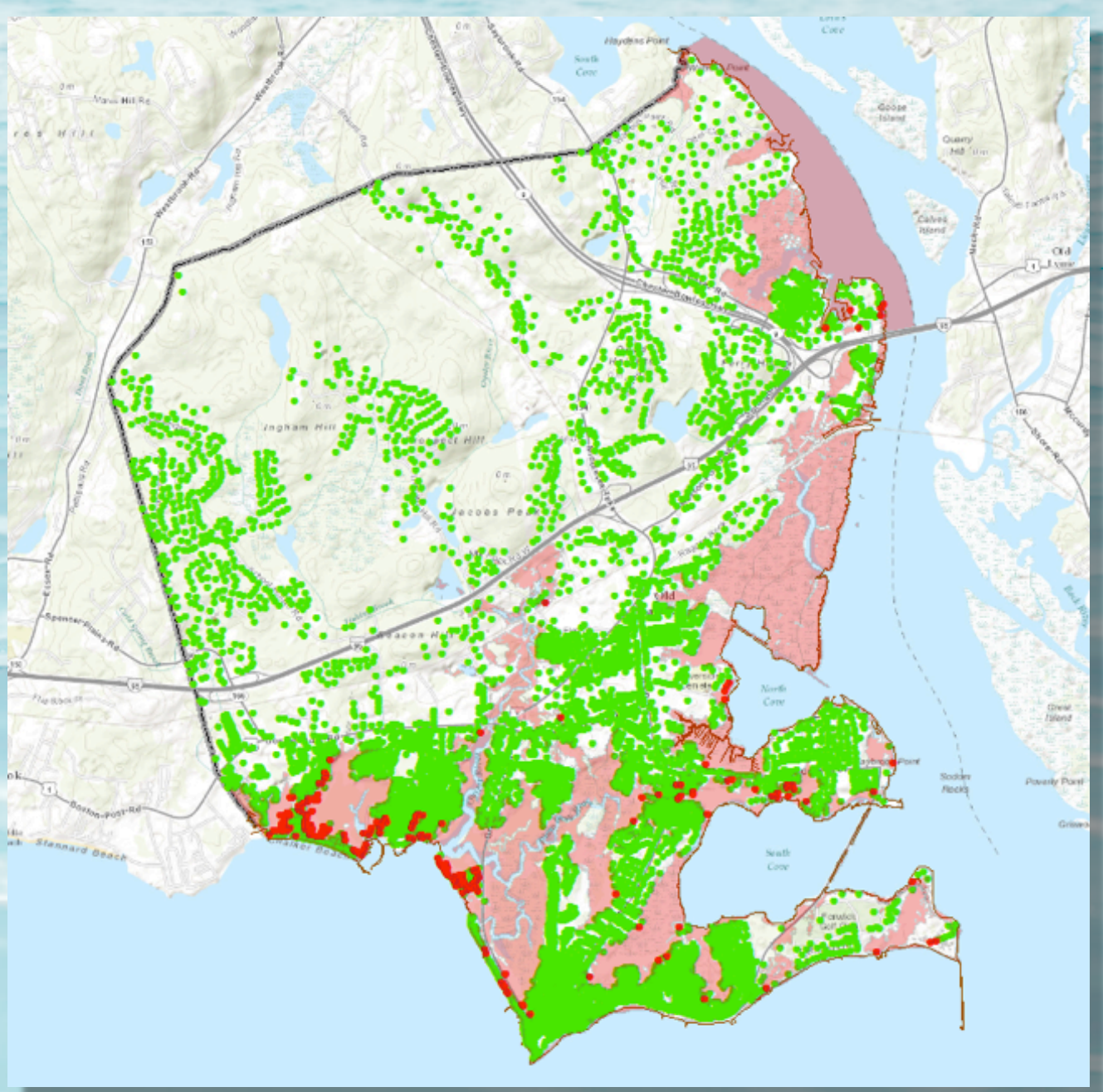


Robert M. Thorson

1:26 p.m. EDT, April 30, 2014

Retreat?

- 226 homes @ < 5’
- Total appraised value of these properties is $142,800,000
- 3.5 times annual town budget
- Who pays?



Thank You

Sandy Prisloe

Environmental Planner

Old Saybrook, CT

Top 3 Public Responses to Elevating Structures Before Tropic Storm Irene

- "You Can't Make Me Do That!"
- "I Don't Want To Walk Up A Flight Of Stairs To Get To My Beach House!"
- "You People Are Crazy! We've Never Had Water In Our House Before."