



Connecticut Department of Energy and Environmental Protection



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

Coastal Shoreline Protection in Connecticut

March 24, 2021

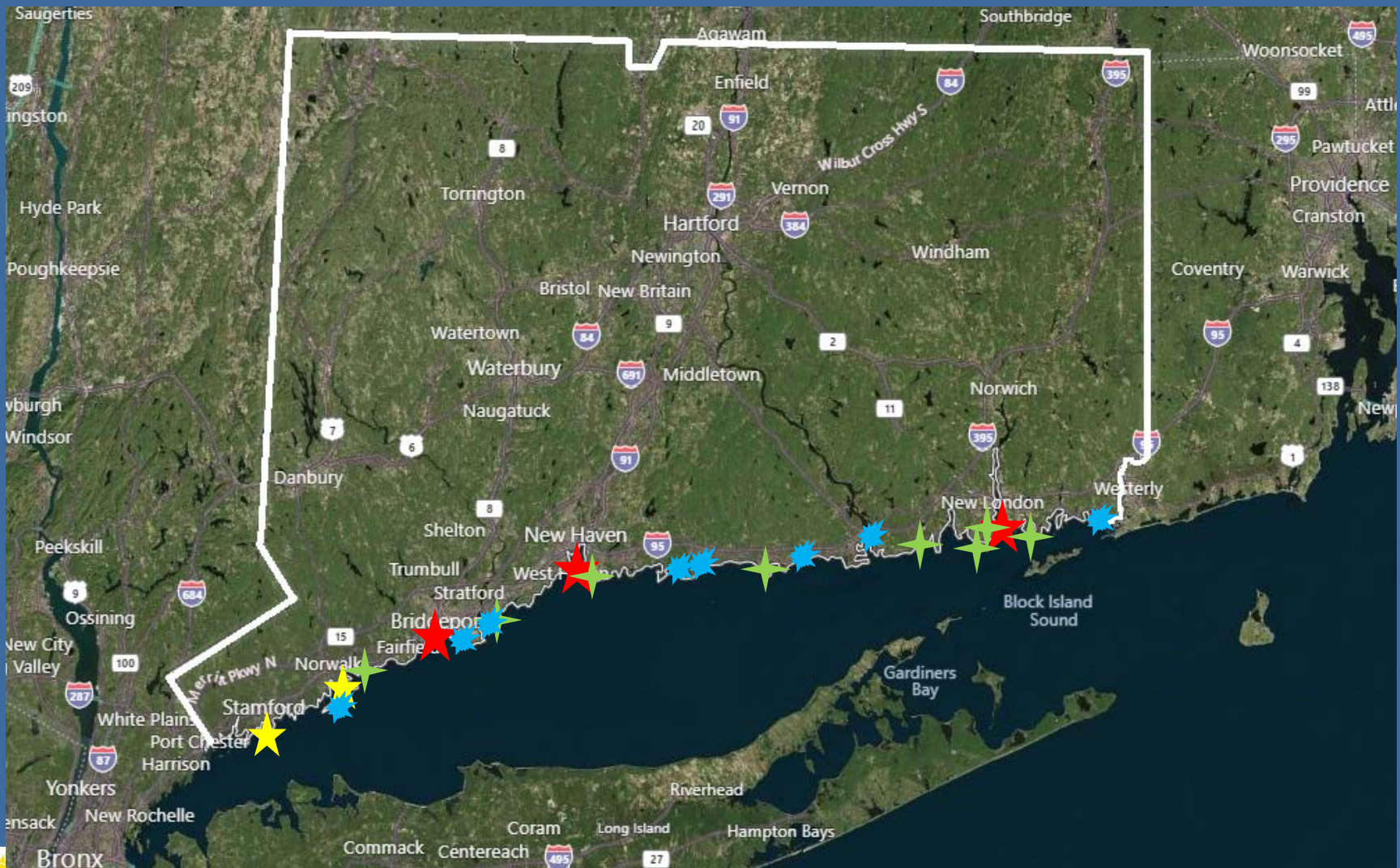
Connecticut Association of Flood Managers

Susan Jacobson



Connecticut Department of Energy and Environmental Protection

Connecticut's Coast



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East Lyme (Niantic) – Eastern CT Shoreline



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Photo – Google Earth

Connecticut River



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Photo – www.soundingsonline.com



East Haven - Central CT Shoreline



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Photo – Bing.com

Greenwich - Western CT Shoreline



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Photo – Bing.com

Regulation of Flood and Erosion Control Structures

- ❖ **U.S. Army Corps of Engineers**

- Section 404 of the Clean Water Act

- Jurisdiction – waterward of the High Tide Line**

- ❖ **Connecticut Department of Energy and Environmental Protection**

- CGS Sections 22a-361 and 22a-363b

- CGS Section 22a-32 – tidal wetlands

- Section 401 of the Clean Water Act

- Jurisdiction – waterward of the Coastal Jurisdiction Line**

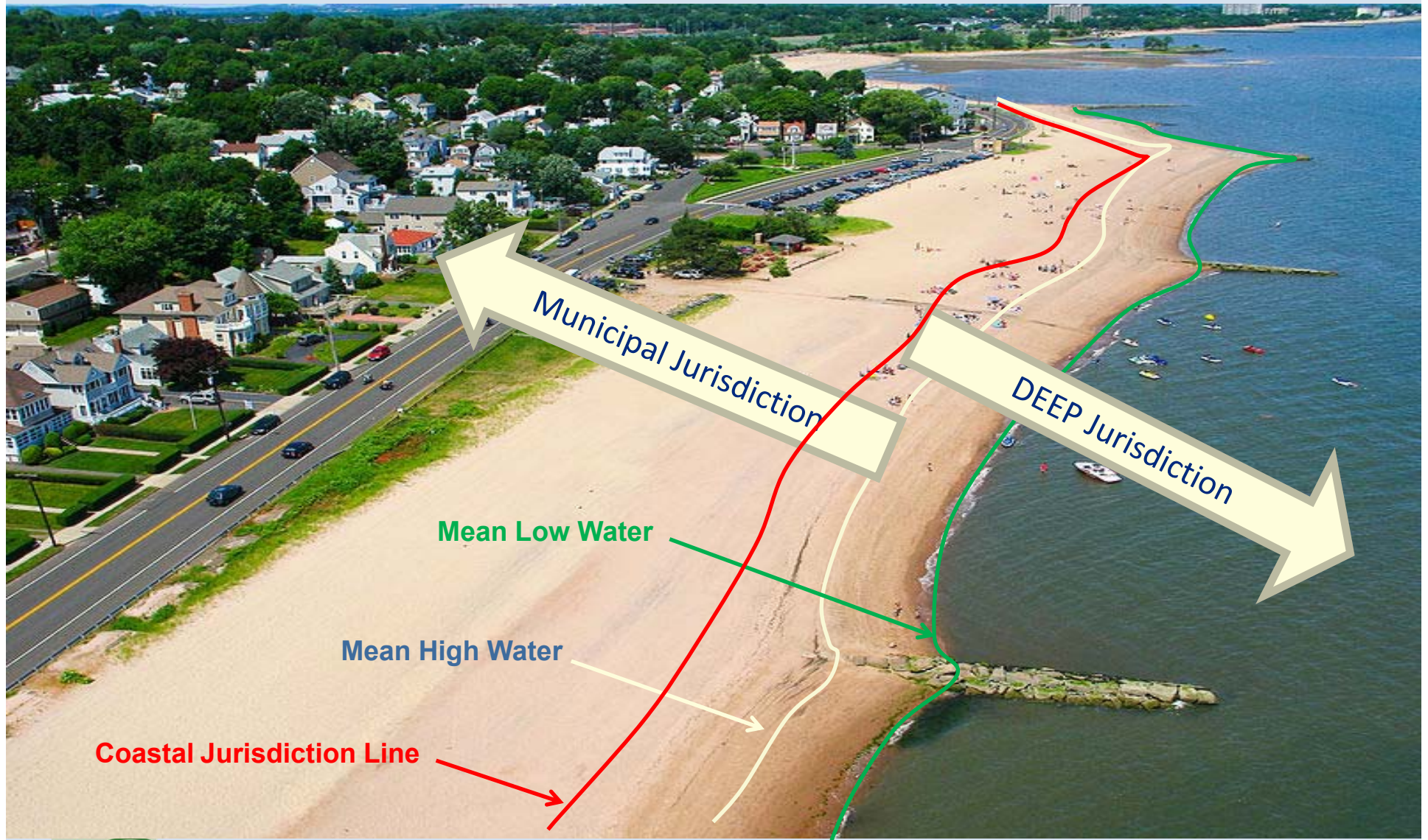
- ❖ **Municipality**

- CGS Section 22a-109

- Jurisdiction – landward of Mean High Water**



Jurisdiction



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CT DEEP Jurisdiction

- In 2012, DEEP jurisdiction changed from HTL to CJL
- Coordinated with the Connecticut Association of Land Surveyors
<https://portal.ct.gov/DEEP/Coastal-Resources/Coastal-Permitting/Coastal-Jurisdiction-Line-Fact-Sheet>
- Where Tidal Wetlands are landward of CJL, the TW boundary is the DEEP Jurisdiction boundary.
https://portal.ct.gov/-/media/DEEP/Permits_and_Licenses/Land_Use_Permits/LWRD/referenceregulatoryjurisdictionpdf.pdf



Coastal Management Act Policy

Overall Goals:

CGS Section 22a-92(b)(2)(F): to manage coastal hazard areas so as to ensure that development proceeds in such a manner that hazards to life and property are minimized and to promote nonstructural solutions to flood and erosion problems . . .

CGS Section 22a-92(b)(2)(J): to maintain the natural relationship between eroding and depositional coastal landforms and to minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures. . . .



Shoreline Flood and Erosion Control Structure

For the FECS definition, we look to:

CGS section 22a-109(c):

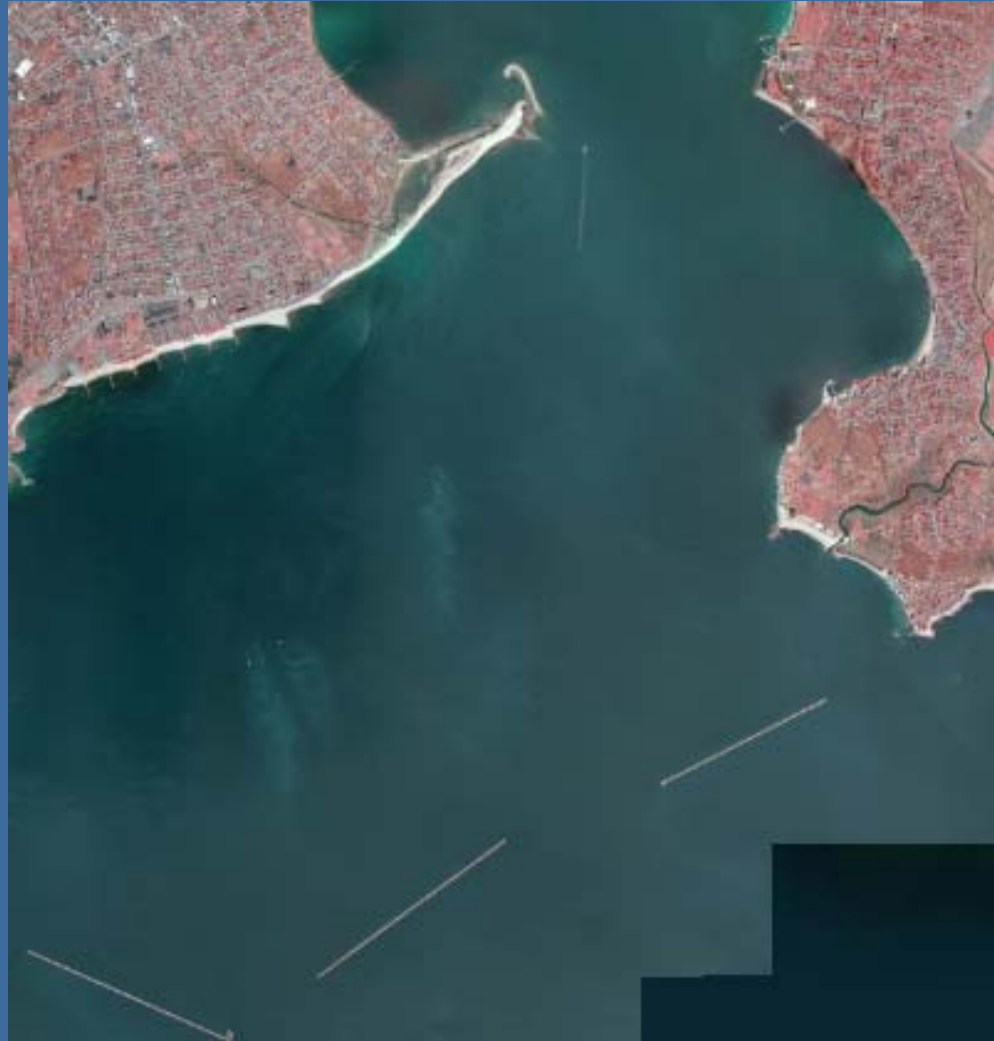
Any structure the purpose or effect of which is to control flooding or erosion from tidal, coastal or navigable waters and includes breakwaters, bulkheads, groins, jetties, revetments, riprap, seawalls and the placement of concrete, rocks or other significant barriers to the flow of flood waters or the movement of sediments along the shoreline . . .

The term shall not include . . . (2) any activity, including, but not limited to, living shorelines projects, for which the primary purpose or effect is the restoration or enhancement of tidal wetlands, beaches, dunes or intertidal flats.



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Breakwaters



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Bulkheads



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Groins



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Jetty



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Revetment



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Riprap



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Seawall



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Photo – RACE, LLC

Exceptions

CGS Section 22a-92(b)(2)(F):

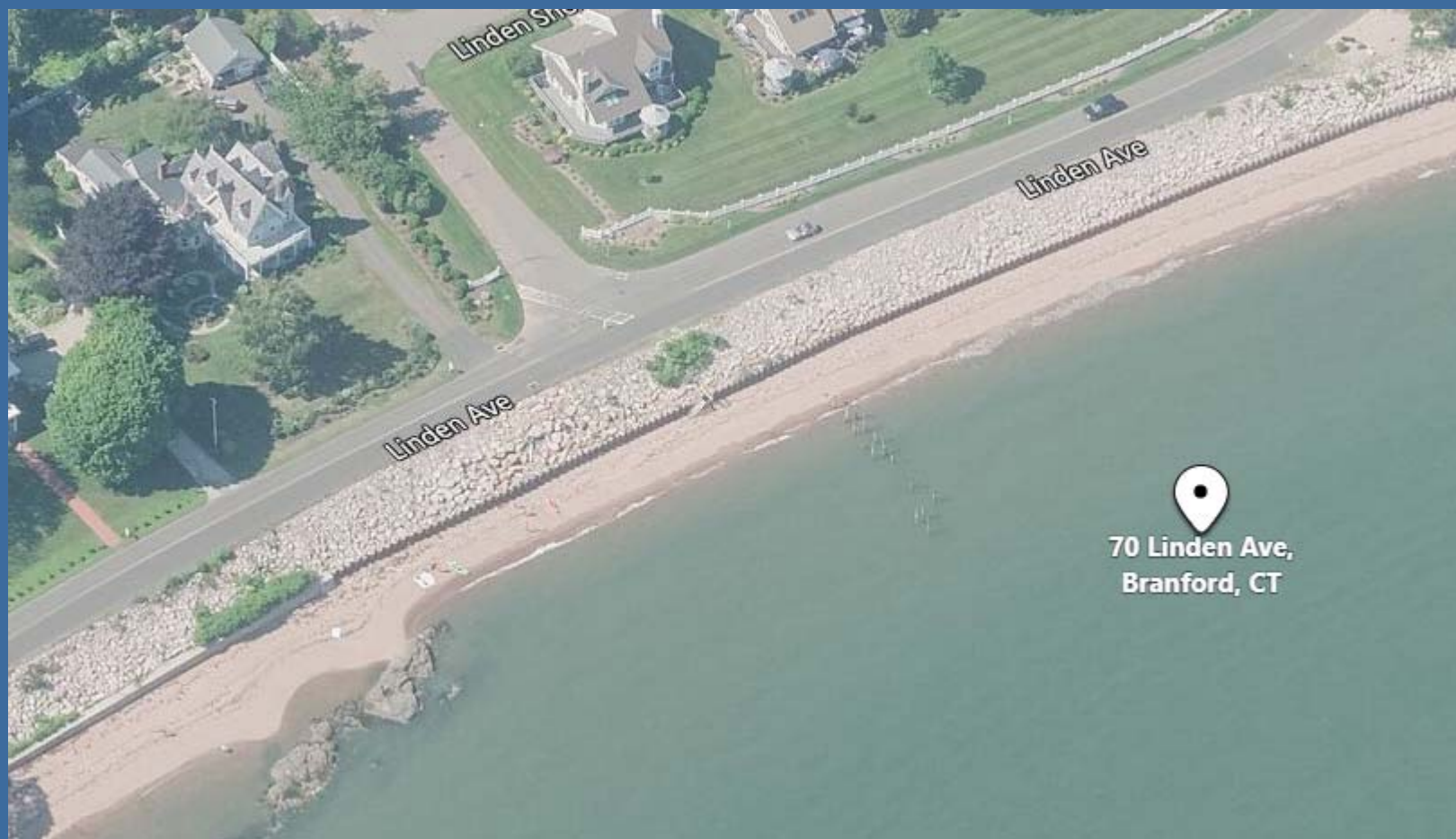
except in those instances where structural alternatives prove unavoidable and necessary to protect commercial and residential structures and substantial appurtenances that are attached or integral thereto, constructed as of January 1, 1995, infrastructural facilities or water dependent uses;

CGS Section 22a-92(b)(2)(J):

Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, cemetery or burial grounds, water-dependent uses, or commercial and residential structures and substantial appurtenances that are attached or integral thereto, constructed as of January 1, 1995, and where there is no feasible, less environmentally damaging alternative and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts.



Infrastructural Facilities



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Photo – Bing.com

Water-Dependent Uses



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Pre-1995 Commercial and Residential Structures and Appurtenances



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Cemetery or Burial Grounds



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Photo – www.elmgrovecemetery.org

Living Shoreline

Working Definition:

A shoreline management practice that restores, enhances, maintains or creates natural coastal or riparian habitat, functions, and processes and also functions to mitigate flooding or shoreline erosion through a continuous land-water interface. Coastal and riparian habitats include but are not limited to intertidal flats, tidal marsh, beach/dune systems, and bluffs. Living shorelines may include structural features that are combined with natural components to absorb, or attenuate, wave energy and currents but that do not sever the natural processes and connections between uplands and aquatic areas.



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Stratford Point



2014



2020

Photo by Sacred Heart University



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Canal Road, Westport



1974



2019



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Photo by Lynn MacDonald

Fenwick, Old Saybrook



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Bridgeport Enforcement Action

A pre-2012 version of a
Living Shoreline



Photos by John Hilts

Is this a Living Shoreline?



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Pending Living Shoreline Projects



Notes on Living Shorelines

- Eligible under DEEP Certificate of Permission process
- DEEP does not have engineering standards at this point
- May not be effective or feasible on a single property (e.g., beach nourishment)
- License requires long-term monitoring
- Maintenance flexibility



DEEP Regulatory Process

❖ New FECS

- Meets one of the 4 eligibility criteria
- **Process** - Structures, Dredging & Fill (CGS Section 22a-361)
- Includes Tidal Wetlands and Section 401, as applicable

❖ Maintenance or replacement of pre-1995 FECS

- **Process** - Certificate of Permission (CGS Section 22a-363b) – 90 days
- Structure must be continuously maintained and serviceable
- A maximum of 12” height increase is allowed



On-Going Challenges

❖ **At the municipal level:**

Despite all the focus on climate adaptation and rising sea levels, we continue to see proposals for (and approvals of) new residential and mixed use development in coastal flood zones.

❖ **Property owners resist:**

- Moving house landward
- Elevating
- Restoring dune or vegetated slope
- Living shoreline options



Resources

Connecticut Institute for Resilience & Climate
Adaptation (CIRCA)



Search this site...

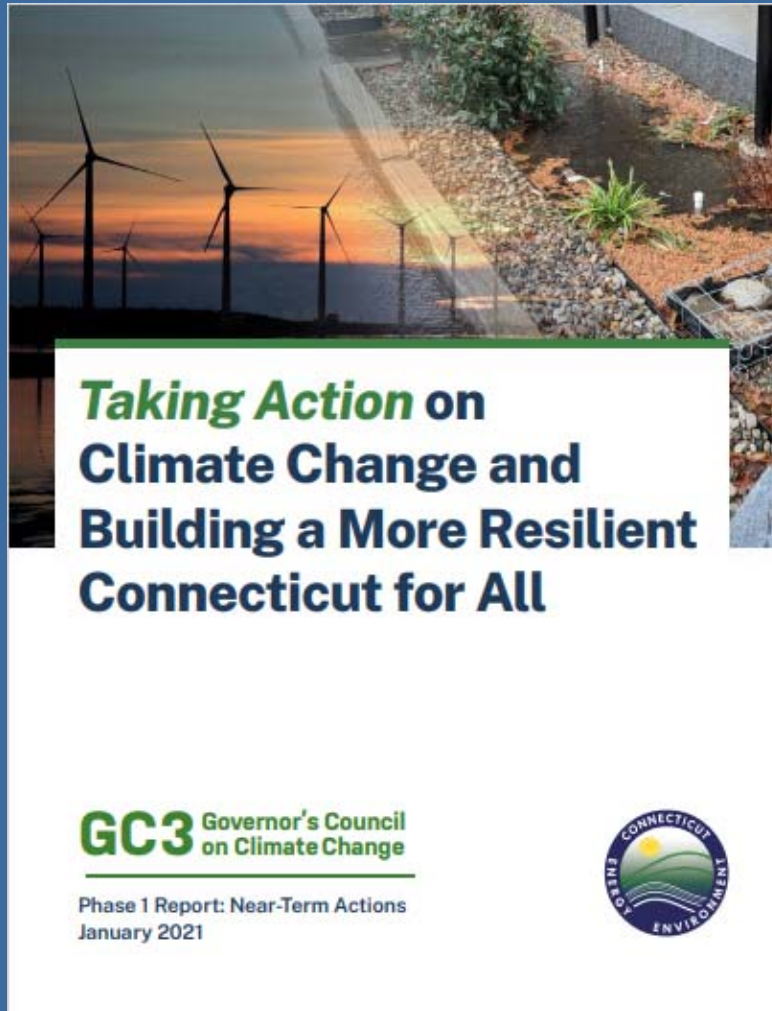


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COASTAL FLOODING

<https://resilientconnecticut.uconn.edu/>



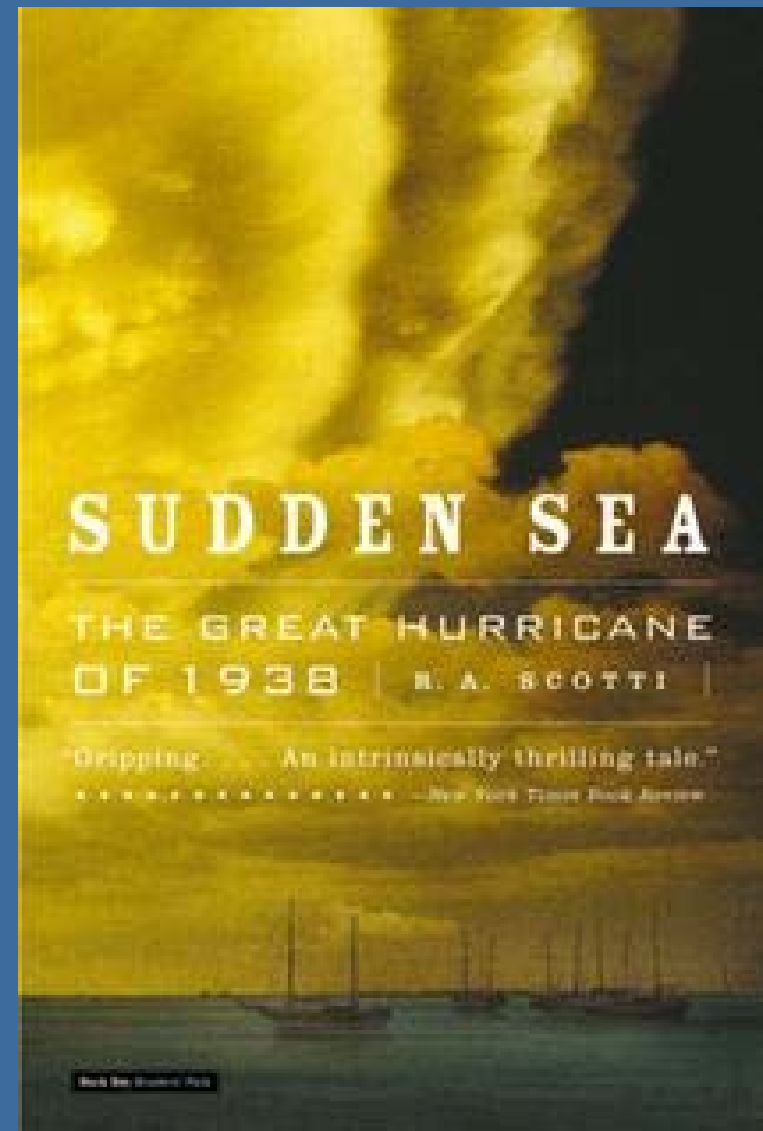
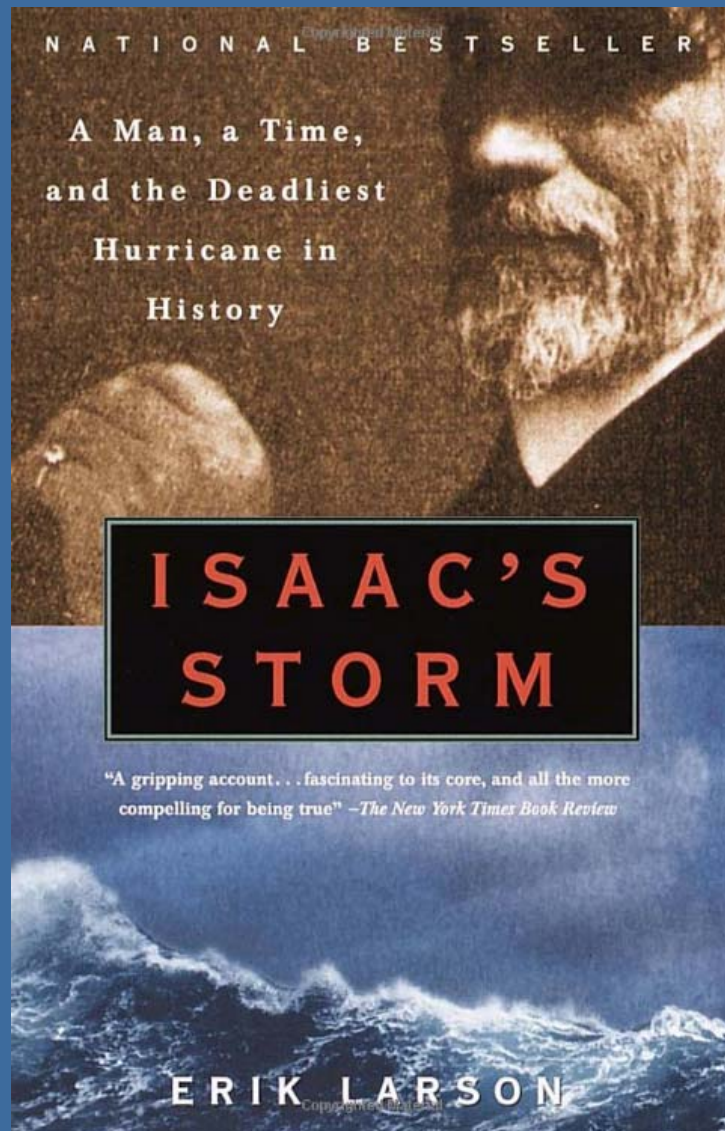
https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3_Phase1_Report_Jan2021.pdf

The first report on mitigation strategies and the Adaptation and Resilience Plan was just completed. The second report from state agencies on the adaptation strategies is due by December 31, 2021.

What's Next?

- ❖ **Expect continued erosion and undermining:**
 - Of coastal environmental regulatory standards and processes
 - Of shorelines, beaches, dunes, wetlands
- ❖ **With future storms and sea level rise, there is No Happy Ending**
 - Seawalls for All is not the answer
 - At some point, property is going to be lost; no “solution” is permanent





Questions?

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www.ct.gov/deep

