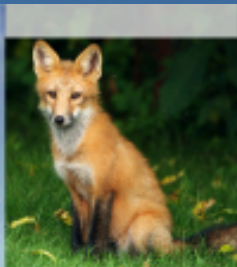




Connecticut Department of Energy and Environmental Protection



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

DEEP

Land & Water Resources Division (LWRD)

Climate Adaptation Academy

Road Flooding & Regulatory Requirements

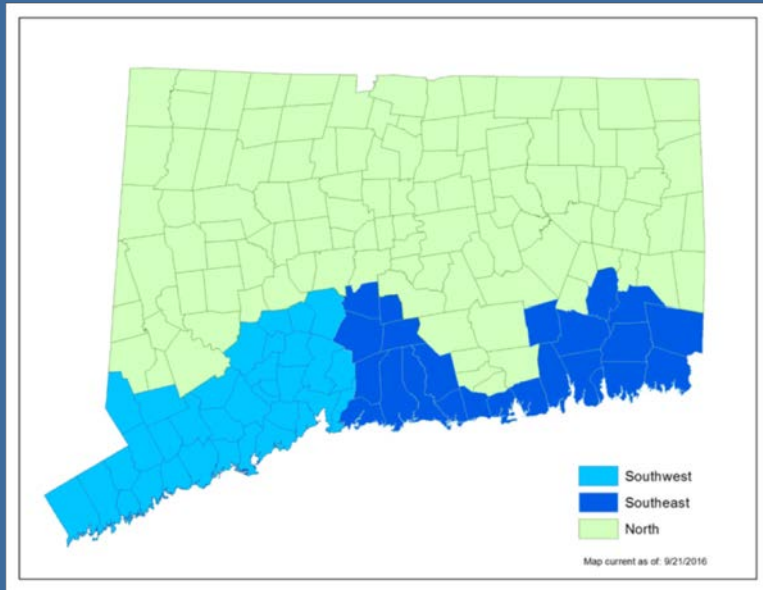
Jeff Caiola, Assistant Director
Land & Water Resources Division
1/25/2018



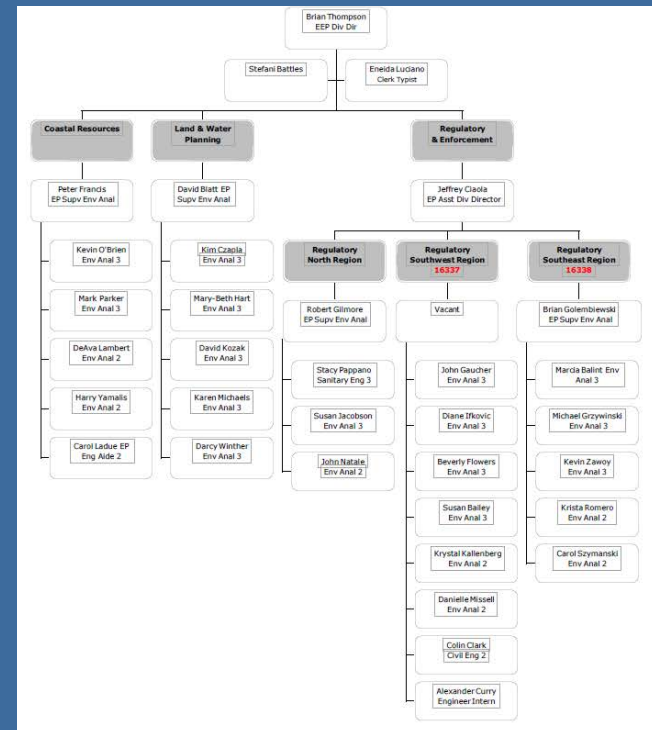
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LWRD: Regulatory Regions & Current Organizational Structure



- Established 2016 (OLISP + IWRD)
- Better programmatic coordination
- Standard procedures across the regions





Regulatory Programs Administered by LWRD:

- 401 Water Quality Certification (WQC)
- Inland Wetlands & Watercourse (State Action) (IW)
- Water Diversion (DIV)
- Flood Management (FM)
- Tidal Wetland (TW)
- Structures Dredging & Fill (SDF)
- Coastal Site Plan Reviews (CSPR)
- Federal Coastal Consistency (FCC)



What we know.....

Extreme High Tides
Sea level Rise
Climate Change

We have to figure this out together because....

When you get down to it,
People are being impacted.....



October 30, 2018
Milford



Connecticut Department of Energy and Environmental Protection



September 2018



The National Weather Service recorded 7.3 inches of rain in some areas of the state which yields just over a 500 year storm for a 6 hour duration





**Presidential
declaration was
declared for the
9/25/2018 event**



**October 2, 2018
Bridgeport South End**



Connecticut Department of Energy and Environmental Protection

How Do I know When I need a Flood Management Certification From DEEP?



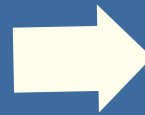
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When Do I need a Flood Management Certificate?

Proposed
Development is
located in a
floodplain or
impacts drainage
on property
controlled by the
state

+

Action is
conducted by a
state
department or
is funded by the
state through a
grant or loan



Flood
Management
Certification





Sec. 25-68d. of the Connecticut General Statutes (C.G.S)

No state agency shall undertake an **activity** or a **critical activity** within or affecting the floodplain without first obtaining an approval or approval conditions



“Activity” - Any **proposed state action** in a floodplain, or any proposed state action that impacts natural or manmade storm drainage facilities that are located on property that the commissioner determines to be controlled by the state.



Design Storm event - 1% annual flood



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"Critical activity" means any activity, including, but not limited to, the treatment, storage and disposal of hazardous waste and the siting of hospitals, housing for the elderly, schools or residences, in the .2 percent floodplain in which the commissioner determines that a slight chance of flooding is too great;



Design Storm event - .2% annual flood



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“Proposed State Action” - Individual activities or a sequence of planned activities to be under taken by:

- A State Department
- An Institution or Agency
- Any State or Federal **grant or loan** proposed to be used to fund a project that affects land use.
- A proposed transfer of real property belonging to the state.



Going forward.....

**Recent Legislative Action,
Public Act 18-82, An Act
Concerning Climate Change
Planning And Resiliency**

Flood Management Act - Modified the definition of Flood-proofing to incorporate the latest sea level change scenario .



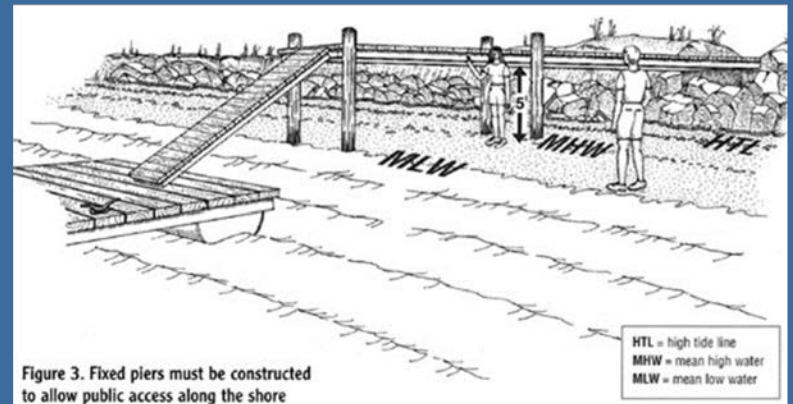
How Do I know When I need a Coastal Authorization From DEEP?



Connecticut Department of Energy and Environmental Protection

Coastal Permitting

DEEP regulates all activities conducted in tidal wetlands and in tidal, **coastal or navigable waters** in Connecticut under the **Structures, Dredging and Fill Act** (Conn. Gen. Statutes (CGS) Sec. 22a-359 - 22a-363f, inclusive) and the **Tidal Wetlands Act** (CGS Sec. 22a-28 - 22a-35, inclusive).



What is a regulated activity under SD&F?

Anytime your proposing to: dredge, erect any structure, place any fill, obstruction or encroachment or carry out any work incidental thereto in the tidal, **coastal or navigable** waters of the state waterward of the **coastal jurisdiction line**.



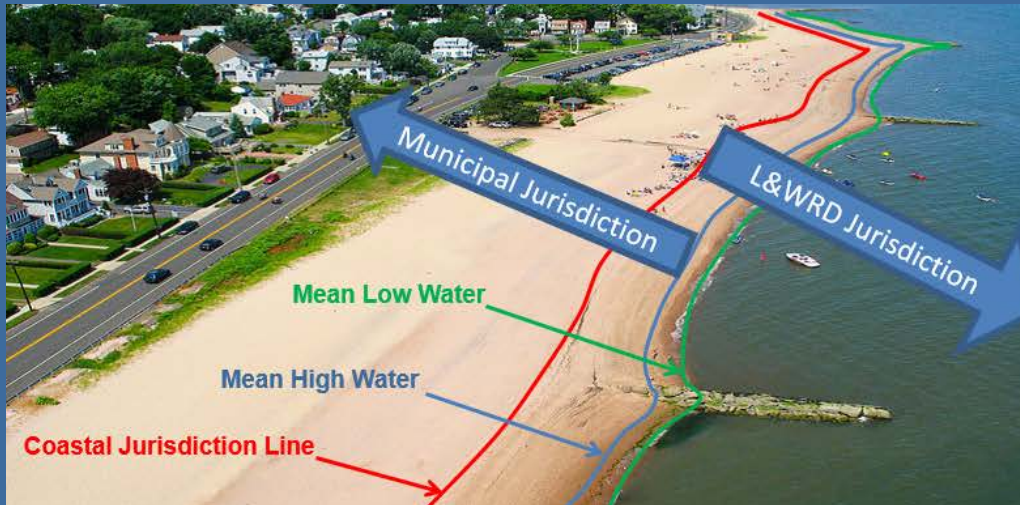


“Coastal waters” means those waters of Long Island Sound and its harbors, embayments, tidal rivers, streams and creeks, which contain a salinity concentration of at least five hundred parts per million under the low flow stream conditions as established by the commissioner;

“navigable waters” means Long Island Sound, any cove, bay or inlet of Long Island Sound, and that portion of any tributary, river or stream that empties into Long Island Sound upstream to the first permanent obstruction to navigation for watercraft from Long Island Sound



Structures, Dredging & Fill (CGS Sections 22a-359 through 22a-363f)



Coastal Jurisdiction Line (CJL) = Elevation of the highest predicted tide 1983-2001 referenced to most recent Tidal Datum Epoch published by NOAA in NAVD88.

<http://www.ct.gov/deep/cwp/view.asp?A=2705&Q=511502>



Connecticut Department of Energy and Environmental Protection

Tidal Wetlands

CGS 22a-28 through 22a-35a

RCSA 22a-30-1 through 22a-30-17



Jurisdiction:

- Border on or lie beneath tidal waters
- Banks, bogs, salt marshes, swamps, meadows, etc...
- Now or formerly connected to tidal waters
- Ground surface at or below one foot above the extreme high tide (1 Year Frequency Tidal Flood on USACOE Flood Profiles Sept. 1988)
<http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/TidalFloodProfiles.pdf>
- Capable of growing plants listed in statute



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What is a “Regulated activity” under the Tidal Wetlands Act?

...means any of the following:



.....draining, dredging, excavation, or removal of soil, mud, sand, gravel, aggregate of any kind or rubbish from any wetland or the dumping, filling or depositing thereon of any soil, stones, sand, gravel, mud, aggregate of any kind, rubbish or similar material, either directly or otherwise, and the erection of structures, driving of pilings, or placing of obstructions, whether or not changing the tidal ebb and flow.



Coastal Site Plan Reviews ...Flood & Erosion Control Structures:



To promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, infrastructural facilities or water-dependent uses



Our decision making process



Should be transparent




Connecticut Department of Energy and Environmental Protection



What we look for in general....

- **Avoidance of the impact**
- **Minimization of the impact to the greatest extent possible;**
- **Mitigation of the impact**





What we look for in relation to the coastal permitting programs are to...

- Avoidance or minimization to navigational conflicts, encroachments into the state's public trust area,
- Avoidance of adverse impacts on coastal resources and uses,
- Consistency with the Connecticut Coastal Management Act.





What we look at under the Flood Management program

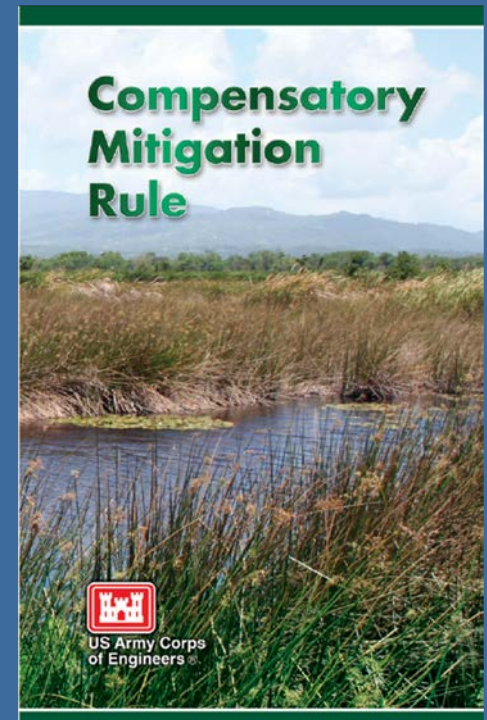
- Hazards to Human Life & Property
 - Increases in storm water runoff
 - Riverine increases in water surface elevations (Inland)
 - Egress
- Compliance with the National Flood Insurance Program
- Proper Flood proofing techniques
 - Resilient Structures
 - Account for Sea Level Rise within the Coastal Boundary



Mitigation

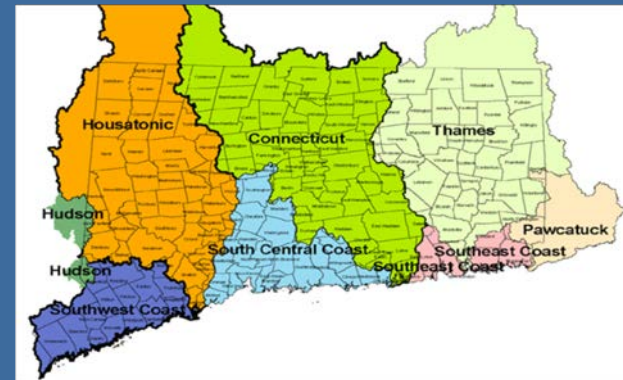
The ACOE's follow a Mitigation Rule with New England Regional guidance*.

In CT, the ACOE prefers that permittee's submit fees in accordance with the Connecticut In-Lieu Fee Program* as wetland compensation and discourages permittee-responsible mitigation.



Mitigation

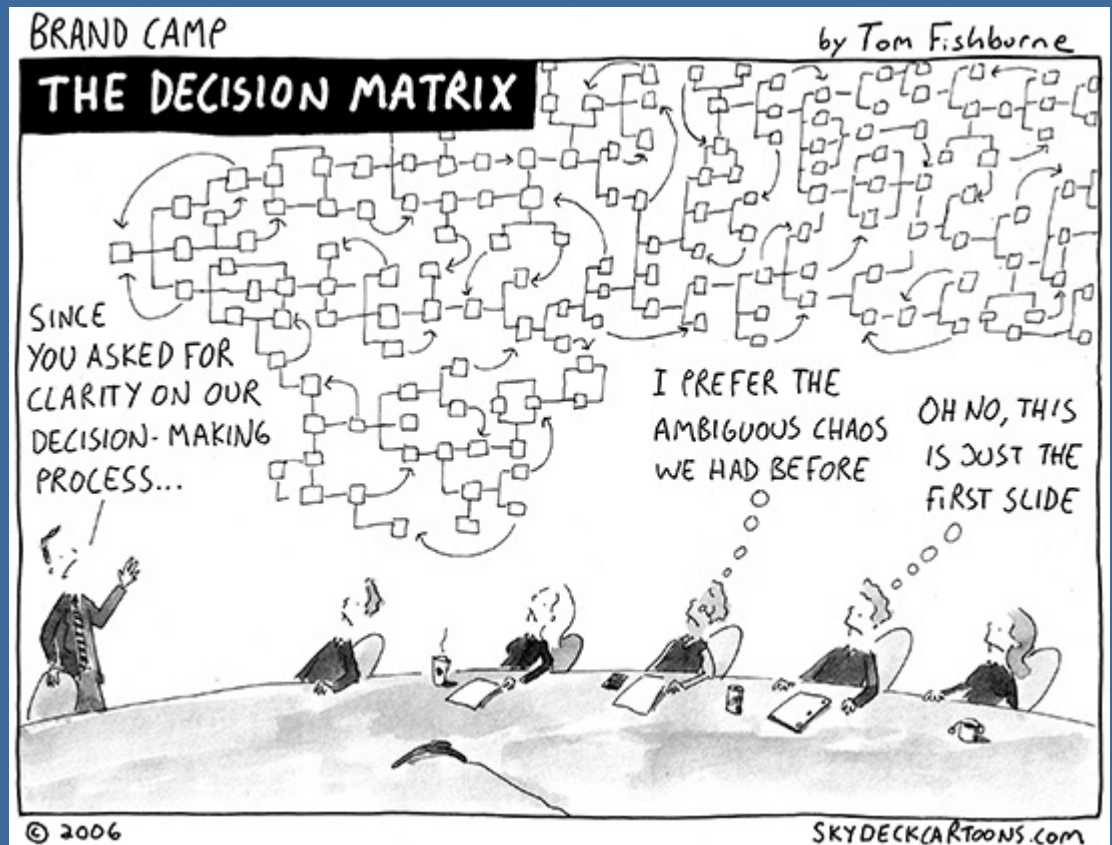
The Connecticut In-Lieu Fee program divides the State into six separate service areas based on watersheds, and is assessed per square foot of wetland impact.



The paradox is that CTDEEP and the municipalities cannot accept the ILF to satisfy any 401 WQC or wetland mitigation needs.



Process of Applying for a permit from DEEP.....





- **Pre-application meetings are recommended for Complex Projects**
- **Mitigation / Restoration should be worked out ahead of time**
- **Consultations, the more you have done upfront, makes path easier**
- **404/401 – The 401 WQC should be issued first**
- **Flood Management Certifications – FM should be submitted first if the projects have a complex hydraulic model**
 - **If a CLOMR is required from FEMA, it should be done ahead of permit application submittal**



Questions?

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Assistant Director

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