

UConn Climate Corps

- An academic one semester course for juniors and seniors
- An interdisciplinary study of climate change focusing on indicators, impacts, policy, vulnerability and adaptation **at the local municipal scale**
- Easy to say what should be done, but how does **local government make decisions** and what are the **roadblocks** to moving forward?

Second semester:

Optional independent study in which students work singly or in teams with municipalities/state/NGO's on vulnerability assessments or other adaptation priorities

Independent Study Projects (teams of 1 to 4 students)

- Resilience management plan for a coastal land trust property
- Vulnerability Assessments (SLR flooding) for towns
- Prioritization of Community Rating System actions
- Outreach related to flooding in inland communities
- Stormwater management and disconnects
- Beach management plans for resilience
- CRS resources webpage
- Resilience planning for businesses
- Brownfield sites and sea level rise analysis
- Marinas and flood risk analysis
- Coastal forests and resilience

To date: 36 students participating in the Independent Study



With the Climate Corps:

- Brownfield Corps – Fall 2018
- Stormwater Corps – Spring 2020
- NSF funding for 4 years



Moving with the Marsh: Buffers for Marsh Migration

Dodge Paddock Beal Preserve
LISS Futures Fund Project
January 2018 to October 2019





History (See Avalonia's website):

Paddock

Pottery works

Sawmill

Historic stone wall

Habitats:

Tidal wetlands

Berm/"Dune"

Tidal creek

Rocky intertidal

Coastal meadow

Uses:

Resilience

Education

Enjoyment

- Walkers
- Schools groups
- Neighbors

Photo: April 2018

Marsh Migration Buffer

Beth Sullivan worked with local garden clubs and nurseries to remove raspberries, bulbs and perennials during spring 2018.

Soil was turned over and raked.
Covered with black plastic for summer 2018 to kill remaining plants and seed bank.





May 2019

Spring 2019 – planted trees, shrubs and perennials

native, mostly salt tolerant plants

Plantings:

New England Wetland Plants Inc: New England Coastal Salt Tolerant Grass Mix:

Elymus canadensis, *Festuca rubra*, *Panicum amarum*, *Panicum virgatum*, *Andropogon gerardii*, *Sorghastrum nutans*,
Juncus tenuis

Prides Corner Farm Inc

Potted plants:

Amelanchier laevis, *Cornus racemosa*, *Asclepias incarnata*, *Lobelia cardinalis*, *Comptonia peregrina*, *Vernonia
novaboracensis*

Earth Tones Native Plants

Potted Plants:

Amelanchier canadensis, *Andropogon gerardii*, *Aronia arbutifolia*, *Ilex verticillata*, *Morella caroliniensis*, *Nyssa
sylvatica*, *Panicum virgatum*, *Physocarpus opulifolius*, *Prunus maritima*, *Sorghastrum nutans* *Vaccinium angustifolium*,
Vaccinium corymbosum

Seeds of Success (Native Plant Trust)/USDA NRCS Cape May Plant Materials Center:

Seeds: *Panicum virgatum*, *Schizachyrium scopari*, *Solidago altissima*, *Spartina pectinata*, *Viburnum dentatum*, *Iva
frutescens*, *Schoenoplectus pungens*, *Eragrostis spectabilis*, *Carex comosa*

Hibiscus moscheutos (marsh mallow) and *Baccharis halimifolia* (groundsel tree) seeded in naturally by September.



- There were 140 volunteers participating in various work days and events at Dodge Paddock over the 18 month grant period, contributing almost 1000 hours.
- CT DEEP provided input and site work, attended numerous meetings and participated in discussions on site work and future plans.



USDA NRCS test pit# 3

Waypoint: 565

Depth of organic material: 0 cm

Estimated Seasonal High-Water Table: 10 cm

Final depth of pit: 90 cm

Taxon name: Matunuck taxadjunct

Taxonomic class: Coarse-loamy, mixed, mesic, Typic Endoaquents

Vegetation: *Panicum virgatum*, *Hibiscus moschuetos*, *Solidago sempervirens*

Depth (cm)	Horizon	USDA Texture	Matrix Color	Rock Fragments/ Consistence	Redox; Moisture; Structure	pH	EC _{probe} (dS/cm)
0-10	^Au	sandy loam	10YR 2/1	very friable	moist; weak medium subangular blocky structure	6.8	.68
10-84	^CAu	sandy loam	10YR 3/3	10% gravels; friable	5% 10YR5/8 concentrations; 5% 10YR 5/2 depletions; moist; massive structure	6.7	1.1
84+	C	sandy loam	10YR 4/3	friable	10% 10YR5/8 concentrations; 5% 10YR 5/2 depletions; moist, massive structure	7.0	.52

Additional 22 soil samples were analyzed by UConn Soil Nutrient Analysis Lab



August 2019

May 2019

Plants labeled as part of education and outreach
Blogs, news articles, presentations
Annual monitoring is ongoing