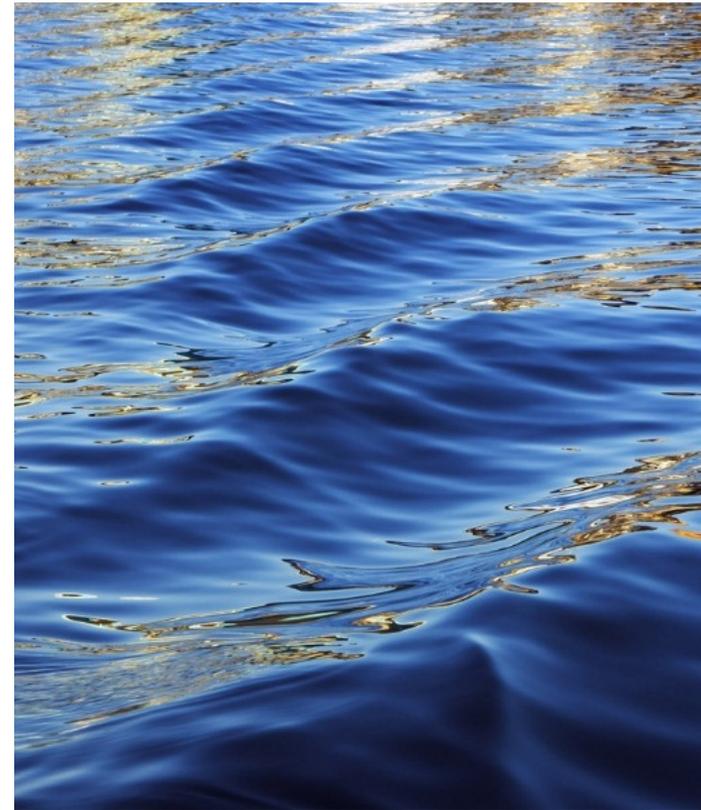


Supporting Soil Health:
Moving Connecticut towards a
sustainable and resilient *water*
future.

Adding Soil Health to the
Connecticut General Statutes: A Clean
Water Perspective

Denise Savageau, Chair
CT Council on Soil and Water Conservation

Kip Kolesinskas, Professional Soil Scientist





Updating the Connecticut General Statutes to include Soil Health starting with the SOIL CONSERVATION section (TITLE 22a).

The Need:

Soil Conservation first became law in Connecticut in the 1940's, following the dust bowl era, with a focus on soil erosion. We now understand that the health of Connecticut's soils goes far beyond controlling erosion. Soil health is critical to protecting our water resources and our food security.

The Connecticut General Statutes (CGS) should be brought up to date regarding the importance of healthy soils and the ecosystem services they provide. This update will ensure that ongoing work on soil health continues and is in place to better leverage federal dollars.

Adding soil health to the CGS is an important step in moving Connecticut to a more resilient future.

What is Soil? Soil Health?

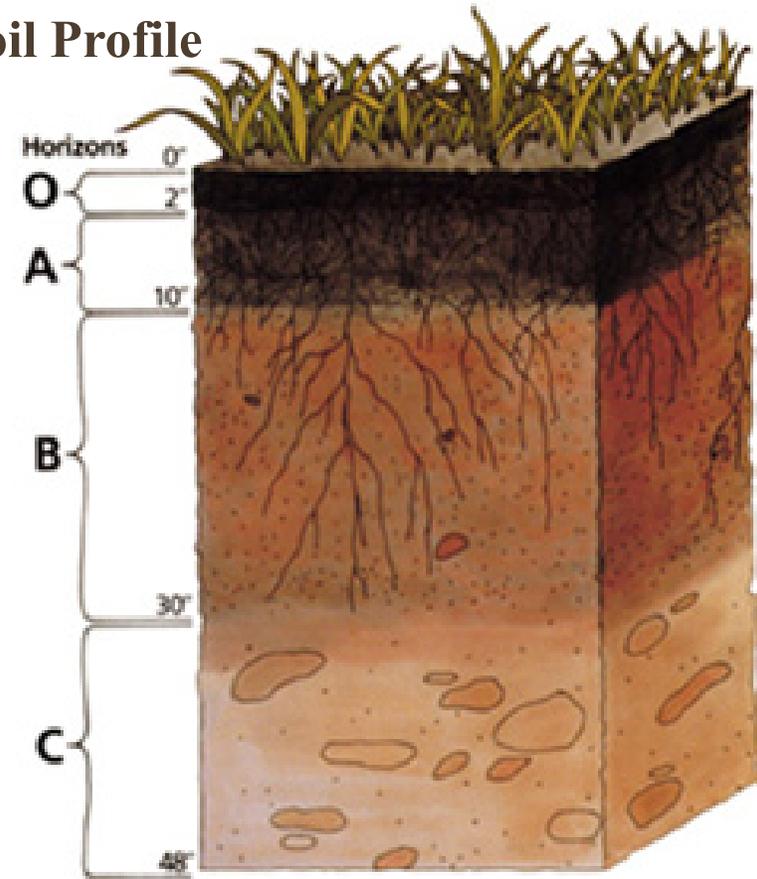
Soil is the unconsolidated layer of solid, water and gaseous materials that covers the earth's surface

Soil is made of a 45 % mineral, 25 % water, 25 % air, and 5 % organic matter.

Soil is a dynamic, living ecosystem and its make-up is constantly changing due local environmental conditions.

“Soil health, also referred to as soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans.” USDA
NRCS

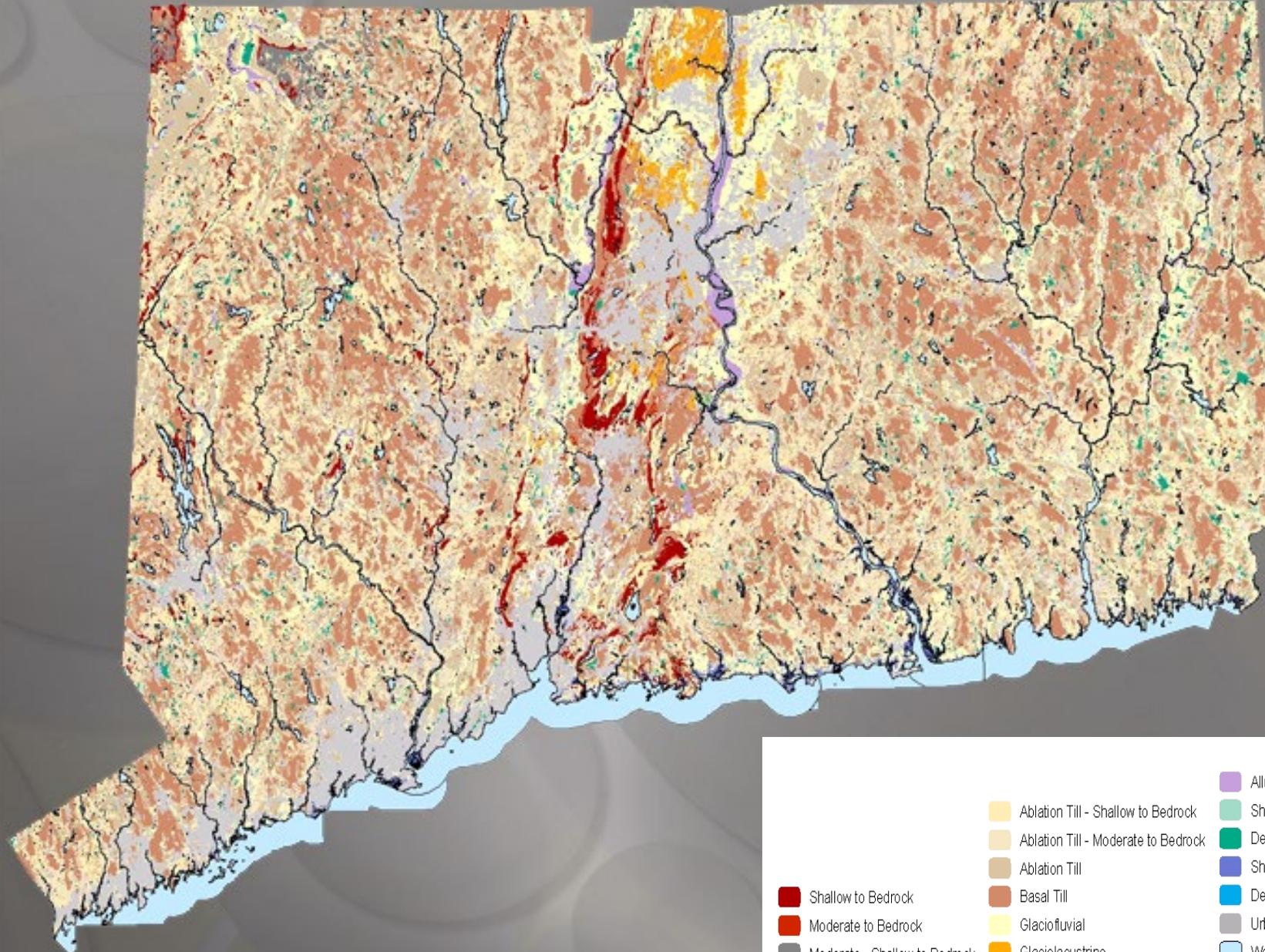
Soil Profile



Healthy soils are:

- Teeming with life
- High in organic matter
- Physically well structured

Major Soil Landscapes of CT



Soil Health and Soil Landscapes are tied to water quality & quantity





Healthy Soil = Healthy Water

- ✓ Increased infiltration and water storage
- ✓ Drought resiliency
- ✓ Better filtration of pollutants
- ✓ Nutrient recycling of carbon and nitrogen
- ✓ Healthier plants, less pesticides
- ✓ Carbon storage mitigating global warming
- ✓ We need to promote soil health on across all landscapes.

All of these factors result in increased stormwater runoff and reduced filtration of pollutants. They also lead to release of carbon, fueling climate change and impacts to water resource.



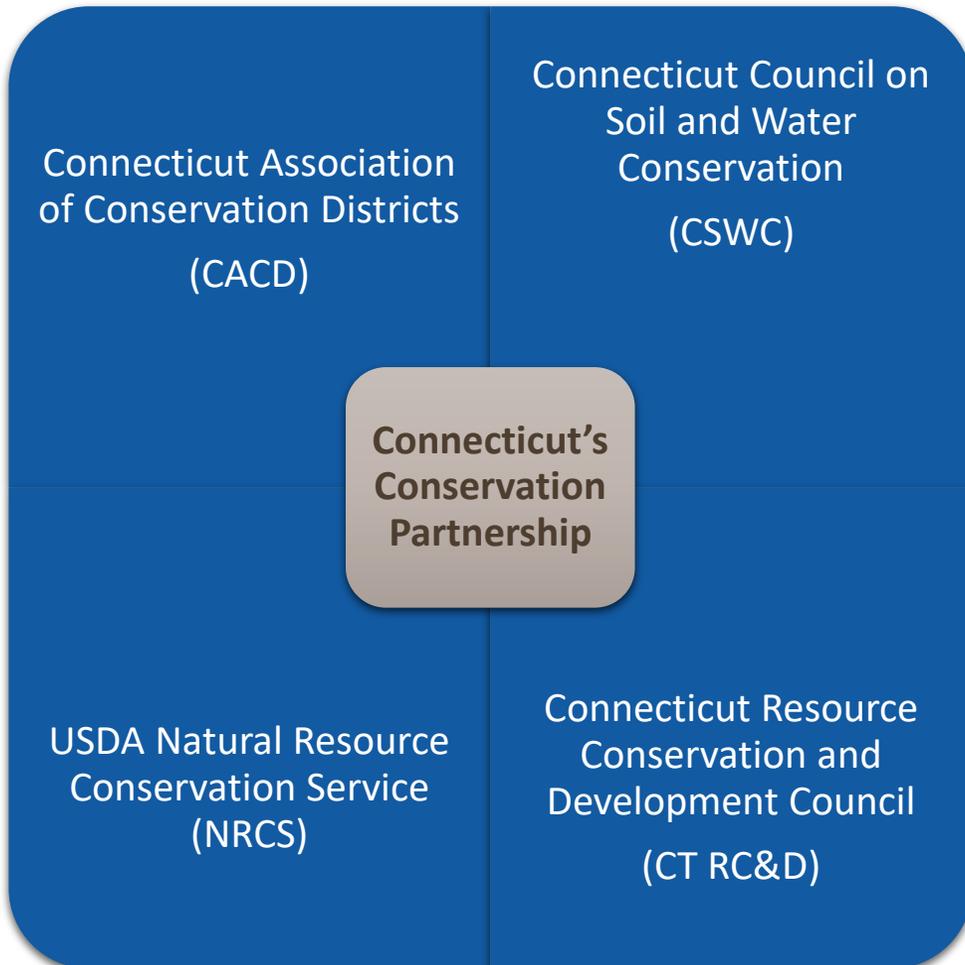
Factors leading to poor soil health:

- compaction
- erosion
- mining of topsoil
- loss of organic matter
- monocultures
- loss of native perennials
- over-watering
- over-fertilization
- pesticides
- salt buildup
- industrial contaminants

Updating the Connecticut General Statutes using language proposed by the CT Council on Soil and Water Conservation:

- ✓ **Simply updates the Soil Conservation section of the CT General Statutes to include soil health, watershed health, and climate change, things already being worked on. It does not create any new programs.**
- ✓ **Recognizes that soil health and watershed health are intrinsically linked. We cannot reach water quality and quantity or food security goals without soil health.**
- ✓ **Is a first step in implementing the GC3 Phase I Report – Action Item #44. Soil health is important to climate change mitigation, adaptation, and resiliency.**
- ✓ **Supports Connecticut’s Environmental Justice goals. Healthy soils across the landscape reduces water utility costs of producing clean drinking water and protects residential wells.**
- ✓ **Confirms the Conservation Partnership will be involved in soil health, soil landscape protection, watershed health, and climate resiliency. This is important for leveraging technical assistance and funding from federal agencies, including USDA.**

Every state in the USA has a similar Conservation Partnership. USDA and the Conservation Districts are written into the Farm Bill. The CSWC is set up as the coordinating body for the partnership in our state.



Connecticut Council on Soil and Water Conservation

Voting Members

- *DEEP*
- *DoAg*
- *UConn Extension*
- *NGO Rep*
- *Five Conservation Districts*

Non-voting members

- *USDA NRCS*
- *USDA FSA*
- *CT Ag Experiment Station*
- *Storrs Ag Experiment Station*
- *Municipal Staff involved in E&S*
- *CT RC&D Council*

Essence of the proposed language changes:

Sec. 22a-314. (Formerly Sec. 25-104). General duties of commissioner concerning soil and water conservation[erosion]. The Commissioner of Energy and Environmental Protection may (a) make or cause to be made surveys, investigations and research concerning [the problems of] soil and water conservation [erosion and its control] including soil health, soil erosion, loss of important soil landscapes including prime and important farmland soils, watershed health, and related ecosystem services including their role in climate change mitigation, adaptation, and resiliency and publish [his] findings and disseminate information concerning the subject;

Sec. 22a-315. (Formerly Sec. 25-104a). Soil and water conservation districts and boards; establishment, powers and council. (a) In order to assist the Commissioner of Energy and Environmental Protection in identifying and remedying the problems of soil health, soil erosion, loss of important soil landscapes including prime and important farmland soils, watershed health, and related ecosystem services including their role in climate change mitigation, adaptation, and resiliency [and water erosion], the commissioner shall, by regulation, establish soil and water conservation districts and boards...

For information on soil health and proposed language go to the CT Council on Soil and Water Conservation website at:

[CSWC - Soil Health](#)

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Conservation

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