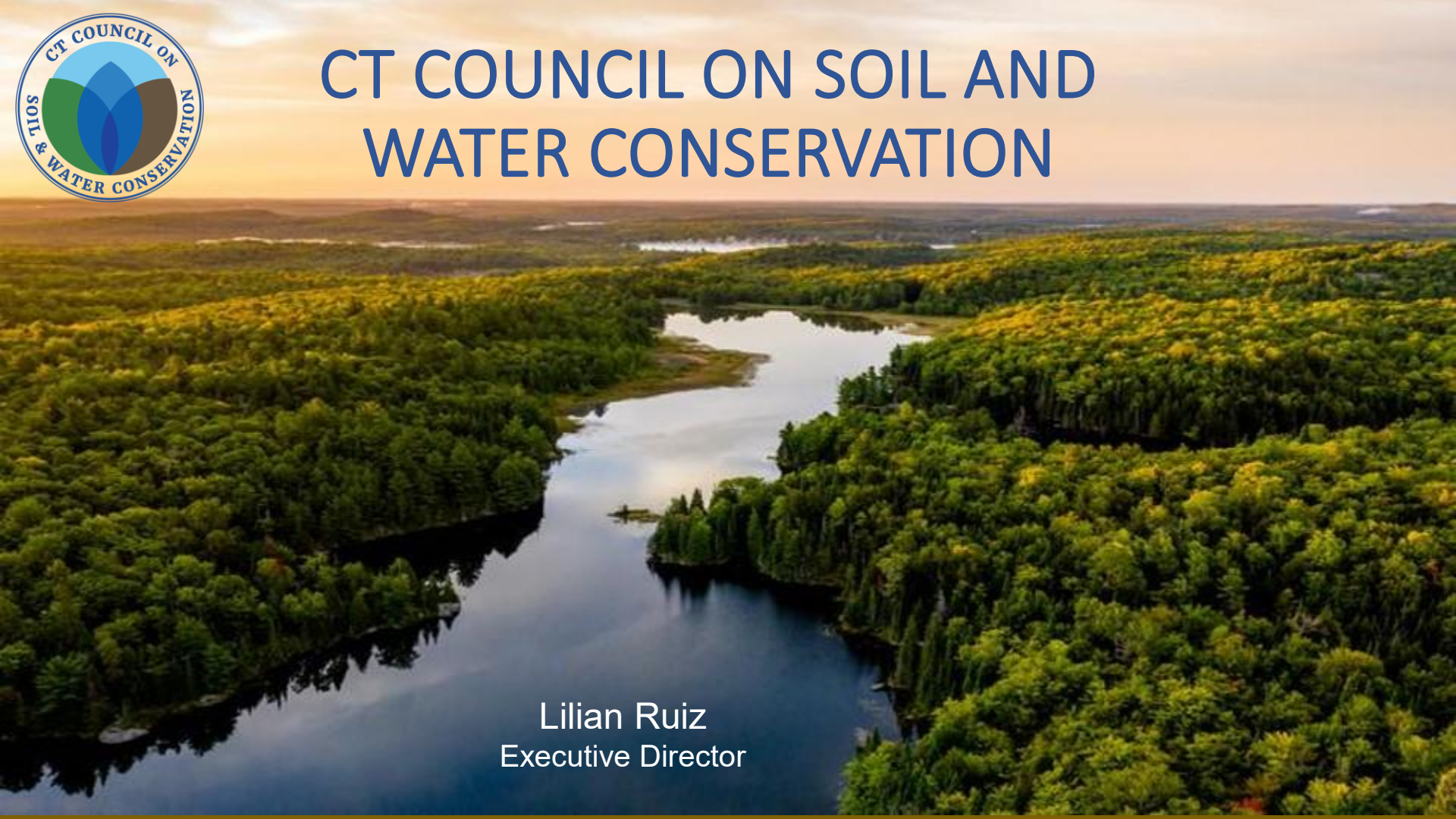
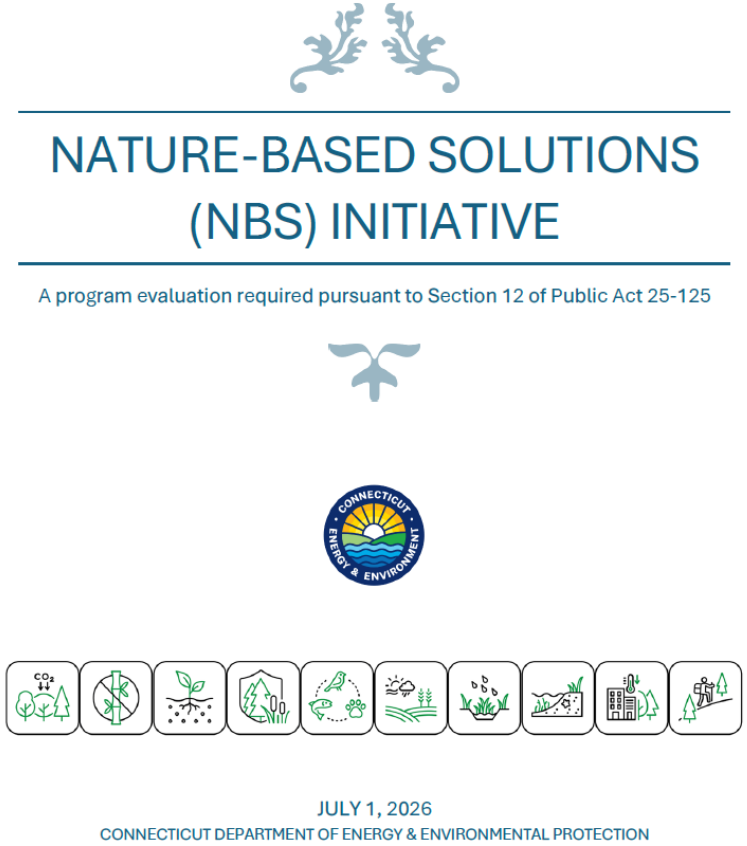
CT COUNCIL ON SOIL AND WATER CONSERVATION



Lilian Ruiz
Executive Director

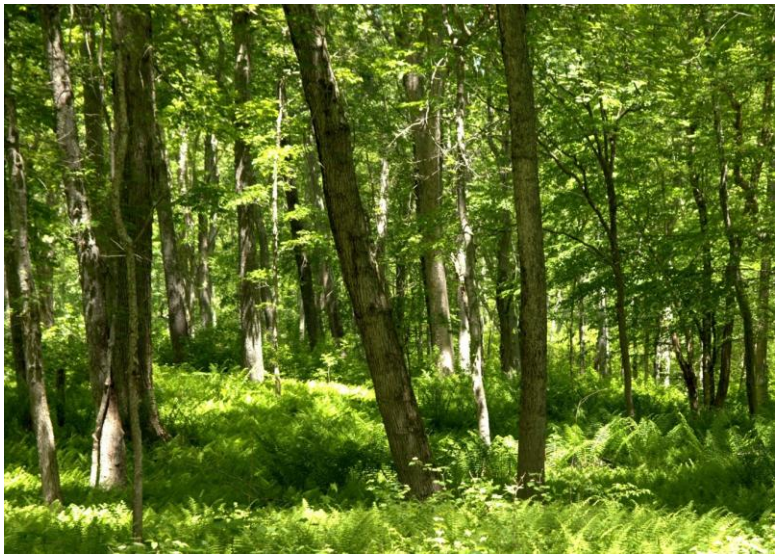


NATURE-BASED SOLUTIONS IN CONNECTICUT: FROM PROGRAM EVALUATION TO A STATEWIDE SOIL HEALTH ACTION PLAN



- In 2025, the CT General Assembly passed **Public Act 25-125** which identifies climate change, biodiversity loss, and ensuring community resilience as the primary challenges that NBS can help address. Section 12 of P.A. 25-125 required DEEP to produce a report on NBS that features DEEP's efforts to integrate and advance NBS programs, certain NBS practices, as well as highlight the efforts of 7 other state agencies. This report was finalized July 1, 2026.
- https://portal.ct.gov/deep/planning/nature-based-solutions
-

NBS: WHAT ARE NATURE-BASED SOLUTIONS, AND WHAT CLIMATE CHALLENGES DO THEY ADDRESS?



Nature-based solutions (NbS) are actions that **protect, restore, or manage ecosystems** to address challenges while benefiting both people and biodiversity.

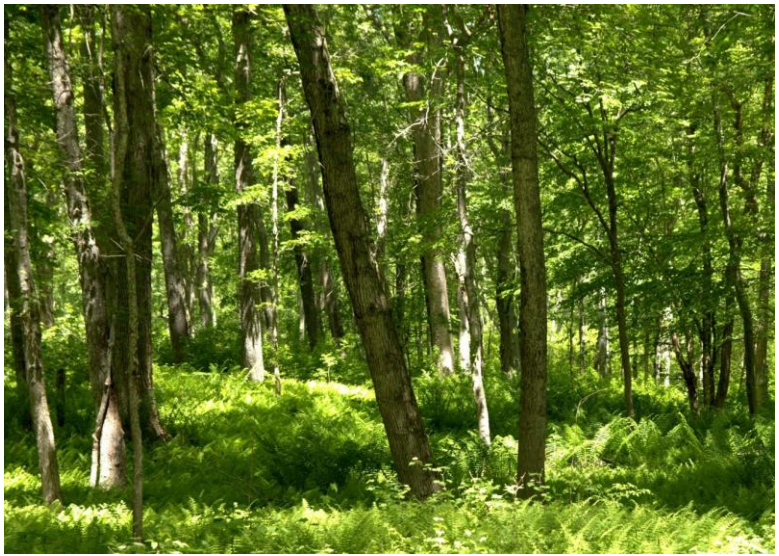
They help address climate challenges:

- **Naturally Sequester and Store Carbon**
- **Reduce Greenhouse Gas Emissions**
- **Increase Biodiversity**
- **Protect Against Climate Change Impacts**
- **Promote Resiliency**

Key message: Nature-based solutions use healthy ecosystems to help solve climate problems.

Healthy soils are the foundation that make these solutions work.

PROBLEMS THAT CAN BE SOLVED THROUGH NATURE-BASED SOLUTIONS



1. **Loss of forest acreage and the need for reforestation**
2. **Spread of invasive species**
3. **Declining soil health across working and natural landscapes**
4. **Conversion of forests and wetlands to other land uses**
5. **Habitat degradation and biodiversity loss**
6. **Need for climate-smart agriculture and soil conservation**
7. **Poor water quality and growing flood/drought risks**
8. **Air quality challenges and urban heat island effects**
9. **Limited open space access and related public health impacts**

Section 12 of P.A. 25-125- Page 13, 14

HOW ARE THESE CLIMATE CHALLENGES ADDRESSED THROUGH NBS?



Reducing greenhouse gases through carbon storage in soils, forests, wetlands, and other ecosystems.

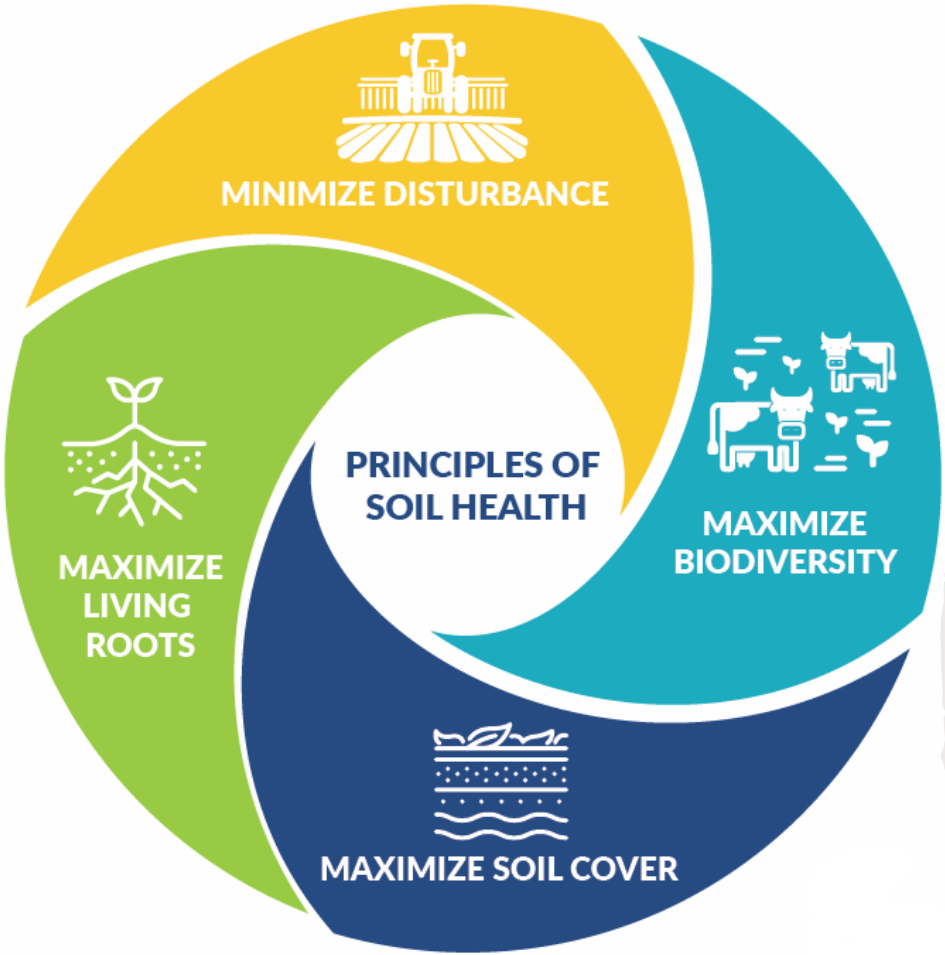
Reducing flood risk by slowing, storing, and filtering water.

Improving drought resilience by increasing water retention and recharge.

Cooling landscapes and communities by adding vegetation and moisture.

Reducing erosion and protecting habitat while supporting biodiversity.


Four key natural systems for protection and stewardship in the northeast:
Soils
Promoting soil health across all landscapes
Forests
Keeping Forests as Forests, forested riparian buffers
Wetlands
Protection/restoration both tidal and inland wetland
Water Resources
Streambank stabilization, fish passage, dam removal



F. Develop Statewide NBS Implementation Roadmap and Soil Health Plan

A significant number of public comments on the Draft NBS Initiative Program Evaluation identified two statewide action plans as top priorities –a **Statewide NBS Implementation Roadmap** and **a Soil Health Plan for Connecticut**. Both are resource-intensive and important efforts that would involve many partners and funding beyond existing resources to implement.



THE GROUNDWORK WAS ALREADY THERE



Included Soils as a priority for the Governor Council on Climate Change (GC3) in 2020- Agriculture/Soils Sub-Group.

Updated the SOIL CONSERVATION section (TITLE 22a) of the Connecticut General Statutes to include Soil Health: Public Act 1-88

Working on Section 12 of P.A. 25-125- AN ACT CONCERNING THE PROTECTION OF THE ENVIRONMENT AND THE DEVELOPMENT OF RENEWABLE ENERGY SOURCES AND ASSOCIATED JOB SECTORS.

CONNECTICUT SOIL HEALTH ACTION PLAN



- Regenerate and Conserve the health of CT soils
- All landscapes: Agricultural lands, Forests, Wetlands, Recreational and Developed Lands
- Dynamic plan to educate, guide and inform policy and advocacy
- Create a Soil Health **Program** for CT
  - Financial Assistance
  - Technical Assistance
  - Outreach and Education

What's next?

Advance a legislative effort in 2027 to secure funding to:

Finish the Soil Health Plan	Develop NBS Implementation Roadmap

KEY TAKEAWAYS



Nature-based solutions use healthy ecosystems to help solve climate problems.

- **Healthy soils are one of the foundations that make these solutions work.**
- **The practices that protect and improve soil health are nature-based solutions that create adaptation, resilience, and climate mitigation across all landscapes.**
- **CT Needs a Soil Health Plan to Guide and Inform a Soil Health Program that provides**
    - **Financial Assistance**
    - **Technical Assistance**
    - **Outreach and Education**

CT COUNCIL ON SOIL & WATER CONSERVATION

Questions?

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