

September 1, 2022



Climate, Farmland, and Agriculture

**CONNECTICUT GOVERNOR'S COUNCIL ON CLIMATE CHANGE
AGRICULTURE, SOILS, AND FORESTRY SUB-COMMITTEE**

Working Lands Alliance – A Project of American Farmland Trust

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Climate Change Impacts on U.S. Agriculture

- Increased **drought conditions** and variable **water supplies**
- Increased **heat** affecting crops, animals, and humans
- Increased **soil erosion** from heavy rain
- Increased **pest and weed** pressure in large part due to warmer winters
- Increased **sea level rise** will impact coastal farms



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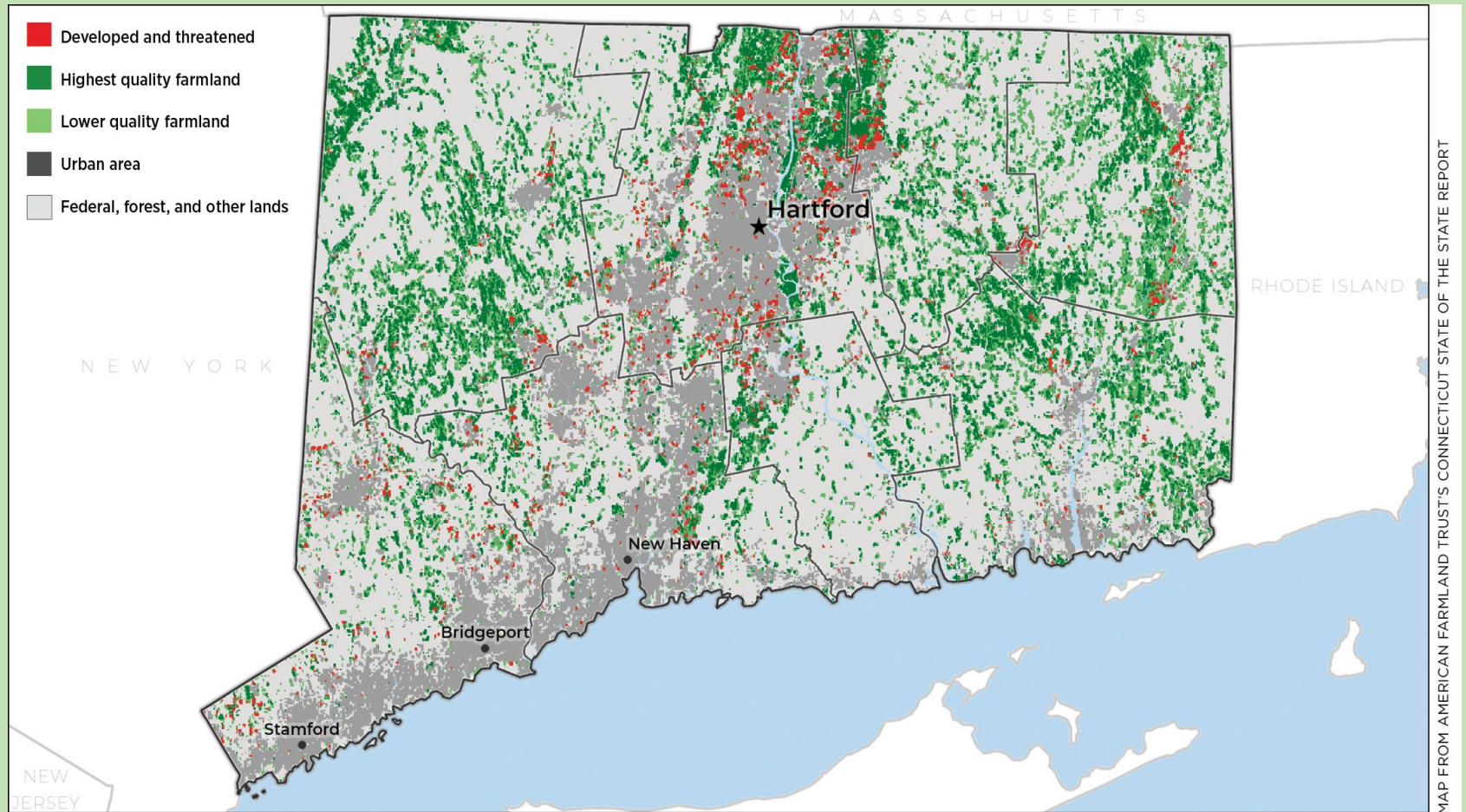
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The U.S. Continues to Lose Farmland

- Farmland Protection is an important step we can take to combat climate change
- Between 2001-2016, the United States lost or compromised 2,000 acres of farmland and ranchland every day
- On our current path, 18.4 million acres will be converted to urban and highly developed (UHD) and low-density residential (LDR) land use between 2016 and 2040
- If rural sprawl accelerates, the total could amount to 24.4 million acres
- But if policymakers and planners embrace more compact development, we could slash conversion by up to 55% and save up to 13.5 million acres



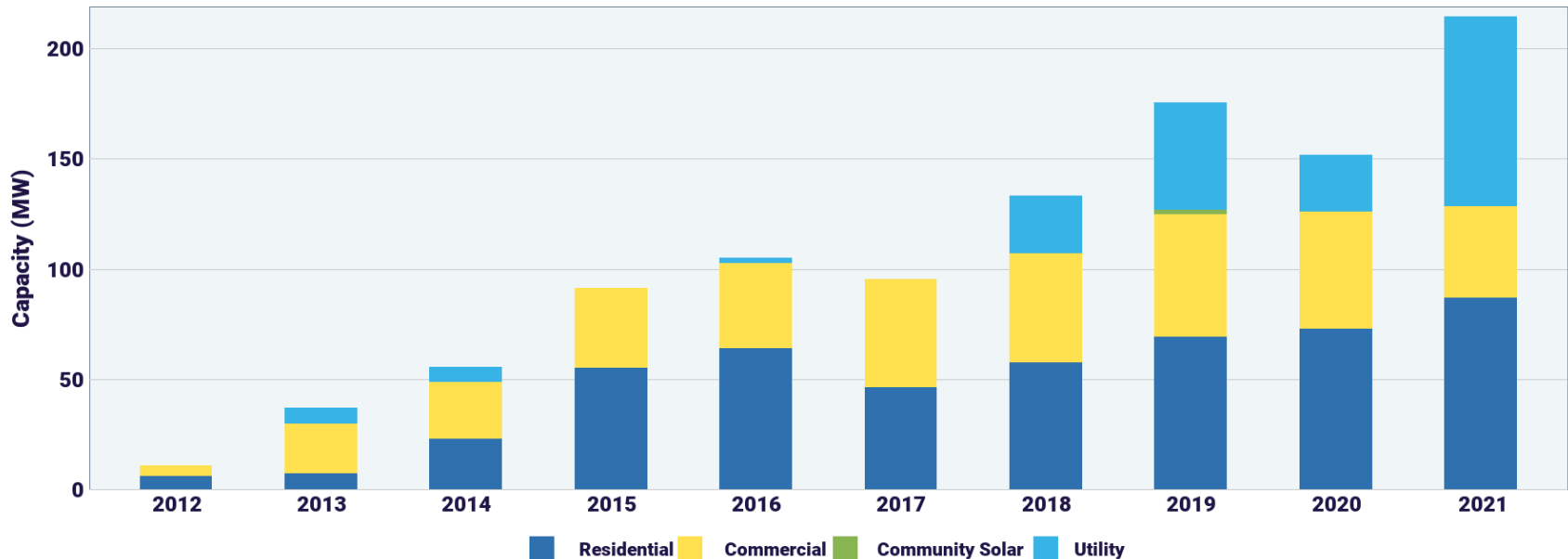
Connecticut Snapshot



Between 2001-2016, Connecticut lost roughly 23,000 acres of land to urban development or low-density residential land use

Competing Farmland Uses –Solar Development

Connecticut Annual Solar Installations

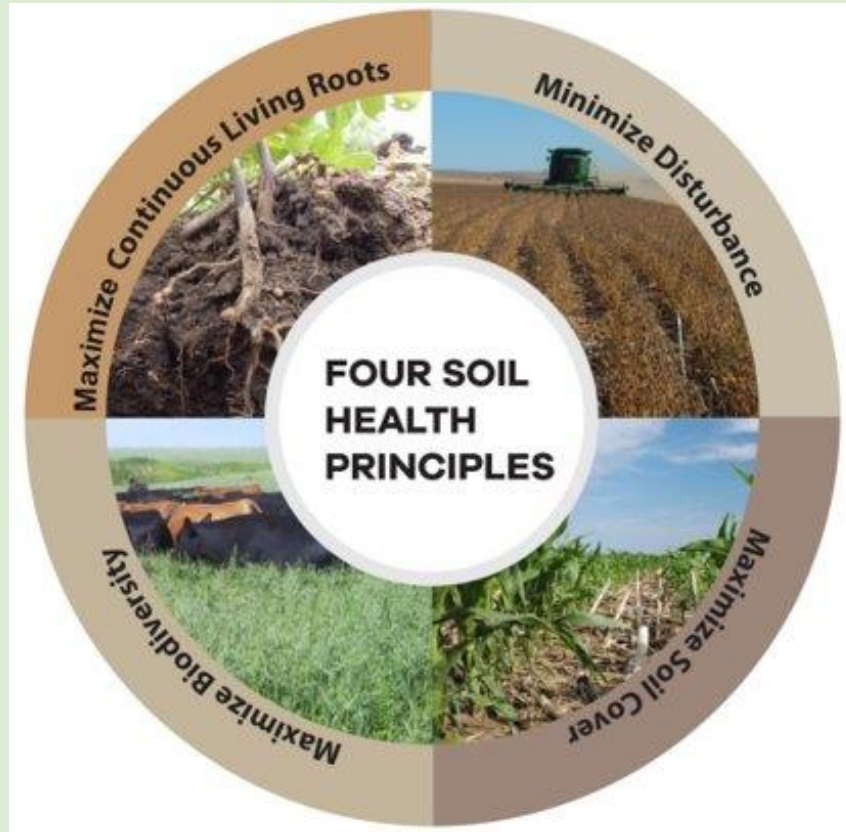


Connecticut's Annual Solar Installations

Practices that Support Healthy Soil

FEED

Perennial Vegetation
Crop Rotation
Cover Crops
Relay Crops



PROTECT

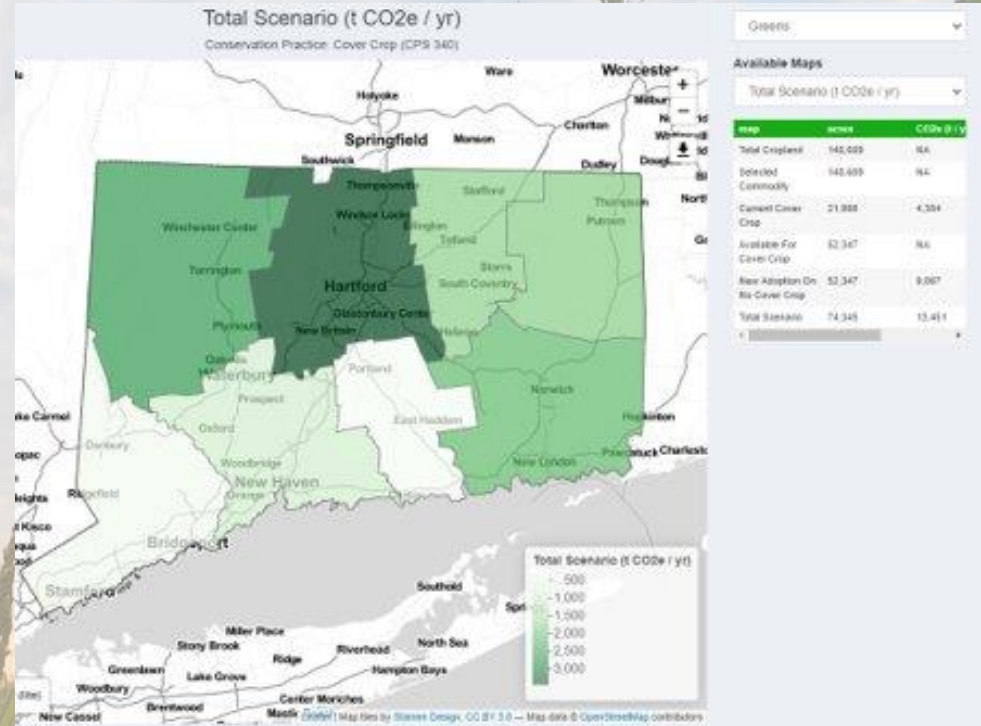
Rotational Grazing
Controlled Traffic
Reduced Tillage
No-till

Cover Crop
Crop Rotation
Rotational Grazing
Pollinator Planting
Perennial
Vegetation

No-till
Mulching
Cover Crop
Reduced Tillage
Residue Retention

Measuring GHG Mitigation in CT's Farmland

- The CaRPE Tool can be used to quantify and visualize county-level GHG emission reductions
- Current adoption of cover crops and conservation tillage in Connecticut is estimated to already be reducing agricultural GHG emissions by approximately 10,000 to 14,000 tonnes CO₂e yr
- 14 percent of CT's cropland has cover crops and nearly 2/3rd is using no-till or reduced till



Map showing potential to reduce CO₂e emissions by county

What is Climate-Smart Agriculture?

According to USDA-NRCS Climate-Smart Commodities are produced using agricultural (farming, ranching, or forestry) practices that reduce greenhouse gas emissions or sequester carbon.

In Fall 2021, USDA-NRCS released a list defining “Climate-Smart Agriculture and Forestry Practices” which include the following categories:

- Soil Health
- Nitrogen Management
- Livestock Partnership
- Grazing and Pasture
- Agroforest, Forestry, and Upland Wildlife Habitat
- Restoration of Disturbed Land

A full list of USDA-NRCS practices can be found here:

https://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=nrcseprd1905826&ext=pdf



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Climate-Smart Agriculture Legislation in CT

- **Fall 2019** - Governor Lamont signs Executive Order 3
- **February 2020** - GC3 Ag./Soils Working Group
- **Fall 2020** - DEEP releases Ag./Soils Working Group Report:
- **January 2021** - GC3 Released Phase 1 Report
- **May 2021** – CT passes HB 6496 – An Act Concerning Soil-Related Initiatives
- **December 2021** - Governor Lamont signs Executive Order 21-3
- **Fall 2022** – WLA convenes stakeholders to draft Climate-Smart Agriculture Legislation
- **February 2022** - S.B. 243 – An Act Concerning Climate-Smart Agricultural Practices is introduced
- **May 2022** – CT State Legislature passes House Bill 5506



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Climate-Smart Legislation in CT PASSED!

- Effective October 2022, the CT Farmland Restoration Program will be renamed the “Farmland Restoration and Climate Resiliency Program”
- Sec. 145. Section 22-6c of the general statutes were repealed to do the following:
- The Commissioner of Agriculture can pay up to 50 percent of the cost in advance or reimburse a farmer for part of the cost of compliance and/or develop, implement and comply with comprehensive farm nutrient management, farmland restoration, and climate resiliency plan or a farm resources management plan.
- **This section also allows for the purchase of Farm Equipment**

Equipment Sharing Program Aims to Ease Adoption of No-Till Farming

— Brendan Crowley, 8.15.2022



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Legislative Update Continued...

- **Sec. 145. Section 22-6c of the general statutes were repealed to do the following:**
 - The Commissioner of Agriculture may pay or reimburse any nonprofit organization, soil, and water conservation district, The University of Connecticut Extension Services, or any municipality to:
 - Provide technical assistance
 - Distribute grant funding to producers
 - Coordinate training programs
 - Coordinate projects that pilot or demonstrate conservation practices
 - Create tools that help reduce barriers to accessing assistance for conservation practices on farms
 - Establish equipment-sharing programs, or
 - Other activities that will increase the number of farmers who are implementing climate-smart agriculture and forestry practices.



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Legislative Update Continued.....

The definition of “agricultural restoration purposes” was updated to include:

- Climate-smart agriculture and forestry practices, including such practices in urban communities, soil health improvements
- Restoration and improvement of water runoff patterns,
- Improvement of water sources and irrigation efficiency, conducting hedgerow and woodlot management, including the removal of invasive plants and timber
- Purchasing farm equipment to improve soil health
- and "climate-smart agriculture and forestry practices" means practices developed or prescribed by the United States Department of Agriculture pursuant to said department's climate-smart agriculture and forestry strategy



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Funding for Climate-Smart Agriculture in FY 2023 State Budget

\$7 million in General Funds for “Climate-Smart Farming” – This funding can be used at the discretion of the CT Department of Agriculture

\$7 million in Bond funding for the Farmland Restoration and Climate Resiliency Grant Program – This funding needs final authorization by the State Bond Commission

\$14 Million Total for Climate Smart Ag



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Thank you.



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