

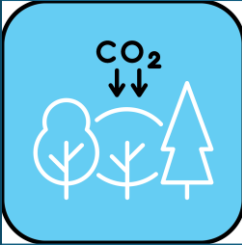
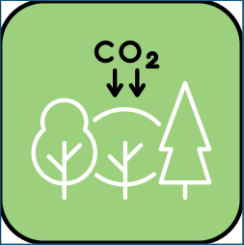
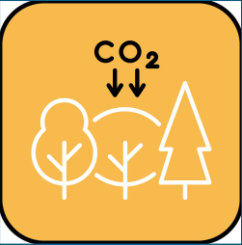
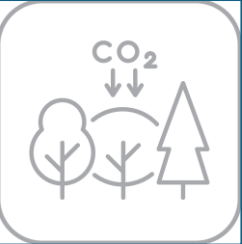
III. Evaluation of DEEP’s NBS Programs

As noted earlier, Section 12(a) of [P.A. 25-125](#) requires DEEP to evaluate how to integrate and advance nature-based solutions that address climate change, biodiversity loss, and restoring community resilience.

Section 12(a) specifically references 10 DEEP programs to be evaluated (these are shown with an asterisk * after the program name), and another 12 DEEP programs were added when the criteria for NBS were considered across all DEEP programs.

The evaluation of DEEP’s NBS programs focuses on the integration of the 10 NBS best practices listed in Section 12(b) of P.A. 25-125 and highlighted in [Chapter II](#). The integration of DEEP programs and best practices is shown in several ways in this Chapter:

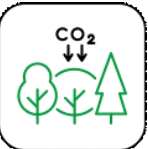





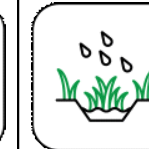

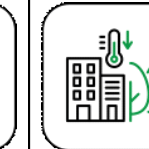
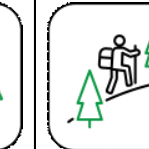
- A matrix of “DEEP NBS Programs” on the following page provides an overview of all 22 NBS programs showing the integration between programs and practices “at a glance.”
- A program description, funding source, and an analysis of which of the 10 best practices are integrated is included for each of the 22 programs.
- Color-coding shows the **Primary**, **Co-Benefit**, **Eligible**, or **N/A** relevance of an NBS practice to individual programs as follows:

			
<p>Primary Purpose BLUE means this NBS practice is a TOP PRIORITY for a Program</p>	<p>Co-Benefit GREEN means this NBS practice is a ADDITIONAL BENEFIT for a Program</p>	<p>Eligible ORANGE means this NBS practice is ELIGIBLE but <u>not</u> a top priority for a Program</p>	<p>Not Applicable GREY means the NBS practice is NOT APPLICABLE to a Program</p>

The NBS programs of the seven (7) agencies that DEEP consulted with pursuant to Section 12(c) of P.A. 25-125 are evaluated in [Chapter IV](#) in a similar way.

A “Key to Icons and Color-Coding” is included as [Appendix III](#). It may be useful to open [Appendix III](#) as a separate document for a side-by-side easy reference as you read through this report.

Following is the distribution of best practices across DEEP’s 22 programs (BP is used as the abbreviation for “best practice” and BP icons are numbered from left to right).

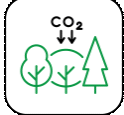









DEEP NBS Programs	Carbon sequestration	Control Invasives	Soil Health	Avoid Conversion	Restore Habitats	Climate-Smart Ag	Stormwater Management	Shoreline Protection	Urban Forestry	Open Space	Totals
											
Primary	0	3	0	5	9	0	6	4	6	9	42
Co-Benefit	11	5	8	5	6	3	6	3	4	4	55
Eligible	3	3	2	5	2	4	2	0	3	3	27
Totals	14	11	10	15	17	7	14	7	13	16	124

The number of DEEP NBS programs that rank best practices as **Primary** focus areas have the strongest association with restoring habitats, protecting open space, and stormwater management. At the same time, DEEP programs are under-represented in best practices supporting carbon sequestration, soil health, and climate-smart agriculture (not that this is a strength typically associated with DEEP’s mission). It’s important to note that urban forestry – one of the current primary top echelon focus areas of DEEP programs – will soon become an under-represented best practice focus area because three federally-funded urban forestry programs have been targeted for federal funding cuts or elimination.

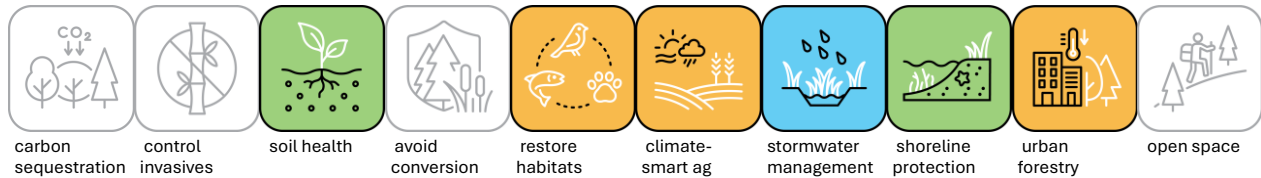
The number of DEEP NBS programs ranking best practices as a **Co-Benefit** have the strongest association with carbon sequestration, soil health, restoring habitats, and stormwater management. In contrast, DEEP programs are under-represented in supporting best practices associated with shoreline protection.

No specific conclusions are made about NBS programs based on which best practices may be **Eligible** for support, but the general distribution across programs is shown above.

DEEP’s 22 NBS programs are described individually with best practices identified for each throughout the rest of this chapter.

DEEP NBS Programs	<i>Carbon sequestration</i> 	<i>Control Invasives</i> 	<i>Soil Health</i> 	<i>Avoid Conversion</i> 	<i>Restore Habitats</i> 	<i>Climate-Smart Ag</i> 	<i>Stormwater Management</i> 	<i>Shoreline Protection</i> 	<i>Urban Forestry</i> 	<i>Open Space</i> 
Clean Water Act/Section 319 Grants	N/A	N/A	Co-benefit	N/A	Eligible	Eligible	Primary purpose	Co-benefit	Eligible	N/A
Clean Water Fund Grants	N/A	N/A	N/A	N/A	Co-benefit	N/A	Eligible	N/A	N/A	N/A
Coastal and Estuarine Land Conservation Program (CELCP)	N/A	N/A	N/A	Eligible	Co-benefit	N/A	N/A	N/A	N/A	N/A
DEEP Climate Resilience Fund (DCRF)	Co-benefit	N/A	Co-benefit	Co-benefit	Co-benefit	Co-benefit	Primary purpose	Primary purpose	Primary purpose	Co-benefit
DEEP Management of Public Lands	Co-benefit	Co-benefit	Eligible	Primary purpose	Primary purpose	Eligible	Eligible	Co-benefit	Eligible	Primary purpose
Dingell-Johnson Act/Sport Fish Restoration Programs	N/A	Eligible	N/A	Eligible	Primary purpose	N/A	N/A	Co-benefit	N/A	Primary purpose
Forest Landowner Assistance	Eligible	Primary purpose	Eligible	Eligible	Primary purpose	Eligible	N/A	N/A	N/A	N/A
Forest Legacy Program (FLP)	Co-benefit	N/A	N/A	Primary purpose	Co-benefit	N/A	N/A	N/A	N/A	Eligible
Highlands Conservation Act	Co-benefit	N/A	N/A	Primary purpose	N/A	N/A	Co-benefit	N/A	Co-benefit	Primary purpose
Land and Water Conservation Fund Programs	Co-benefit	Co-benefit	N/A	Co-benefit	Co-benefit	N/A	Co-benefit	N/A	Primary purpose	Primary purpose
LIS Ecosystems Grant Program	N/A	N/A	N/A	N/A	Primary purpose	N/A	Primary purpose	Primary purpose	N/A	N/A
Long Island Sound Partnership (LISP)	N/A	Co-benefit	Co-benefit	Eligible	Primary purpose	Eligible	Primary purpose	Primary purpose	Eligible	Co-benefit
Open Space and Watershed Land Acquisition Grants (OSWA)	Co-benefit	N/A	N/A	Primary purpose	N/A	N/A	Co-benefit	N/A	Co-benefit	Primary purpose
Pittman-Robertson Act Programs	Co-benefit	Eligible	Co-benefit	Eligible	Primary purpose	N/A	N/A	N/A	N/A	Eligible
Recreational and Natural Heritage Trust Program (RNHT)	Co-benefit	N/A	N/A	Primary purpose	N/A	N/A	Co-benefit	N/A	Co-benefit	Primary purpose
Recreational Trails Grant Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Primary purpose
Technical Service Provider Recruitment and Retention Program	Co-benefit	Co-benefit	Co-benefit	Co-benefit	Co-benefit	N/A	N/A	N/A	Co-benefit	N/A
Urban and Community Forestry Planning	Co-benefit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Primary purpose	Co-benefit
Urban Forest Equity Grant/Trees for Communities	Eligible	Eligible	Co-benefit	N/A	Eligible	N/A	Co-benefit	N/A	Primary purpose	Primary purpose
Urban Forested Natural Areas and Riparian Corridor Restoration Grant	Eligible	Primary purpose	Co-benefit	N/A	Primary purpose	N/A	Primary purpose	N/A	Primary purpose	Eligible
Urban Green & Community Garden (OSWA)	Co-benefit	Co-benefit	N/A	Co-benefit	Primary purpose	Co-benefit	Primary purpose	N/A	Primary purpose	Primary purpose
Wetland Habitat and Mosquito Management (WHAMM)	N/A	Primary purpose	Co-benefit	Co-benefit	Primary purpose	Co-benefit	Co-benefit	Primary purpose	N/A	Co-benefit

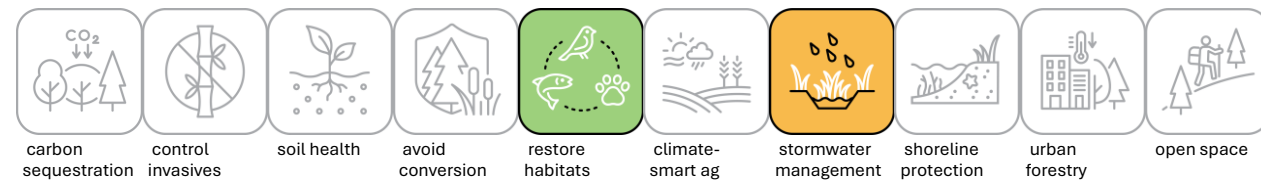
Clean Water Act/Section 319 Grants*



Funding source: Federal/EPA (60%) + State (40%)

Clean Water Act Section 319 grants from EPA to states, territories, and tribes support a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific nonpoint source pollution implementation projects.

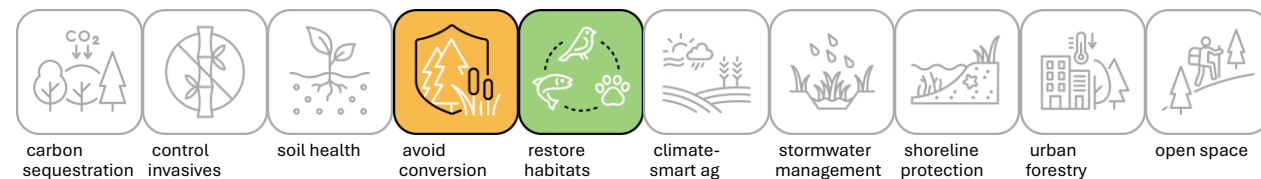
Clean Water Fund Grants*



Funding source: Federal/EPA + State/Bonding

Clean Water Fund grants and low-interest loans support investments, primarily by municipalities, in wastewater infrastructure including treatment plant upgrades, sewer overflow control, nutrient removal for Long Island Sound, and climate resilience projects, administered by DEEP. Funding comes from federal EPA grants and state bonds, supporting projects to improve water quality, public health, and infrastructure resilience, with a focus on combined sewer overflows (CSOs) and green infrastructure.

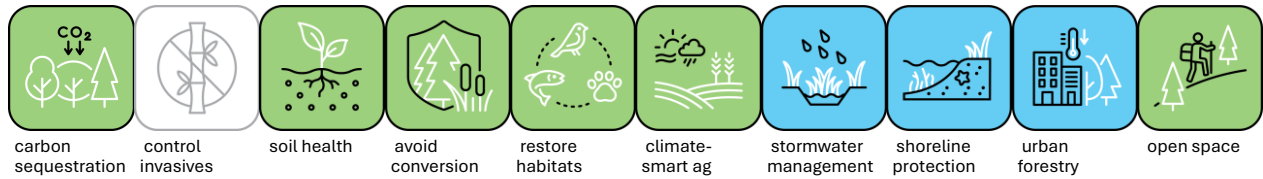
Coastal and Estuarine Land Conservation Program (CELCP)



Funding source: Federal/NOAA

The Coastal and Estuarine Land Conservation Program (CELCP) provides federal funds via NOAA to protect critical coastal lands through acquisition or easements, with state implementation managed by DEEP and support from the [Connecticut Land Conservation Council](#) (CLCC) for land trusts. Key funding opportunities for land trusts include the federal [CELCP](#), CLCC's own programs like LEAP and Transaction Assistance Grants (TAG), and DEEP's Open Space & Watershed Land Acquisition Grants, often using federal match funds.

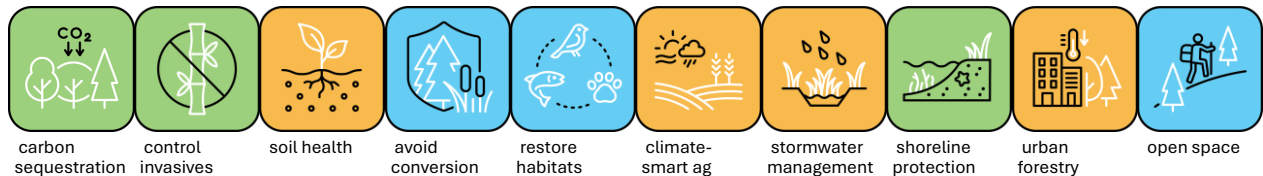
DEEP Climate Resilience Fund* (DCRF)



Funding source: State/Bonding

The DEEP Climate Resilience Fund (DCRF) is authorized pursuant to CGS Sec. 16-243y to support projects that protect communities and critical infrastructure from extreme weather. This opportunity is open to municipalities, non-profit organizations, and other entities, and includes new funding categories that will support a wide range of community and energy resilience projects from microgrids to flood mitigation projects. This program has made funding available for measures as diverse as flood control projects, climate-smart improvements to energy infrastructure and other community lifelines, wildfire prevention strategies, nature-based solutions for cooling urban centers, energy resilience measures, and other innovative resilience projects.

DEEP Management of Public Lands

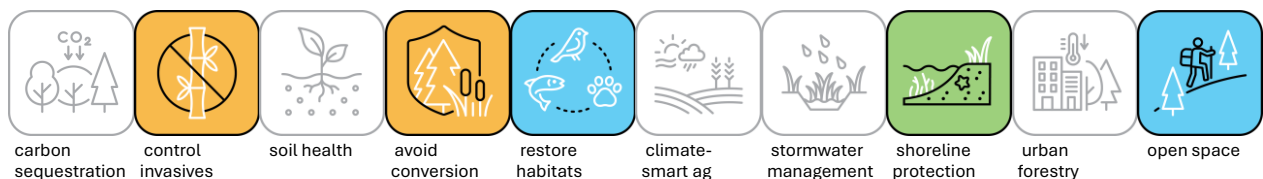


Funding source: State GF/Passport to the Parks Fund

Although the focus of this report is on the “funding programs” of DEEP and other state agencies, there are many significant efforts, such as DEEP’s long legacy of managing lands for the public, that may not neatly fit into that organizing principle but are just as tied to NBS.

Since the 1600’s, Connecticut state fish and game agencies have played a critical role in managing wildlife populations on behalf of the citizens. Today, the state supports carbon sequestration and storage, biodiversity, and ecosystem resilience, as well as clean drinking water, recreation, and many other public benefits across 262,000+ acres comprised of 142 state parks and forests, over 90 wildlife management areas cover, and other public lands managed in ways that are integrally linked with nature-based solutions.

Dingell-Johnson Act/Sport Fish Restoration Programs

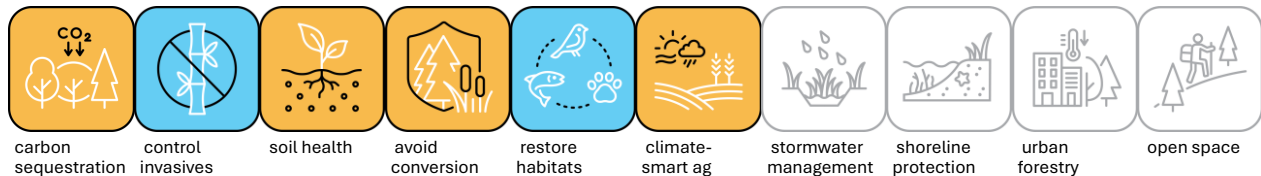


Funding source: Federal (U.S. Fish & Wildlife Service)

Since 1950, the Sport Fish Restoration Act (Dingell-Johnson Act) has provided funds for states to conserve and restore sport fish species and habitats. These funds also support programs that connect people with nature through outdoor recreation and aquatic resource education programs.

Revenue comes from manufacturers' excise taxes on sport fishing equipment, import duties on fishing tackle and pleasure boats, and a small engine and motorboat fuel tax.

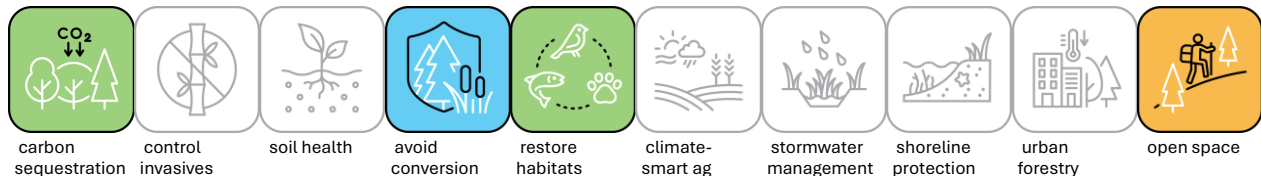
Forest Landowner Assistance



Funding source: Federal (USDA Natural Resources Conservation Service)

Of Connecticut's ~1.8 million forested acres, approximately 73% are privately owned by individuals, families, land trusts, tribal owners, clubs, and corporate owners. The Forest Landowner Assistance program is a partnership effort between DEEP Forestry, the Connecticut Soil and Water Conservation Districts, Connecticut Land Conservation Council, & the Connecticut Forest & Park Association to assist and equip private forest landowners with resources necessary for them to take a more active role in understanding their forests with an eye to being better forest managers and land stewards. Better forest stewardship means that more communities benefit from healthy forests as they enhance our quality of life with ecosystem services such as clean air and water, wildlife habitat, biodiversity, climate benefits, foraging and game harvesting opportunities, recreational opportunities, and renewable forest products.

Forest Legacy Program (FLP)

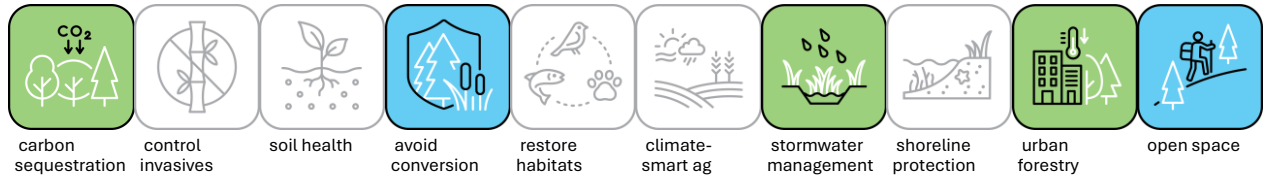


Funding source: Federal (USDA Forest Service)

DEEP partners with the US Forest Service to implement the Connecticut Forest Legacy Program (FLP). The FLP helps to identify and conserve environmentally important forests. The program protects working forests, those forests that protect water quality and provide habitat, forest products, opportunities for recreation and other public benefits.

The program encourages and supports acquisition of conservation easements. Conservation easements are legally binding agreements transferring a negotiated set of property rights from one party to another, without transferring property ownership. Most FLP conservation easements restrict development, require sustainable forestry practices, and protect various environmental values. There are also limited instances under the program where properties are purchased outright for their conservation values. In both instances, the federal government may fund up to 75% of program costs, with at least 25% coming from private, state or local sources.

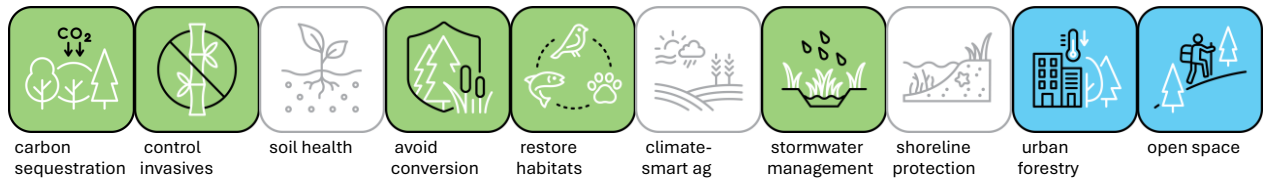
Highlands Conservation Act



Funding source: Federal (U.S. Fish & Wildlife Service) matching grants

The Highlands Conservation Act authorizes the U.S. Fish and Wildlife Service to provide grant funding from the Land and Water Conservation Fund (LWCF) to state agencies in the Highlands Region (CT, NJ, NY, and PA) to acquire land in partnership with municipalities, non-profits, and private landowners with a focus on protecting lands critical for drinking water, recreational, and cultural resources.

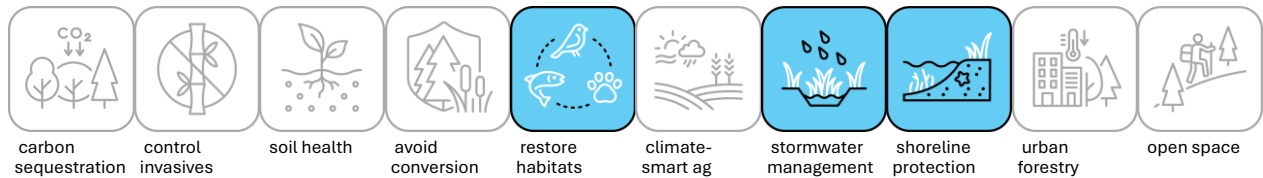
Land and Water Conservation Fund Programs (LWCF)



Funding source: Federal (National Park Service)

The Land and Water Conservation Fund (LWCF) is a federal grant program administered by the Department of Interior, National Park Service. The goal of LWCF is to increase quality opportunities for outdoor recreation. It consists of a Federal Side and a State Side. The State Side program provides funding to the State of Connecticut, through DEEP, for recreational planning, acquisition of lands and waters, and facility development.

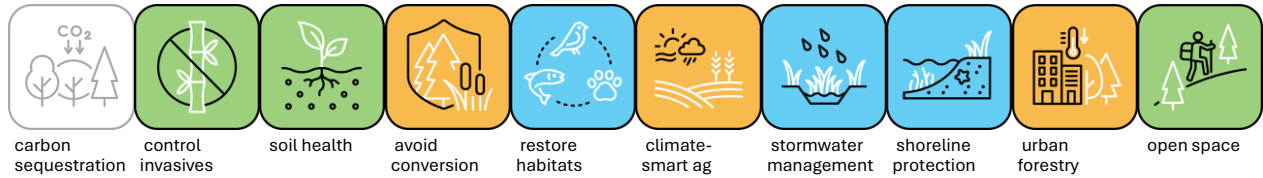
Long Island Sound Ecosystems Grant Program*



Funding source: Federal (EPA), Bipartisan Infrastructure Law

The Long Island Sound (LIS) Ecosystems Grant Program supports the planning and implementation of projects focused on coastal habitat restoration and green stormwater infrastructure across the state. There are two primary goals of the program: 1) to promote large-scale habitat restoration and enhance restoration planning, while also helping coastal communities and ecosystems adapt to changing environmental conditions; and 2) to further promote the application of green stormwater infrastructure techniques to reduce nonpoint source pollution, improving water resource quality. This program is supported by the EPA through the Bipartisan Infrastructure Law and is anticipated to have a maximum of two solicitations.

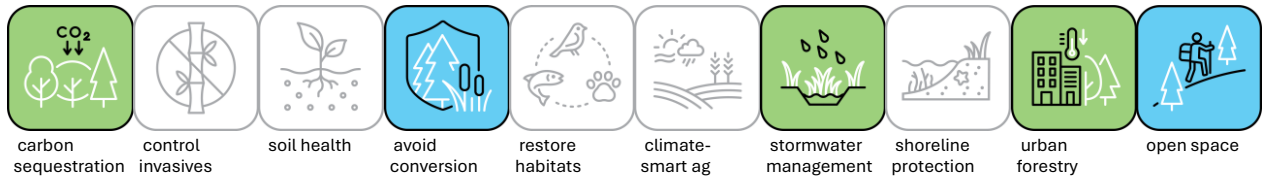
Long Island Sound Partnership*



Funding source: Federal (EPA) through Bipartisan Infrastructure Law

The Long Island Sound Partnership (LISP) was established under Sections 320 and 119 of the Clean Water Act to authorize support for joint efforts between EPA’s National Estuary Program, the states of CT and NY, and a number of nonprofit, educational institution, and other partners dedicated to the implementation of the LIS Comprehensive Conservation and Management Plan (last revised in 2025). The CCMP provides the blueprint for collaboration with goals, objectives, actions, and funding strategy identifying short- and longer-term resource needs for the next 10 years.

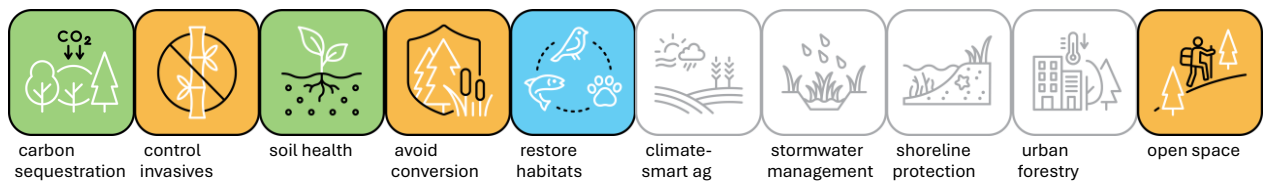
Open Space and Watershed Land Acquisition Grants* (OSWA)



Funding source: State/Bonding and Community Investment Act

The Open Space and Watershed Land Acquisition (OSWA) grant program (CGS Sec. 7-131d to 7-131k, inclusive) provides financial assistance to municipalities and nonprofit land conservation organizations to acquire land for open space, and to water companies to acquire land to be classified as Class I or Class II water supply property. Awards are granted to projects that offer the highest conservation and recreational value.

Pittman-Robertson Act and Programs



Funding source: Federal (U.S. Fish & Wildlife Service)

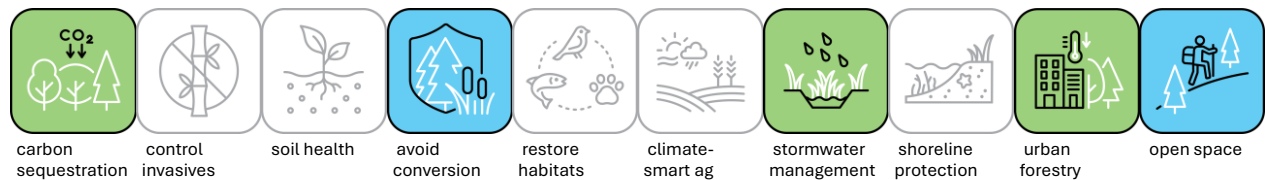
The Pittman-Robertson Wildlife Restoration Act (Pittman-Robertson) provides funding through the U.S. Fish and Wildlife Service for states to support wildlife restoration, conservation, and hunter education and safety programs. Funding for Pittman-Robertson programs comes from federal excise taxes on firearms, ammunition, and archery equipment. Funding is apportioned through three formula-based programs: the Wildlife Restoration Program (Section 4(b)), Basic Hunter Education and Safety Program (Sections 4(c) and 8(b)), and Enhanced Hunter Education and Safety Program (Section 10). FWS also allocates funding for a Multistate Conservation Grant Program (Section 11) and for general program administration (Section 4(a)). To be eligible for Pittman-

Robertson funding, the law requires states to have laws ensuring all hunting license fees are directed solely toward the administration of the state wildlife agency (16 U.S.C. §669).

The Wildlife Restoration Program provides funds to state fish and wildlife agencies to restore, conserve, manage, and enhance wild birds and mammals and their habitats. States must submit to FWS proposed wildlife-restoration projects or comprehensive fish and wildlife resource management plans to receive funds under this program. Among other purposes, the funds may be used to provide public access to wildlife resources; to acquire, restore, and manage wildlife areas; to conduct research on managing wildlife and its habitat; to facilitate public access for hunting or other wildlife-oriented recreation; and to maintain completed wildlife-restoration projects. Federal funds may be used for up to 75% of costs of implementing projects.

The Multistate Conservation Grant Program, amongst other priorities, authorizes grants for multistate conservation projects available to (1) states; (2) groups of states; or (3) nongovernment organizations (subject to certain conditions).

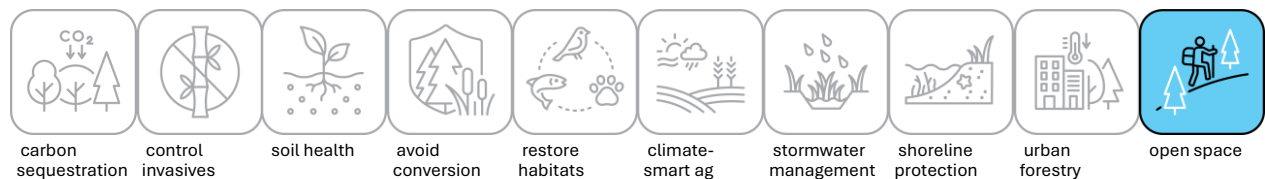
Recreational and Natural Heritage Trust Program (RNHTP)



Funding source: State/Bonding

The Recreation and Natural Heritage Trust Program (RNHTP) was established by the General Assembly in 1986 to help protect and preserve Connecticut’s natural heritage. It is the Department’s primary program for acquiring lands and waters to be added to the State’s system of public Parks, Forests, Wildlife Management, recreational water access, and other natural open spaces. Through the RNHTP, the Department handles the acquisition of land of statewide significance which represents the ecological and cultural diversity of Connecticut, with a focus on unique features such as rivers, mountains, rare natural communities, scenic qualities, historic significance, connections to other protected land, and access to water.

Recreational Trails Grant Program



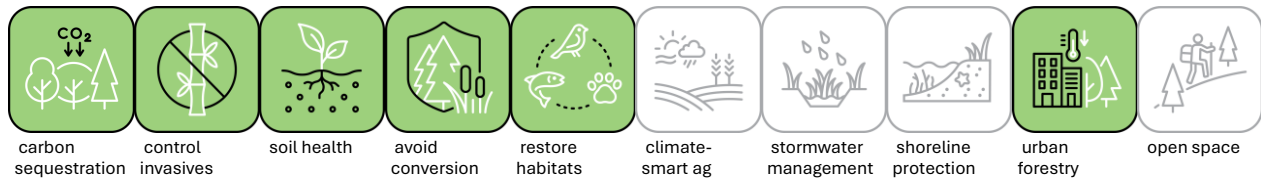
Funding source: State/Bonding

The CT Recreational Trails Grant program was established (CGS Section 23-103) to provide funding to private nonprofit organizations, municipalities, state agencies and tribal governments in support of trail projects including:

- Planning, design and construction of new trails (motorized and non-motorized).
- Maintenance and restoration of existing trails (motorized and non-motorized).

- Access to trails by persons with disabilities.
- Purchase and lease of trail construction and maintenance equipment.
- Acquisition of land or easements for a trail, or for trail corridors.
- Operation of educational programs to promote safety and environmental protection as related to recreational trails.

Technical Service Provider Recruitment and Retention Program

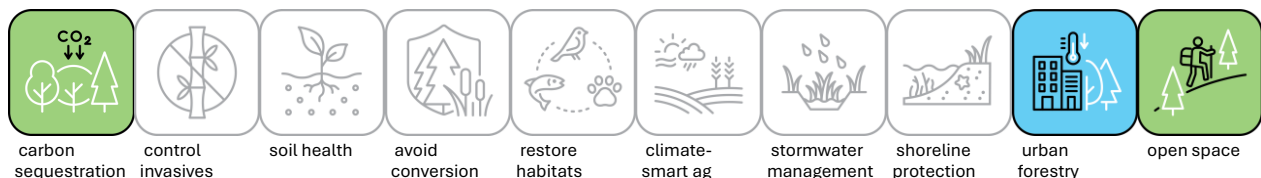


Funding source: Federal/USDA Natural Resources Conservation Service

The Technical Service Provider (TSP) Recruitment and Retention Program is a partnership between the CT NRCS, Connecticut Council on Soil and Water Conservation (CT CSWC), and the DEEP Forestry Division to pay foresters for their time to become a TSP or retain their status as a TSP. This professional development opportunity is open to certified Foresters who are licensed to practice Forestry in Connecticut. TSPs work with a woodland owner to offer planning assistance in the development of a Forest Management Plan to NRCS specifications and can also offer design and implementation services to the woodland owner. Most of the non-income producing forest management conducted on private lands in Connecticut is cost shared through NRCS' Environmental Quality Incentives Program (EQIP) and Conservation Stewardship Program (CSP), both of which require a current forest management plan. To receive NRCS cost share financial assistance for the development of a forest management plan in Connecticut, a private woodland owner must hire and work with a TSP.

This partnership helps meet the increasing need for TSPs to support cost-shared planning and forest practice implementation statewide.

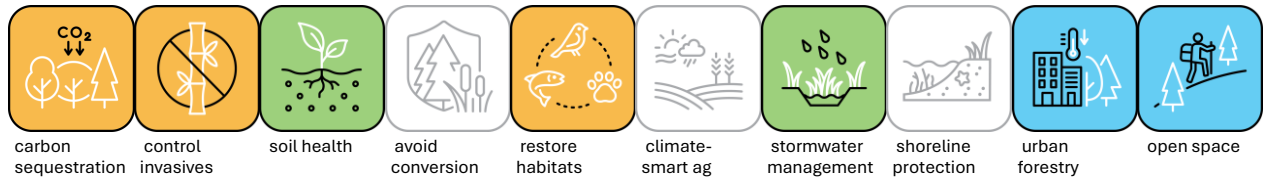
Urban and Community Forestry Planning*



Funding source: Federal/USDA Forest Service (may not be offered in future years)

The Urban and Community Forestry Planning Grant Program offers funding for municipalities and non-profit organizations to pursue planning projects such as tree inventories, management plans, or other monitoring programs that will help communities to make informed management decisions about their urban and community forests.

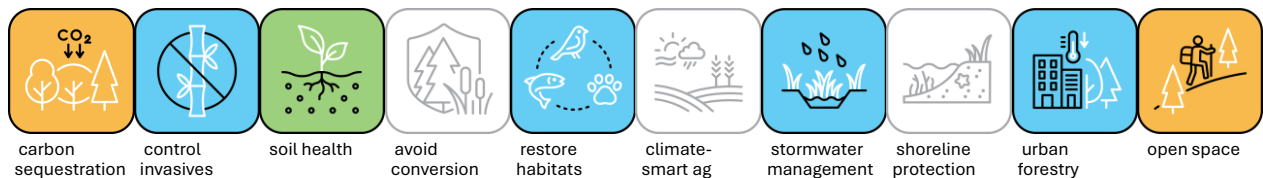
Urban Forest Equity Grant/Trees for Communities*



Funding source: Federal/IRA/USDA Forest Service (one-time funding may not be offered in future years)

Through the Inflation Reduction Act, funding was available to municipalities, nonprofits, and other eligible organizations to increase access to trees and the benefits they provide in low-tree canopy communities throughout Connecticut. This grant program provided financial support for projects that would increase tree cover or contribute to other urban forestry objectives such as improvement of forest health or utilization of urban wood. Projects were required to be rooted in community support and demonstrate efforts to meaningfully incorporate community needs into project design.

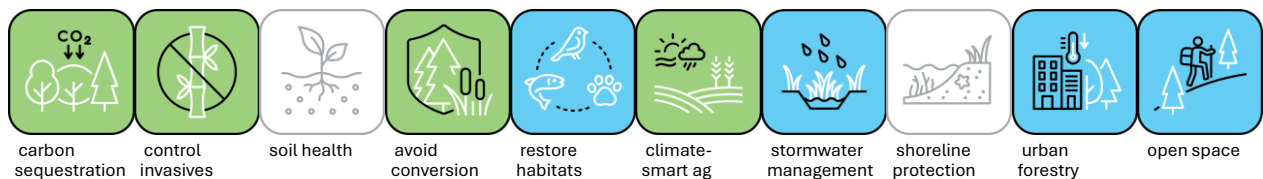
Urban Forested Natural Areas and Riparian Corridor Restoration Grant*



Funding source: Federal/BIL/IRA/USDA Forest Service (one-time funding, may not be offered in future years)

The Urban Forested Natural Areas and Riparian Corridor Restoration Grant was available to nonprofits and municipalities to support local land managers in their efforts to address forest health issues by providing funding for management interventions to promote the health and resilience of urban natural forested areas and riparian corridors. Such projects included, but were not limited to, chemical or mechanical removal of invasive plant species, vine removal, tree planting, and other site treatments intended to slow the spread of invasive plants and promote regeneration of native tree species.

Urban Green & Community Garden Grants* (OSWA/UGCG)

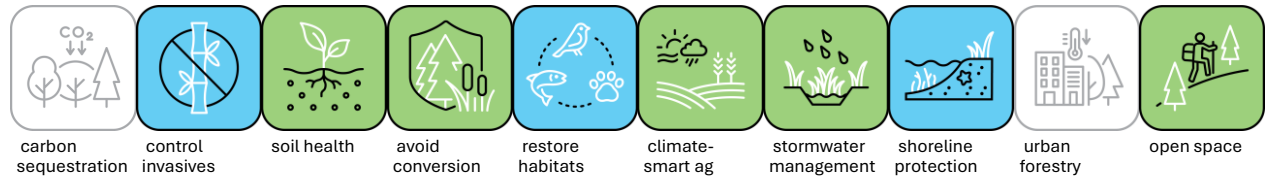


Funding source: State/Bonding and Community Investment Act

DEEP's Urban Green and Community Gardens Grant Program (UGCG) is available to municipalities and non-profits with projects in distressed municipalities, targeted investment communities and environmental justice communities. The program (CGS Sec. 7-131d – 7-131k, inclusive) provides funding assistance to develop or enhance urban green spaces for public enjoyment and/or

environmental education. Promotion of open space in an urban setting may include, but may not be limited to, the development of a community garden or reclaiming and enhancing existing open space for the public's use. Grants are awarded to projects that demonstrate the highest ability to benefit neighborhoods near urban population centers.

Wetland Habitat and Mosquito Management (WHAMM)



Funding source: State

The Wetland Habitat and Mosquito Management (WHAMM) Program of the DEEP Wildlife Division uses an integrated approach to manage mosquitoes that includes larval (immature) and adult mosquito population monitoring, public education, and cultural, biological, and chemical control methods. The management of mosquitoes in Connecticut is a collaborative effort involving DEEP, the Connecticut Agricultural Experiment Station (CAES), and the Department of Public Health (DPH), with support from the Department of Agriculture and UCONN's Department of Pathobiology and Veterinary Science.

Where environmentally feasible, the Wetland Habitat and Mosquito Management (WHAMM) Program uses water management for source reduction and biological control of mosquitoes by making the sites 1) unsuitable for mosquito egg and larval development and 2) enhancing the area to provide open water habitat for natural mosquito predators, such as fish and birds. Water management provides more permanent control of mosquitoes than insecticides, resulting in a substantial reduction in insecticide applications and costs.

In tidal saltmarshes, a technique known as Open Marsh Water Management (OMWM) is the preferred method for controlling mosquitoes and enhancing or restoring wetland habitat. Unlike the parallel grid-ditch method used in the 1930s, which had adverse effects on tidal wetland hydrology and habitat, OMWM involves the selective excavation of shallow pools and ditches in mosquito-breeding areas. These pool and ditch networks are not connected directly to tidal channels and, therefore, do not drain at low tide. A higher water level is maintained in the pools, which provides habitat for fish and other wildlife and encourages revegetation of the surrounding marsh by native grasses. Mosquito management is achieved by modifying egg-laying sites and creating open water habitat for small, naturally abundant killifish, which prey on mosquito larvae and pupae. OMWM systems provide long-term control of mosquitoes, thus reducing the need to apply insecticides. If insecticides are required, DEEP employs integrated pest management strategies.