# **Comprehensive Open Space Acquisition Strategy**

2016-2020 Green Plan

Section III. Status of Connecticut Open Space

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#### **III. Status of Connecticut Open Space**

#### A. Overall Open Space Goal

To have 21 percent of Connecticut's land conserved as open space requires 673,210 acres to be held by the State, municipalities, non-profit land conservation organizations, and water companies. As of December 2015, the State (DEEP) held approximately 257,616 acres as open space in its system of Park, Forest, and Wildlife Management Areas. Based on a target of 320,576 acres in total open space holdings, the State held about 80.4 percent of its open space goal.

Of this area, approximately 237,080 acres have been acquired in fee simple ownership. Acquisitions of less-than-fee interests include the purchase of conservation easements and restrictions. The Kelda and Childs water company properties are special acquisitions purchased in 2002 and 2003 and together account for 15,210 acres in conservation easements and restrictions held by DEEP.

As of late 2015, open space acreage held by the State's land conservation partners (municipalities, non-profit land conservation organizations, and water companies) was estimated at a total 243,714 acres. Based on a target of 352,634 acres in total open space holdings for these entities, they held 69.1 percent of their targeted open space goal.

DEEP's estimation of total acres owned by its partners is conservative since they typically do not relay to the Department every time they close on an acquisition. Therefore, DEEP's partners may be closer to their goal than the Department is aware. The open space data collection recommendations in this plan should bring DEEP to a more accurate estimation of lands owned by its partners.

DEEP and its partners held 501,330 acres held as open space at the end of 2015, or 15.4 percent of Connecticut's land area. To meet the overall statutory open space goal, DEEP must acquire an additional 62,960 acres and encourage the acquisition of 108,920 acres by municipalities, non-profit land conservation organizations, and water companies (Figure 1).

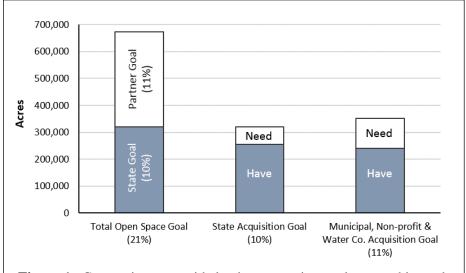
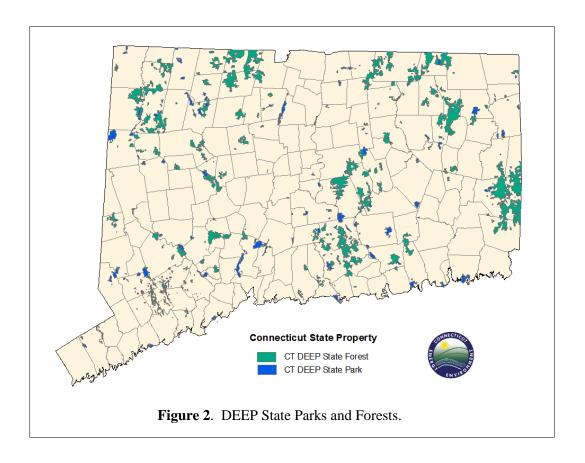


Figure 1. Connecticut statewide land conservation goal, ownership, and acres needed to reach goal as of 2015.

#### **B.** State-held Open Spaces

#### I. Parks & Forests

Beginning with Meshomasic State Forest in 1903 and Sherwood Island State Park in 1914, the State of Connecticut has been acquiring land for <u>public parks and forests</u> for more than a century. As of late 2013, the State Park system includes 107 locations covering over 36,000 acres. In addition, DEEP manages 32 State Forests covering 170,000 acres, many of which are large holdings of more than 10,000 acres (Figure 2).



State Forests help to protect environmental quality and are generally used for sustainable forestry practices and complement State Park outdoor activities such as hiking, cross-country skiing, horseback riding, wildlife viewing, hunting and fishing, and in some cases, swimming,

picnicking, and camping. Accessible parking and picnic tables for individuals with disabilities are available at all State Park and Forest recreation areas. Many Parks and Forests provide additional features such as accessible restrooms, camping, and fishing platforms.

Between 2007 and 2015, 19 acquisitions totaling about 665 acres were added to the State Park system, funded with \$11,740,000 from the State's Recreation and Natural Heritage Trust Program (RNHTP) and \$2,845,284 from private and federal cost sharing partners (Table 1). During the same period, 46 acquisitions totaling 2,730 acres were added to the State Forest system with \$11,521,593 in funding from the RNHTP and \$2,613,736 from private and federal partners (Table 2).

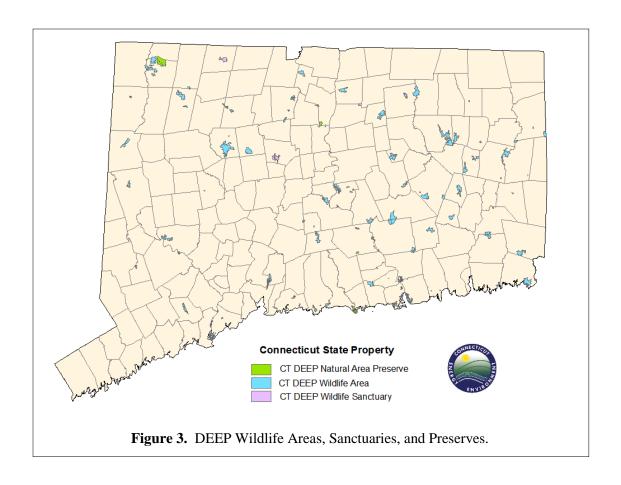
Table 1. DEEP acquisitions added to the State Park system: 2007-2015.				
State Park	Fee Acres	State Cost	Cooperator Share	Cost per Acre
Liebman Property	178.10	\$915,000	NA	\$5,138
Machimoodus	176.70	\$3,200,000	\$1,441,879	\$26,270
Collis B. Huntington	132.48	\$4,000,000	NA	\$30,193
Auerfarm	40.00	\$0	\$750,000	\$18,750
Southford Falls	39.98	\$400,000	\$100,000	\$12,506
West Rock Ridge	37.73	\$225,000	\$170,000	\$10,469
Gillette Castle	19.95	\$0	202,620	10,156
Diana's Pool Water Access	18.24	\$0	\$46,000	\$2,522
Pennwood	4.77	\$575,000	NA	\$120,596
Rocky Neck	4.60	\$200,000	NA	\$43,478
Sleeping Giant	4.04	\$0	\$134,785	\$33,363
Bantam Lake Water Access	2.82	\$1,990,000	NA	\$705,674
Pomeroy	2.30	\$35,000	NA	\$15,217
Humaston Brook	2.23	\$200,000	NA	\$89,686
Sunrise Resort	0.92	\$0	NA	\$0
Totals	664.86	\$11,740,000	\$2,845,284	\$ <b>21,937</b>

Table 2. DEEP acquisitions added to the State Forest system: 2007-2015.				
			Cooperator	Cost
State Forest	Acres	State Cost	Share	per Acre
Salmon River	534.69	\$1,845,591	\$684,408	\$4,732
Pachaug	521.23	\$618,622	\$1,107,328	\$3,311
Meshomasic	411.78	\$1,520,165	NA	\$3,692
Housatonic	373.66	\$3,595,000	\$100,000	\$9,889
Shenipsit	302.19	\$881,215	\$65,000	\$3,131
Natchaug	171.30	\$991,000	NA	\$5,785
American Legion	144.50	\$600,000	NA	\$4,152
Cockaponset	76.69	\$0	\$107,000	\$1,395
Tunxis	74.58	\$320,000	NA	\$4,291
Nehantic	40.00	\$120,000	NA	\$3,000
Nathan Hale	38.43	\$230,000	\$214,000	\$11,553
Naugatuck	26.96	\$800,000	NA	\$29,674
Wyantanuck	13.00	\$0	\$100,000	\$7,692
Massacoe	1.74	\$0	\$236,000	\$135,632
Totals	2,730.74	\$11,521,593	\$2,613,736	\$5,176

## II. Wildlife Management and other Natural Heritage Areas

Connecticut's natural heritage is preserved and managed across over 33,000 acres of State Wildlife Management Areas, Sanctuaries, and Natural Area Preserves (Figure 3). There are over 75 of these natural heritage conservation areas statewide, plus one Coastal Preserve at Bluff Point in the town of Clinton.

DEEP manages over 50 Wildlife Management Areas (WMA) for the conservation and sustainability of wildlife populations, to conduct scientific research, to provide educational programs, in some cases to practice sustainable timber harvesting, and to provide passive recreational activities such as hunting, fishing, and wildlife viewing.



For example, the 282-acre Belding WMA in Vernon contains a diverse mosaic of wildlife habitats including soft and hardwood forests, open meadow, wetlands, streams, and a pond. Fed by cold springs, the Tankerhoosen River runs through the property and hemlocks lining the river keep the water cold enough to sustain significant wild trout populations. The section of the Tankerhoosen River that flows through Belding WMA was designated a Class 1 Wild Trout Management Area in 1993, the first of its kind in Connecticut.

In 2011, the State purchased from the Mason family an additional 450 acres adjacent to the Belding WMA for \$2,965,000, funded entirely by the Recreation and Natural Heritage Trust Program. Known as the Tankerhoosen WMA, this acquisition ensures the protection of much of the watershed and the entire riparian zone for over 2.5 miles of the Tankerhoosen River. The

property serves many purposes, including unique habitat for many wildlife species, a living classroom for students, and opportunities for passive outdoor recreation.

Wildlife Sanctuaries are areas where wildlife is protected and hunting or trapping is not allowed, such as the Shade Swamp Wildlife Sanctuary in Farmington. Natural Area Preserves, such as the Hammonasset Natural Area Preserve in Madison, are State lands that are approved by the Governor as a "natural area."

Natural Area Preserves are defined by General Statute Sec. 23-5a as "an area of land or water, or land and water, containing, or potentially containing, plant or animal life or features of biological, scientific, educational, geological, paleontological, or scenic value worthy of preservation in their natural condition."

Between 2007 and 2015, 20 acquisitions totaling about 1,542 acres were added to the State Wildlife Management Area system, funded by \$7,248,047 from the State's Recreation and Natural Heritage Trust Program (RNHTP) and \$7,000,700 from cost sharing partners (Table 3).

During the same period, two conservation easements were acquired under the USDA-Natural Resources Conservation Service's Grassland Reserve Program (now the Agricultural Conservation Easement Program) on 29 acres: 15.79 at at Barn Island WMA in Stonington and 13.39 acres in Bloomfield.

These easements require that the parcels to be managed as grassland habitat and at times of the year that allow declining grassland birds, such as bobolinks and savannah sparrows, to nest successfully. In total, the easements cost \$1,756,250 and were funded in part by \$624,250 from RNHTP, \$867,500 from the USDA Natural Resource Conservation Service, and the remainder from the Wintonbury Land Trust and other private contributors.

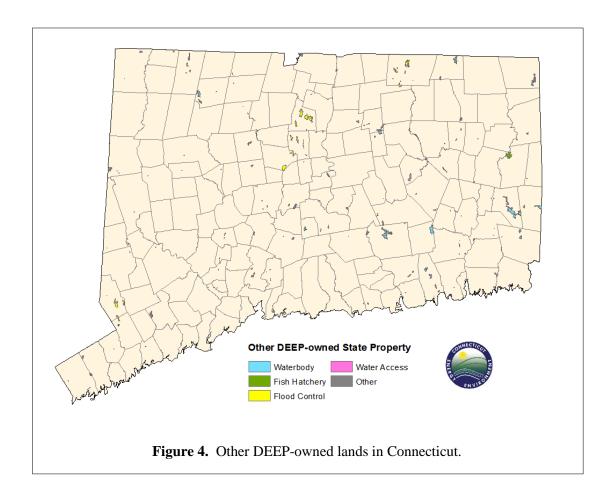
Table 3. DEEP acquisitions added to the State Wildlife Management Area system: 2007-2015. **State Wildlife** Fee Cooperator Cost **Management Area** Acres **State Cost** Share per Acre \$6,527 Tankerhoosen 454.30 \$2,965,000 NA \$11,478 Suffield 270.08 \$3,100,000 NA \$1,791 Meadow Brook \$0 \$290,000 161.88 \$8,043 Sciongay Property/Chapman Pond 149.20 \$0 \$1,200,000 \$26,257 Roncari Property \$0 \$3,500,000 133.30 \$6,775 Franklin Swamp 87.47 \$122,000 \$175,000 \$3,949 \$0 \$225,000 Simsbury 56.97 \$5,210 James V. Spignesi, Jr. 54.70 \$0 \$285,000 \$32,880 Barn Island 54.57 \$894,250 \$900,000 \$7,971 \$57,250 \$302,500 East River Marsh 45.13 20.29 \$60,000 NA \$2,957 **Quinnebaug River** \$1,250 Talbot 19.45 \$24,313 NA \$1,500 Wangunk Meadows \$23,825 15.88 NA \$4,714 Hammock River Marsh 2.80 \$0 \$13,200 **Totals** 1,542.46 \$7,248,047 \$7,000,700 \$**9,238** 

#### **III. Other DEEP-owned Lands**

DEEP owns and provides public access and recreation to numerous inland water bodies and rivers and roughly 140 miles of shoreline and 9 miles of sandy beach along the Connecticut coast. The Department also owns several flood control areas, fish hatcheries, and other areas that have not yet been assigned a specific use category, or that are unique and do not fit into any of the previously described categories (Figure 4).

Flood control areas generally contain dams, related structures, and impoundment areas, and in some cases allow public recreation. DEEP's three major fish hatcheries where fish are either farmed or held for stocking statewide water bodies and waterways are the Quinebaug, Burlington, and Kensington Hatcheries.

Other DEEP-owned areas include the Marine, Eastern, and Western District Headquarter facilities and the Israel Putnam Monument. Not all of the lands in these categories are counted towards the State's open space goal of protecting 21% of Connecticut, especially DEEP buildings such as operational headquarters and garages.



## IV. Open Space Held by Other State Agencies

The State Department of Agriculture (DoAg) Farmland Preservation Program has a goal of preserving 130,000 acres of farmland, with 85,000 acres of cropland. The objective of program is to secure a food and fiber producing land resource base, consisting primarily of prime and important farmland soils, for the future of agriculture in Connecticut. DoAg protects

farmland through the acquisition of the development rights to, and placing permanent nonagricultural use restrictions on, properties in active agriculture.

As of December 2015, the Farmland Preservation Program has helped DoAg acquire the development rights over more than 41,500 acres on 315 farms. Lands where DoAg has acquired development rights remains in private ownership and are not available to the general public for use without further agreement from the farm owner. Because lands protected from development by DoAg are not maintained for ecological or public outdoor recreational purposes, these lands have not been counted towards the overall State's goal of protecting 21 percent of Connecticut's land area.

Other Connecticut state agencies such as the Departments of Corrections and Mental Health and Addiction Services manage land across the state primarily for operational purposes. DEEP does not have a comprehensive inventory of lands owned by other Connecticut State agencies, nor does it know which of these lands may be of high value for ecological or recreational resource protection. In accordance with the recommendations of this plan, DEEP will be working with other agencies to identify and potentially protect in perpetuity or for some other duration State-owned lands of high conservation value.

## C. Open Space Held by Land Conservation Partners

## I. Municipalities

Connecticut's cities and towns care deeply about the environmental and cultural resources found on lands within and extending across their borders. Municipal officials, commission members, and residents work together, sometimes in partnership with local land trusts, to garner support and pass bond referendums that secure local funding for open space.

As of December 2015, DEEP estimates that Connecticut's municipalities own about 82,146 acres of land as protected open space. DEEP supports the acquisition of open space by municipalities by administering the State Open Space and Watershed Land Acquisition Grant Program (OSWA). Since the program's inception in 1998, over 135 cities and towns have been awarded funding for the protection of over 30,000 of public open space.

Between 2007 and 2015, 51 municipalities closed on 119 projects preserving 6,895 acres with \$32,672,895 in assistance from OSWA (Table 4). An additional 5 projects were closed in collaboration between municipalities and non-profit land conservation organizations, preserving 576.8 acres with \$1,796,375 in assistance from OSWA (Table 5).

**Table 4**. Acquisition projects closed by municipalities with partial funding from the State Open Space and Watershed Land Acquisition Grant Program: 2007-2015.

	Projects	Acres	
Year	Closed	Protected	<b>Grant Amount</b>
2007	21	829.02	\$4,581,433
2008	26	1,188.53	\$6,313,245
2009	10	929.39	\$3,885,723
2010	20	1,005.54	\$4,659,000
2011	13	967.83	\$4,937,500
2012	6	317.23	\$1,950,378
2013	7	238.32	\$1,520,900
2014	8	830.41	\$2,229,250
2015	8	588.96	\$2,595,466
Totals	119	6,895.25	\$32,672,895

Table 5. Collaborative acquisition projects completed with partial funding from the State Open Space and Watershed Land Acquisition Grant Program: 2007-2015. Acres Grant **Conservation Partners Project Name Protected Amount** Town of Somers & Northern Connecticut Land Trust Whitaker Woods Property 265.10 \$450,000 City of Norwalk & \$450,000 Norwalk Land Trust White Barn Parcel 5.13 Town of Old Lyme & The Nature Conservancy Roger Tory Peterson Property 54.26 \$357,675 Town of Somers & Northern Connecticut Land Trust **Trappe Property** 138.67 \$275,000 Town of East Haddam & The Nature Conservancy LeFebvre Property \$263,700 113.64 **Totals** 576.80 \$1,796,375

For example, the Whitaker Woods and Trappe Property projects awarded to the Town of Somers were in partnership with the Northern Connecticut Land Trust (NLCT). One of the last intact undeveloped areas in Somers, the Whitaker Woods Property protects land adjacent to the Shenipsit State Forest and existing NCLT property. The project's acquisition connects to a nearby Blue-Blazed Hiking Trail to create a contiguous recreational trail system.

Two years after closing on the Whitaker Woods Property, the Town of Somers and the NCLT partnered to acquire the Trappe Property to close gaps in other local trails, protect the summit of Bald Mountain Ridge, and safeguard steep slopes, forestland, and several streams important to the natural area's ecosystem.

## **Unique Conservation Partnerships in Connecticut** The Lower Connecticut River and Coastal Region Land Trust Exchange

The Lower Connecticut River and Coastal Region Land Trust Exchange (LTE) is a Regional Conservation Partnership which consists of 14 land trusts representing 17 communities of its coordinating organization, the Lower Connecticut River Valley Council of Governments (RiverCOG).

The LTE performed a geographic information system analysis to produce a series of maps and a natural resource-based Strategic Conservation Plan for its region. The maps help members of the LTE make better decisions about land protection by identifying and prioritizing lands that, if protected, will preserve water quality, critical habitats, and working landscapes. The LTE plans to update their planning process with further mapping criteria that could be considered in the acquisition of conservation lands, including proximity to existing open spaces and to State Officially Designated Greenways.

As the local municipal planning organization, the RiverCOG will implement the results of the LTE-produced maps to target public outreach and education concerning natural resource protection, best land use and management practices, and land acquisition for open space purposes.

## **II. Non-profit Land Conservation Organizations**

Privately operating, non-profit land conservation organizations (NLCOs) are key allies in State and local land protection efforts. There are 138 land trusts in Connecticut, comprised of over 3,500 active volunteers and over 37,000 members and financial supporters. These and other conservation organizations not only directly acquire land and easements for conservation, but also assist the State and municipalities in open space protection.

As of December 2015, DEEP estimates that NCLOs own about 63,870 acres of open space in Connecticut. However, the Land Trust Alliance reported in its 2010 census that Connecticut land trusts held 99,549 acres in permanently protected open space, and the National Conservation Easement Database reported that in 2014 land trusts held 64,146 acres under easements (LTA 2010; NCED 2014). These disparities emphasize the need for a more accurate open space database administered in cooperation with statewide land conservation partners.

Since the program's inception in 1998, over 60 non-profit land trusts or other conservation organizations have been awarded funding for land acquisition under the State Open Space and Watershed Land Acquisition Grant Program (OSWA). Between 2007 and 2015, 34 NLCOs closed on 74 projects preserving 5,361 acres with \$17,664,509 from OSWA (Table 6).

Table 6. Acquisition projects closed by non-profit land conservation				
organizations with partial funding from the State Open Space				
and V	and Watershed Land Acquisition Grant Program: 2007-2015.			
	Projects	Acres		
Year	Closed	Protected	<b>Grant Amount</b>	
2007	9	626.68	\$1,933,802	
2008	14	574.64	\$3,657,150	
2009	5	369.54	\$1,289,255	
2010	5	217.42	\$1,213,100	
2011	10	710.80	\$2,622,842	
2012	5	436.56	\$755,200	
2013	8	992.55	\$1,375,250	
2014	8	711.11	\$1,578,710	
2015	10	721.86	\$3,239,200	
Totals	74	5,361.16	\$17,664,509	

## **Unique Conservation Partnerships in Connecticut** The Litchfield Hills Greenprint Collaborative

The Litchfield Hills Greenprint Collaborative is a Regional Conservation Partnership of over two dozen local land trusts and community leaders in 28 towns committed to protecting land of regional significance across northwest Connecticut. Supported by staff at the non-profit Housatonic Valley Association (HVA), members of the Greenprint share a vision of protecting half of the remaining prime farmland, core forestland, and drinking water resources across the Litchfield Hills.

This goal equates to more than 150,000 acres protected, and the Greenprint aims to proactively conserve an additional 70,000 acres by year 2030. To this end, members of the Greenprint shares expertise and GIS tools to leverage resources and help its partners make better decisions about land protection in their region.

A conservation success by the Greenprint was marked by the acquisition of the Itwaka Girl Scout Camp in Norfolk in 2013. Members of the Greenprint worked closely with the Norfolk Land Trust to purchase the property for \$630,000 with \$284,000 in funding from the State Open Space and Watershed Land Acquisition Grant Program, \$157,500 from the U.S. Forest Service Highland Conservation Act grant program, and the remainder from private donations.

#### **III. Water Utility Companies**

Connecticut private and quasi-public water utility companies support conserving lands that enhance protections of drinking water supplies. Many Connecticut water companies have been acquiring the land that protects their drinking water sources sing their inception in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. They actively seek to acquire appropriate watershed lands that improve or maintain water quality, including steeply sloping lands, large tracts of forest cover near watercourses, floodplains, wetlands, and groundwater recharge areas.

DEEP estimates that Connecticut water companies hold approximately 97,584 acres, which represents nearly 20 percent of all open space ownership in the state. This area of open space includes over 5,800 acres of Class I and Class II designated lands<sup>23</sup> acquired by DEEP's conservation partners through the Open Space and Watershed Land Acquisition Grant Program.

Water company watershed lands have been historically managed for the protection of public health. The State Department of Public Health (DPH) oversees the use of land owned by water companies through a statutory permitting requirement under CGS section 25-32(b), more commonly known as the Water Company Land laws. Under this set of laws, water companies are prohibited from selling or using their Class I and II lands for residential, commercial or industrial purposes or recreational purposes that involve intense development.

Allowed with DPH permit approval, many water companies provide for passive public recreation on their land holdings. The Centennial Watershed State Forest is a prime example of water companies working together with DEEP and a non-profit land conservation organization to conserve valuable drinking water supply watershed land and allow access for passive recreation permitted by DPH.

The Aquarion Water Company's reservoirs are surrounded by more than 15,000 acres in the Centennial Watershed State Forest. The State Forest was acquired in 2002 and is managed in partnership by Aquarion, DEEP, and The Nature Conservancy. A hiking permit allows access to 17 miles on the Blue-Blazed Saugutuck and Aspetuck trails, a fishing permit allows freshwater fishing at the Saugatuck, West Pequonnock, and Far Mill reservoirs, and a hunting permit provides access to seasonal deer hunting.

<sup>&</sup>lt;sup>23</sup> Defined in (CGS) Sec. 25-37c

## **Unique Conservation Partnerships in Connecticut South Central Connecticut Regional Water Authority**

Water companies are authorized to sell lands they own that are deemed no longer needed for the operation, protection, and maintenance of a public water supply system. After undergoing a required statutory process with the Department of Public Health, many lands sold by water companies have been purchased by the State, municipalities, and land trusts for permanent conservation as open space. For example, the South Central Connecticut Regional Water Authority sold 411 acres of its holdings known as the Racebrook Tract to the Towns of Orange and Woodbridge for conservation, environmental education, and public recreation purposes.

One of the first awards in the program's history, in 2000 the Town of Orange acquired 230 acres of Racebrook Tract with \$450,000 in assistance from DEEP's Open Space and Watershed Land Acquisition Grant Program. In three phases between 2005 and 2010, the Town of Woodbridge was awarded DEEP open space grants totaling over \$1.2 million to acquire an additional 181 acres of the Tract.

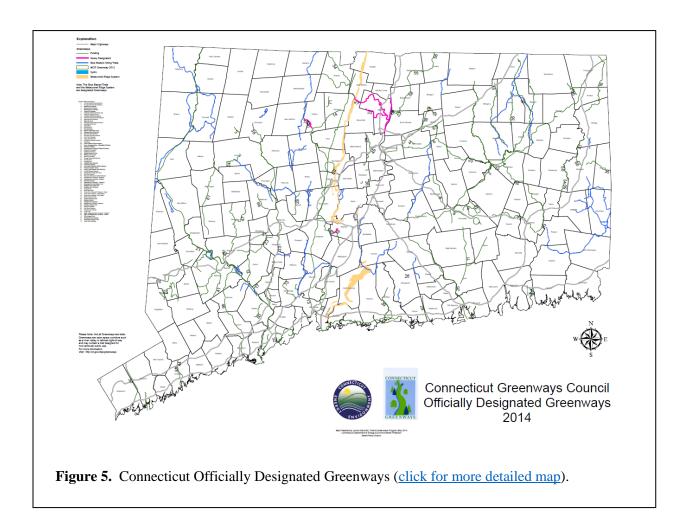
This multi-phase, multi-partner watershed land acquisition for open space is exemplary of effective conservation partnerships between a water company and municipalities with funding assistance from the State. As part of the purchase agreements, the South Central Connecticut Regional Water Authority committed to the re-investment of the proceeds from the sales towards the acquisition of additional Class I and Class II designated watershed lands.

The protection of the Racebrook Tract watershed lands served to not only conserve forest and riparian habitat, offer scenic recreation opportunities, and provide region-wide access to open space for the Greater New Haven area, but also resulted in the acquisition and preservation of twice the amount of watershed lands that might otherwise be accomplished.

#### D. Statewide Trails & Greenways

Trails and many greenways provide passive recreation opportunities, encourage active lifestyles, support tourism, and connect open spaces across the state. Trails and greenways cover over 1,000 miles in Connecticut and run through federal, state, municipal, and private property. More than 825 miles of the state's recreational trails are part of the Blue-Blazed Hiking Trail System managed by the Connecticut Forest & Park Association.

There are 80 Officially Designated Greenways in Connecticut, 46 of which were named between 2007 and 2015 (Figure 5). Greenways can be a small belt of open space along a stream or a broad swath of land representing natural corridors that contain or link important ecological and cultural resources, through which a recreational trail may or may not exist. Known as blueways, other corridors are being planned and developed along many of the State's major waterways, including the Housatonic, Willimantic, and Naugatuck Rivers.



Trails, greenways, and blueways can be owned and managed by state or federal agencies, municipalities, private land conservation groups, or a combination of these entities. The longest

trails, paved and unpaved, are located along abandoned rail, trolley, and canal lines that were purchased by the State as part of a railbanking program. These include the Farmington Canal Heritage Greenway, and the Air Line, Hop River, Moosup Valley, and Larkin State Park Trails.

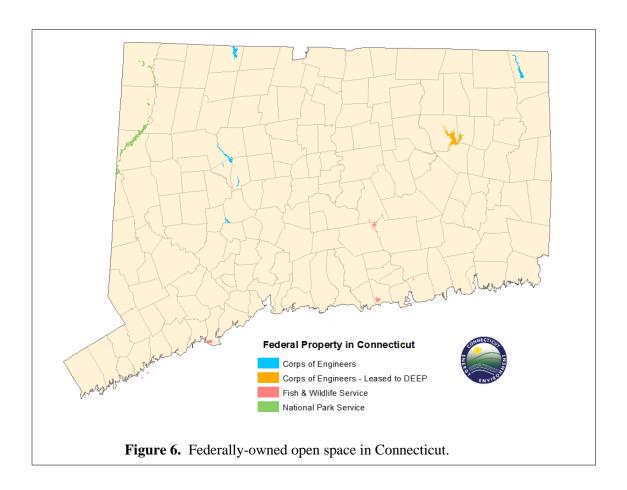
Two examples of multi-state and multi-agency trails are the New England National Scenic Trail and the East Coast Greenway. Much of the Metacomet-Monadnock-Mattabesett Trail System in Connecticut and Massachusetts has been federally-designated as the New England National Scenic Trail. This National Scenic Trail is approximately 215 miles long and crosses 41 communities in central Connecticut and western Massachusetts. Since its federal designation, a 14-mile extension to the Long Island Sound has been added to the route.

The East Coast Greenway is a National Millennium Trail running 2,900 miles from Florida to Maine, 198 miles of which passes through Connecticut. In 2013, portions of the Air Line and the Hop River State Park Trails in eastern Connecticut were added to the Greenway, helping to promote and connect open space and historic mill towns. To the west, the Greenway connects the cities of Hartford, New Haven, Bridgeport, and Stamford. It also connects and allows users to tour the Farmington Canal Heritage Greenway in Simsbury.

Trails and greenways that are not protected from development through legal means such as deed or conservation easement restrictions do not count towards the State's open space goal of protecting 21 percent of Connecticut's land base. The official designation or recognition of State trails, greenways, and blueways for their ecological and cultural values emphasizes the need and demand to protect and connect these lands as dedicated open space.

## E. Federally-owned Open Space

The U.S. National Park Service, Fish and Wildlife Service, and Army Corps of Engineers protect and manage about 10,000 acres in Connecticut for passive outdoor recreation, wildlife habitat, and flood control purposes (Figure 6).



#### I. U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service owns and administers two National Wildlife Refuges (NWR) in Connecticut: the Stewart B. McKinney NWR and the Silvio O. Conte National Fish and Wildlife Refuge.

Established in 1972, the Stewart B. McKinney National Wildlife Refuge is Connecticut's first federally-owned conservation land holding. Located within the Atlantic Flyway, the Refuge spans 70 miles of Connecticut shoreline and is comprised of 10 units that encompass more than

1,000 acres of forest, barrier beach, tidal wetland, and fragile island habitats.

In addition to habitat for several species of mammals, insects, and other wildlife, the Steward B. McKinney NWR provides critical habitat for federally endangered roseate terns, federally threatened piping plovers, and a nesting population of saltmarsh sparrows, which are listed by DEEP as a species of special concern and as 'globally vulnerable' by International Union for Conservation of Nature.

In 1997, the entire Connecticut River watershed was designated as the Silvio O. Conte National Fish and

## **Great Thicket National Wildlife Refuge Proposed for New England and New York**

Over the past century, shrubland and young forest across the Northeast have been cleared for development or have grown into mature forests. As this habitat has disappeared, populations of songbirds, mammals, and other wildlife that depend on it have fallen.

The U.S. Fish and Wildlife Service, state agencies, private landowners, and conservation organizations have responded by restoring and protecting shrublands and young forest in our region. DEEP and the USFWS have partnered with private landowners in the Sharon and Ledyard areas to improve habitat for shrubland and young forest wildlife including the New England cottontail. DEEP has also improved habitat in Pachaug State Forest. Despite progress, more protected and managed lands are needed to restore wildlife populations and return balance to northeast woodlands.

In early 2016, the USFWS proposed to establish Great Thicket National Wildlife Refuge, a system of public lands that would be dedicated to managing shrubland habitat and enjoyed by visitors whenever possible. If the proposed Refuge Land Protection Plan is approved, DEEP could begin working with willing and interested landowners to acquire or protect up to 4,000 acres in areas of southeastern New London and western Litchfield counties.

Wildlife Refuge. Comprised of 7.2 million acres within the states of Connecticut, New Hampshire, Vermont, and Massachusetts, the Conte Refuge is the nation's only Fish and Wildlife Refuge in the country.

The Conte Refuge protects over 36,000 acres within the Connecticut River watershed and the Service is actively seeking to acquire additional lands throughout the region.

Conte Refuge land in Connecticut currently includes the 31-acre Deadman's Swamp in Cromwell, the 56-acre Roger Tory Peterson Unit in Old Lyme, and the 425-acre Salmon River and 50-acre Whalebone Cove Divisions in Haddam and Lyme. These lands protect biologically diverse habitats that support numerous fish and wildlife species throughout the year.

#### II. U.S. National Park Service

The U.S. National Park Service (NPS) owns one National Historic Site and one National Scenic Trail in Connecticut. In 2013, these two National landmarks attracted 22,862 visitors and generated \$1,300,000 in economic benefit from tourism (Cullinane et al. 2013). NPS owns and manages the 110-acre Weir Farm National Historic Site in Wilton, one of only 79 National Historic Sites in the NPS system and the only designated National Historic Site in Connecticut.

In partnership with the U.S. Forest Service and the non-profit Appalachian Trail Conservancy, NPS owns and manages the Appalachian National Scenic Trail, a 2,185-mile footpath along the Appalachian Mountains from Georgia to Maine. A 51.6-mile portion of the Appalachian National Scenic Trail runs in Connecticut along ridgelines to the west above the Housatonic River Valley.

#### III. U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers own and actively maintain eight large flood control dams and approximately 4,000 acres of associated open space. Six of these sites (Thomaston Dam, Black Rock Dam, Colebrook River Lake, Hancock Brook Lake, Hop Brook Lake, and

Northfield Brook Lake) are located in western or northwestern Connecticut, while the West Thompson and Mansfield Hollow Lakes are located in eastern Connecticut. All of these sites are open to recreational use and collectively attract about one million visitors annually.