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September 2011

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Acknowledgements

The Department of Energy and Environmental Protection wishes to thank all of the individuals who generously donated their time to participate on the Advisory Board: Pamela Adams, Charles Beristain, William Boles, Claire Cain, Diane Ciano, Jay Cohen, Eileen Grant, Jeffrey Greig, Eric Hammerling, Alison Harle, Elaine LaBella, Robert Levine, Andrew May, Michael Ose, Amy Paterson, Raymond Rauth, Vincent Ringrose, Joanne Sciulli, Elanah Sherman, Jerry Shinners, Ryan Tucker, Karl Wagener, Grant Westerson, and Georgette Yaindl.

The editor wishes to thank the many employees of the Department of Energy and Environmental Protection, the Department of Administrative Services, and the Office of Policy and Management for their contributions to this plan: Peter Aarrestad, John Annino, George Babey, Beth Brothers, Cyndy Chanaca, John Cimochowski, Rob Clapper, Mark Clavette, Naomi Davidson, Timothy Delgado, Jenny Dickson, Wendy Flynn, Bill Foreman, Susan Frechette, Matt Fritz, Caryn Furbush, Bill Gerrish, Laurie Giannotti, Jacquelyn Gorman, Michael Guimond, Helene Hochholzer, Penny Howell, Bill Hyatt, Rick Jacobson, Diane Joy, David Kozak, Al Levere, Eleanor Mariani, Chris Martin, Randy Michaelson, Mary Morgillo, Dan Morley, Tom Nosal, Maryann Nusom-Haverstock, Kyle Overturf, Mark Paquette, Mike Payton, Deidre Persson, Edith Pestana, Tony Petrillo, Fred Riese, Nina Ritson, Denise Ruzicka, Dennis Schain, Dave Simpson, Sally Snyder, Matt Starr, Howie Sternberg, Graham Stevens, Dave Stygar, Rachael Sunny, John Traynor, Tom Tyler, Kevin Winn, Darcy Winther, and Karen Zyko.

Special thanks to Kate Bruzinski, first as the project intern, then as the full-time project assistant.

Photographs contributed by: Kate Bruzinski, Barrie Collins, Caryn Furbush, Paul Fusco, Philip Keyes, Joshua Rimany, Nina Ritson, and Jordan Scerbo

Edited by Douglas Jann, Division of State Parks and Public Outreach Graphic design by Nina Ritson, Department of Administrative Services

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The Statewide Comprehensive Outdoor Recreation Plan

The Statewide Comprehensive Outdoor Recreation Plan (SCORP) is a planning document that identifies outdoor recreation issues of statewide significance and evaluates the supply of and the demand for outdoor recreation resources and facilities in Connecticut. The SCORP provides unified guidance to state and municipal officials as they develop and expand outdoor recreation opportunities for their respective constituents.

In addition to its value as a planning document, the completion of a SCORP also satisfies a requirement of the federally administered Land and Water Conservation Fund (LWCF), which then makes Connecticut eligible to receive its annual apportionment from the LWCF State and Municipal Assistance Program. Apportionments from the LWCF can be used by the state and its municipalities to acquire new land for outdoor recreation and conservation, and to construct new outdoor recreational facilities.

As the agency having the authority to represent and act for Connecticut in dealing with the Secretary of the Interior for purposes of the Land Water Conservation Fund Act of 1965, the Department of Energy and Environmental Protection (DEEP) is pleased to present this 2011 - 2016 Statewide Comprehensive Outdoor Recreation Plan to the Secretary and to the people of Connecticut. The plan is a cooperative product of DEEP technical staff, the SCORP Advisory Board and the many Connecticut residents who stepped forward to participate in the development process. In a state with recreation issues as diverse as its resident population and its ecological communities, presenting one plan that fully represents the divergent interests of 3.5 million residents is challenging. However, DEEP sincerely believes that this SCORP fairly addresses the state's major outdoor recreation issues and represents the best plan for the greatest number of people.

NOTE: On July 1, 2011, the Connecticut Department of Environmental Protection officially became the Department of Energy and Environmental Protection. For the sake of consistency, all references to the agency in this plan shall be to the Department of Energy and Environmental Protection, regardless of when in time the reference applies, either before or after July 1, 2011.



Benefits of Outdoor Recreation

utdoor recreation provides benefits far greater than the personal enjoyment derived from participation. Beyond having fun, individuals benefit physically from exercise that reduces stress, improves aerobic and muscular fitness, and reduces the risks for cardiovascular disease and diabetes. Communities also enjoy the benefits of individual fitness in the form of lower healthcare costs in general.

Additionally, communities benefit from the increased social interaction of residents bonding with their neighbors while pursuing common interests. The local environment benefits from the increased awareness of environmental issues and the importance of environmental stewardship. Residential property values are increased when homes are adjacent to protected open spaces or have a viewshed provided by the preservation of open space for outdoor recreation.

Outdoor recreation is good for the economy. Participants not only purchase sporting equipment and supplies needed to participate, they also consume local services such as meals and lodging that are not related to outdoor recreation. In Connecticut, approximately 41,000 hunters spend \$68 million annually and support 1,100 jobs while they enjoy 500,000 days a year in the field. Nearly 1.2 million Connecticut residents expend more than \$500 million annually engaging in wildlife viewing, and recreational anglers in Connecticut annually contribute nearly \$250 million to the economy and support 4,400 jobs.

The benefits of participating in outdoor recreation are so considerable to the individual and to the communities providing the resources that doing so would be entirely worth the effort...even if it wasn't fun!



PART I: Connecticut



Section I: State Overview

Geography

Connecticut is the third smallest state in the union, comprised of a mere 5,009 square miles (3,205,760 acres) of land. It extends approximately 90 miles from east to west and 60 miles from north to south. Nestled between New York City and the Boston metropolitan area, Connecticut is bordered on the west, north, and east by New York, Massachusetts, and Rhode Island, respectively. Another border along the center of Long Island Sound forms the state's southern boundary with New York.

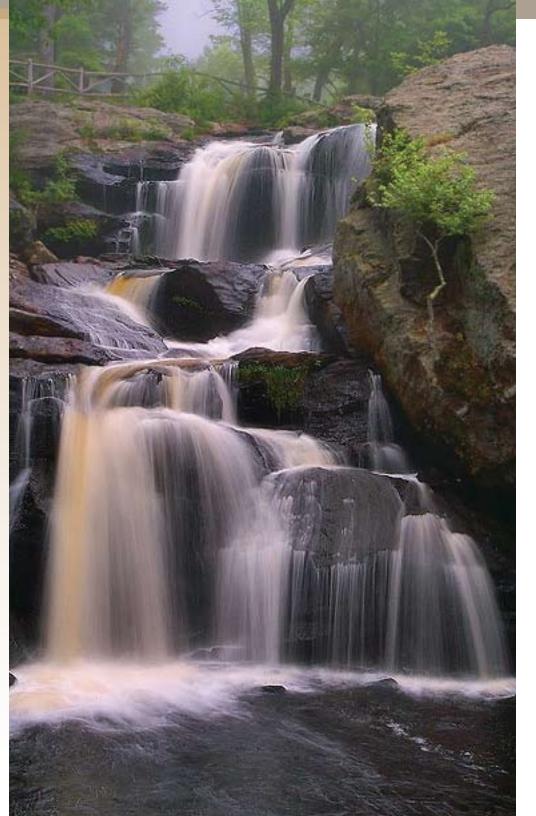
Connecticut can be divided primarily into four distinct physiographic zones: the Southern New England Coastal Lowlands along the coast, the Lower Connecticut River Valley bisecting the center of the state, the Hudson Highlands in the west, and the Southern New England Coastal Hills and Plains in the east. Figure 1 shows these zones and three other limited areas that represent the southern extent of New England's mountainous interior zones.

The coastal lowlands are a narrow strip of fairly level land that extends along the shore of Long Island Sound. This coastline is characterized by small sections of sandy beach alternating with rocky bluffs and saltwater marshes, forming numerous small coves and inlets resulting in 458 miles of actual coastal frontage.

The central river valley is a wide, north-south strip of land cradling the Connecticut and Quinnipiac Rivers. Most of the land is gently to moderately sloping with fertile agricultural soils, except for the narrow traprock ridges that run from Long Island Sound to Massachusetts. Rising to more than one thousand feet above sea level, these ridges contain some of the last undeveloped areas in central Connecticut.

The remaining areas of the state are hilly regions that slope gradually toward the south and the east. The eastern uplands are continuous with the New England Highlands in Massachusetts. Near the Massachusetts border, elevations range from 500 feet to 1,100 feet. In the southeast, elevations range from 200 to 500 feet.

The western uplands are the southern terminus of the Green Mountain Range. Here the elevation ranges from 200 feet near the coastal plain to 2,380 feet at Mt. Frissell in Salisbury (Figure 2). Generally, this area is more rugged than the eastern uplands, though its southern hills are gentle. While the eastern uplands and the western uplands both have scattered pockets of good croplands, they are largely unsuitable for extensive agriculture. Most of the land is a patchwork of forests and pastures.



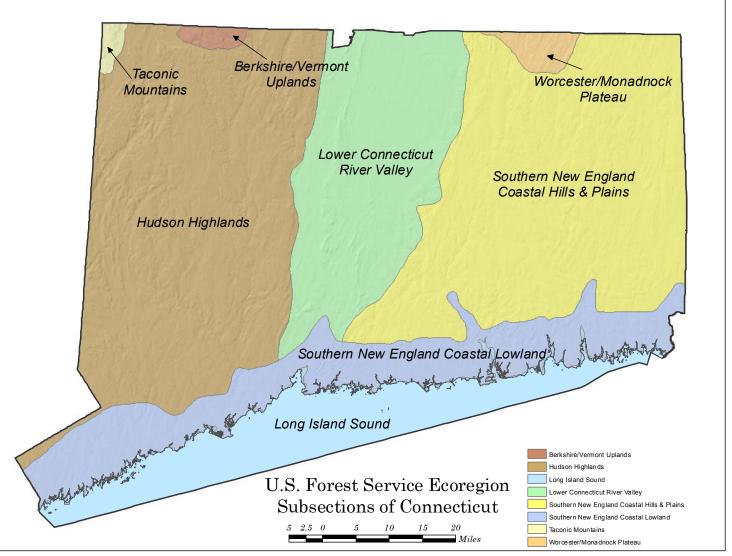


Figure 1. U.S Forest Service ecoregions of Connecticut. The physiographic regions of Connecticut are delineated by climate, physiography, water, soils, air, hydrology, and potential natural communities. The major ecoregions of Connecticut are the Hudson Highlands, the Lower Connecticut River Valley, the Southern New England Coastal Hills and Plains, and the Southern New England Coastal Lowland.

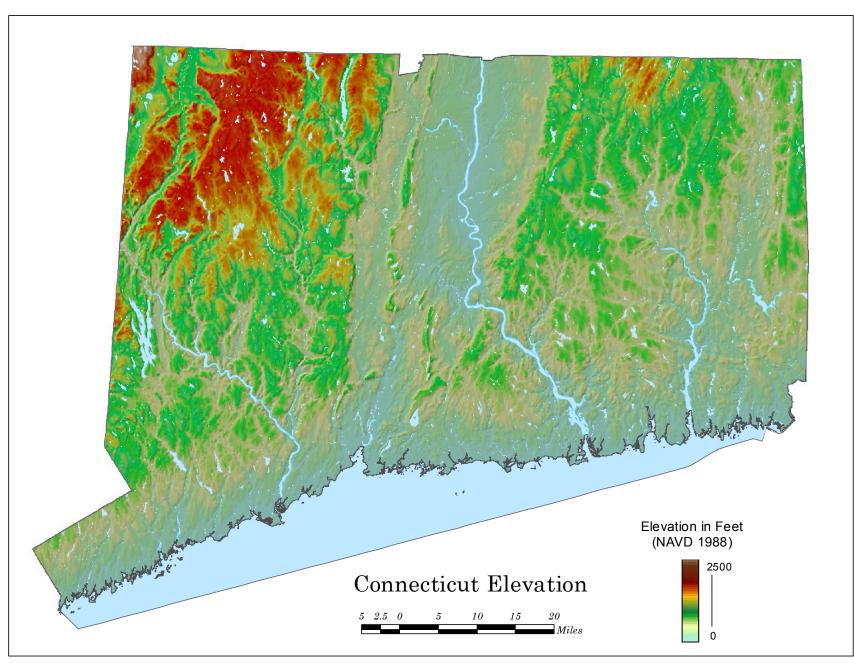


Figure 2. Shaded relief map of Connecticut, CT Department of Energy and Environmental Protection, 2011. Elevations are in feet above mean sea level. Mt. Frissell is the highest point in Connecticut at 2,380 feet.

Climate

Interior portions of Connecticut have a humid continental climate, characterized by large seasonal temperature differences, with warm to hot summers and cold to very cold winters. The Connecticut shoreline has a borderline humid subtropical climate, with seasonal extremes tempered by proximity to Long Island Sound, the Atlantic Ocean, and the Gulf Stream. On the Connecticut coastline, summers are hot and humid, and winters are mild to cool.

Precipitation levels in all portions of Connecticut remain relatively constant at roughly four inches per month throughout the year. Winter precipitation in interior portions is very often snow, averaging as much as 100 inches per year in parts of the northwestern uplands, where areas of higher elevation frequently maintain a snowpack throughout the winter season. Winter precipitation on the coastline and in lower elevations of the central river valley includes more rain events than the interior, and the snowpack commonly melts between snow events. Annual snowfall along the coastline averages 35 inches per year.

Spring has variable temperatures with frequent rainfall. Summer is hot and humid throughout the state, with average highs in the southeast coastal region of 81°F (27°C) and 87°F (31°C) in the northern central river valley. Fall months are mild and bring colorful foliage across the state in October and November. During hurricane season, tropical cyclones occasionally affect the region. Thunderstorms are most frequent during the summer, occurring on average 30 times annually. These storms can be severe, and the state averages one tornado per year.

Demographics

Connecticut's 169 towns vary in size and population density (Figure 3). These towns are home to people with considerable variations in income, educational attainment, and living conditions. If Connecticut had a town that possessed a perfect average of demographic characteristics, it would have a population of 20,151 residents, a per capita income of \$28,766 and a median household income of \$53,935. The percentage of the population living in poverty would be 7.6%, and the racial composition of the town would be 78.3% White (non-Hispanic), 9.4% Hispanic, 9.4% Black or African American, and 3% Other (non-Hispanic).

However, no single town in the state matches this description. In fact, the demographics of communities in Connecticut vary to extremes. While Connecticut has the highest per capita income in the nation, that average is driven by a handful of extremely prosperous communities. Many others in the state, especially those in the urban centers, have limited resources by comparison, including those needed to provide outdoor recreation resources.

To more accurately depict the demographic composition of Connecticut's communities, the Center for Population Research (CPR) at the University of Connecticut indexed each of the state's 169 municipalities on the basis of three socioeconomic criteria: 1.) population density, 2.) median family income, and 3.) poverty level. The results identified five categories, or Five Connecticuts (5 CTs), that distinguish the array of socioeconomic conditions present in the state. CPR labeled the categories as: 1.) Urban Core, 2.) Urban Periphery, 3.) Suburban, 4.) Rural, and 5.) Wealthy. Figure 4 shows the 2010 geographic distribution of these categories.

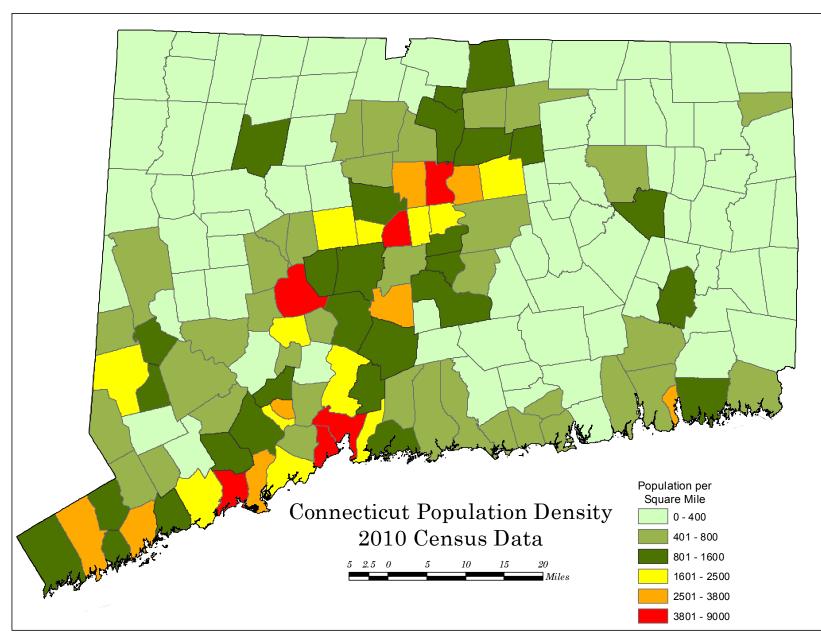


Figure 3. Population density of Connecticut based on 2010 U.S Census Bureau data, CT Department of Energy and Environmental Protection, 2011.

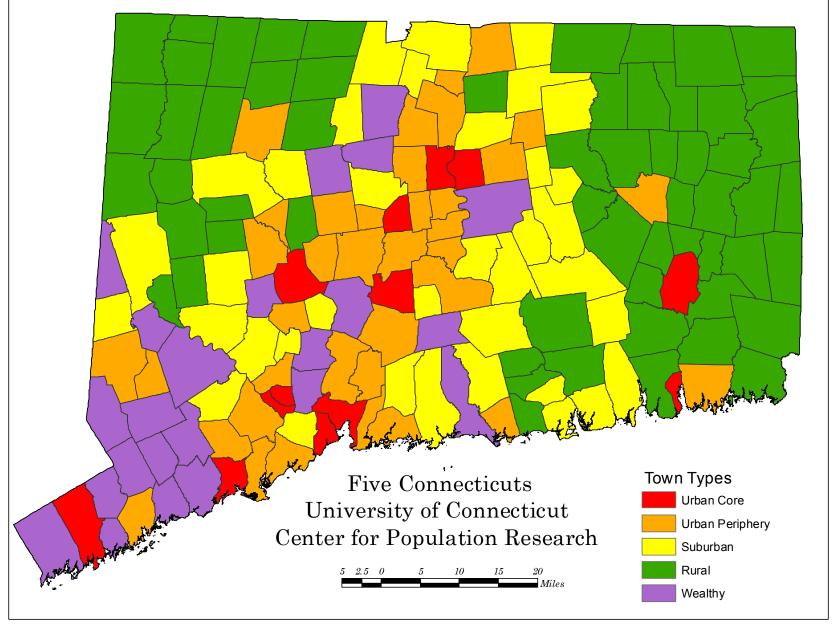


Figure 4. The 'Five Connecticuts', Center for Population Research, University of Connecticut, 2010. Connecticut's 169 municipalities are classified as Urban Core, Urban Periphery, Suburban, Rural, and Wealthy based on three socioeconomic criteria: 1.) population density, 2.) median family income, and 3.) poverty level.

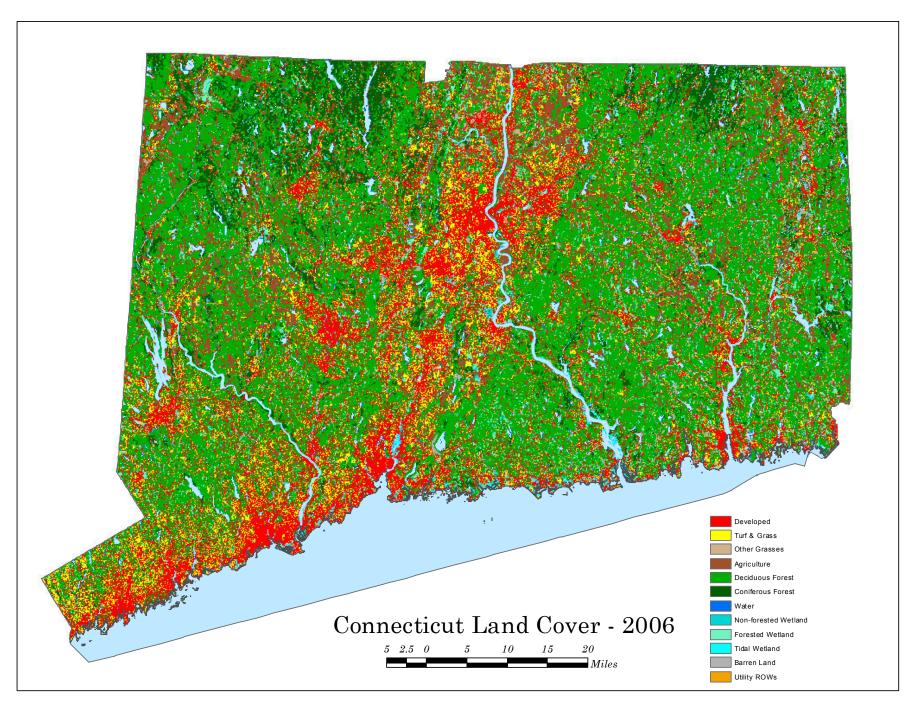


Figure 5. Land cover in Connecticut, CT Department of Energy and Environmental Protection, 2006. Areas are assigned to a land cover category based on land uses identified from satellite imagery.

Ecological and Developmental History

Like all states, the particular composition and availability of outdoor recreation in Connecticut is determined by the unique combination of attributes that characterize the state. Understanding the complex character of Connecticut today and the inherent implications for outdoor recreation planning requires an understanding of centuries of rich history. Without question, different eras in history have witnessed dramatic shifts on the tapestry of Connecticut's landscape.

Before European settlement, the region's indigenous people enjoyed a rolling landscape with expansive tracts of mature broadleaf and mixed forests populated by diverse and abundant wildlife communities. Hundreds of miles of upland rivers and streams supported robust salmon runs and other abundant native fisheries, and the coastal resources of Long Island Sound contributed a maritime compliment of diversity to the region's resources. For many millennia, Connecticut's first residents enjoyed a sustainable existence in harmony with the delicate balance of its natural ecosystems. It was Connecticut as nature intended it.

Following European settlement, the landscape in Connecticut was reshaped on a broad scale. Intensive agriculture deforested 75% of the state, leaving previously stable topsoils vulnerable to erosion. Mill-based industry quickly became widespread and hundreds of small mill dams appeared on virtually every watercourse in the state. With all this productivity, Connecticut was indeed experiencing economic prosperity. But without the absorbent canopy and ground cover of extensive forests to stabilize the soil and slowly meter precipitation into the watercourses, the overwhelming force of unbounded runoff swept large amounts of topsoil into the rivers and substantially contributed to stream bank erosion.

In a relatively short period of time, rivers became wider and shallower, and critical gravel spawning beds became hopelessly embedded with silt.

The combined impact of habitat degradation from excessive runoff and the migration barriers created by countless mill pond dams led to the disappearance of Atlantic salmon in Connecticut and dramatic shifts in the composition of fish assemblages to reflect the altered habitat.

As forests were cleared for agriculture, habitat and natural prey for indigenous predators slowly vanished. As farmers sought to protect vulnerable livestock from wolves and mountain lions, these apex predators became prime targets for eradication. During the mid-nineteenth century, 97% of Connecticut residents lived dispersed in rural areas. The landscape was carved up into tens of thousands of small parcels and the pressure on wild populations of flora and fauna was intense. The prevailing wisdom of the era was man's subjugation of nature, and in this pursuit the residents of eighteenth and nineteenth century Connecticut were very successful. Wild Connecticut was pressed to the frontier.

As the industrial revolution gained momentum and mechanized agriculture made farming more efficient and productive, the state's population shifted toward urban centers. Across the state, abandoned agricultural fields began their ecological succession back to mature forests. However, even while Connecticut is now 60% forested, it will continue to live with the legacy of its fragmented natural history for many years to come (Figure 5).

While the population shift to urban areas helped to relax pressure on terrestrial ecosystems, the expansion of industrialism only further degraded the state's watercourses with discarded byproducts of manufacturing. Toxins such as PCB's and mercury still linger in the food chain today. A number of fisheries are permanently closed to harvest to protect public health, while others have strict consumption advisories.

Additionally, advancements in crop fertilization and the increase of untreated sewer systems built to support the expanding population substantially increased nutrient input into aquatic ecosystems, unnaturally accelerating the ontogeny of the state's waterbodies. Meanwhile, as the increasing availability of

personal automobiles precipitated another demographic shift, this time into suburbia, the copious fertilization of new residential lawns and golf courses further compounded the nutrient loading of aquatic ecosystems, eventually leading to algae blooms in Long Island Sound that created large areas of anoxic dead zones.

In the course of a few centuries, the practices of European settlers had transformed Connecticut's landscape and severely degraded the habitats upon which fish and wildlife populations depend, in turn severely depleting the stocks upon which modern sportsmen base their recreational pursuits. Fortunately, the last half century of increasing environmental awareness has given rise to widespread public and private sector stewardship initiatives that have begun to turn the tide on the environmental degradation of the preceding centuries.

As the 21st century begins, for the first time in several centuries, habitat quality in both terrestrial and aquatic ecosystems is improving, and the stocks of fish and wildlife they support are recovering. With new philosophies in environmental stewardship and concerted fish and wildlife restoration efforts, Connecticut sportsmen are now beginning to enjoy the same rich resources as the region's original inhabitants.







Table 1. Agency structure for the Connecticut Department of Energy and Environmental Protection.

Branch	Bureau	Division		
	Chief of Staff	Legislative Affairs Public Affairs		
Office of the Commissioner	Financial and Support Services	Financial Management Human Resources Agency Support Services		
Cince of the Commissioner	Office of the Commissioner	Office of Affirmative Action Office of Planning and Programs Development Office of Environmental Justice Office of Information Management Office of Adjudications Office of Legal Counsel		
	Air Management	Planning and Standards Radiation Engineering and Enforcement		
Environmental Quality	Water Protection and Land Reuse	Planning and Standards Inland Water Resources Remediation Office of Long Island Sound Programs		
	Materials Management and Compliance Assurance	Emergency Response & Spill Prevention Engineering and Enforcement Permitting and Enforcement		
	Outdoor Recreation	State Parks and Public Outreach State Environmental Conservation Police Boating		
Environmental Conservation	Natural Resources	Inland Fisheries Marine Fisheries Forestry Wildlife		
Energy	Public Utility Regulatory Authority	Utility Regulation		
Energy Energy and Technology Policy		Operations Energy and Climate Change Policy		

The Connecticut Department of Energy and Environmental Protection

AGENCY STRUCTURE

The management of natural resource-based outdoor recreation in Connecticut benefits from the organizational structure of the Department of Energy and Environmental Protection (DEEP), which is organized into three branches: 1.) Environmental Quality, 2.) Environmental Conservation, and 3.) Energy (Table 1).

The Environmental Quality Branch is responsible for protecting the basic elements of the environment including air, land and water. Its Bureau of Water Protection & Land Reuse plays direct roles in protecting water resources through its Division of Inland Water Resources and the Office of Long Island Sound Programs, including direct responsibility for overseeing the protection of coastal and inland wetlands.

The Environmental Conservation Branch consists of two bureaus, Natural Resources and Outdoor Recreation, under the direction of a Deputy Commissioner for Environmental Conservation. The Bureau of Natural Resources consists of the Divisions of Wildlife, Forestry, Inland Fisheries, and Marine Fisheries. Together they administer programs that conserve and restore fish and wildlife populations and the terrestrial and aquatic habitats upon which they depend. The Bureau of Outdoor Recreation consists of the Divisions of Boating, State Parks and Public Outreach, and State Environmental Conservation Police. Together they administer most of the state's outdoor recreation programs and provide for the enforcement of fish and game regulations and boating laws.

Outdoor recreation in Connecticut benefits from an organizational structure that fosters effective interdivisional cooperation under the unified leadership of the Commissioner of Energy and Environmental Protection.

THE LEAN PROGRAM

To further enhance the benefits to outdoor recreation and environmental conservation derived from increased efficiency, the Department of Energy and Environmental Protection (DEEP) began a LEAN Initiative in 2008 to employ business efficiency practices based on Kaizen, the philosophy of continuous improvement of processes to reduce waste. While most of the efficiency improvements do not directly relate to outdoor recreation, there are indirect benefits realized by reducing wasteful processes and redirecting the newfound resources to fulfilling the core missions of the agency.

As of May 2011, thirty-three teams have been through the LEAN process and more than 250 staff have been involved in changing the culture at DEEP. Now that LEAN has caught on and its results are impressive, DEEP has plans to continue the initiative and transfer the most effective and efficient reforms to government processes in all aspects of DEEP.

To that end, the agency is initiating LEAN Plus. While the first 33 teams were guided through the process by an independent consultant, by 2011 so many agency employees had been through the program that it has become ingrained in the culture. The agency is now enlisting the LEAN consultant to train agency staff as LEAN facilitators, allowing DEEP to multiply its efforts and apply the process to an even greater extent throughout the agency.

In an era of diminishing resources, internalizing a process for doing more with less will position DEEP as a leader within Connecticut, and position Connecticut as a leader across the nation for improving the efficiency of government. Taxpayers will enjoy the maximum benefit of their contributions in the form of efficiently managed outdoor recreation programs and associated environmental conservation programs that enhance fish and wildlife and the habitats that sustain them.

Outdoor Recreation in Connecticut

Although small in area, Connecticut provides a wealth of outdoor recreation opportunities to its residents and visitors. With 458 miles of Long Island Sound coastline, access from there to the Atlantic Ocean, and hundreds of inland waterbodies and watercourses, Connecticut can support virtually any water-based sport imaginable. With few exceptions, the same is also true for the state's terrestrial opportunities, particularly considering the seasonal climate that also provides for winter sports. And because one cannot drive an hour into Connecticut before technically beginning to drive out of Connecticut, the state's small size becomes an advantage because all of its outdoor recreation opportunities are accessible within a relatively short drive.

For all the state has to offer, however, Connecticut has no shortages of challenges for outdoor recreation. For

- Most of the state's population resides in urban areas. Many of those residents lack private transportation to outdoor recreation opportunities found in less populated areas, and public transportation is not available to any of Connecticut's state parks and forests
- There is less than one acre of public open space for every ten residents of the state. With the diversity of interests embodied in 3.5 million people, user conflicts are an issue for many resources, especially on trails and waterways
- With very few large land holdings in the state, and with greater than 80% of land held privately, recreational areas tend to be small in scale and scattered across the landscape in abundance. This presents challenges to activities dependent on large tracts of land, and it presents challenges to informing people of the multitude of opportunities available to them
- Connecticut's natural history during the eighteenth, nineteenth and twentieth centuries was severely impacted by deforestation, industrialization, reforestation and urban sprawl, all of which had adverse impacts on fish and wildlife habitats and the stocks that rely on them. The modern environmental movement has begun to reverse many of these impacts and progress has been made, but the legacy of centuries of intensive land use will persist for decades, if not centuries into the future.

The plan that follows in Part II will address all of these issues in greater detail and explore several goals and objectives to deal with the state's outdoor recreation challenges. The next section of Part I will describe the steps taken to develop the plan that will guide outdoor recreation management and policy in Connecticut for the next five years.



Section 2: 2011-2016 Plan Methodology

rior to the development of the 2005 - 2010 SCORP, Connecticut had gone more than 15 years without a plan. The preparation of the 2005 - 2010 SCORP was extensive, and the result was a very thorough information baseline for outdoor recreation resources and planning in Connecticut. Because demographics in Connecticut remained rather stable during the period covered by the 2005 - 2010 SCORP, the quantitative assessments of outdoor recreation supply and demand completed for that plan are still representative. However, that does not mean the past six years have not seen changes. Opportunities for outdoor recreation are always evolving, and the need to reassess issues and identify new and emerging trends in outdoor recreational pastimes continues.

Operating in the midst of a \$3.5 billion state budget deficit, while having a still relevant, comprehensive assessment of supply and demand from which to characterize outdoor recreation in the state, Connecticut chose to focus its available resources for this SCORP on evaluating and characterizing the changes that have taken place since the last plan. As such, this 2011 - 2016 SCORP was developed as an update and should be considered a companion document to the 2005 - 2010 SCORP. Information gathered during both assessments is used to inform the discussions included in this plan.



Methodology Review of the 2005 - 2010 Plan

Because of the length of time between the 2005 - 2010 SCORP and the 1988 - 1993 SCORP that preceded it, the 2005 - 2010 plan started with a largely empty universe of current information about outdoor recreation in the state. To populate that universe, DEEP engaged in a massive effort to quantitatively characterize the status of outdoor recreation in Connecticut. A full description of the methodology used to develop the 2005 - 2010 document is presented in Chapter Four therein. The brief summary presented here is offered as a primer for readers unfamiliar with the 2005-2010 plan.

THE 2005 SCORP ADVISORY BOARD

An Advisory Board was assembled in January of 2004 consisting of representatives from various recreation advocacy groups, land trusts, and environmental conservation organizations. The Board met approximately monthly through June of 2005, and played an integral role in the development of the document format and the survey instruments used to collect supply and demand information. It also contributed invaluably to identifying issues of statewide importance and the recommendations, goals, and strategies that resulted from the process.



2005-2010 ASSESSMENT OF SUPPLY

The 2005-2010 plan did more than just assess the statewide supply of outdoor recreation. A survey was administered to recreation officials in all 169 Connecticut through several means: municipalities to identify and characterize all 'Discrete, Identifiable Recreational Places', or DIRPs, in Connecticut. The result was a comprehensive inventory of 4,291 outdoor recreational opportunities throughout the state (Table 2).

Table 2. Inventory of recreational sites in Connecticut.

Discrete Identifiable Recreational Place	Statewide Total
Total Acreage	328,404
Sites with Restrooms	980
Sites with Handicap Access	1,241
Total Baseball and Softball Fields	984
Total Football Fields	154
Total Multiuse Fields	624
Total Soccer Fields	495
Total Basketball Courts	645
Total Tennis Courts	384
Total Volleyball Courts	74
Total Golf Courses	125
Sites with Playground Areas	1,065
Sites with Swimming Pools	137
Sites with Beach/Pond/Lake Swimming	176
Sites with Picnic Areas	677
Sites with Fishing Access	669
Sites with Boating Access	285
Sites with Hunting	88
Sites with Camping	88
Sites with Trails	896
Sites with Winter Sports Access	238
Historic or Educational Sites	99
Sites with Gardens	109

2005-2010 ASSESSMENT OF DEMAND

The 2005-2010 plan assessed demand for outdoor recreation opportunities

- 1. The Citizen Demand Survey was a randomized survey mailed to 10,000 households that collected information on:
 - Frequency of participation in 30 different land and water based activities
 - The need for 25 different types of facilities
 - Use patterns of municipal and state outdoor recreation facilities
 - Transportation to outdoor recreation facilities
 - Sources of information about outdoor recreation opportunities
 - Obstacles to participation in outdoor recreation
 - Attitudes towards major categories of spending for outdoor recreation
 - Demographics of respondents.
- 2. The Town Officials Survey was made available online for town officials to assess facility condition and needs, user preferences, and budget priorities.
- 3. The Avid Users Survey was a non-randomized survey made available online to self-identified avid users of outdoor recreation activities. It was also designed to capture statistically undetectable populations of niche recreational activities, such as falconry or hang gliding, for example.
- 4. Three public meetings were convened across the state to present a draft of the plan and solicit public input about plan content, conclusions and recommendations.
- 5. To corroborate the efficacy of the data collected during the surveys, they were compared to the Connecticut data from the National Survey of Recreation and the Environment, 1999 – 2003. Although minor differences were detected in places, overall the comparison demonstrated consistency between the data sets.

Methodology for the 2011-2016 Plan

AGENCY REVIEW

During July 2011, the SCORP development team interviewed over 20 DEEP managers and program staff from divisions throughout the agency regarding major accomplishments and new initiatives within their areas of purview, as well as current goals and any perceived challenges to accomplishing them.

2011 SCORP ADVISORY BOARD

On July 6, 2011, DEEP convened an Advisory Board consisting of representatives from nearly two dozen various recreation advocacy groups, land trusts, environmental conservation organizations, and government agencies. A complete list of Advisory Board membership is found in Appendix B. The Advisory Board was formed to provide expertise in identifying outdoor recreation issues of statewide significance and recent accomplishments or new program initiatives since 2005, particularly those relating to nongovernmental organizations. The Board met nine times on a weekly basis through September 14, 2011, notwithstanding a two week hiatus in August during which four public meetings were convened.

PRESS RELEASE

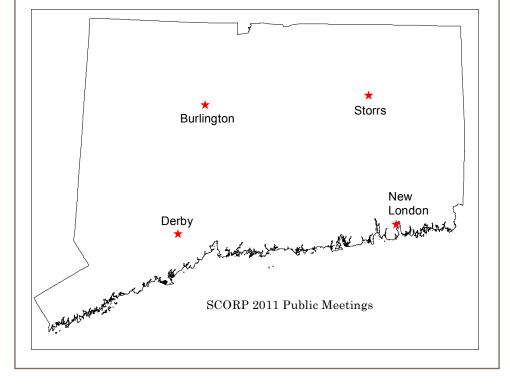
On July 22, 2011, DEEP issued a press release to all major media outlets in the state that explained the content and purpose of the SCORP and announced the various opportunities for the public to participate in the plan development process. The release included the schedule for four public meetings and a reference to the availability of the SCORP webpage on the DEEP website as a public portal for comments or contributions. The press release resulted in a number of print media stories publicizing the SCORP, the public meetings, and the website.

PUBLIC MEETINGS

On August 9, 11, 16 and 18, 2011, DEEP hosted public meetings in locations roughly representing the four geographic quadrants of the state. The meetings were held to present the proposed plan content and the new document structure to the public, and to provide opportunities for residents of the state to comment thereon and to offer contributions to the plan as they deemed appropriate.

Table 3. Public participation in meetings convened to solicit public input.

Meeting Location	Town	Number Attended	Number Commented
Sessions Woods Wildlife Management Area	Burlington	12	12
Fort Trumbull State Park	New London	30	8
The University of Connecticut	Storrs	31	18
Kellogg Environmental Center	Derby	8	6
Total		81	44



A total of 81 residents attended the meetings, of whom 44 chose to offer comments (Table 3). The most frequent topic of concern was the possible elimination of the Recreational Trails & Greenways Program staff at DEEP as well as the Recreational Trails Program (RTP) funding¹.

The two next most commonly raised issues were the insufficiency of opportunities for ATV use on public property² and the importance of progressing toward Connecticut's public open space acquisition goals. The equestrian community raised several concerns, primarily about loss of access to multiuse trails when they become paved to accommodate other forms of travel, and inadequate parking facilities for horse trailers at trailheads. Other topics raised included the need to form a Multiuse Trails Conflict Resolution Committee, better dissemination of information on outdoor recreational opportunities, creation of more disc-golf courses, and challenges associated with providing outdoor recreational opportunities in urban areas.

WEBPAGE

Beginning with the introduction of the 2005 - 2010 SCORP, DEEP had maintained a SCORP webpage (www.ct.gov/deep/scorp) that explained the content and purpose of a SCORP and provided a link to an electronic version of the current Connecticut SCORP. On July 22, 2011, several features were added to help solicit public participation in the next plan's development. The expanded webpage provided:

- a link to the working outline of the next SCORP
- an email address to which the public could submit comments or contributions: deep.scorp@ct.gov
- a schedule of public meetings to be held in August, 2011 (Table 3, page 17)
- a link to an online questionnaire regarding new developments in outdoor recreation.



¹The first three of four public meetings coincided with a collective bargaining impasse, during which the staffing for the Recreational Trails Program was proposed for reduction. Many residents who spoke during those meetings were concerned that staff reductions would disadvantage the program. The eventual passage of a collective bargaining agreement preserved the funding to maintain full staffing for the program.

²Presently, ATV access to public property in Connecticut is limited to a 60 mile trail system near the state's eastern border using a combination of state forest roads and trails. This trail system is open year round to registered, street legal motorcycles. The DEEP also accommodates enduros on selected state forests. These competitive events are typically one day in duration and are sponsored by a regional motorcycle club. They are subject to review and approval by DEEP staff and utilize state forest land, public roads and private property to provide adequate mileage for participants. Motorcycles must be street-legal, registered, and operators must be licensed. The Army Corps of Engineer's Thomaston Dam Bike Trail is open from May 1 through October 14 to registered, street legal motorcycles. There are currently no public lands that permit the use of three and four wheeled ATVs.



QUESTIONNAIRE

In cooperation with the Advisory Board, DEEP developed a brief questionnaire designed to target emerging demands for outdoor recreation opportunities since 2005. It also included a question equivalent to one in the Citizen Demand Survey from 2005 that assessed public attitudes toward major categories of spending for outdoor recreation.

The questionnaire was deliberately brief to encourage participation and had an open-ended format to give the public maximum flexibility in their responses. In addition to the press release notifying the general public of the availability of the questionnaire, a link to the questionnaire was forwarded to email lists maintained by many constituent user groups and various agency programs. In all, 741 people completed the questionnaire. Participants were asked to respond to three questions regarding new outdoor recreation activities, facility needs, and spending priorities. The questions are reproduced below and the responses

are summarized in Figures 6-8. Respondents were also asked five demographic questions to help evaluate whether any groups were overrepresented or underrepresented in the responses (Appendix C).

Question 1: This update of SCORP seeks to identify new trends in outdoor recreation in Connecticut since the previous SCORP was printed in 2005. Please identify any emerging outdoor recreational activities in which you have become newly involved in Connecticut since 2005. (ex. geocaching, disc-golf, etc.)

Question 2: Connecticut inherently offers more opportunities for some outdoor recreational activities than for others. Please identify any outdoor recreational activities, facilities, or opportunities you would like to see better represented in Connecticut.

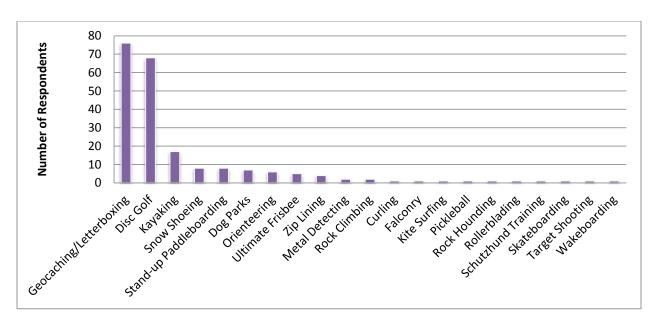


Figure 6. Number of responses to Question 1, above, identifying outdoor recreational activities as being new or emerging in Connecticut since 2005. (N = 476)

Question 3: Connecticut has several options for the allocation of outdoor recreation funding. Please consider the options below and rank them in order of importance:

- Maintain and repair existing facilities
- Improve advertising and information
- Increase outdoor recreation facilities
- Increase outdoor recreation programs
- Purchase more open space.

MUNICIPALITY QUERY

On June 24, 2011, working through the Chairman of the Connecticut Association of Regional Planning Organizations (CARPO), DEEP sought to update the 2005 survey of 169 municipalities for all new or renovated outdoor recreation facilities. It also sought to identify the addition or expansion of any functions that develop or support outdoor recreational facilities by posing the following questions:

- 1. Has your town or city developed any new partnerships with federal or state agencies, or non-governmental organizations in the furtherance of outdoor recreation or natural, historical or cultural resource protection or restoration?
- 2. Has your town or city initiated any new outdoor recreation programs?
- 3. Have any new organizations formed locally involved with outdoor recreation development or advocacy, or involved in open space acquisition and preservation?

On behalf of DEEP, the CARPO Chairman distributed the inventory update and the questions above to the chairmen of all 15 Regional Planning Authorities in the state and requested that they forward the materials to the appropriate officials in all municipalities within their planning districts. Twelve municipalities responded, with at least one respondent from each of the Five CT's.

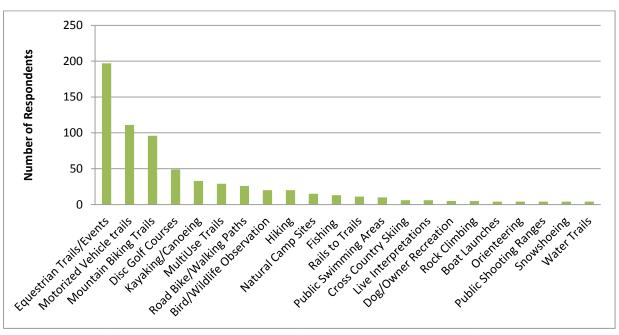


Figure 7. Number of responses to Question 2, above, identifying outdoor recreational activities that respondents would like to see better developed in Connecticut. (N = 666)

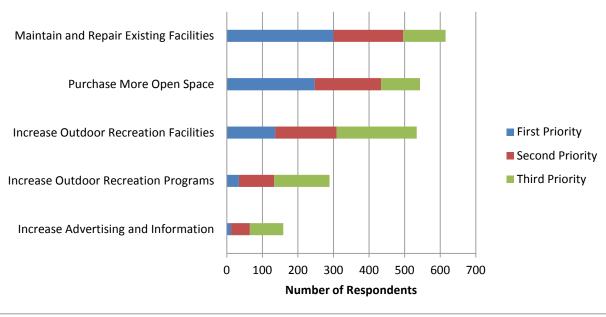


Figure 8. Priorities identified by respondents to Question 3, above, for the allocation of outdoor recreation budget resources. Bars are a cumulative representation of respondents' top three choices. Blue segments indicate intensity of importance. Bar totals indicate depth of importance. (N = 735)

Section 3: Assessment of Demand

Review of Demand Assessment in 2005

n 2005, through the many surveys that were conducted, the people of Connecticut were provided an opportunity to quantify their outdoor recreation needs. Whether being asked to identify the activities in which they participate most frequently (Figure 9) or to identify resources they would like to see better developed in their local communities and across the state (Figure 10), the same list of resources consistently emerged at the top.

Connecticut residents overwhelmingly desire multiuse trails, both paved and unpaved, above all other resources. Other activities appearing consistently in the top seven on the list of most popular pastimes, or greatest needs locally and statewide, were variously reported in different orders of popularity from one survey to another. Therefore, the list below is not completely in rank order. Recognizing multiuse trails as the clear favorite and the others as all vying for second, the activities most in demand included:

- Multiuse Trails (paved and unpaved)
- Activities at the Beach
- Bird Watching or Wildlife Viewing Areas
- Outdoor Swimming Pools
- Picnic Areas, Shelters, and Playgrounds
- Swimming in Freshwater and Saltwater
- Visiting Historic Sites and Museums.



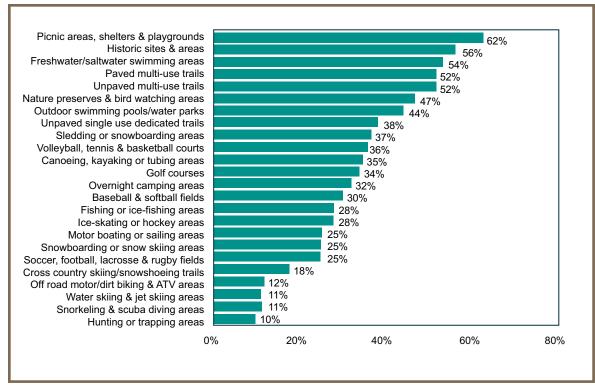


Figure 9. From the 2005 SCORP: Percentage of respondent households that have a need for various parks and recreational facilities. Bars represent the percentage of respondents who expressed a need for a given facility. Respondents answered 'Yes' or 'No' to each category.

Demand Assessment Techniques in 2011

In 2011, given multiple, open-ended opportunities for public input, the people of Connecticut once again overwhelmingly identified paved and unpaved multiuse trails as the outdoor recreation resource in most demand. Trails in all forms consistently appear in discussions of a variety of often incompatible uses. The ATV community, the equestrian community, and the mountain biking community all clearly communicate a demand that is not currently supplied on public lands and all three communities have requests for public facilities that are currently not available.

Of the remaining six categories identified in 2005, only swimming and bird watching/wildlife viewing were mentioned again in 2011 as resources needing further development in Connecticut.

While the most abundant and ardent voices were those speaking for trails, of interest is that swimming areas of all varieties, which were consistently identified as a need in the 2005 surveys, were barely mentioned in 2011. Despite the fact that opinions were being solicited during the heat of summer, there was not a single mention of a need for more swimming areas at any of the public meetings, and not one email received via the SCORP website related to swimming. The questionnaire did detect a slight unmet demand for swimming areas; 1.6% of over 650 people who

responded to an open-ended question, which allowed for almost limitless responses, identified swimming as a resource that they think needs to be further developed. Two other categories that ranked very high in the 2005 survey, 'visiting historic sites and museums' and 'picnic areas, shelters, and playgrounds' were not mentioned during the 2011 assessment efforts.

The absence of stated demand for these activities does not necessarily indicate that rates of participation have changed. Rather, it suggests that demand does not exceed supply. This conclusion is supported by Figure 11, which shows that 80% to 90% of households having need for those facilities stated that their needs were at least 50% met, and half of the households stated that their needs were at least 75% met.

Of the dozens of activities mentioned in response to the questionnaire, only 10 were mentioned by more than two percent of respondents as needing better representation in Connecticut (Table 4). Of the 10 resources named most often, six related directly to trails and two others related indirectly to trails, as bird/wildlife observation and natural campsites most often imply trail access for participation. Consistent with the public meeting comments and the email responses, the top two categories again clearly identify the unmet needs of the equestrian and ATV communities.

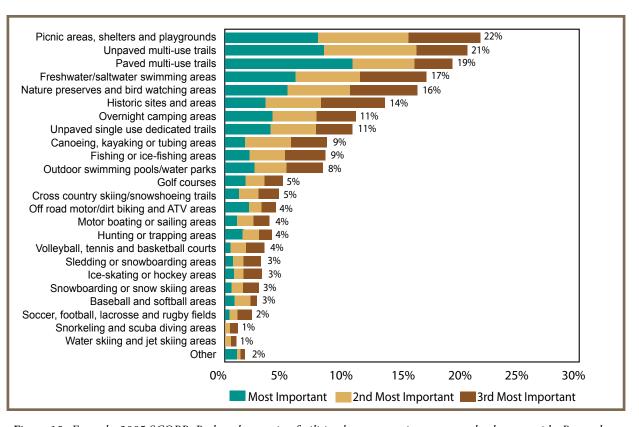


Figure 10. From the 2005 SCORP: Park and recreation facilities that are most important to develop statewide. Respondents were asked to pick the top three most important facilities to develop from a list of all facilities. The blue bars represent the intensity of need'. The total bar length represents the depth of need.

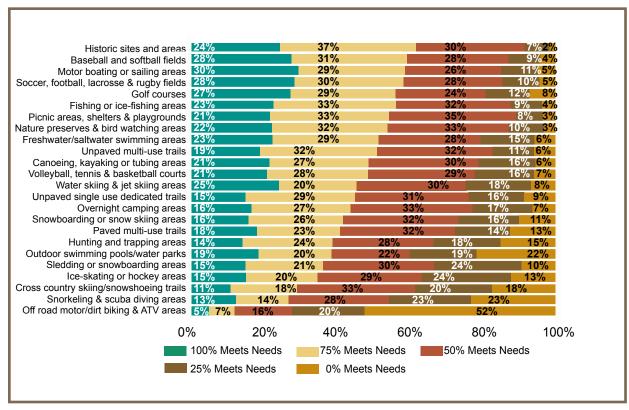


Figure 11. From 2005 SCORP: How well parks and recreational facilities meet the needs of respondent households.

Random sampling of the population in 2005 indicated that 11% of the population participates in ATV riding and 10% in horseback riding. However, if response bias is considered (and, given the passion and unity of the communities involved, it is likely that a high proportion of the equestrian and ATV participants in the general population who received the survey returned the survey), the percentages reported could be misrepresentative of their actual proportion in the general population. To explain, if 10,000 surveys were sent out and 2,200 were completed and returned, roughly 1 in 5 people responded. The underlying premise of a random survey is that any particular group will be proportionately represented in the sample. For example, 1 in 5 survey recipients with blue eyes would be expected to return the survey because eye color presumably has no bearing on a person's inclination to return a survey. However, if 5 out of 5 people with blue eyes returned the survey, they are considered to have a response bias for some reason,

and they are over-represented in the sample by 500%. Going back to the ATV and equestrian example, if 100% of ATV users and equestrians who randomly received a survey answered the survey, rather than the general population response rate of 22%, the percentage reported for those groups would be 500% higher in the sample than their true proportion in the general population. If this were true, the 11% and 10% reported in the sample could actually mean 2.2% and 2.0% in the general population. If the number of responses from these communities in Figure 7 (Page 21) is any indication, it is not unlikely that some response bias exists in the reported 11% and 10%. Whether they are actually 10% or 2% percent of the population, it is still clear that these communities both have a desire for additional facilities that is going unmet.

In response to the question regarding participation in activities that are new to Connecticut since 2005, only nine activities were mentioned in at least 1% of responses (Table 5). Of the nine activities, only two were identified by at least ten percent of respondents, geocaching/letterboxing and disc-golf. While neither is completely new to Connecticut, they were both devised in recent history and are clearly increasing in popularity in Connecticut. The two activities identified

the next most often are kayaking and snowshoeing. Both have long been part of the outdoor recreation lexicon, so they cannot be considered new, but their rate of appearance in the responses may indicate that they are growing in popularity. The remaining five, while they may be long familiar to some, are relatively new to most people and are worth including in the discussion of emerging demand. However, of those five, only dog parks and zip lining require specific infrastructure for participation.

Table 4. Top 10 activities respondents indicated needed to be developed in Connecticut (N=596).

Activity	Count	Percent
Equestrian Trails/Events	197	30
Motorized Vehicle Trails	111	17
Mountain Biking Trails	96	14
Disc Golf Courses	49	7
Kayaking/Canoeing	33	5
Multiuse Trails	29	4
Road Bike/Walking Paths	26	4
Bird/Wildlife Observation	20	3
Hiking	20	3
Natural Camp Sites	15	2

Table 5. Activities that at least 1% of respondents identified as new in the state since 2005 (N=199).

Activity	Count	Percent
Geocaching/Letterboxing	76	16
Disc-Golf	68	14
Kayaking	17	4
Snow Shoeing	8	2
Stand-up Paddleboarding	8	2
Dog Parks	7	1
Orienteering	6	1
Ultimate Frisbee	5	1
Zip Lining	4	1

In a more general sense of demand, when people were asked to rank categories for the allocation of funding for outdoor recreation, the order and relative proportion of the categories identified by the 2011 questionnaire (Figure 8, Page 21) were virtually identical to those identified in the 2005 Citizen Demand Survey. Connecticut residents rank their priorities in the following order:

- 1. Maintain and repair existing facilities.
- 2. Purchase more open space.
- 3. Increase outdoor recreation facilities.
- 4. Increase outdoor recreation programs.
- 5. Improve advertising and information.

In terms of issues of statewide importance, clearly trails are still the main topic of discussion. Multiuse trails are immensely popular with the general population, and increased access to trails for specialized uses continues to be important to the ATV and equestrian communities, and perhaps to some extent to the mountain biking community.

Acquisition of open space continues to be a priority to Connecticut residents, although for many people its importance is grounded more in natural resource protection than outdoor recreation opportunities. Regardless of the inspiration, a large number of people who spoke at the public meetings emphasized the imperative of continuing to fund DEEP's Open Space and Watershed Land Acquisition Grant Program, especially during this era of reduced real estate prices.

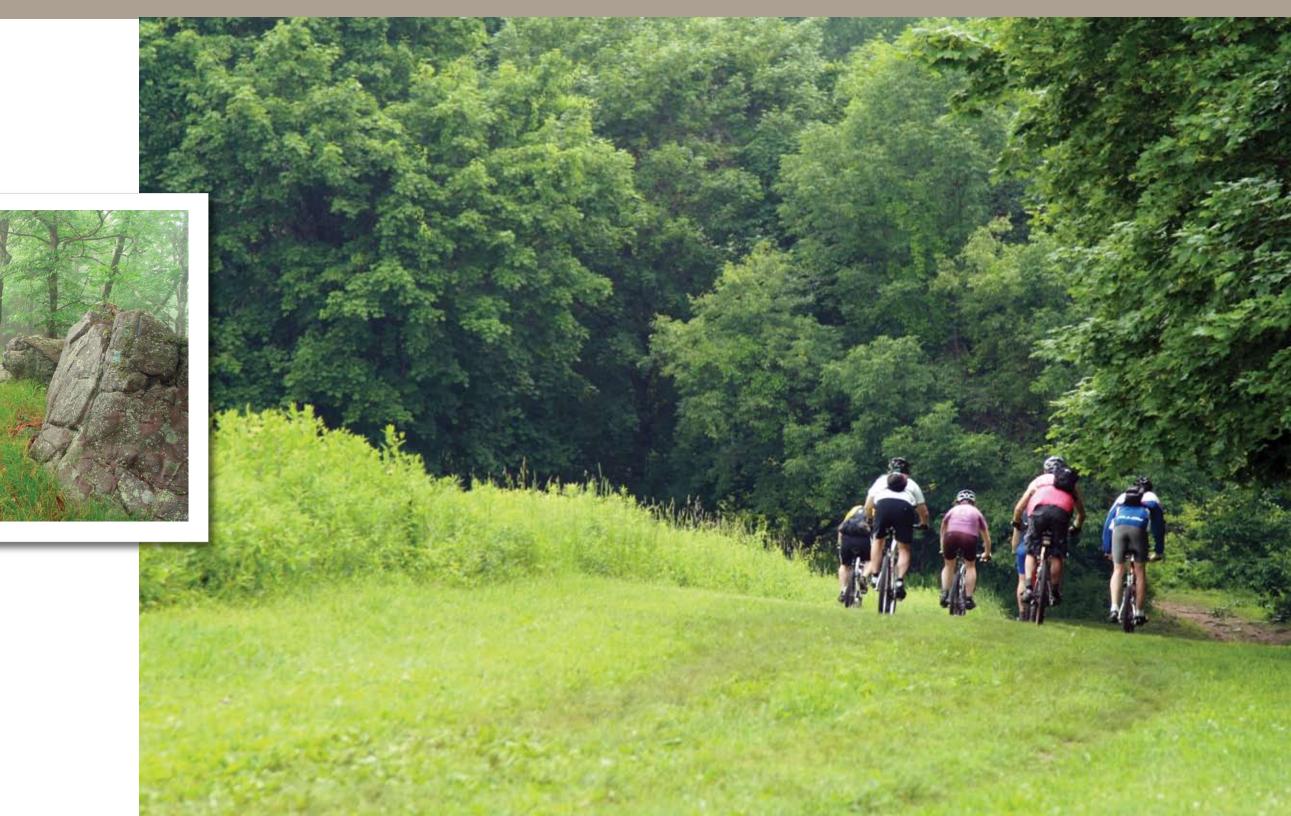
Section 4: Assessment of Supply

Outdoor Recreation Resource Managers in Connecticut

Outdoor recreation opportunities in Connecticut are provided to the public on federal, state and municipal properties, as well as on privately owned land-conservation properties, many of which are provided at no cost to the public. Natural resource-based recreation opportunities such as hunting, fishing, hiking or canoeing are traditionally supplied by the state and federal governments. Additionally, a large majority of land-trust properties are open to the public for passive uses such as hiking and wildlife viewing. Infrastructure-based resources such as tennis and basketball courts, baseball diamonds, football and soccer fields, playgrounds and swimming pools, etc. are traditionally supplied by municipalities.

There are also numerous privately owned lands that are not formally protected as open space, but are nonetheless made freely accessible to the public for outdoor recreation. To help encourage public access to outdoor recreation opportunities on private lands, Connecticut has a strong Recreational Liability Statute to limit the liability of land owners who open their land to the public for recreational use at no charge. Many of the state's long distance trails would not exist uninterrupted without this essential cooperation from private landowners. The same is true of open spaces and waterways for fishing, boating, hunting, and wildlife viewing.

There is also a variety of fee-based activities offered to the public by privately owned commercial vendors, such as downhill skiing areas and golf courses, zip-lining courses, water parks, go-cart tracks, and skydiving, for example. These facilities certainly represent additional access to an expanded variety of outdoor recreation opportunities. However, unlike publicly owned resources, the long-term availability of fee-based opportunities is subject to change on the basis of private sector management decisions. So, while they are relevant to the current discussion of outdoor recreation opportunities in the state, because they exist outside the realm of public determination, they must be factored accordingly into the supply assessment for the purposes of the state's outdoor recreation planning.



Review of Supply Assessment in 2005

The assessment of supply for this plan draws upon the extensive quantitative efforts undertaken for the 2005-2010 SCORP, combined with more qualitative efforts recently undertaken to characterize developments since then. In 2005, after nearly two decades without a SCORP, and with changes in the state's demographics and evolving trends in outdoor recreation, Connecticut recognized the importance of establishing a fresh baseline of the state's outdoor recreation resources. To that end, the development of the 2005-2010 plan went beyond an ordinary assessment of statewide supply and endeavored to completely inventory all outdoor recreation resources in the state (Table 2, Page 16).

RESOURCE INVENTORY METHODOLOGY IN 2005

A comprehensive survey was administered to recreation planning officials in all 169 Connecticut municipalities to identify and characterize all 'Discrete, Identifiable Recreational Places', or DIRPs, within their respective jurisdictions. A DIRP could be of any ownership classification, government or private, and could be comprised of just one or several separate resources grouped together at a location. A public school, for example, having tennis and basketball courts, baseball diamonds, and soccer and football fields still represents one DIRP. Regardless of ownership or recreational resources, a DIRP must be accessible to the general public. Sites that were not accessible to the general public were not counted as DIRPs.

The information gathered from municipal officials ultimately identified 4,291 DIRPs across the state. Each DIRP was described using more than 50 unique site characteristics including location, size, ownership, services provided, and the varieties of recreational resources that were available. The comprehensive database that was developed to store this information was the first of its kind for outdoor recreation resources in Connecticut. However, the database was created to do more than just store the data. The larger intent was to eventually make all the data accessible in a practical,

dynamic format through a searchable online interface made available to a wide audience of users, including municipal planning officials and the general public.

COMMUNICATING RESOURCE SUPPLY TO THE PUBLIC IN 2005

In a state where a clear information gap between its residents and the outdoor recreation resources available to them was identified as the single biggest obstacle to access (Figure 7-27, page 123, 2005-2010 SCORP), providing a comprehensive, centralized source of information could be a highly effective means for closing that gap. A comprehensive outdoor recreation supply website could be designed to help state residents and visitors identify all resources of interest to them throughout the state by enabling search capabilities for userselected combinations of activities, features, services, and locations.

Some progress has been made toward offering such a resource to the public. While Connecticut does not yet have a single, centralized resource, there have been other useful tools developed that target specific resources of interest to particular user groups. WalkCT, developed by the Connecticut Forest and Park Association, is an online resource that can identify all publicly accessible trails within a selected distance from a location identified by the user. The Connecticut Coastal Access Guide, developed as a partnership between the University of Connecticut and DEEP, was first available as a printed map and is now also an online resource that allows users to search an even wider array of user-defined combinations, including activities, features, services, and geographic regions. Locations returned by the CCAG searches, however, are limited to areas having shoreline access (313 sites as of 2011) and do not include inland resources.

Searchable online resources such as WalkCT and the CCAG are steps in the right direction for Connecticut. They serve as pioneering efforts toward the state's ultimate goal of providing a single, centralized information resource for every outdoor recreation opportunity in Connecticut, whether it is offered by a federal, state, or municipal government, a land trust, a commercial recreation vendor, or a private landowner.

Table 6. 'Discrete, Identifiable Recreational Places' (DIRP) by percent ownership.

DIRP	State (%)	Municipal (%)	NGOs (%)
Acreage	66	17	17
Baseball/Softball	1	91	9
Basketball	1	91	9
Beach	10	55	35
Boating Access	30	37	33
Camping	33	25	42
Fishing	26	41	32
Football	1	88	12
Gardens	6	69	24
Golf courses	1	24	75
Historic	24	59	17
Hunting	71	2	27
Multiuse fields	5	83	11
Picnic	12	68	20
Playground	0	88	11
Soccer	1	90	9
Swimming Pool	2	69	30
Tennis	1	91	8
Trails	18	50	32
Volleyball	0	68	32
Winter Sports	29	52	19

The challenges of creating a comprehensive online user interface and maintaining the database necessary to support it remain daunting. However, it is clear that Connecticut presently offers a supply of outdoor recreation resources that are yet undiscovered by many of its residents and visitors alike. If there is anything more important than providing a resource, it is informing the public of its existence and accessibility. Connecticut's greatest immediate gains in increasing effective outdoor recreation supply might be accomplished by increasing public awareness of all the existing resources.

RESOURCE OWNERSHIP AND MANAGEMENT IN 2005

The data gathered in the course of developing the 2005-2010 SCORP effectively corroborated the generally accepted premise that the state primarily provides natural resource-based recreation activities that rely on large, undeveloped land holdings, and municipalities and nongovernmental organizations (NGOs) (defined as commercially operated sites or publicly accessible institutional properties) provide most of the infrastructure-based recreation resources such playing fields and athletic courts, swimming pools, historical sites, gardens, golf courses, and playgrounds.

With the exception of Hunting, Camping, Acreage and Golf courses, municipalities exceeded the state and NGOs in the number of resources they manage, in most cases by a wide margin (Table 6). The state provides the vast majority of open space Acreage and, by extension, the most area accessible to Hunting. NGOs, while managing virtually the same land area as municipalities, provided ten times the amount of land open to *Hunting* and three times the number of *Golf courses*. NGOs also provided more opportunities for Camping than municipalities or the state, each contributing 42%, 25% and 33%, respectively.

Of the remaining categories, municipalities account for roughly 90% of Connecticut's Basketball and Tennis courts, Playgrounds, and Football, Baseball and Soccer fields. They also provide approximately two thirds or more of the Volleyball courts, Multiuse fields, Swimming pools, Picnic areas, Gardens and Historic areas. They also manage half of the Trails, Beaches and Winter sports resources in the state.

DISTRIBUTION OF RESOURCES AMONG THE FIVE CONNECTICUTS

Connecticut also sought to characterize the distribution of outdoor recreation resources relative to the demographic distribution represented by the Five Connecticuts (5 CTs). To first establish an average rate of supply for the state as a whole, DEEP determined the quantity of each resource available for every 10,000 Connecticut residents statewide. To characterize distribution of resources across

demographic categories, DEEP then calculated the supply rates of each resource for every 10,000 residents within each of the 5 CTs (Table 7). When the various rates of the 5 CTs were compared to the statewide average, some significant facts emerged.

All recreation resources in Urban Core areas were available at less than the statewide average, and 18 of 21 categories were available at substantially lower rates. Urban Periphery fared better, but still had 13 categories below the statewide average, with ten also occurring at substantially lower rates. The only resource category from either demographic category that exceeded the statewide average was basketball courts in Urban Periphery.

Table 7. Distribution of 21 'Discrete, Identifiable Recreational Places' (DIRP) per 10,000 residents across the Five CTs.

DIRP	Statewide	Wealthy	Suburban	Rural	Urban Periphery	Urban Core
Playgrounds	3.1	2.3	3.3	3.5	3.1	2.9
Baseball/Softball	1 2.9	2.8	3.4	3.9	2.9	1.4
Trails	2.6	6.1	3.6	5.5	1.3	0.7
Picnic	2.0	2.9	2.8	3.8	1.1	1.0
Fishing	2.0	2.3	2.5	5.5	1.1	0.3
Basketball	1.9	8.0	1.8	2.1	2.2	1.5
Multiuse Fields	1.8	2.2	2.6	3.2	1.4	0.6
Soccer	1.5	1.0	2.0	2.2	1.3	0.6
Tennis	1.1	1.1	1.5	1.4	1.1	0.6
Boating	0.8	1.3	1.1	2.4	0.4	0.2
Winter Sports	0.7	8.0	1.2	1.5	0.3	0.1
Beach	0.5	0.9	0.7	1.1	0.3	0.2
Football	0.5	0.3	0.5	0.5	0.5	0.4
Swimming	0.4	0.3	0.4	0.5	0.4	0.3
Golf	0.4	0.3	0.5	0.7	0.3	0.1
Garden	0.3	1.0	0.4	0.3	0.3	0.1
Historic	0.3	0.5	0.3	0.6	0.2	0.1
Hunting	0.3	0.1	0.3	1.2	0.1	0.0
Camping	0.3	0.3	0.3	1.0	0.0	0.0
Volleyball	0.2	0.0	0.3	0.4	0.2	0.1
Acreage	964	558	949	4164	284	122

With nearly 2/3 of the state's population living in Urban Core and Urban Periphery municipalities, it is clear that residents of Connecticut's urban areas have local access to outdoor recreation resources at rates far lower than residents in other areas of the state.

Conversely, with the exception of minor differences detected in basketball courts and acreage in Suburban CT, all categories in Rural and Suburban CT equaled, or in many cases exceeded, the statewide average. Furthermore, with the exception of minor differences in tennis courts and gardens, Rural CT equaled or exceeded Suburban CT in all categories, sometimes by a factor greater than 200%. Most notably, but not surprisingly, Rural CT had four times as much outdoor recreation acreage than the state average and 32 times as much as Urban CT.

While Wealthy CT exceeded statewide averages in half the categories, it had significant shortfalls in infrastructure-based resources, including playgrounds, football and soccer fields, volleyball and basketball courts, as well as significant shortfalls in acreage and hunting opportunities. However, when evaluating these shortfalls, it is helpful to consider that DIRPs must be publicly accessible and that private institutions may be more prevalent in Wealthy CT.

Supply Assessment in 2011

ASSESSMENT TECHNIQUES

While the 2011 assessment is intended to be a qualitative update in general, one of the approaches used was to query municipalities regarding additions to, or major renovations of the various facility types in their communities. Twelve municipalities representing all 5 CT's responded, although Wealthy CT was represented by a single municipality. While the information was not collected in a manner that allows the results to be expanded to reliably characterize developments statewide, the responses do reveal some interesting insights (Table 8)

Overall, municipalities reported a 26.5% increase in the number of sites either newly added to inventory or completely renovated. Projects were very equally divided between new (49%) and renovated (51%), indicating that municipalities are devoting significant resources to maintaining existing facilities.

Of the 22 categories of facilities in the query, only two reported no increases or improvements: Hunting and Camping. Three other categories, Sites with Boating Access, Sites with Fishing Access, and Sites with Winter Sports, reported less than a 10% increase since 2005.

Facilities with the largest percent increases were Sites with Gardens (171%), Historic or Educational Sites, (100%), Total Tennis Courts (81%), and Sites with Trails (52%). In the case of the first two, the number of existing sites in 2005 was small (5 and 7, respectively), so a modest increase in the number of sites (5 and 12, respectively) reflected large percentage increases. Nonetheless, a doubling of sites with historical or educational resources over six years demonstrates a clear initiative to increase these opportunities at a municipal level.

The other two facilities with large percent increases, *Total Tennis Courts* and Sites with Trails, had relatively large inventories to begin with in 2005, so their percent increases represent significant developments during the past six years, although the nature of their respective developments is quite different. Of the 45 Sites with Trails reported since 2005, 80% of them were new facilities, which represent an expansion of the trail networks overall. In the case of Total Tennis Courts added since 2005, there were 22 reported overall, although more than 90% of those were renovations representing extensive maintenance to existing infrastructure, not new access opportunities.

Other categories also had large inventories to begin with in 2005, so their percent increases don't reveal the significant improvements they received. Fifty-nine Sites with Playgrounds became 80 Sites with Playgrounds, with half being new facilities and the other half representing renovations. Only five new Basketball Courts were added to inventory, but 15 were renovated. Similarly, only four new Baseball and Softball Fields were added, but 22 were renovated. Altogether, facilities generally associated with municipal resources account for approximately 75% of renovated facilities.

Also of note is the proportion of new sites with handicap access vs. renovated sites with handicap access. Of the 18 sites reported since 2005, nearly three-quarters of the total represent improvements made to retrofit existing facilities.

Table 8. Additions to outdoor recreation resource supply since the original 2005 inventory, as reported by 12 municipalities.

Outdoor Recreational Facility	2005 Totals		ed Since 2		2011 Totals	% Increase
Sites with Restrooms	64	3	5	8	72	13
Sites with Handicap Access	89	5	13	18	107	20
Total Baseball and Softball Fields	67	4	18	22	89	33
Total Football Fields	9	0	2	2	11	22
Total Multiuse Fields	49	5	0	5	54	10
Total Soccer Fields	37	5	4	9	46	24
Total Basketball Courts	49	5	10	15	64	31
Total Tennis Courts	27	2	20	22	49	81
Total Volleyball Courts	7	1	0	1	8	14
Total Golf Courses	11	0	1	1	12	9
Sites with Playground Areas	59	10	11	21	80	36
Sites with Swimming Pools	18	0	2	2	20	11
Sites with Beach/Lake Swimming	9	0	1	1	10	11
Sites with Picnic Areas	42	9	0	9	51	21
Sites with Fishing Access	59	2	0	2	61	3
Sites with Boating Access	25	1	0	1	26	4
Sites with Hunting	6	0	0	0	6	0
Sites with Camping	8	0	0	0	8	0
Sites with Trails	87	36	9	45	132	52
Sites with Winter Sports Access	31	0	1	1	32	3
Historic or Educational Sites	5	3	2	5	10	100
Sites with Gardens	7	7	5	12	19	171
Total Skate Parks	0	1	0	1	1	N/A

ASSESSMENT SUMMARY

Supply of outdoor recreational facilities in Connecticut can be characterized by several patterns, both in terms of the quantitative information gathered in 2005, and the updated information addressing the six years since 2005:

- Municipalities and NGOs provide the vast majority of infrastructure based recreational opportunities
- The State primarily provides natural resource-based recreational opportunities
- Both natural resource-based and facility-based outdoor recreation opportunities are highly skewed toward Rural and Suburban CTs and away from Urban Periphery and especially Urban Core CTs
- A considerable majority of state residents have below average access to outdoor recreation opportunities in their local communities.

In the municipalities that participated in the inventory update:

- New trail developments represent the single largest contribution to the new supply of outdoor recreation opportunities in the past six years
- Capital maintenance and repair account for half of the facilities reported since 2005, and 75% of those are projects associated with municipal resources
- Existing facilities being retrofitted for ADA access outnumber new facilities nearly three to one, indicating progress toward making all facilities accessible to persons with disabilities to the extent possible.



PART II: The Plan

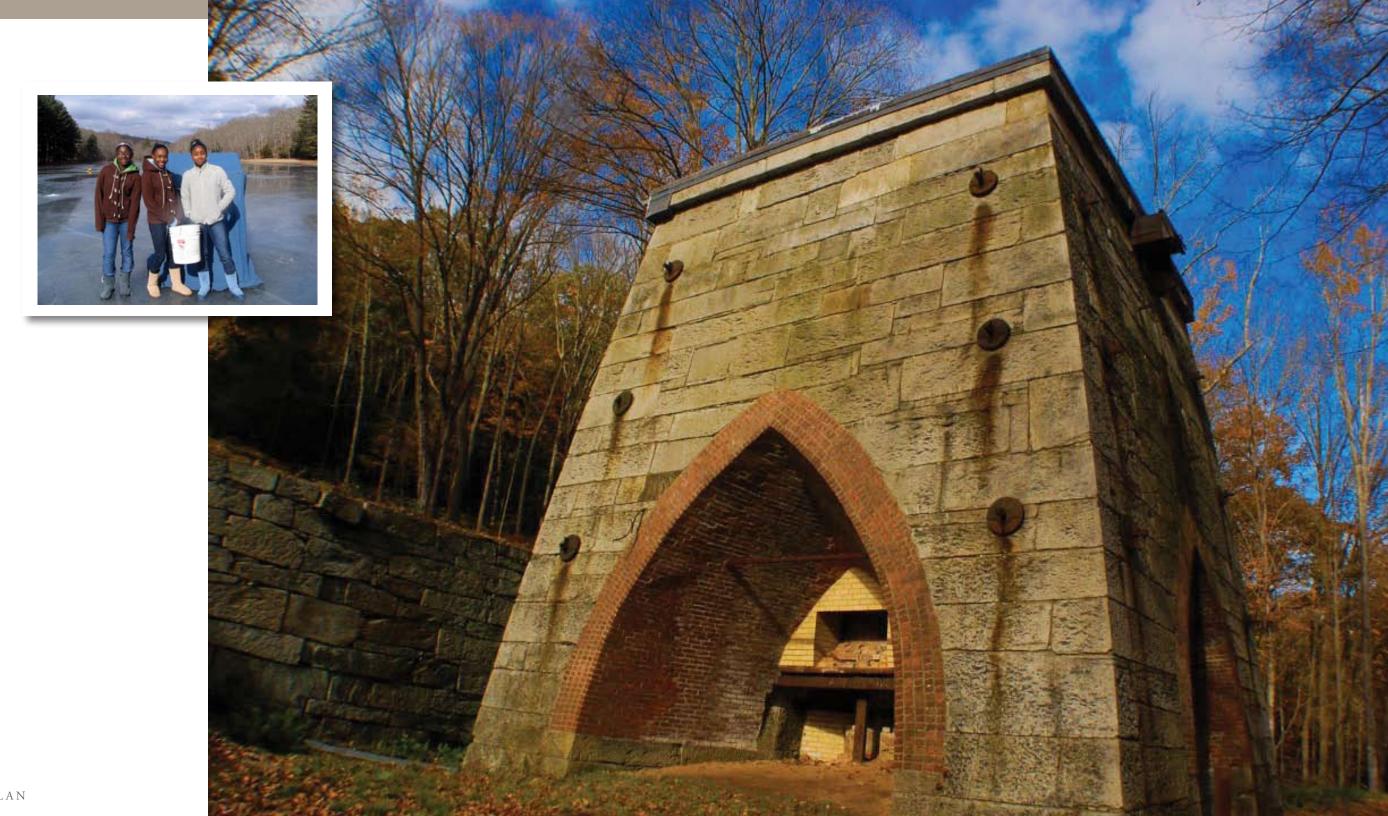
he Connecticut Statewide Comprehensive Outdoor Recreation Plan is a guiding document that defines a path forward for the Department of Energy and Environmental Protection (DEEP) as it strives to fulfill the mission of making outdoor recreation available to all residents of the state for the benefit of their health, prosperity and enjoyment. The Plan also provides guidance to legislators, municipal officials, land trusts, the business community and the general public by defining a clear agency agenda to which they can refer and upon which they can rely as they formulate and execute their own agendas for outdoor recreation and environmental conservation.

The goals set forth herein, and the challenges, opportunities and objectives associated with each were developed by DEEP in close cooperation with an Advisory Board of highly informed and dedicated stakeholders in outdoor recreation and land conservation, as well as with substantial open forum input from the general public. The range of issues identified grouped themselves naturally into six categories generally characterized as maximizing variety of and access to outdoor recreation activities, increasing participation in outdoor recreation, and protecting and preserving public open space, natural resources, and cultural resources.

The goals in this SCORP are ordered in a sequence that presents the discussion as a natural progression from one subject to the next. They do not represent a prioritization. Connecticut considers them all to be equally important to the further development of outdoor recreation in the state.

Connecticut's goals are to:

- Goal 1: Fulfill the commitment to public open space acquisition set forth in *The Green Plan:*Guiding Land Acquisition and Protection in Connecticut.
- Goal 2: Protect and restore the natural resources that are fundamental to quality outdoor recreation experiences.
- Goal 3: Protect and restore Connecticut's cultural and historical resources.
- Goal 4: Maximize public access to outdoor recreation resources.
- Goal 5: Maximize the variety of outdoor recreation resources.
- Goal 6: Engage in public outreach to better inform residents and visitors about the availability of outdoor recreational resources, and of the many personal and community benefits of participation.



PART II: The Plan - Goal 1

Connecticut will fulfill the commitment to public open space acquisition set forth in *The Green Plan: Guiding Land Acquisition and Protection in Connecticut.*

Introduction

onnecticut's natural diversity and scenic beauty add immeasurably to the quality of life of its residents. The state's prosperity has always depended upon its natural resources. Forests and farms contribute to a healthy and diverse economy. Parks and open lands improve the quality of life and help attract businesses and residents. Natural areas and waterways provide critical wildlife habitat, clean drinking water, and the scenic natural beauty that is the foundation of the tourism industry. However, not all undeveloped land is protected open space; some of it will eventually be developed. For Connecticut to remain an attractive state in which to live, work, visit and recreate, it is critical that development be balanced with land conservation. Only the public possession of property rights can guarantee that open spaces will remain protected in perpetuity for outdoor recreation access and conservation. For this reason, acquisition of open space is the backbone of outdoor recreation.

Harkening back to the colonial era town green, Connecticut has a strong tradition of setting aside public open spaces for the people's common enjoyment. Sharing the grounds with the state capitol, Bushnell Park in Hartford was the first publicly financed municipal park in the nation, and it has been a centerpiece of respite from bustle in the state's capital since 1861.

Sherwood Island State Park, on the coastline of Long Island Sound in Westport, became Connecticut's first state park in 1913 and it remains one of the state's most visited parks, hosting hundreds of thousands of visitors and dozens of special events annually. Since that first acquisition, Connecticut's initiative to provide public spaces for outdoor recreation has continued unabated for nearly a century. In 2013 the Connecticut state park system will mark its 100th anniversary boasting an inventory of 107 parks and 32 forest recreation areas.



"Buy Land. They're not making it anymore."

Mark Twain



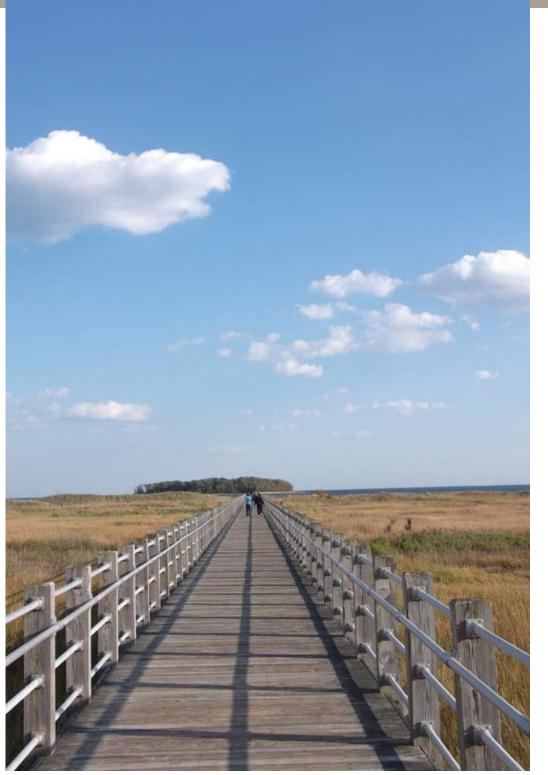
THE EVOLUTION OF CONNECTICUT'S OPEN SPACE PATTERNS

For most of Connecticut's long history, the sheer abundance of undeveloped open space meant that its preservation was not a public priority. During the state's agrarian era, 97% of the population resided in rural areas with small population centers and family farms dispersed across the landscape. But the rise of the industrial revolution saw much of the population shift into urban centers in search of more lucrative employment, leaving behind large tracts of pasture and cropland in the countryside to be steadily reclaimed by the forests that had once blanketed the state. Connecticut's legendary network of stone walls lacing through the heart of mature forests serves as a testament to that process.

Before long, however, the advent of the automobile triggered a demographic shift unprecedented in history. With the best employment opportunities still concentrated in the state's now numerous urban centers, and quiet, affordable, family-friendly communities rapidly spreading across the open countryside, the state's transportation network quickly emerged to bridge the gap and facilitate the rise of suburbia.

Seeking relief from the congestion of cities and having the means to cover greater distances in less time, the resettlement pattern of Connecticut's countryside in the 20th century was characterized by the dispersal of individual families into single family homes, each with its own small privacy buffer of real estate and each incrementally fragmenting heretofore contiguous tracts of forest and farmland.

Between 1950 and 1970, Connecticut's population increased 50% from two million to three million residents. The growing pressure on open space from residential and commercial development accelerated the conversion of rapidly dwindling open space into sweeping tracts of housing and the ubiquitous strip malls that provisioned them. The modern, high speed transportation corridors connecting them all to each other and to the urban centers expanded as the population increased, further fragmenting the landscape. As the final decades of the century unfolded, both the public and private sectors came to realize that poorly controlled growth might irrevocably convert any remaining undeveloped open space to other, less desirable purposes.



THE GREEN PLAN: OVERVIEW

With the intent of stemming the loss of open space to urban sprawl and preserving undeveloped open space for future generations, the State of Connecticut developed a unified plan for open space acquisition. In 1997, the Connecticut General Assembly set an ambitious goal (CGS Section 23-8) of preserving 21% of Connecticut's land area (673,210 acres) as public open space by the year 2023. To that end, the General Assembly commissioned the Department of Energy and Environmental Protection (DEEP) to develop the *Green Plan: Guiding Land Acquisition and Protection in Connecticut*, which identifies goals, challenges and threats to protecting open space, and defines priorities for land acquisitions based on ecological values, use needs, and location considerations.

The Green Plan envisions a mixed landscape providing outdoor recreation to Connecticut's citizens, protecting water supplies, preserving fragile natural ecosystems and habitats for plants and animals, ensuring green spaces for city residents, and providing a working landscape for the harvest of farm and forest products. To accomplish this vision, the plan calls for the State of Connecticut to acquire 10% of the state's land area (320,526 acres) for its system of parks, forests, and other natural resource management areas and the remaining 11% (352,634 acres) to be acquired by municipalities, private nonprofit land trusts, water companies and the federal government.

THE GREEN PLAN: FUNDING SOURCES

To achieve its statutory goal of permanently protecting 21% of Connecticut as open space by the first quarter of the 21st century, the State must remain committed to acquiring public open space for the next decade and beyond. Toward that end, DEEP uses state bonding to finance two major programs, one for the acquisition of its 10% share of public open space and the other to assist municipalities and land trusts with the acquisition of their 11% share:

1. *The Recreation and Natural Heritage Trust Program (RNHT)* was created in 1986 to help preserve Connecticut's natural heritage.

- Supported by state bonding, it is DEEP's primary program for acquiring land to expand the state's system of parks, forests, wildlife, and other natural open spaces
- 2. The Open Space and Watershed Land Acquisition Grant Program (OSWLAG) provides financial assistance to 169 municipalities and 115 land trusts to acquire land that will add to a community's open space, enhance recreational opportunities, protect water resources or unique geographical features, or conserve habitat for native flora and fauna.

To ensure that acquisitions made with these programs are consistent with the master plan, the Recreational and Natural Heritage, Open Space & Watershed Land Acquisition Review Board reviews all grant applications and makes recommendations for funding to the Commissioner of DEEP.

In addition to the Recreation and Natural Heritage Trust Program and the Open Space and Watershed Land Acquisition Grant Program, Connecticut also administers several smaller funding programs, in some cases to target specific categories of open space:

- 1. The Farmland Preservation Program purchases development rights to qualified farms to preserve prime and important farmland soils. The program goal is to preserve 130,000 acres of farmland, including 85,000 in cropland. While the intent of the program is for purposes other than outdoor recreation opportunities, protected farmland can provide a variety of outdoor recreation opportunities including access to hunting, fishing and wildlife viewing
- 2. *The Land and Water Conservation Fund (LWCF)* provides funding for the state and municipalities to acquire land for outdoor recreation and to develop new recreation facilities
- 3. *The Forest Legacy Program* helps to conserve environmentally important forests through the acquisition of conservation easements. The program preserves working forests, those forests that protect water quality and provide habitat, forest products, and opportunities for recreation and other public benefits

4. The Urban Green & Community Garden Program supports community access to green areas and community gardens in urban neighborhoods. It aims to serve all urban residents and especially targets children, families and the elderly. Grants are limited to municipalities that are classified by the State as either Distressed or Targeted.

Major Accomplishments

OPEN SPACE ACQUIRED: OWNERSHIP

The DEEP annually administers more than a hundred grants, typically exceeding a total of \$10,000,000. The number of grants awarded between 2005 and 2011 would be too many to identify individually, but the tables below identify recipients and sources of funding by category. Table 9 identifies land acquisition by ownership and property type, while Table 10 identifies land acquisition by funding source. Figure 12 identifies official open space in Connecticut documented to date, including those acquired through the various grants and funding sources.

OPEN SPACE ACQUIRED: FUNDING SOURCE

- Recreation and Natural Heritage Trust Program (RNHT): Between 2005 and 2011, the state invested nearly \$24 million to acquire 68 properties totaling 2,836 acres of open space. As of October 2010, the State had achieved 78% of its open space acquisition goals through the direct purchase of open space for its system of parks and forests
- Open Space and Watershed Land Acquisition Grant Program(OSWLAG): Since 1998, this grant program has awarded \$101,910,065 to support the purchase of 380 properties in 120 of the state's 169 communities totaling 24,352 acres Between 2005 and 2011, the program dispersed \$40,636,584 to municipalities and land trusts for 155 open space acquisitions, to bring these conservation partners 9,944 acres closer to their goal of 352,634 acres



Table 9. Open space land acquisition in Connecticut by property ownership and property type (FY06-FY11)

Land Owner		Number of equisitions	Total Acres	Contribution By State (\$)	Contribution by Partners (\$)	Total Cost (\$)
State	Park	16	412	7,413,121	2,063,759	9,476,880
	Forest	40	1,961	11,331,409	210,000	11,541,409
	Wildlife Management Area	11	459	4,381,388	4,826,250	9,207,638
	Water Access Area	1	4	855,000	1,005,000	1,860,000
	Subtota	l 68	2,836	23,980,918	8,105,009	32,085,927
Municipal	Community Garden	11	0	604,035	325,250	929,285
•	Open Space	96	6,258	26,806,430	47,084,437	73,890,867
	Recreation Enhancements	4	0	274,362	147,733	422,095
	Subtota	l 111	6,258	27,684,827	47,557,420	75,242,247
Nonprofit	Open Space	59	3,686	13,830,154	22,557,729	36,387,883
	Grand Tota	al 238	12,780	65,495,899	78,220,158	143,716,057

Table 10. Open space land acquisition in Connecticut by funding source (FY06-FY11).

Funding Source	FY06 (\$)	FY07 (\$)	FY08 (\$)	FY09 (\$)	FY10 (\$)	FY11 (\$)	Total (\$)
Open Space and Watershed Land Acquisition Grant Program	3,326,125	6,128,798	5,004,340	0	5,738,348	0	20,197,611
Recreation and Natural Heritage Trust Program	1,701,929	3,075,440	11,956,678	5,308,121	57,250	1,381,500	23,480,918
Forest Legacy Program	758,714	0	0	0	1,732,729	0	2,491,443
Highlands Conservation Act	0	0	0	500,000	246,100	0	746,100
Land and Water Conservation Fund	780,000	0	0	1,091,879	0	0	1,871,879
George Dudley Seymour Foundation	225,000	210,000	0	250,000	170,000	0	855,000
Other Federal Programs	0	0	0	650,000	3,287,750	888,500	4,826,250
Farmland Preservation Program	2,200,000	5,500,000	3,800,000	7,100,000	6,900,000	8,700,000	34,200,000
Urban Green and Community Garden Program	N/A	389,437	149,500	0	339,460	0	878,397
Grand Total	8,991,768	15,303,675	20,910,518	14,900,000	18,471,637	10,970,000	89,547,598

- Farmland Preservation Program: From FY06 through FY11, the program protected 59 properties, preserving 6,670 acres at a cost of \$34.2 million. Since the program began in 1978, a total 292 farms totaling 38,947 acres have been protected, representing 30% of the program goal
- Land and Water Conservation Fund: Between 2005 and 2011, Connecticut used \$1,872,000 dollars to acquire new outdoor recreation properties including the Sunrise Resort, and funded three capital improvement projects totaling \$2,975,000 including extension of the boardwalk at Silver Sands State Park, construction of the Middle Beach Bathhouse at Hammonasset Beach State Park, and a ticket booth and bathrooms at Peoples State Forest
- Forest Legacy Program: Since 2005, the program has allocated \$2,491,443 to help preserve 1,218 acres. Since 1994, when the program was first implemented in Connecticut, the Forest Legacy Program has protected 7,347 acres having a value of \$9,049,000
- The Urban Green & Community Garden Program: Between 2007 and 2011, Connecticut provided \$878,397 for 11 projects.

OPEN SPACE ACQUISITION HIGHLIGHTS

- In 2006, using RNHT funds, DEEP acquired the 16-acre Eagle Landing State Park on the west bank of the lower Connecticut River. The park was acquired primarily to provide a major boat launch facility on the river, but it also boasts four piers capable of berthing the largest vessels operating on the Connecticut River. It also features manicured lawns with more than 1,000 feet of river shoreline for picnicking, fishing, wildlife viewing and Blueways access
- In 2008, with assistance from the LWCF, DEEP acquired the 144-acre Sunrise Resort in East Haddam. The former summer resort is adjacent to the 299-acre Machimoodus State Park and provides public access to more than 4,700 feet of shoreline on the Salmon River
- In May 2008, with assistance from OSWLAG, the Groton Open Space Association acquired the 76-acre Merritt Family Forest on Fort Hill. The property provides a critical wildlife corridor and recreational link that connects more than 1,700 acres of open space, helping to protect the Eccleston Brook Watershed and Fishers Island Sound

- In 2008, using RNHT funds, DEEP acquired the 195-acre Suffield Wildlife Management Area adjacent to an additional 400 protected acres in Southwick, Massachusetts, creating a contiguous upland bird habitat of nearly 600 acres
- In 2010, with assistance from OSWLAG, the Connecticut Forest and Park Association completed a series of land transactions ensuring the conservation of 531 acres of forest and 3.5 miles of the Nipmuck Blue-blazed hiking trail in Willington and Mansfield.

New Initiatives

- DEEP began utilizing Pittman/Robertson Act (Federal Aid in Wildlife Restoration Act) funds for the first time since 1984 to purchase land, acquiring the 50-acre Simsbury Wildlife Management Area
- DEEP is in the process of acquiring the 450-acre Mason property adjacent to the 282-acre Belding Wildlife Management Area in Vernon
- In 2005, the Community Investment Act was signed into law creating a grant program funded by a \$40 apportioned fee placed on each land transaction in the state. Three dollars from each transaction stays with the town in which the transaction takes place; the rest is divided equally among:
 - OSWLAG for open space acquisition
 - Connecticut Department of Agriculture for agricultural assistance programs and to support the Farmland Preservation Program
 - Connecticut Commission on Culture and Tourism for preservation of historic sites
 - Connecticut Housing Finance Authority for affordable housing programs.

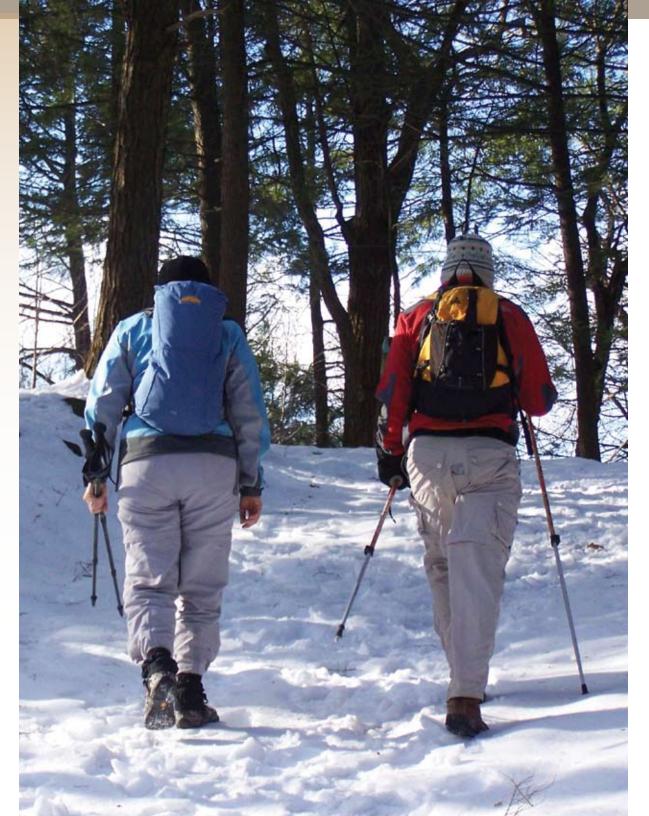
Challenges

- Economic pressures on landowners to convert their open lands to other uses incompatible with open space, such as residential and commercial developments
- Securing reliable funding to achieve the open space acquisition goals set forth in CGS Section 23-8; an estimated \$420 million for the Recreation and Natural Heritage Preservation Program and an estimated \$736.6 million for the Open Space and Watershed Land Acquisition Grant Program between now and 2023
- Planning and providing for long-term stewardship or management of protected lands
- Pressure to convert existing protected open spaces to other uses
- Illegal encroachments into protected open space.

Objectives

Meeting the State's statutorily-defined protected open space objectives will take time and adequate funding. The Department of Energy and Environmental Protection (DEEP) is committed to a long-term effort to reach its own objectives and to providing assistance to municipalities, land trusts, and other non-governmental organizations to succeed in reaching their goals. To this end, DEEP will endeavor to:

- Fill vacancies and reinvigorate the Recreational and Natural Heritage, Open Space & Watershed Land Acquisition Review Board
- Implement other DEEP plans as they relate to land protection, including moving forward with the Grassland Habitat Initiative
- Improve coordination with other state agencies to integrate land protection actions, especially the Department of Agriculture, the Connecticut Commission on Culture and Tourism, and the Housing Finance Authority, which all receive funding through the Community Investment Act



- Increase use of cost-effective techniques other than fee simple purchase, such as purchase or transfer of development rights and acquisition of access, use or conservation easements
- Develop and implement a more proactive approach to land acquisition and protection including engaging land trusts, towns, and others in identifying potential acquisition or protection sites and approaching landowners. It would also include providing information on innovative land protection techniques to DEEP's land acquisition and protection partners
- Complete and maintain the Protected Open Space Mapping (POSM) project. POSM is designed to map all dedicated open space in Connecticut by researching source records at town halls. This effort will, for the first time, authoritatively account for all dedicated open space in the state (Figure 13)
- Inventory and map significant ecological areas and provide that information as GIS data layers, available internally and to our land protection partners
- Continue to provide GIS data for users and explore means to improve regional and local capacity for GIS utilization
- Develop lease language to manage agricultural land for habitat purposes
- Assess the criteria used to review potential land acquisition and protection projects and amend these criteria as necessary to reflect the most recent versions of The Green Plan
- Work with conservation partner groups to acquire and protect critical properties.

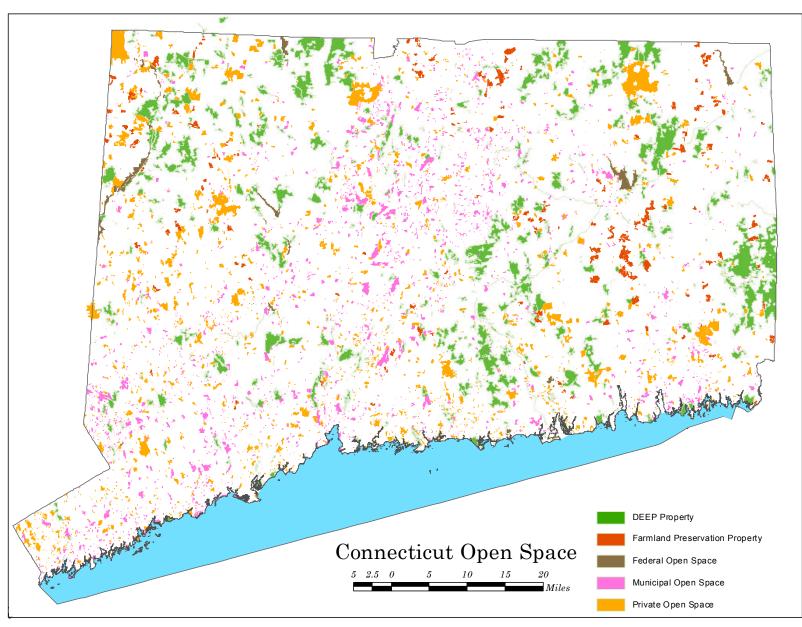


Figure 12. Publicly accessible open space in Connecticut is provided by federal, state and municipal governments, and by private land trusts.

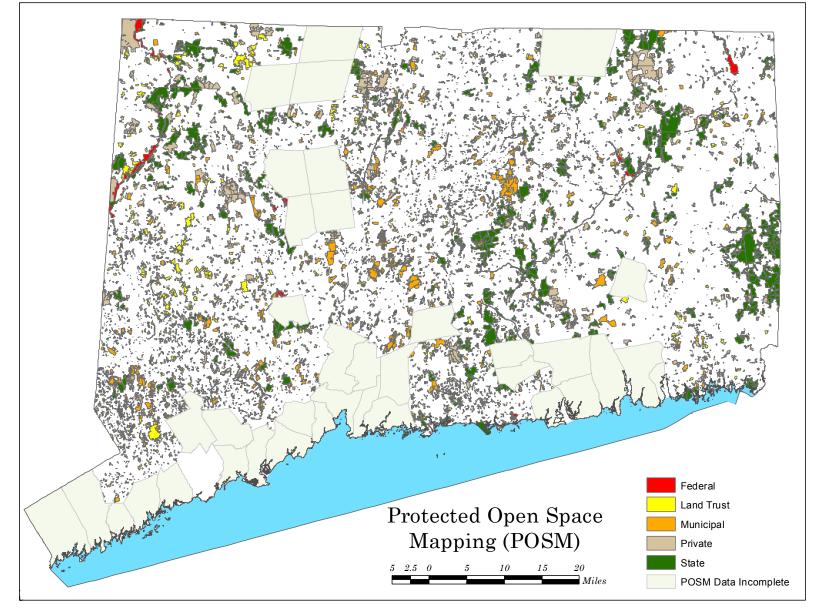


Figure 13. Protected Open Space Mapping (POSM). The Protected Open Space Mapping Project is, for the first time, constructing a comprehensive and authoritative database that identifies all officially protected open space in Connecticut based on a review of individual land records. When it is complete, it will fully inform the determination of when the State's land acquisition partners have reached their CGS Section 23-8 target of 352,634 acres.

PART II: The Plan - Goal 2

Connecticut will protect and restore the natural resources that are fundamental to quality outdoor recreation experiences.

Introduction

If public open space is the backbone of outdoor recreation, healthy natural resources are the lifeblood. Aside from the recreational value they provide for some people, natural resources are the fundamental basis of everything for everyone, from the water they drink to the clothes on their backs to the homes in which they live. Our natural resources are therefore invaluable to everyone. Accordingly, society has a fundamental self-interest to responsibly steward its natural resources that is completely independent of the value of those resources to the recreating public.

Of course, those who place recreational value on the existence of these resources in their natural state derive added benefit from responsible resource conservation. And, while Connecticut will continue to promote responsible natural resource management for reasons other than outdoor recreation, the direct and indirect opportunities those resources provide for recreation make their conservation central to any comprehensive outdoor recreation plan.

THE ROLE OF THE STATE

Effective natural resource protection is ultimately a collaborative effort among governments at all levels and the stewardship ethics of the private sector. The Department of Energy and Environmental Protection (DEEP) plays a central role in Connecticut by administrating programs and by providing technical guidance to municipalities and other stakeholders for local protection of cross jurisdictional resources. A full description of the roles DEEP serves in natural resource protection is beyond the scope of this outdoor recreation plan. However, to appreciate DEEP's contribution to securing the health of the state's natural resources, it is worth understanding the cooperative relationships that exist among the many divisions having program responsibilities in outdoor recreation and natural resource management.



DEEP is organized into three branches: 1.) Environmental Quality (EQ), 2.) Environmental Conservation (EC) and 3.) Energy. (Table 1, page 10) The EQ Branch is responsible for protecting the basic elements of the environment, including air, land and water. Its Bureau of Water Protection & Land Reuse plays direct roles in protecting water resources through its Division of Inland Water Resources and the Office of Long Island Sound Programs, including responsibility for ensuring the protection of coastal and inland wetlands.

The EC Branch consists of two bureaus, Natural Resources and Outdoor Recreation, under the direction of a Deputy Commissioner for Environmental Conservation. The Bureau of Natural Resources consists of the Divisions of Wildlife, Forestry, Inland Fisheries, and Marine Fisheries. Together they administer programs that conserve and restore fish and wildlife populations and the terrestrial and aquatic habitats upon which they depend.

The Bureau of Outdoor Recreation consists of the Divisions of Boating, State Parks and Public Outreach, and State Environmental Conservation Police. Together they administer most of the state's outdoor recreation programs and provide for the enforcement of fish and game regulations and boating laws.

Bureau of Natural Resources

The Divisions of the Bureau of Natural Resources all have dual roles. They engage in monitoring and protecting their respective resources, including game and nongame species, for their inherent value as part of a healthy ecosystem. They also manage the resources to sustain productive harvests, whether it is timber or turkeys being harvested. Where natural populations of game species are not sufficiently abundant to sustain the desired level of recreational harvest, they are augmented with stocking programs to help satisfy harvest demands and keep pressure off of vulnerable wild populations.

Where natural populations lack abundance because of habitat loss or degradation, restoration programs are implemented. Too often in this global era, habitat loss is the result of introduced or invasive species that proliferate in the absence of a natural predator or wreak havoc by preying on native species that have not evolved defenses against the invader. Across the nation, invasive species are one of the biggest threats to native fish and wildlife species, whether directly through infection or predation, or indirectly by destruction of habitat. Fortunately, DEEP's natural resource divisions are proactive in early-detection monitoring for the presence of invasive pests, and proactive in public outreach to educate the public about the consequences of 'hitchhikers' and practical steps to avoid them.

As a further safeguard for the most vulnerable native flora and fauna of the state, the Division of Wildlife maintains the Natural Diversity Data Base (NDDB) to catalogue the locations of all known threatened and endangered species in the state (Figure 14). The database is regularly used as a tool in the permitting review process to ensure that any impacts to these delicate populations do not interfere with their persistence.



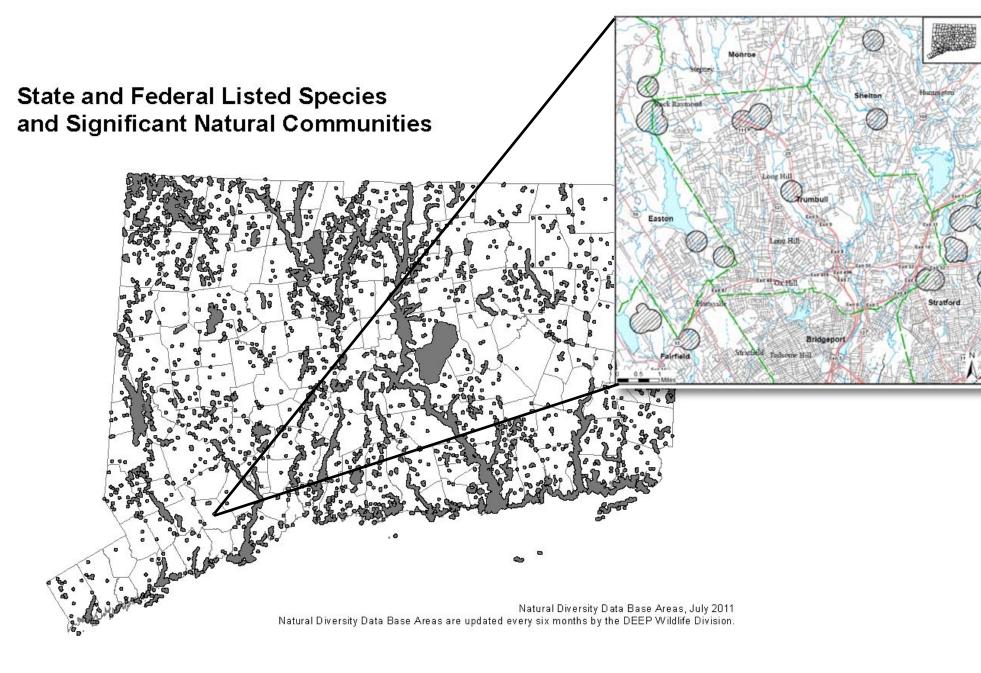


Figure 14. Natural Diversity Data Base (NDDB). The approximate location of all state and federally listed threatened and endangered species and significant natural communities in Connecticut are catalogued in a GIS data layer. The image on the left shows distribution of occurrences statewide. The image on the right is a local scale example. (These images are dated July 2011 and will be updated again in January 2012. They are not a substitute for consulting with the NDDB staff as required under regulation.)

Bureau of Outdoor Recreation

The Divisions of the Bureau of Outdoor Recreation, while primarily focused on safe and responsible recreation, also participate in their own capacities to protect natural resources:

- Aquatic invasive species can be spread by boaters as they move their vessels from one waterbody to another, and raw sewage produced by boaters can contaminate natural resources used by the public and impact nutrient cycles in delicate ecosystems. The Boating Division is perfectly positioned to educate this audience through public outreach programs implemented to help minimize adverse impacts
- The Division of State Parks and Public Outreach also has a receptive audience that not only consumes information on recreating in the outdoors, but also about the ethical responsibilities of environmental stewardship and sound environmental practices
 - o National environmental and conservation education programs offered by the division include:
 - Project WILD
 - Project Learning Tree
 - Water Education for Teachers
 - Food, Land & People
 - o The division will continue to support the philosophy of teaching people how to think, not what to think, about complex environmental issues to insure that we have a generation able to make informed decisions about environmental issues
- The Division of State Parks and Public Outreach also takes the responsibility for ensuring that its management practices in the parks, including the design and construction of a wide variety of facility improvements, are undertaken in an environmentally sound manner



- The Division of State Parks and Public Outreach also administers the Recreational Trails Program for the state. While multiuse trails and non-motorized transportation corridors have grown synonymous with greenways, the hidden benefit of the growing demand for multiuse trails is the protection of ecological corridors, or greenways, through acquisition of dedicated open space and conservation easements. By cultivating greenways, the division helps to facilitate wildlife movement and preserve ecosystem connectivity
- The Division of State Environmental Conservation Police is composed of duly commissioned law enforcement officers with the primary responsibility for enforcing the state's hunting and fishing regulations to prevent overharvest, even working undercover to investigate large scale poaching operations. They also enforce Connecticut's off-road vehicle statutes to prevent environmental degradation of sensitive landscapes.

THE ROLE OF MUNICIPALITIES

Connecticut municipalities are on the front line of environmental and landscape stewardship through the implementation of their regulatory authorities and responsibilities related to land use. This is particularly true with respect to the management and protection of inland wetland and watercourse resources.

In 1972, the state legislature enacted the Inland Wetlands and Watercourses Act (Act), thereby formally recognizing that the inland wetlands and watercourses of the state are an indispensable and irreplaceable but fragile natural resource meriting protection. The Act created a regulatory process to consider the impacts of proposed activities on inland wetlands and watercourses. In keeping with the home rule political culture of Connecticut, the Act designated municipalities as the due authority to implement this regulatory process. As a result, all of Connecticut's 169 communities now have a designated municipal inland wetlands agency to regulate activities that affect inland wetlands and watercourses within their respective jurisdictions.



Connecticut's municipalities are also on the front line of environmental and landscape stewardship through their conservation commissions. In 1961, Connecticut's legislature passed legislation enabling the establishment of such commissions and stated that the purpose and responsibility of conservation commissions is the "...development, conservation, supervision, and regulation of natural resources." The enabling legislation also gave Connecticut municipalities the discretion to form conservation commissions and to tailor their duties according to community needs. The intent of the legislation was to provide an informational resource to all municipal agencies responsible for regulating land use that would assist them in making informed decisions on the development, management and conservation of the town's natural resources. Municipal conservation commissions are often at the forefront of local initiatives to support responsible land management practices and promote low impact development. They also acquire, operate and maintain municipal open spaces, that provide recreational opportunities for the public.

Recognizing that not all municipalities have the same level of resources, DEEP's Wetlands Management Section provides an annual comprehensive training program to help ensure each municipality's ability to effectively implement the regulatory process. As an additional safeguard, a variety of other DEEP conservation programs are charged with responsibilities that directly and indirectly influence wetlands management in Connecticut. For example, a variety of state laws relate to habitat protection, fisheries and wildlife management, surface water quality, and open space preservation, which all ultimately affect the ability to hike, fish, boat, or swim. Furthermore, the state implements federal laws that affect wetland and watercourse resources.



Major Accomplishments

LEAN PROJECTS

- The Wildlife Division re-evaluated and streamlined its Natural Diversity Data Base application review process to provide faster turnaround for a large portion of applications
- The Forestry Division implemented state of the art technologies to bring all 170,000 acres of state forests under active forest management plans by 2023
- The Inland Fisheries Division improved efficiency in the program that stocks nearly 700,000 trout into the state's rivers and lakes annually.

DIVISION OF STATE PARKS AND PUBLIC OUTREACH

- Performed phragmites management at Silver Sands State Park for tidal marsh restoration, including ditch maintenance to improve tidal flow, salinity, and habitat
- Replaced an antiquated and collapsing culvert running under the beach at Rocky Neck State Park, rehabilitating the connection between the salt marsh and Long Island Sound and restoring fish passage to what had once been the second largest alewife run in the
- Incorporated design elements in the new boardwalk at Silver Sands State Park to accommodate transportation corridors for early life history stages of federally endangered Piping Plover
- Installed nesting structures such as duck boxes and osprey platforms to promote survival of marginalized shorebird populations.

DIVISION OF FORESTRY

• Established in July 2011, the Timber Harvest Revolving Fund allows DEEP to recoup a portion of the revenues from sustainable timber harvests on state forest lands and reinvest those funds in forest management and planning

- As amended in July 2011, the "10 mil" Forest Conservation Program protects 14,000 acres of forest located in 34 towns by effectively capping the property taxes of forest landowners at the equivalent rate of forest landowners in the Public Act 490 program. Without the tax incentive, many forest landowners would be motivated to sell forest lands to defray the expense of higher taxes
- Part of the Farm Bill, the Environmental Quality Incentives Program provides technical and financial assistance to landowners to reduce non-point source pollution of waterways, protect soils from erosion, and promote habitat of at-risk species. From 2009 to 2010, Connecticut improved from 49th place to 4th place by increasing its funding dedicated to forest practices from 0.25 percent to 14.64 percent.

GREENWAYS

- Connecticut designated 24 additional Greenways between 2005 and 2011, bringing the total number of officially designated Greenways in the state to 54 (Figure 15)
- One of the 54 official greenways, the Connecticut Blue-blazed Hiking Trail System, is comprised of 35 separate trails totaling 825 miles. Section 23-10a of the Connecticut Statutes states, "Those portions of the Connecticut blue-blazed trail system which cross state property are hereby designated as state hiking trails." The designation minimizes adverse impacts to the trails and the ecological communities through which they

WILDLIFE

• In the summer of 2011, volunteers and staff at the Goodwin Conservation Education Center collaborated on the rebuilding of the much-deteriorated and unsafe wildlife viewing platform in Pine Acres Lake. The public now has an opportunity to view the migrating waterfowl and resident wildlife in and around the pond from a safe and elevated vantage point.

MARINE FISHERIES DIVISION

- Legislation passed in 2006 established a Lobster Stock Restoration Program based on the v-notching and release of mature female lobsters. The program employs a strategy of lobstermen volunteering to mark (v-notch) mature female lobsters, then releasing them into the Sound and receiving compensation for the marketable lobsters released. Once notched, the lobsters are protected from capture under the laws of all states until the notch grows out through successive molting. The intent is to employ v-notching as the principal lobster rebuilding strategy for Long Island Sound, instead of additional increases in minimum length, adoption of a maximum length, implementation of quota management (trip limits and closures), or other potential management strategies
- The Marine Fisheries Division oversaw the recovery of numerous fisheries in Long Island Sound, including striped bass, summer flounder, scup, and sea bass
- Developed an aging manual for Tautog in a cooperative effort with the Atlantic States Marine Fisheries Commission
- Completed research establishing a relationship between lipofuscin levels in lobster brains and their age. This method established an age range for Long Island Sound lobsters indicating variable but generally slow growth rates.

INLAND FISHERIES DIVISION

- Completed Mount Hope River Stream Restoration Project. Installed erosion control blankets to stabilize over 1,000 feet of riparian zones, thus restoring in stream habitats for fish and macroinvertebrates with geomorphologic techniques. Partnered with Natural Resources Conservation Service and DEEP's Wetland Habitat group
- Completed Raymond Brook Dam Removal Project to open waterway for diadromous and native fish. Partners were the Connecticut River Watershed Council, American Rivers, The Nature Conservancy, Town of Hebron, and the National Oceanic and Atmospheric Administration, which provided funding
- Completed Shetucket River Large Woody Debris habitat enhancement project with grants from the Natural Resource Conservation Service Wildlife Habitat Incentive Program
- Completed two rock reef habitat enhancements in the Farmington River
- The Habitat Conservation and Enhancement Program was awarded \$1,500,000 from Millennium Power Partners LLP for the project proposal "Moosup River Fish Passage and Restoration Project" to remove six fish passage barriers
- Worked with the Farmington River Watershed Association to install a rocky ramp and roughness elements to improve fish passage across a concrete footing to a bridge across Sandy Brook. Work was funded by a fish passage grant from the U.S. Fish & Wildlife Service.



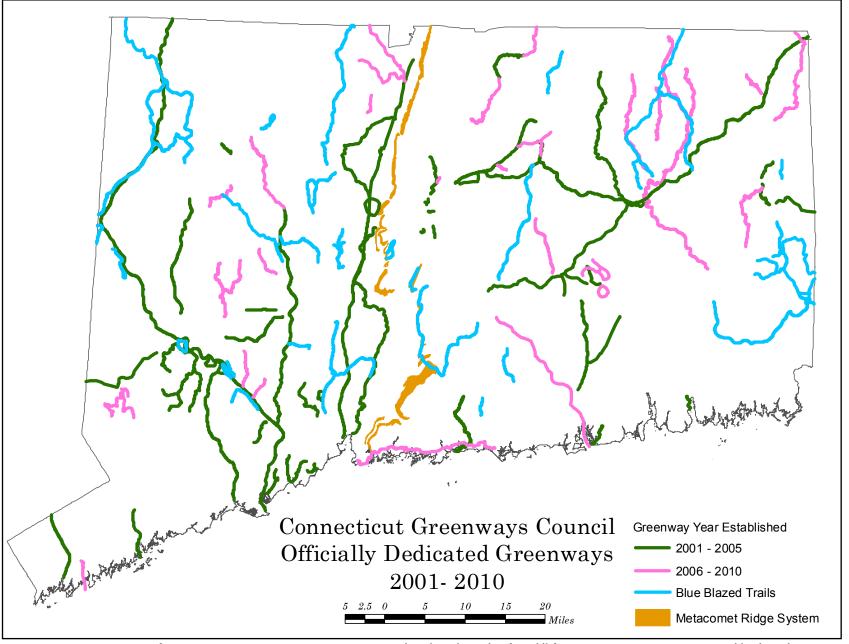


Figure 15. Greenway systems of Connecticut. Greenways preserve open space, provide ecological corridors for wildlife movement, connect existing protected lands, and may serve as a means for outdoor recreation and transportation. Green lines represent greenways from 2001-2005. Pink lines represent greenways dedicated from 2006 – 2010. Blue lines represent the Blue-blazed Hiking Trail System. The yellow represent the Metacomet Ridge System.

New Initiatives

INLAND FISHERIES DIVISION

- Created an Invasive Plant Program with funding to hire an Invasive Plant Coordinator in cooperation with University of Connecticut
- Completed plans and secured funding for the construction of the Wallace Dam Fishway on the Quinnipiac River and 12 other fishways around the state
- Created a Pictorial Guide to Freshwater Fishes of Connecticut.

MARINE FISHERIES DIVISION

- Horseshoe Crab Studies: The Marine Fisheries Division has monitored horseshoe crab spawning success through a volunteer Connecticut Spawning Survey since 1999. The survey is designed to identify all horseshoe crab spawning beaches along the state's coastline in order to protect the most abundant sites from habitat degradation. To date, more than three-quarters of the state's beaches have been surveyed, cumulatively totaling almost 65,000 meters of beachfront. In 2008, this volunteer survey effort was merged with a larger program developed by Sacred Heart University faculty and 14 other academic and non-profit groups to carry out statewide tag/recapture and census counts with the goals of quantifying population movement and population size, as well as use of key spawning beaches
- The Volunteer Angler Logbook Survey Program (VAS) enlists marine anglers to record their catches in detail to augment fisheries biometric data collected by marine biologists. VAS anglers contribute valuable fisheries-specific information concerning striped bass, fluke, bluefish, scup, tautog and other important finfish species used in monitoring and assessing fish populations inhabiting Connecticut marine waters

- Initiated and maintained a volunteer cooperative project with commercial lobstermen to monitor bottom water temperature by placing continuous readout temperature probes in lobster traps during months with stressfully high water temperatures
- Established a Marine Advisory Group which meets as needed to review stock status reports and possible regulation changes.

DIVISION OF FORESTRY

- Implementation of an Asian Longhorn Beetle Monitoring Program and an Emerald Ash Borer Monitoring Program
- Creation of a public outreach campaign "Don't Move Firewood" to inform of the risks of introducing the Asian Longhorn Beetle to the region by bringing firewood in from regions already infested with the invasive species
- Inclusion of Connecticut forest products in Connecticut Department of Agriculture's "Connecticut Grown" agricultural commodity program.

BOATING DIVISION

- The Boating Education Assistant Program employs seasonal staff at state boat launches, offering clean and safe boating information
- The Clean Marina Program is a voluntary program that encourages inland and coastal marina operators to minimize pollution
- The No Discharge Area Program is an effort to preserve and improve the quality of coastal waters in Long Island Sound and its harbors. DEEP has taken steps to ban all sewage discharge from all vessels into all Connecticut coastal waters
- The Clean Boater Program encourages the state's boaters to learn about and implement clean boating techniques.

• The Volunteer Invasive Investigator Program is designed specifically to help educate boaters using non-public launches about ways to keep our waters clean and prevent the spread of aquatic hitchhikers into the lakes and rivers of Connecticut. The Invasive Investigators will check for invasive species and collect information about where boats have been, if any invasive species were found, and what, if any, cleaning steps were done prior to launch



• In response to discovery of new zebra mussel populations in the Candlewood Lake area and elevated public concern about the issue, a Zebra Mussel Task Force was formed in December 2010. The Zebra Mussel Task Force, spearheaded by the Candlewood Lake Authority, included individuals and agencies with expertise in this issue, including

DEEP Directors of Inland Fisheries and Boating, and lake community residents and users from the three major lakes in the area.

DIVISION OF STATE PARKS AND PUBLIC OUTREACH

- Launched the 'Greening of State Parks' campaign to implement environmentally friendly practices to protect and conserve natural resources including:
- Increasing communication and education activities
- Implementing recycling, reusing, and composting initiatives

- Encouraging the cultivation of native plant gardens
- Incorporating the use of 'green' cleaning products
- Purchasing greener electronic products to reduce the impacts of electronic products during use and managing obsolete electronics in an environmentally safe way
- Received funding to install sediment forebay structure at Wharton Brook State Park to control input of sediments into ponds
- Received funding to replace pit toilets with composting toilets at Hammonasset Beach State Park to reduce nutrient loading in the salt marsh.

Challenges

- Controlling the spread of invasive species, both aquatic and terrestrial
- Preventing wildlife habitat fragmentation
- Eliminating fish migration barriers
- Restoring the depleted lobster fishery
- Balancing succession of forests to maximize wildlife habitat variety.

- Develop and implement "landscape scale" habitat conservation programs to protect or acquire 3,000 additional acres and 100 linear miles of interconnected fish, wildlife and forest habitat by 2016
- Reduce and mitigate damaging impacts from non-native nuisance species through the prevention, early detection, rapid response, monitoring and control of invasive flora and fauna by 2016
- Fully implement a sustainable forestry program to diversify wildlife habitat and double the number of acres of state forest land under active management for timber harvest by 2020
- Implement Natural Resource Climate Adaptation Strategies, Comprehensive Wildlife Conservation Strategy, Marine Fisheries Management Plans, and the Forest Resource Assessment and Strategy to advance the conservation and sustainable management of Connecticut's fish, forest and wildlife resources.

Connecticut will protect and restore its cultural and historical resources.

Introduction

Ithough it took millions of years to form the landscape we now live upon, Connecticut's cultural landscape is most often viewed as the years of the post-contact era between the earliest inhabitants and the English. After the dinosaurs roamed the land, there followed tens of millions of years that saw species extinctions and glacial epochs. Finally, after the receding of the last glacier about 18,000 years ago, we were left with a landscape we could call home. The re-vegetation of that post-glacial landscape was inviting to the state's earliest inhabitants, who lived on the land for millenia before the English first arrived. While our historic parks and monuments deal primarily with the short history of the United States since the American Revolution, relatively few locations highlight the state's Native American culture. Increasingly, however, it is all facets of the state's history that the Division of State Parks and Public Outreach endeavors to interpret for park visitors.

Today, residents of Connecticut are the beneficiaries of this rich history and the significant efforts to preserve it. The Connecticut Department of Energy and Environmental Protection (DEEP), through its Division of State Parks and Public Outreach, actively administers historical preservation and interpretive programs at museums and historic sites on lands within its jurisdiction. In addition to a State Historic Preservation Office, Connecticut has no fewer than 175 local and regional historical societies. In many cases, DEEP interpretive efforts are achieved through cooperation with a local chapter of the Friends of Connecticut State Parks (FCSP).



FRIENDS OF STATE PARKS GROUPS

The Friends of Connecticut State Parks is the parent group for 24 individual state park Friends groups (Table 11). Together, they consist of more than 6,100 members who volunteer more than 75,000 hours annually. In addition to the value of the time they contribute, estimated to be more than \$2,000,000 annually, they have collectively raised and donated \$7,000,000 to the state park system. While the main foci of the groups are as diverse as the parks they help steward, many of them place a primary emphasis on protection and restoration of cultural and

Table 11. Connecticut State Park Friends Groups

Friends of Beckley Furnace Friends of Bluff Point Friends of The Canal Connecticut Forest & Park Association Fort Griswold Battlefield Foundation Inc. Friends of Fort Trumbull Friends of Gillette Castle Friends of Goodwin **Groton Open Space Association** Friends of Hammonasset Beach

Friends of Collis P. Huntington Friends of Lover's Leap Friends of Mansfield Hollow

Friends of Harkness Memorial

Friends of Heublein Tower

Friends of Dinosaur Park & Arboretum Inc.

Friends of Peoples SF. Stone Museum

Friends of Platt Hill

Friends & Neighbors of Putnam Memorial

Friends of Sessions Woods

Friends of Sherwood Island

Sleeping Giant Park Association

Friends of Valley Railroad

West Rock Ridge Association

historical resources in the state parks. The projects they sponsor range from cultural programs and special events to facility restoration, to natural history education, to museum curation. For instance:

- The Friends of Harkness Memorial help maintain the extensive flower gardens, provide docent tours of Eolia Mansion, and organize fundraising events to finance historic building renovations
- The Friends of Gillette Castle help maintain the castle and its contents, provide era appropriate programs, and sponsor period costumed tours of the castle. They also financed the restoration of William H. Gillette's steam engine from his narrow gauge railroad
- The Friends & Neighbors of Putnam Memorial provide staff for the visitor's center and Revolutionary War era museum, and sponsor living history reenactment events
- The Friends of Fort Trumbull sponsor concert and lecture series, and provide tours of the Civil War era fort
- The Friends of Heublein Tower provide authentic furnishings and era appropriate interior renovations to the Bavarian style tower on the ridge of Talcott Mountain, and sponsor a popular fall foliage festival
- The Friends of Hammonasset Beach provide substantial support to the nature center and host bi-annual Native American history festivals that draw thousands of visitors.

DIVISION OF STATE PARKS AND PUBLIC OUTREACH

The division oversees eleven museums and countless historic sites. These range in time period from the Revolutionary War to the Depression Era, from pre-contact Native American sites to the homes of 20th century entrepreneurial women. Historic Sites and Museums include:

- Fort Trumbull State Park: A Civil War era fort that explores four centuries of American military history
- Fort Griswold Battlefield State Park: The site of the only American Revolutionary War battle in Connecticut
- Harkness Memorial State Park: The opulent former home of Edward S. and Mary Stillman Harkness, philanthropists and dairy farm leaders
- Gillette Castle State Park: The unique and intricate castle retirement home of playwright and famous stage actor, William H. Gillette
- Dinosaur State Park: An education center that reveals the prehistoric past by featuring:
- One of the largest dinosaur track sites in all of North America
- An arboretum containing living representative species of plants that occurred during the Age of Dinosaurs
- A trail system that explores amazing geological formations
- Civilian Conservation Corps (CCC) Museum at Shenipsit State Forest: A museum dedicated to Roosevelt's depression era works program that helped to expand the infrastructure and improve the natural resources of the national and state park and forest systems throughout the country
- Stone Museum at Peoples State Forest: A CCC built museum and nature center that interprets both the natural and cultural history of the forest
- Topsmead State Forest: The "English Countryside" cottage built and furnished with European antiques by businesswoman Edith Chase of the Chase Brass Company

- Osborne Homestead Museum in Osbornedale State Park: The Colonial-Revival home of philanthropist and businesswoman Frances Osborne Kellogg, who was dedicated to preserving land for future generations and whose legacy is continued in the programming at the Kellogg Environmental Center
- Heublein Tower in Talcott Mountain State Park: The Bavarian-inspired six-story tower on the ridge of Talcott Mountain, built by liquor distributor Gilbert Heublein for his wife Louise
- Putnam Memorial State Park: The site of the encampment of Colonial soldiers of the Revolutionary War in the winter of 1778-1779; this is "Connecticut's Valley Forge"
- Goodwin Forest Conservation Education Center: Former headquarters for James L. Goodwin's personal forestry production site, the center offers programs for the public, schools, and educators, and those who use and impact Connecticut's forests, including landowners, foresters, loggers and municipal land use commissioners.

The Connecticut State Parks Interpretative Program includes the interpretation of natural, historical, and cultural resources. At all sites with interpretive staff, visitors are introduced to the cultural and natural forces that have shaped the landscape and created the park and forest settings we see today, for example:

- At the Meig's Point Nature Center at Hammonasset Beach State Park, interpretive staff educate the public on the ecology and habit differences between Long Island Sound and the brackish salt marsh
- At Putnam Memorial State Park, the interpretive staff informs visitors about the encampment of Revolutionary war soldiers during the winter of 1778-1779
- At the Kellogg Environmental Center and Osborne Homestead Museum, the staff encourages visitors to see the connections between the natural and cultural world through Mrs. Osborne Kellogg's donation of over 400 acres of land, including her home and funding for an educational center.

Major Accomplishments

FRIENDS OF STATE PARKS GROUPS

- In 2010, the Friends of Goodwin Forest was formed to advocate, enhance and support education, recreation and conservation activities in the 2.000-acre forest
- Received two grants from Connecticut Trust for Historic Preservation for the new Resident Curator Program in State Parks
- Completed Phase I (The Potting Shed) of the Harkness Greenhouse Restoration Project
- Restored wrought-iron, lenticular truss bridge over the Housatonic River at Lover's Leap State Park
- Commissioned and completed two videos on Harkness Estate history for use in docent tours and for fundraising
- Purchased paintings and furniture for Eolia Mansion at Harkness Memorial State Park
- Purchased plants, trees, ironwork and brickwork for Harkness Gardens
- Interior renovations to Heublein Tower
- Dinosaur State Park:
- New book publication- Window into the Jurassic World
- Commissioned and produced an educational film for the Exhibit Center Theater
- Sponsored battle reenactments and other living history events at Fort Griswold Battlefield and Putnam Memorial State Parks
- Sponsored two Native American Festivals at Hammonasset Beach State Park, plus archaeology digs and multiple Native American-focused lectures and walks
- Sponsored annual Harkness Family Days for 6000-7000 participants
- Sponsored Lamplight Film Series and historic plays at Gillette Castle State Park
- Restored the Gillette Castle steam train
- Sponsored lecture and concert series at Fort Trumbull State Park
- Raised funds for a new Nature Center at Sherwood Island.

DIVISION OF STATE PARKS AND PUBLIC OUTREACH

New informative displays have been created and installed at:

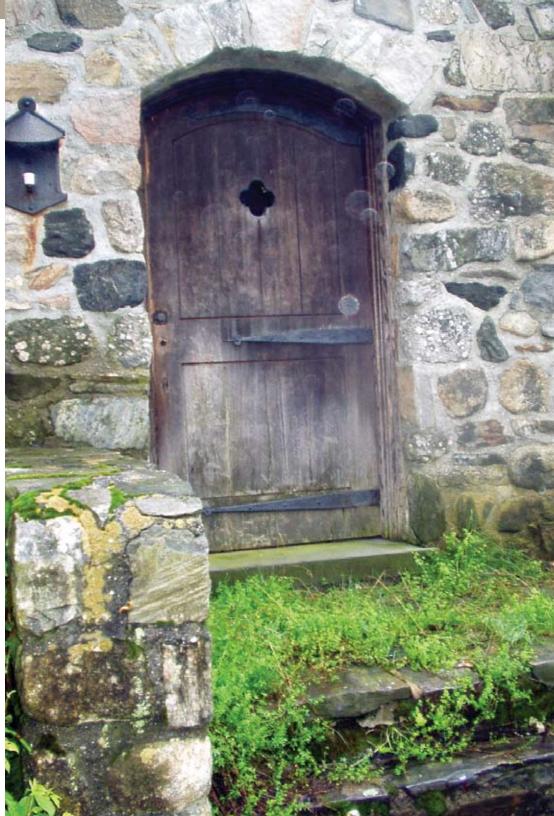
- Gillette Castle Visitor Center
- Putnam Memorial State Park
- CCC Museum for Shenipsit State Forest
- Sherwood Island Nature Center
- Goodwin Forest Conservation Center.

Interpretive displays at Gillette Castle State Park have been developed with accommodations for persons with various disabilities:

- Large-print displays for vision-impaired
- Audio recordings for hearing-impaired
- Video tour of upper floors of the castle for mobility-impaired.

New informative displays have been installed at:

- Gillette Castle State Park:
- The Visitor Center: An introductory exhibit on the life of William Gillette and why he built his castle; includes a multi-media video presentation and hands-on access to one of Gillette's train cars
- The Castle: Return of a visitor-favorite display of Gillette's china and figurine collections that had been removed during the 1999-2002 castle restoration. Installation of an exhibit about Robert Gillette. William's brother and a Civil War hero
- Shenipsit State Forest, Civilian Conservation Corps Museum: Reinstallation of the exhibit, "We Can Take It! Connecticut and the CCC, 1933-1942," an overview of the CCC in the state, including more than 1000 artifacts of camp life and work projects
- Talcott Mountain State Park, Heublein Tower: Restoration of historically appropriate paint colors and a new introductory exhibit on the first floor of the tower to educate visitors on the tower, why it was built, and what was on the mountain before it



- Putnam Memorial State Park
 - The Visitor Center: An exhibit including 12 fiberglass panels, two uniformed mannequins and a multi-media video presentation to introduce visitors to events at the site in the winter of 1778-1779 and to how the site was developed into a memorial to the Revolutionary War
 - The Museum: Reconfiguration of museum cases and objects on display to be more user-friendly to visitors and interpretive staff; includes the addition of an immersive four-wall mural of the winter encampment with a period-accurate dressed mannequin
- Sherwood Island State Park, Nature Center: A complete exhibit for the new building including 12 informative panels, dioramas of local birds and habitats, a live touch tank, photography exhibit, and a realtime "osprey-cam"
- Chatfield Hollow State Park, Oak Lodge Nature Center: Development
 of a natural history interpretive program and a cultural history
 interpretive program of the CCC camp located at that site
- James L. Goodwin State Forest, Conservation Education Center: Installation of an exhibit exploring the life of James Goodwin and his development of forestry practices in his personal forest
- Dinosaur State Park and Kellogg Environmental Center: Installation of classroom response systems to provide interactive programs for students.

New Initiatives

- The Division of State Parks and Public Outreach will develop a new Nature Center at Squantz Pond State Park that will interpret both natural and cultural history
- The Connecticut Commission on Culture and Tourism is developing a data layer for GIS systems that identifies areas of potential archaeological sensitivity. The system is designed to alert project managers in various disciplines of the need to conduct field archeological reconnaissance surveys prior to initiating disturbance of a project site.

- The Resident Curator Program provides long term residential leases for deteriorating historical properties in exchange for capital restorations thereof and periodic public programs to maintain public access to the restored property
- In conjunction with the Friends of Harkness Memorial State Park, initiate Phase II of the restoration of the historic Lord & Burnham Greenhouses at Harkness.

Challenges

- Keeping exhibits fresh by rotating materials to provide visitors with a new experience on more frequent intervals
- Integrating efforts of various historical societies, state agencies and Friends groups to:
 - Minimize redundancy in exhibits to make each separate experience unique
 - Coordinate exhibits locally where possible to facilitate thematic circuits
- Integrating costumed, period-mannered interpreters to accentuate exhibits.

Objectives

The Division of State Parks and Public Outreach will continue:

- To provide guided tours of:
- the exterior grounds at Gillette Castle State Park
- the historic buildings at:
- * Harkness Memorial State Park
- * Topsmead State Forest
- * Osborne Homestead Museum
- To provide environmental education programming at:
- Kellogg Environmental Center
- Dinosaur State Park

- Goodwin Conservation Education Center
- Meigs Point Nature Center at Hammonasset Beach State Park
- Rocky Neck State Park Nature Center
- Stratton Brook State Park Nature Center
- Oak Lodge Nature Center at Chatfield Hollow State Park
- Stone Museum at Peoples State Forest
- Sherwood Island State Park Nature Center
- Kettletown State Park
- Mashamoquet Brook State Park.

The Division of State Parks and Public Outreach will implement:

Guided tours of the grounds at:

- Harkness Memorial State Park
- Topsmead State Forest
- Osborne Homestead Museum
- Fort Griswold Battlefield State Park
- Fort Trumbull State Park
- Putnam Memorial State Park
- Talcott Mountain State Park.

Guided tours of the historic facilities at:

- Fort Griswold Battlefield State Park
- Fort Trumbull State Park
- Putnam Memorial State Park
- Heublein Tower at Talcott Mountain State Park
- Gillette Castle State Park.

The Division of State Parks and Public Outreach will install interpretive signage at:

- CCC Camp Filley Archaeological Preserve in Cockaponset State Forest
- Diamond Match Company site at Southford Falls State Park
- Lyman and Rapallo Viaduct Archaeological preserves on Air Line State Park Trail
- Beckley Furnace Industrial Monument
- Nathaniel Lyons Birthplace Monument in Natchaug State Forest

- Mountain Laurel and Rhododendron Sanctuaries in Nipmuck and Shenipsit State Forests
- Lighthouse Archaeological Site in Peoples State Forest
- Freeman Homestead Archaeological Site in Osbornedale State Park
- Camp Columbia State Park
- Train Trail at Gillette Castle State Park
- CCC Road at Macedonia Brook State Park.

The Division of State Parks and Public Outreach will invest in the following capital repairs:

- Heublein Tower at Talcott Mountain State Park will receive complete bedroom restorations
- Oak Lodge Nature Center at Chatfield Hollow State Park will receive structural restoration
- Gillette Castle State Park will undergo roof repairs to eliminate water infiltration
- CCC Museum at Shenipsit State Forest will receive a variety of capital repairs
- Filley Barn at Cockaponset State Forest will undergo interior renovations
- Putnam Memorial State Park Officer's Building will be completely renovated
- Goodwin Conservation Education Center will undergo exterior repairs and replacement of windows and the furnace for improved energy efficiency
- Osborne Homestead Museum and Kellogg Environmental Center will install new heating system for improved energy efficiency.







Connecticut will maximize public access to outdoor recreation resources.

Introduction

n order to realize the full enjoyment of their outdoor recreational opportunities, the people of Connecticut should be afforded the greatest possible access to existing and potential resources. This must be accomplished by not only eliminating obstacles to access where they exist, but also by providing new opportunities at established facilities. Connecticut recognizes a host of issues that are adversely affecting public access and is committed to minimizing obstacles to, and promoting opportunities for increased public access.

Priority Topics

Priority Topic 1: The People of Connecticut deserve a sufficient supply of safe, clean facilities.

DEEP CAPITAL MAINTENANCE AND REPAIR

Accessibility to outdoor recreation facilities is curtailed whenever they fall into disrepair and become undesirable to the recreating public or worse, deemed a hazard to public safety. After decades of undertaking the construction and development of numerous capital improvements to parks and other recreational facilities across the state, the Department of Energy and Environmental Protection (DEEP) must be committed to maintaining and repairing the now aging facilities that comprise its inventory.

Announced in 1997, the 2010 Plan represented an investment of \$114,209,276 into 4,151 separate projects for the reconstruction, renovation or repair of existing infrastructure in state park and recreation areas to be undertaken over a 12 year period. Project scopes under the plan ranged from total park rehabilitations costing tens of millions of dollars to the replacement of amenities such as picnic tables and grills.



By June 30, 2010, of the \$97,687,924 that was eventually approved by the legislature, \$71,299,934 had been bonded by the State Bond Commission, and 23 of the 57 state park and recreation areas in the plan had some or all of their projects addressed.

Between 2005 and 2010, Connecticut bonded \$3,965,000 for capital repair projects. Some representative examples include:

- Fort Griswold Battlefield State Park: Constructed in 1830, the 130-foot tall Groton Monument is the oldest obelisk monument in the country. DEEP repaired a growing bulge in the masonry near the base of the monument that was threatening to make the monument structurally unsound
- Air Line State Park Trail: When the Rapallo Viaduct under the trail collapsed, DEEP undertook emergency repairs to reopen the trail to the public as quickly as possible
- Osbornedale State Park: The Osborne Homestead Museum underwent lead abatement
- Gay City State Park: The toilet buildings were retrofitted according to Americans with Disabilities Act specifications
- Harkness Memorial State Park: After falling into complete disrepair and being closed to the public for many years, Phase I of the Greenhouse Restoration Project, The Potting Shed, was completed.

The 2020 Plan, which went into effect on July 1, 2010, is essentially a continuation of the 2010 Plan, although its scope has been expanded to include improvements not just for state park and recreation areas, but for all agency divisions having management responsibilities for facilities that are either directly or indirectly related to outdoor recreational resources.

The State has recently bonded \$6,525,000 to finance several capital repair projects planned in the immediate future. Some representative examples include:

- Penwood State Park: Replacement of a pole barn
- Bigelow Hollow State Park: Repairs to an automobile bridge
- Gillette Castle State Park: Commissioned an engineering study to evaluate the structural integrity of an old retaining wall that supports a very popular stone terrace overlooking the Connecticut River and the surrounding countryside.

DEEP CAPITAL IMPROVEMENTS

In addition to maintenance of existing facilities, between 2005-2010, DEEP also bonded \$5,290,000 for the construction of several new facilities:

- The Silver Sands Boardwalk extends the existing state park boardwalk to connect with the Milford municipal boardwalk, creating the longest continuous boardwalk in the state. The project represents another step in the development of this relatively recently acquired shoreline park
- The new parking lot ticket booth and restroom buildings at Peoples State Forest replace older buildings that had fallen into disrepair. The new restroom buildings provide comfortable, winterized facilities for the many winter sports enthusiasts in Connecticut's snowiest corner.





- The Hammonasset Beach State Park Middle Beach bathhouse replaces an antiquated facility that had become too expensive to maintain
- Sherwood Island State Park built a new nature center.

Connecticut has bonded \$1,150,000 for the planned construction of several new facilities including:

- Hammonasset Beach State Park will receive:
 - o A new nature center at Meigs Point
 - o A new bathhouse and toilet buildings at West Beach
- The main pavilion at Sherwood Island State Park will be completely renovated
- Salt Rock Campground, and Wharton Brook, Chatfield Hollow, Mashamoquet Brook State Parks will all receive new bathroom buildings.

MUNICIPAL IMPROVEMENTS AND REPAIRS

Municipalities dedicate substantial funding from local revenue sources that are not tracked by the state to develop recreational resources at their own municipal parks and school grounds. In addition, the state contributes significant funding in support of municipal actions to develop and improve municipal recreational resources. The state, through the Department of Energy and Environmental Protection, administers funding through Special Acts of the legislature to assist municipalities with the development or renovation of recreational resources. Examples of such recreational enhancements include installation of lighting at athletic fields, resurfacing of hard-surface courts, development or repair of trail networks, and construction of skate parks. Between FY06 and FY11, the State of Connecticut allocated \$40,410,618 for capital repair and improvement of municipal outdoor recreation facilities.

Priority Topic 2: The people of Connecticut deserve to be fully informed of the inventory of outdoor recreation resources at their disposal.

When asked in 2005 to identify reasons for not using outdoor recreational facilities, the responses of Connecticut residents clearly identified an information gap as the number one reason for nonparticipation:

- 36% of respondents reported they didn't know what resources were available
- 27% of respondents reported they didn't know where to find resources
- The most common vector for learning about resources was 'word of mouth'
- The second most common vector for learning about resources was newspapers. However, Connecticut does not purchase advertising for state park facilities in print or broadcast media outlets.

To bridge this information gap, DEEP has initiated a number of measures since 2005 to raise people's awareness of the resources available to them.

• In 2008, to help target and focus its public outreach mission, DEEP restructured organizationally by moving its public outreach functions from the Office of the Commissioner to the Bureau of Outdoor Recreation, merging them with the State Parks Division and creating the Division of State Parks and Public Outreach

- In an effort to raise people's awareness of existing facilities and their ability to find them, DEEP and the Department of Transportation have cooperated to substantially increase directional signage on expressways and other state highways
- The original Connecticut Coastal Access Guide (CCAG), created cooperatively in 2001 by DEEP, the National Oceanic and Atmosphere Administration (NOAA) Coastal Services Center and the University of Connecticut, was a printed map developed to provide residents and visitors with a single source guide to the locations of all public coastal access facilities across the state and the variety of recreational opportunities available at each. In 2004, that static resource was enhanced and made available online as an interactive resource. The website features a new search capability that gives users the ability to identify all statewide locations that provide a particular set of user-selected attributes, such as campgrounds with a supervised swimming area on Long Island Sound near a marina, or to identify any and all varieties of resources within a specified geographic area, such as fishing in New London county. Since its online introduction the hits to the website have steadily increased. In the twelve months before this plan was finalized, the site was visited by more than 150,000 unique users who visited nearly 800,000 pages on the site
- With the rise of social networking, the Bureau of Outdoor Recreation has created Facebook pages for its Boating and State Parks and Public Outreach Divisions and has begun Tweeting to keep visitors apprised in real time of issues that affect access to the park or the quality of the visit, such as parking capacity, local weather conditions, swimming area closures, or special events
- As smartphones and the use of their apps have become more widespread, DEEP will be pursuing the development of a free app with capabilities similar to the CCAG, but with a wider scope that provides information on all outdoor recreational facilities.

Priority Topic 3: The people of Connecticut deserve a network of trails that accommodates, to the extent that the terrain supports them, the full spectrum of activities in which its residents and visitors choose to participate.

In other parts of our nation, individual tracts of land larger than the entire state of Connecticut are not unusual. While the creation and perpetuation of any trail is the result of a series of decisions, the undertaking is greatly simplified where singular property ownership allows for unilateral management decisions. With millions of residents, businesses and institutions sharing ownership of Connecticut's 5,009 square miles, parcels are numerous and very small, and maintaining trails of any useful length inherently requires extensive cooperation and partnerships among landowners. Figure 16 identifies the major trail networks in Connecticut.

A majority of Connecticut residents have ranked trails at the top of their list of desirable outdoor recreation resources, so there is an inherent cooperative spirit to undertake their creation and perpetuation. But marshalling that cooperative spirit into realized goals can only be accomplished through careful coordination of often divergent interests. Fortunately, Connecticut has significant organizations and programs dedicated to exactly that purpose:

- While DEEP does not directly steward the majority of Connecticut's trail networks, the Recreational Trails and Greenways Program plays a pivotal role in facilitating a master plan to support and guide frequently localized efforts of stakeholders working separately toward an overarching goal
- BikeWalkCT is a strong advocate for multiuse trails, of which there are currently 200 miles in Connecticut
- The Connecticut Forest and Park Association (CFPA) is a strong advocate for single-use hiking trails, of which it maintains 825 miles representing the Blue-blazed Hiking Trail System (Figure 16). In 2010 alone, CFPA trail volunteers contributed over 12,000 hours to the maintenance and upkeep of this statewide network of trails

- The New England Trail Riders Association is a strong advocate for a public trail system that accommodates motorized use. Several of its satellite organizations, including the Connecticut Ramblers, and the Salmon River County Riders, have invested tens of thousands of dollars in maintaining the most environmentally sensitive sections of public trails included in their enduro routes
- The Connecticut Horse Council is a strong advocate for multiuse trails, although it emphasizes the value of unpaved trails to equestrian travel. Since 2003, the Volunteer Horse Patrol has invested over 20,000 hours engaging in more than 7,900 patrols and at least 3,700 hours performing trail maintenance
- The New England Mountain Bike Association (NEMBA) is a strong advocate for trails in general, although the mountain biking community gravitates toward uneven terrain with trails that most closely resemble hiking trails. Between 1997 and 2009, the Trail Ambassadors Program that NEMBA sponsors to educate, inform

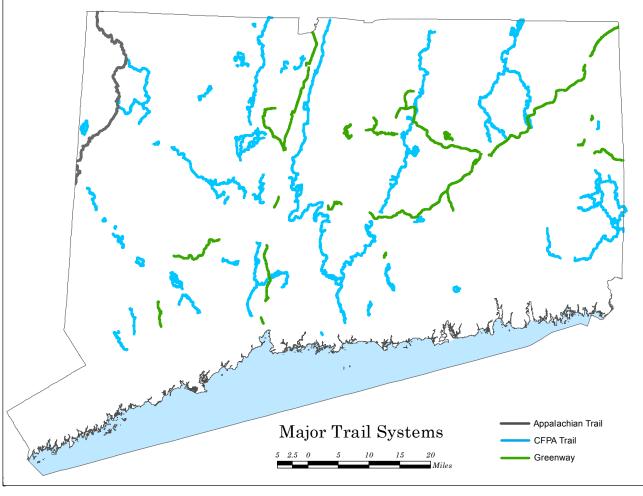


Figure 16. Major trail systems for Connecticut. The multiple trail systems offered within the state of Connecticut. The majority of trails are attributed to the Connecticut Forest and Park Association. Other Connecticut trails are the Appalachian Trail and

and guide fellow mountain bikers and other trail users logged over 1,000 trail reports representing 3,500 hours and 13,000 miles ridden. In addition, NEMBA trail crews have logged another 2,000 hours of trail maintenance in just the last three years.

Clearly, trails in Connecticut are important to many people having diverse interests. Also clear is that the organizations representing them are all strong advocates for what are sometimes incompatible uses. In a small, densely populated state, trail planning and conflict resolution is and will continue to be a challenging issue for the foreseeable future. While it is impractical to expect to please everyone all the time, DEEP will remain committed to addressing the needs of all stakeholders to the extent the state's resources can provide.

Priority Topic 4: The people of Connecticut deserve affordable facilities

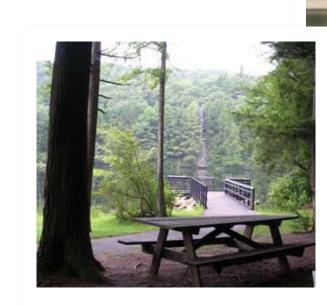
In 2010, facing a historic state budget crisis, the Connecticut General Assembly enacted legislation that doubled all state fees less than \$200, including parking and camping fees at state parks and forests. Fearing the impact these fee increases would have on the financial accessibility of the state park system to a considerable segment of Connecticut's population, the Friends of Connecticut State Parks and the Connecticut Forest & Park Association lobbied the state legislature for reconsideration of the policy as it applied to parking and camping fees in state park and forest facilities. Ease the Fees, as the campaign came to be known, helped to highlight the issue to legislators who responded with a revised fee adjustment. Fees under the revised structure represented a 33% increase rather than 100% increase, thus helping to keep state parks and campgrounds more accessible to

residents and potential tourists.

Priority Topic 5: People with disabilities deserve access to outdoor recreation resources.

The DEEP Americans with Disabilities Act (ADA) Coordinator will establish communication among members of the public, create an advisory council of citizens with and without disabilities, and will increase awareness of ADA accessible features and facilities through the

DEEP website and other communication means. The Department of Energy and Environmental Protection, in an effort to provide equal opportunity for all citizens when participating in outdoor recreation, will strive toward maximum accessibility in regard to facilities, communication, and policies for all recreation areas and programs by means of periodic evaluation and budgetary inclusion.



Major Accomplishments

- In July 2011, Governor Malloy signed legislation for Recreational Liability Protection for Municipalities, ensuring that municipalities will be better protected against frivolous lawsuits stemming from outdoor activities on recreational lands, thereby encouraging them to keep open spaces publicly accessible for outdoor recreation
- The Division of State Parks and Public Outreach completed the website development of an interactive statewide map of all state park locations. By passing a mouse pointer over a marked point on the map, the user will be directed to the park's individual page for information on its facilities and other recreational activities
- Prior to 2010, all campsites at Hammonasset Beach State Park (558 as of 2010) were unimproved aside from picnic tables. To provide new access opportunities for campers with additional requirements, Connecticut installed utility infrastructure to provide electricity and water at 48 sites
- Additionally, to begin providing access to yet another category of overnight visitor, Connecticut installed two rustic camping cabins in 2009. The cabins have proven to be extremely popular and both are typically reserved within one second of the 11-month advance reservation window opening. DEEP is planning more cabins for 2012 and 2013
- Hammonasset Beach and Gillette Castle State Parks now have electronic point-of-sale systems at the ticket gates to expedite fee transactions and relieve congestion during peak traffic
- Between 2006 and 2011, the Boating Division completed more than \$2.1 million in renovations at seven boat launches around the state, including a major renovation at the Bayberry Lane Launch in Groton, which provides direct access to eastern Long Island Sound and Gardner Lake in Salem, where DEEP provides special management programs for largemouth bass and walleye fisheries, and has just added a designated swimming area

- Since 2006, DEEP's Wildlife Division has opened an additional 8,432 acres to public hunting. Of that total, 2,411 acres represent new property acquisitions that were designated suitable for hunting. The other 6,021 represent acreage that was previously closed to hunting but has since been reassessed and is now deemed suitable
- The Recreational Trails Program in Connecticut provides centralized guidance and support for the development of Connecticut's statewide trail network and administers federal grants for trail construction projects. From 2006 to 2010, the Recreational Trails Program administered 105 grants to 90 different organizations worth 6.3 million dollars (Table 12)

Table 12. Recreational Trail Development Grants

Year	Allocations (\$)	Grants	Recipients
2006	841,282	19	16
2007	915,156	37	31
2008	866,572	17	14
2009	1,148,814	17	14
2010	2,573,592	15	15
Total	6,345,416	105	90

- On October 10, 2010, Connecticut became the tenth state to pass Complete Streets legislation, ensuring that the needs of pedestrians, cyclists, and transit riders are integrated into the planning, design, construction, operation, and maintenance of the transportation system. It also requires that at least 1% of transportation funds received be spent on facilities for pedestrians, cyclists, and transit riders. This legislation was completed with the support of the Bicycle and Pedestrian Advisory Board
- Designated by Congress as a National Scenic Trail in 2009, the New England Trail (NET) is a 220-mile trail that travels through 39 communities in Connecticut and Massachusetts. Comprised of the Metacomet, Menunkatuck, Monadnock, and Mattabesett Trails, the

route features classic New England landscape features: long distance vistas with rural towns as a backdrop, agrarian lands, unfragmented forests, and large river valleys. The trail also travels through historically significant areas and diverse ecosystems

- The Connecticut Forest and Park Association completed construction of 15 miles of the Menunkatuck Trail, an extension of the longer New England Trail, connecting the NET to Long Island Sound
- Connecticut now has four National Recreation Trails: the Air Line State Park Trail South, the Quinnebaug River Water Trail, the trails at Sleeping Giant State Park and the trails at Northfield Mountain
- Connecticut now has a National Historical Trail, the Washington-Rochambeau Revolutionary Route
- Sherwood Island State Park has a new nature center and lecture series
- The Friends of Hammonasset pay half a year of the annual salary for the full-time ranger who leads the nature center
- In 2002, the Connecticut Horse Council partnered with DEEP to form a Volunteer Horse Patrol under its auspices that would provide assistance in patrolling state forests, parks, and wildlife management areas. It has since expanded to include many land trusts, town parks, town open spaces and private lands, totaling more than 70 patrol areas throughout the state. The eight year totals include 7,879 patrols, 19,986 patrol hours, and 3,683 trail maintenance hours. The eight-year value of the volunteer service hours is nearly \$400,000
- Working with DEEP, the New England Mountain Bike Association (NEMBA) formed a Trail Ambassador Program to patrol state and municipal properties. The patrol has logged over 5,500 trail hours.
 NEMBA members have also performed more than 2000 hours of trail maintenance in the last three years alone. The total value of the 14 years of volunteer service hours exceeds \$168,000.

New Initiatives

There are several new infrastructure projects underway in Connecticut:

- The Friends of Hammonasset are planning to assist DEEP with the creation of a new Nature Center at Hammonasset Beach State Park
- The Friends of Mansfield Hollow are planning the construction of a picnic shelter at Mansfield Hollow State Park
- Coinciding with the 100th anniversary of the state park system,
 Connecticut has authorized the construction of 100 rustic cabins in parks statewide by 2013
- During the next five years, the Boating Division has plans for development or renovation of 12 additional launches, the most significant of which will be the development of a completely new, major boat launch facility at Eagle Landing State Park on the lower Connecticut River.

New management initiatives are increasing access to state parks and improving angling and hunting opportunities:

- The 2011 Connecticut River Bonus Striped Bass Program provided 4,250 free vouchers to anglers, allowing them to take a single striper from an otherwise protected size class
- The minimum size limit for summer flounder was reduced at 42 shoreline fishing sites to increase angler success
- DEEP makes state park passes available for free borrowing through local libraries across the state





- The Division of State Parks and Public Outreach is providing free lifetime park passes for service-disabled veterans
- The Division of State Parks and Public Outreach will assist in the development of the nationally designated Connecticut River Watershed Blueway.

Connecticut is taking increasing advantage of internet technologies to inform residents and visitors of opportunities for outdoor recreation:

- Bureau of Outdoor Recreation is now on Facebook and Twitter to provide information on programs, events, and facilities directly to interested constituents, and to foster interest by association among networks of friends and followers
- The CFPA launched the WalkCT website that identifies all public trails within a user-defined distance of a user-defined location
- The CFPA developed WalkCT Family Rambles: kid-friendly, theme-organized hikes to get families outdoors enjoying the trails together
- The Connecticut Anglers Guide and Weekly Fishing Reports are now available online
- Hunting and fishing licenses can now be purchased online
- The Boating Division participated in a LEAN event that developed nationally recognized criteria for Internet Boating Safety Education Courses.

Challenges

- Developing public ATV facilities and eliminating illegal riding on public and private lands
- Establishing uniform multiple-use guidelines in departmental policies
- Better communication among various agencies that administer state and federal funding
- Resolving user conflict, especially on trails and waterways
- Improving public transit to state parks and forests

- Providing adequate parking for horse trailers at trailheads
- Retrofitting existing facilities to provide access for persons with disabilities.

- Revisit the Draft Recreation Trails Plan developed by the state in 2004, providing another opportunity to bring user groups and the public together to develop a strategic direction for trails in Connecticut
- Reduce illegal trail use through continued outreach and training of local police departments by State Environmental Conservation (EnCon) officers to enforce all trail rules
- Support partnerships within the Connecticut River watershed to better connect people to the river
- Increase participation in fishing by 30% and hunting by 10% by 2016
- Increase wildlife watching participation by 50% by 2016
- Improve both physical and communication access for persons with disabilities
- Improve public awareness of existing facilities and programs
- Repair and maintain existing facilities in a safe and clean condition
- Increase parking and sanitary facilities
- Complete the Connecticut section of the East Coast Greenway (Figure 17)
- Acquire lands in key locations to connect properties, trails and greenways
- Increase the number and connectivity of designated greenways
- Continue outreach and education on watershed management
- Support development of the Connecticut River Watershed Blueway
- Connect gaps in Blue-blazed hiking trails, especially where previous sections on private property have been closed to public access
- The ATV community will work with DEEP to develop motorized trails in accordance with DEEP ATV policy
- Develop an expanded statewide network of backpacking campsites alongside existing hiking trails.

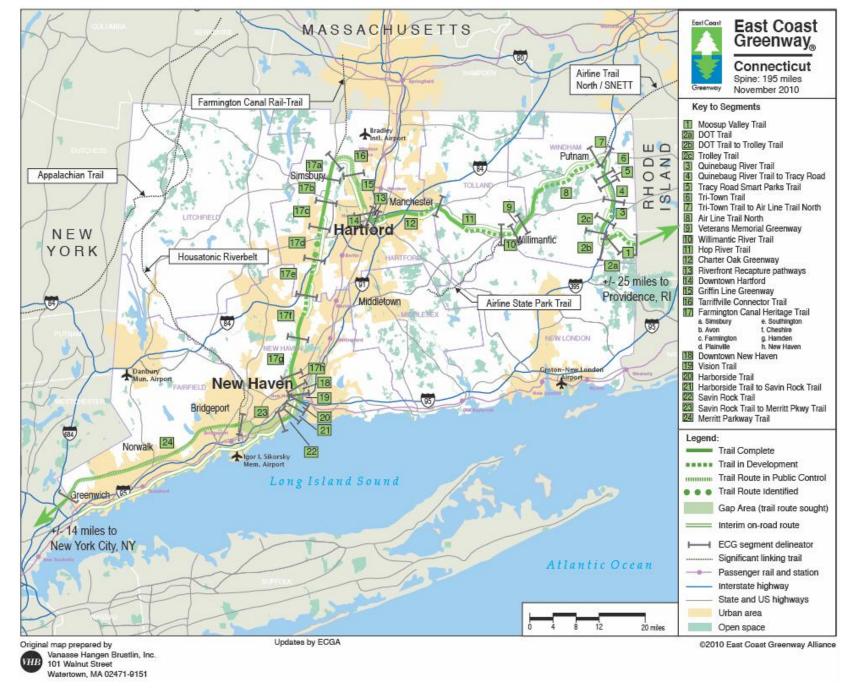


Figure 17: Proposed route for the East Coast Greenway through Connecticut.

Connecticut will maximize the variety of outdoor recreation resources.

Introduction

or avid outdoor enthusiasts and casual participants alike, Connecticut offers a wealth of outdoor recreational opportunities. The seasonality of Connecticut's climate, combined with the variety of topography and ecoregions, and the availability of both maritime and continental resources provide opportunities to participate in virtually any conceivable form of outdoor recreation. To offer Connecticut residents and visitors the greatest possible enjoyment of the state's opportunities, this plan recommends maximizing the variety of activities made available in public spaces. To accomplish this, Connecticut will develop multiple resource facilities wherever possible. For example:

- Fort Trumbull State Park was acquired primarily for its historical value, but the sweeping lawns are host to a variety of family-friendly events including Coast Guard and Army Band concerts, vintage baseball games, and Sea Scout jamborees. Each year Pier 7 hosts numerous research and military vessels that provide public programming as a condition of their berthing, and the fishing pier provides 24-hour fishing access to the tidal Thames River
- Gillette Castle State Park was acquired primarily for its cultural value, but the scenic hilltop vistas of the Connecticut River and forested hillsides are accessible to persons with disabilities, the frontage on the river provides water access for fishing and paddling, and the well developed trail network presents the opportunity for educational programming in the form of interpretive nature walks.

To maximize variety for park visitors on properties that are already developed with facilities, Connecticut can encourage third party activities to supplement existing resources. Three simple ways to accomplish this objective are to:

- Enter into concession agreements with commercial recreation vendors to provide additional opportunities in state parks, such as DEEP already does with the Mohawk Mountain Ski Area, the Farm River Marina, Satan's Kingdom Whitewater Tubing, and the Essex Steam Train and River Boat
- Cooperate with the Friends of Connecticut State Parks and its member groups to provide additional programming and special events, such as the docent tours of Eolia Mansion operated by the Friends of Harkness Memorial State Park, and the Native American Festival hosted by the Friends of Hammonasset Beach State Park.



- Facilitate requests from the public to accommodate special events. Between 2005 and 2010, state parks and forests in Connecticut hosted nearly 1,500 special events in a wide variety of categories (Table 13), such as:
- The annual Wolf Den Pow Wow at Mashamoquet Brook State Park
- The annual Antique Machinery & Tractor Show at Haddam Meadows State Park
- The reenactment of Washington's Revolutionary War Winter Encampment at Putnam Memorial State Park
- The annual kite festival at Hammonasset Beach State Park
- Motorcycle enduros, triathlons, astronomical observations and penguin plunges.

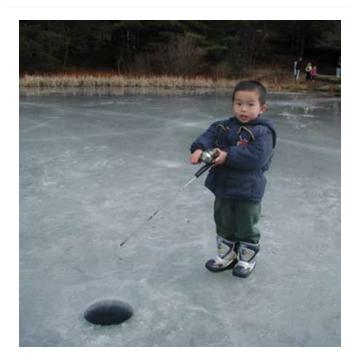
Table 13. Examples of special events sanctioned in state parks and recreational areas from 2005-2010.

Event Categories Number of Ev	ents
Bike-a-thon fundraisers, Thru-ride Rest Stops	89
Canoe and Kayak Races, Rowing Regattas	79
Car Shows: Classic Cars, MG Club, European Cars	77
Athletics: Lacrosse Tournaments, Cross Country Races, Triathlons, Trail Races, Ultra-marathons	321
Dog Related Events: Breed Shows, Working Dogs Exhibitions, Drafting Competitions	38
Family Day Events: Harkness Memorial, Gillette Castle	71
Film and The Arts: Major Motion Pictures, Summer Concert Series, Drive-In Movies, Wine Tastings	36
Fishing Events: Youth Derbies, Club Tournament Parties	29
Picnics: Company Picnics, Church Picnics, Friends of State Parks Annual Dinners	51
Hiking Events: Night Hikes, Hike-a-thons	17
Historical Events: Revolutionary and Civil War Reenactments, Colonial Period Dances	
Horse Related Events: Hunter Pace, Pleasure Trail Rides, Horse and Carriage Trials	
Motorcycle Based Events: Enduros Poker Runs	42
Religious Events: Baptism Picnics, Sunrise Services	18
Camping Events: Boy Scouts, Sea Scouts, Church Outings	20
Walking Events: Walk-a-thons	247
Model Craft Clubs: Model Power Boats, Model Sailboats, Model Airplanes and Seaplanes	118
Research Projects: Forestry, Wildlife, Soils	66
Swim Events: Open Water Swims, Polar Bear Plunges	10
Temporary Moorings: Federal Research Vessels, Military and Coast Guard, Tall Ships	41
Kite Events: Kite Exhibitions, Kite-a-thons, Kite battles	19
Car Parking: Overflow parking for neighboring events	20
Astronomical Observation Exhibitions	10
Hang-gliding launch accommodations	5
Total	1499



Major Accomplishments

- No Child Left Inside®:
- Give Children Back the Night: an organized astronomy event for families
- Grandparents-as-Parents Support Network: a program to encourage families to participate in outdoor activities and feel comfortable doing so
- Great Farm Adventure: a cooperative program between the Department of Agriculture and No Child Left Inside® that educates families about Connecticut's flavorful and local agriculture
- Local disc-golf enthusiasts worked with the Division of State Parks and Public Outreach to develop a disc-golf course design at Mansfield Hollow State Park
- DEEP commissioned motorcycle Enduro-route environmental impact studies in three state forests.



New Initiatives

- Harkness greenhouse: Horticulture instruction for children, the elderly, and the disabled
- The Community Fishing Lakes Program created new, easily
 accessible fisheries in six locations within five of Connecticut's largest
 metropolitan areas. Trout stocking during the cooler spring months,
 and catfish stocking in early summer produced or enhanced angling
 activity in these locations
- Bow-hunting seasons have been opened at Collis P. Huntington State Park (1,040 acres) and the Centennial Watershed State forest (6,826 acres) in densely populated Fairfield County, where public lands for hunting are in short supply
- The Division of State Parks and Public Outreach will assist in the development of the nationally designated Connecticut River Watershed Blueway
- No Child Left Inside® Programs
 - Winter Festival This yearly event provides families with the opportunity to get outside in the middle of winter
 - "First Day" Hikes Child-friendly hikes on New Year's Day to bring families out to celebrate the new year and winter season outdoor recreational activities.

Challenges

- Creating new equestrian campsites
- User conflict resolution on the state's heavily used trail systems.

- Cooperate with the disc-golfing community to identify a partnership model for constructing and maintaining the course designed for Mansfield Hollow State Park, and identifying other suitable locations to partner on course development
- Completion of the Willimantic Whitewater Park to expand opportunities for residents and encourage tourism to downtown Willimantic.

Connecticut will engage in public outreach to better inform residents and visitors about the availability of outdoor recreational resources and of the many personal and community benefits of participation.

Introduction

eyond the immeasurable personal enjoyment experienced by the participants, outdoor recreation also provides invaluable benefits to communities in the form of economic development, increased environmental stewardship, and improved public health. To maximize the potential returns to the community, Connecticut should be providing all possible opportunities to recreate and encouraging participation by all residents.

In an era of economic downturn, the people of Connecticut are increasingly confronted with difficult decisions about their public priorities, and many programs and services previously taken for granted are being re-examined for the relative value they provide to society. As public institutions search for opportunities to streamline budgets, funding sources that support outdoor recreation face mounting pressure from other interests perceived as having greater value to the community.

Promoting participation in outdoor recreation is the best approach to increasing public appreciation of the economic, environmental and health benefits to be derived from investing in its further development. Obtaining public support could be pivotal in maintaining the crucial funding that will ultimately lead to a happier, healthier and more prosperous community.

Methods available to the Department of Energy and Environmental Protection (DEEP) for public outreach and education range from traditional face-time with the public to technological advances such as Facebook and Twitter. Some methods have been used successfully for many years, and innovative methods are always being explored.



Major Accomplishments

DIVISION OF STATE ENVIRONMENTAL CONSERVATION POLICE The Division of State Environmental Conservation Police (EnCon) has long maintained a trailer outfitted for use at public exhibitions to highlight the Division's Turn in Poachers program, and to educate the public on Connecticut wildlife and forestry issues. The TIP Trailer, as it has been dubbed, is taken to events where the information will best reach its target audience, such as fish and game shows, where uniformed officers interact with the public in a positive setting and respond to questions about wildlife conservation and fish and game harvest regulations. From FY06 through FY11, the EnCon Tip Trailer was used at 851 events totaling 3,147 total hours of public outreach that reached as many as a half million attendees.

NO CHILD LEFT INSIDE

Introduced in 2006, the No Child Left Inside® (NCLI) program promotes healthy lifestyles and environmental stewardship in America's youngest generation and their families through participation in outdoor recreation and environmental education. Between 2006 and 2011, NCLI sponsored the following events:

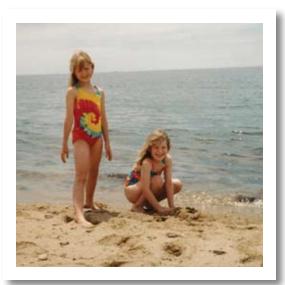
- Five seasons of the Great Park Pursuit, a program that led families through a summer-long odyssey of state parks and outdoor recreational activities
- Five seasons of the Winter Festival in conjunction with the Inland Fisheries Division's Connecticut Aquatic Resources Education (CARE) program to introduce children and their families to ice fishing
- Partnered with Department of Children and Families and the Young Men's Christian Association in 2007 and 2008 to offer free swim lessons
- Partnered with Essex Steam Train and Riverboat in the summers of 2007 and 2008 for Gillette Castle Family Day, and in the winters of 2007 - 2010 for the North Pole Express
- Partnered with Department of Social Services' Grandparentsas-Parents program in July and August 2008 to host fishing and canoeing programs
- Partnered with Department of Agriculture to host a Family Farm Adventure in 2008.

Aside from public programming provided by NCLI, other milestones for the program include:

- Received US EPA Environmental Merit Award
- In September and October 2008, hosted a Bike and Hike for Health and Happiness Program Series with a grant from the Department of Public Health
- Received a US Forest Service "More Kids in the Woods"
- In December 2008, established the No Child Left Inside Foundation with Executive Order 21 by former Governor Jodi Rell
- Partnered with Macy's for their "Turn Over a Leaf" Campaign helping to raise financial support for Connecticut's state parks and forests
- Received official registered trademark for "No Child Left Inside""
- Introduced No Child Left Inside® Act 2011 to Congress, the passage of which could provide funding for support of the Environmental Literacy Program in Connecticut public schools.

BOATING DIVISION

- TheBoating Division will use the vessel *Prudence* to approach boaters on the water and stress the importance of boating safely, boating sober and the proper use of personal flotation devices or lifejackets. *Prudence* will provide DEEP staff with 'on-the-water' opportunities to educate boaters in safe techniques and to provide incentives, such as discount coupons for merchandise, to those who are operating safely
- To further promote safety in coastal waters, the Boating Division is sponsoring the Connecticut Coastal Boater Endorsement Program. This program seeks to recognize and reward those boaters who have chosen to further their boating education. Boaters who complete a course in basic navigation will receive the Coastal Boater Endorsement





decal to be placed on their Safe Boating Certificate or Certificate of Personal Watercraft Operation. There is no fee for the endorsement.

CONNECTICUT AQUATIC RESOURCES EDUCATION

Established in 1986, the Connecticut Aquatic Resources Education (CARE) program utilizes trained and certified volunteers to conduct free, how-to fishing classes primarily targeted at children, with a more recent emphasis on family participation. The program engages students in environmental education and stewardship. Participants leave with the ability to catch a fish in an environmentally friendly way. CARE also takes the lead for the Inland Fisheries Division (IFD) on public information and outreach activities.

- Between 2005 and 2011, CARE trained and certified more than 120 new instructors, who worked alongside more than 800 volunteers to teach 42,054 students the ABC's of fishing and environmental conservation
- Created 36 new audiovisual presentations on IFD projects, family fishing opportunities, safety and ice fishing
- Helped organize 25 trout stocking events for over 2,000 participants
- IFD displays at public events have been viewed by over 10 million people
- Presentations at professional meetings have reached 10,000 colleagues
- News in print, radio, TV, and electronic media has reached 15 million citizens
- Published over 500 Weekly Fishing Advisories, media alerts and press releases
- The Connecticut Angler's Guide is more cost-effective than ever, is one of the finest publications of its kind in the nation, and is available electronically.

New Initiatives

- Development of a State Environmental Literacy Plan for Connecticut that will make the state eligible to receive environmental education funding through the Environmental Protection Agency and, if authorized, the federal No Child Left Inside® (NCLI) program
- NCLI launched the Great Park Pursuit Outdoor Recreation Challenge that doesn't confine families to a set schedule, but invites them to pursue objectives year round at their own pace.

Challenges

- Marketing programs to underserved audiences
- Encouraging healthy lifestyles and an environmental ethic
- Establishing a network of volunteers to assist with programs and events
- Public transportation to state parks and forests
- Increasing participation in outdoor recreation among urban community residents.

- Encourage other government agencies such as the Departments of Agriculture, Labor, Children and Families, and Education, etc, as well as non-governmental organizations to encourage youth to go outdoors more often for fun and exercise
- Become part of the national Let's Get Outside initiative
- Partner with outdoor recreation companies to provide additional opportunities for families
- Partner with colleges and universities to study the benefits of No Child Left Inside®
- Increase the number of under-served audiences who participate in No Child Left Inside®.





Appendix A: Open Project Selection Process

Resources made available to Connecticut through the Land and Water Conservation Fund's State and Municipal Assistance Program will be allocated to projects that align most closely with the recommendations presented in this SCORP. To objectively facilitate this process, Connecticut has developed a systematic Open Project Selection Process (OPSP). The OPSP is designed to provide equal opportunity to all eligible parties for the consideration of their project proposals, and to assist program administrators with identifying the proposals that best contribute to the fulfillment of this SCORP's recommendations.

When a grant round is announced, the OPSP is a progression of the following stages:

- Notification to interested grant applicants that funding is available
- Communication of project eligibility requirements to grant applicants
- Assistance with the preparation of grant applications
- Ranking of proposals by applying an impartial scoring system
- Review of top ranked proposals and selection of projects that provide the greatest benefit to the people of Connecticut.

The ranking system numerically scores proposals by awarding point values to more than 50 separate criteria falling into 12 categories:

- Previous grant performance of the applicant
- Current ownership status of the proposed facility
- Relevance to general statewide SCORP issues
- Contribution to specific SCORP recommendations
- Applicability to public demand for facilities
- Relevance to local or regional facility needs
- Extent of public participation in proposal development
- Project funding and relative prosperity of the community
- Project location relative to accessibility by targeted or distressed communities

- Environmental and historical quality considerations
- Capital development or renovation considerations
- Facility acquisition considerations.

While the ranking system seeks to objectively incorporate considerations for all aspects of a proposed project's merit, the final selection of projects must sometimes account for contingencies not anticipated by the standardized ranking criteria.

- •Key properties can only be acquired when they are placed on the market by willing sellers
- •Market conditions with low property values and low interests rates are encountered very infrequently
- •Natural disasters can suddenly undermine critical infrastructure.

Connecticut's OPSP is designed to provide equal consideration and opportunity for all project proposals, and in most cases the impartial ranking system serves this purpose. But the ultimate standard for project merit should be for the greatest service provided to the people of Connecticut.

Appendix B: 2011-2016 SCORP Advisory Board Membership

Appalachian Mountain Club

BikeWalk Connecticut

Community Camps, Inc.

Connecticut Boating Advisory Council

Connecticut Land Conservation Council

Connecticut Council on Environmental Quality

Connecticut Forest and Park Association

Connecticut Horse Council, Inc.

Connecticut Outdoor and Environmental Education Association

Connecticut Recreation and Parks Association

Conservation Advisory Council

Fisheries Advisory Council

Friends of Connecticut State Parks

Housatonic Valley Association

New England Mountain Bike Association

New England Trail Riders Association

Office of Protection and Advocacy for Persons with Disabilities

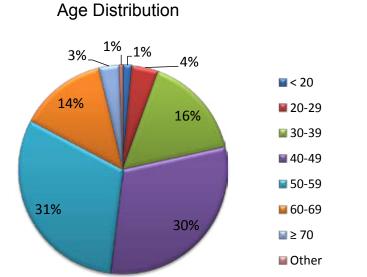
Solar Youth

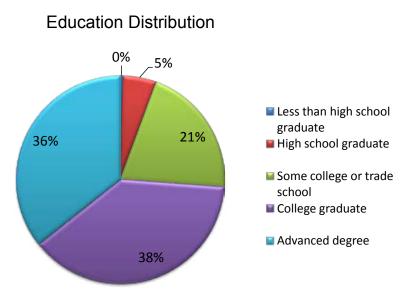


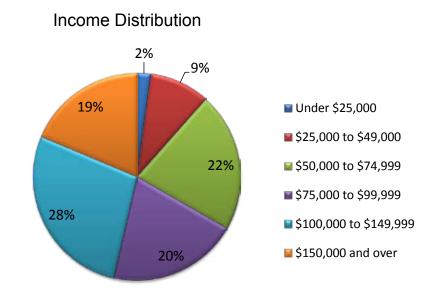
Appendix C: Demographic Characteristics of Respondents to the Demand Assessment Questionaire

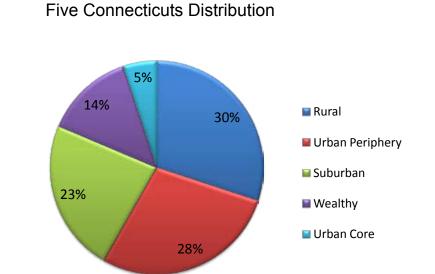
To evaluate the demographic distribution of the 741 respondents to the 2011 SCORP questionnaire on outdoor recreation, the questions included five basic demographic indicators: age, ethnicity, education, household income, and zip code. Zip codes were used to sort respondents into the Five Connecticut's category to which they belonged. (See Demographics, pg. 5)

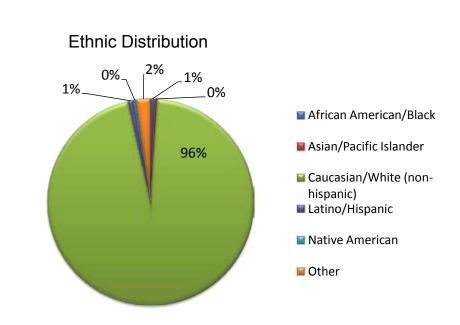
The majority of respondents in this self-selected survey were Caucasian, between 30 and 70 years old, with a college education and a household income above \$50,000/year. Rural respondents were over-represented and Urban respondents were under-represented. However, nearly all categories in all indicators were represented, indicating that opinions were contributed from all cross sections of Connecticut residents.













Appendix D: Wetlands in Connecticut

Water is Connecticut's most precious natural resource, critically important to public health, the environment and the economy, while supporting rich and diverse water-based recreational opportunities. Water is also Connecticut's most vulnerable natural resource, as expanding development places increasing pressure on water supply, water quality, and the very lands that support the many ecological functions essential to both. In the context of land and water conservation priorities, the conservation value of wetlands is second to none.

Hydrologically, wetlands function like sponges by temporarily absorbing surface runoff and gradually releasing it. This helps not only to moderate flood events, it also helps stabilize the water supply for the plants and animals that depend on it. Wetlands also function like filters for surface waters as they seep through complex ecological communities on the way to recharging underground freshwater aquifers. The same underground aquifers, in turn, supply critical base flows in rivers and streams during the hot, dry summer months, when surface runoff is limited, and tree roots rapidly pull moisture from the soil during transpiration.

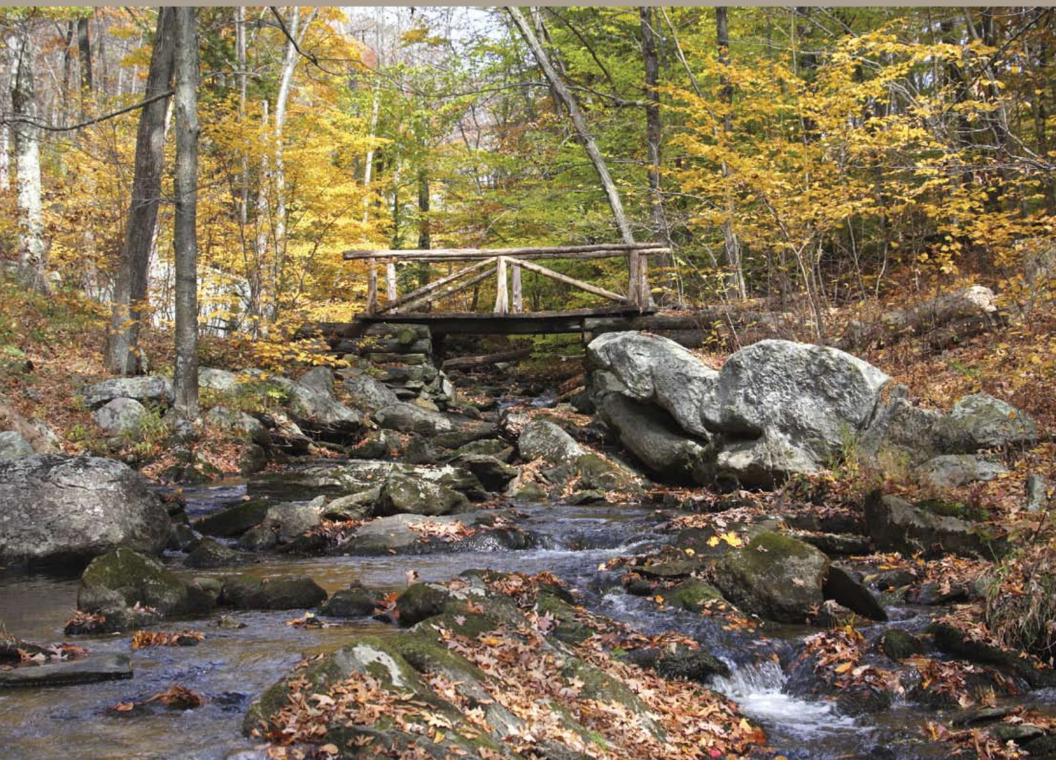
Ecologically, wetlands of all kinds support highly diverse and abundant biological communities, from Atlantic White Cedar Swamps, to tidal marshes, to open lakes and flowing rivers. While all plants and animals rely on some amount of water for survival, many of Connecticut's threatened and endangered species rely entirely upon the unique ecological communities that exist only in wetlands. Many other migratory species rely on them seasonally as part of their annual migration corridors.



Recreationally, wetlands are prime destinations for a variety of users pursuing a variety of activities. The complex ecological communities that arise from various types of wetlands provide abundant bird watching and other wildlife viewing opportunities. Waterfowl hunters are drawn to wetlands for the many resident and migratory game species found there, and anglers in Connecticut pursue a wide variety of game species in lakes and streams across the state. Boaters of all kinds naturally rely on surface water resources for everything from sailing, to waterskiing, to personal watercraft, but those who choose to paddle to their destinations often find the greatest access to the widest variety of settings. Some visitors are simply seeking a cool swim on a hot day, while others visit wetlands for nothing more than the tranquility derived from their aesthetic appeal.

Economically, wetlands not only supply crucial water needs for Connecticut agriculture, commerce and industry, they help to mitigate expensive property damages resulting from flood events and they contribute substantially to providing local, potable drinking water to a great many residents. Aside from the hydrologic benefits to the state's economy, wetlands create jobs in the outdoor recreation industry for those who provide equipment, supplies, and services to the sporting public, as well as for others in the general community who provide sporting visitors with basic services such food and lodging.

Unfortunately, wetlands in Connecticut are not nearly as abundant today as they were historically. In the centuries since European settlement began, the total area of wetlands in the state has decreased from an estimated 800,000 acres or more to less than 466,000 acres. Depending on the classification methodology used, wetland acreage may be as little as 259,000 acres.



Fortunately for Connecticut residents, the various scientific, regulatory, and enforcement functions needed to protect remaining wetlands in the state, and to develop and promote their recreational value, all exist under one roof as the Department of Energy and Environmental Protection. In Connecticut, the agency that evaluates and purchases land for conservation is the same agency that regulates environmental standards, manages fish and wildlife populations, maintains and promotes parks and boating facilities, and enforces all the laws and regulations established for their various protection.

As a result, every five years when the Land Acquisition section of the Office of Planning and Programs Development updates The Green Plan: Guiding Land Acquisition and Conservation in Connecticut, it does so by convening colleagues from various disciplines throughout the agency to identify and prioritize the conservation benefits of land for water protection, for forestry, fisheries, and wildlife management, and for outdoor recreation opportunities on land and water.

The result of this interdisciplinary collaboration is a wetland acquisition priority framework that is integrated with the overall ecological values and use needs identified by the entire agency. As parcels of land are made available by willing sellers, the agency initially assesses their compatibility with the priority framework established in The Green Plan. Each property is further reviewed by a representative panel of experts throughout the agency to fully evaluate and weigh the conservation attributes of each individual parcel. While the work and the ultimate decisions of that panel cannot be known until a particular property is considered, the priority framework can be readily reviewed in The Green Plan, which is is hereby incorporated in this 2011-2016 Statewide Comprehensive Outdoor Recreation Plan.



