



# GOING OUTSIDE in CONNECTICUT



## The Statewide Comprehensive Outdoor Recreation Plan



## SCORP 2017-2022



# GOING OUTSIDE in CONNECTICUT

The Statewide  
Comprehensive  
Outdoor Recreation  
Plan  
2017–2022



Dannel P. Malloy, Governor  
State of Connecticut

Robert J. Klee, Commissioner  
Department of Energy and Environmental Protection

Susan K. Whalen, Deputy Commissioner  
Environmental Conservation Branch

Michael D. Lambert, Bureau Chief  
Bureau of Outdoor Recreation

December 2017



State of Connecticut  
Department of Energy & Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127  
[www.ct.gov/deep](http://www.ct.gov/deep)

The preparation of this plan was financed in part through a planning grant from the National Park Service, Department of the Interior, under provisions of the Land and Water Conservation Fund Act of 1965 (Public Law 88-578, as amended). The Department of Energy and Environmental Protection is an affirmative action/equal opportunity employer and service provider. In conformance with the Americans with Disabilities Act, DEEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities who need this information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call 860-418-5910 or e-mail the ADA Coordinator at [deep.accommodations@ct.gov](mailto:deep.accommodations@ct.gov). Persons who are hearing impaired should call the State of Connecticut relay number 711.

# TABLE OF CONTENTS

- List of Tables ..... vi
- List of Figures ..... vi
- The Purpose of This Book..... 3
- Benefits of Outdoor Recreation..... 4
- PART I: Connecticut** ..... 7
  - Geography..... 8
  - Climate..... 9
  - Ecological and Developmental History ..... 10
  - Department of Energy and Environmental Protection Agency Structure ..... 12
  - Outdoor Recreation in Connecticut..... 14
  - Major Accomplishments 2011 – 2016..... 15
    - Introduction ..... 15
    - Land Acquisition and Management Unit ..... 16
    - State Parks and Public Outreach Division..... 17
    - Connecticut Trails and Greenways Program..... 26
    - Boating Division ..... 29
    - State Environmental Conservation Police Division ..... 31
    - Bureau of Natural Resources..... 32
    - Forestry Division..... 33
    - Fisheries Division – Inland ..... 35
    - Fisheries Division – Marine ..... 36
    - Wildlife Division ..... 38
    - Additional Reading on 2011-2016 Accomplishments ..... 42
- PART II: The Plan** ..... 43
  - Goals, Strategies, and Objectives..... 45
  - Connecticut’s 2017-2022 Outdoor Recreation Goals..... 45
  - Goal 1: Protect, conserve, and manage Connecticut’s natural, cultural, and historical resources as they support outdoor recreation..... 46
    - Strategy 1A: Continue Green Plan implementation..... 46
    - Strategy 1B: Increase technological innovations for customer service ..... 49
    - Strategy 1C: Improve DEEP’s understanding of where and when facilities are most heavily used ..... 51
    - Strategy 1D: Strategically coordinate SCORP goals internally and with other stakeholders ..... 52
    - Strategy 1E: Identify new opportunities for collaboration with additional state resources..... 52
    - Strategy 1F: Implement conservation objectives for the Wildlife Action Plan (WAP)..... 53

Goal 2: Provide clean, safe, well-maintained outdoor recreation areas and facilities. . . . .	54
Strategy 2A: Implement or update general management plans for each state outdoor recreation unit . . . . .	54
Strategy 2B: Use data-driven decision making practices. . . . .	55
Strategy 2C: Communicate recreation facilities’ conditions to potential users to better inform visitor expectations . . . . .	55
Strategy 2D: Manage varied user groups to maximize access and minimize conflicts . . . . .	56
Goal 3: Ensure that all residents and visitors can locate and access all outdoor recreation areas and facilities. . . . .	57
Strategy 3A: Implement a wide range of public outreach and communication tools. . . . .	57
Strategy 3B: Increase accessibility to outdoor recreation facilities for people with disabilities . .	58
Strategy 3C: Remove impediments to visiting outdoor recreation facilities. . . . .	59
Strategy 3D: Identify, increase, and promote the availability of public transportation to and from outdoor recreation facilities . . . . .	59
Goal 4: Promote healthy lifestyles through increased participation in outdoor recreation. . . . .	60
Strategy 4A: Encourage schools to include outdoor recreation in educational programming. . . .	60
Strategy 4B: Encourage support of related agency outdoor programs . . . . .	60
Strategy 4C: Develop partnerships in healthy lifestyle promotion . . . . .	61
Strategy 4D: Determine whether affordability creates a barrier for some potential users . . . . .	62
Strategy 4E: Implement a Recruitment, Retention, and Reactivation (R3) Program . . . . .	63
Strategy 4F: Continue to expand the National Archery in the Schools Program (NASP) . . . . .	63
Strategy 4G: Encourage more residents to participate in hunting . . . . .	63

<b>PART III: The Data</b> . . . . .	65
2017-2022 Statewide Comprehensive Outdoor Recreation Data . . . . .	66
Executive Summary . . . . .	67
Overview . . . . .	67
Assessment of Supply . . . . .	67
Assessment of Demand. . . . .	68
Projections of Future Trends and Funding Directions. . . . .	71
Focus Group Findings . . . . .	72
SECTION 1: Introduction and Methodology . . . . .	73
About this Study . . . . .	73
Review of Previous SCORP Methodologies . . . . .	73
Methodology for the 2017-2022 Plan . . . . .	74
Statewide Demographics . . . . .	75
Study Participant Demographics. . . . .	78
SECTION 2: Assessing Supply . . . . .	87
Measuring Inventory: Supply of State Recreation Facilities . . . . .	87
Assessing Quality of Supply . . . . .	95

SECTION 3: Assessing Demand . . . . . 101

    Profile in Participation: Statewide Outdoor Recreation . . . . . 101

    Profile of Participation: Outdoor Recreation Enthusiasts . . . . . 106

    Profile of Participation: Statewide Demographic Trends. . . . . 112

    Profile in Participation: Where Do People Recreate? . . . . . 121

    Assessing Modes of Transportation . . . . . 125

    Demand for Out-of-State Recreation . . . . . 126

    Town Officials Identify Age-group Demands . . . . . 130

    Assessing Demand for Additional Facilities . . . . . 132

SECTION 4: Barriers to Outdoor Recreation . . . . . 139

    Residents Identify Barriers to Outdoor Recreation . . . . . 139

    Outdoor Enthusiasts Identify Barriers to Outdoor Recreation . . . . . 140

    How Connecticut Citizens Learn about Recreation Facilities and Activities . . . . . 142

SECTION 5: Projections of Future Trends and Funding Directions. . . . . 144

    Town Officials Project Trends and Needs . . . . . 144

    Residents Rank the Most Important Facilities to Develop . . . . . 145

    Funding for Outdoor Recreation . . . . . 148

    Town Officials’ Rankings of Community Needs . . . . . 150

    Measuring Support for Fee Increases. . . . . 151

SECTION 6: Focus Group Findings . . . . . 153

    Outdoor Recreation Enthusiasts . . . . . 153

    Limited Outdoor Recreationists . . . . . 154

**Appendices**. . . . . 159

    Appendix A: Wetlands Management Information . . . . . 159

    Appendix B: Open Project Selection Process. . . . . 162

    Appendix C: 2017-2022 SCORP Advisory Committee Membership. . . . . 163

## List of Tables

Table 1. Agency Structure for the Department of Energy and Environmental Protection . . . . .	12
Table 2. Financially Complete/Closed Acquisitions . . . . .	17
Table 3. Osborne Homestead Museum Attendance 2013 – 2016 . . . . .	22
Table 4. Recreational Trail Development Grants 2011 – 2016 . . . . .	28
Table 5. Increasing Angler Participation in Connecticut . . . . .	35
Table 6. Open Space Grants – Financially Completed. . . . .	47
Table 7. State Open Space Land Acquisitions by Land Designation and Funding Source. . . . .	48
Table 8. Green Plan Open Space Targets Set for DEEP and Partners through 2020 . . . . .	48
Table 9. Uses of Data by Park and Recreation Agencies . . . . .	49
Table 10. Towns Represented by Town Officials Survey Respondents . . . . .	86
Table 11. Connecticut Recreation Supply 2005 . . . . .	88
Table 12. Resident Access to State DIRPs in 2005 . . . . .	89
Table 13. Sites with Recreational Resources by County (by number of sites per 10,000 residents) . . . . .	91
Table 14. Ownership of State DIRPs in 2005. . . . .	92
Table 15. Additions to Outdoor Recreation Supply Since 2005. . . . .	93
Table 16. Comparative Use Frequency Indices for All Outdoor Recreational Activities . . . . .	108
Table 17. Activity Participation Rates Over the Past 5-10 Years as Ranked by Town Officials . . . . .	120
Table 18. Ranking of Most Popular Town Activities/Resources by Town Officials. . . . .	131
Table 19. Activities Predicted by Officials to Gain or Lose Popularity over the Next 5-10 Years . . . . .	144

## List of Figures

Figure 1. U.S. Forest Service Ecoregions of Connecticut . . . . .	8
Figure 2. Shaded Relief Map of Connecticut . . . . .	9
Figure 3. Connecticut Officially Designated Greenways . . . . .	26
Figure 4. East Coast Greenway in Connecticut . . . . .	27
Figure 5. Facilities for Coastal Transient Boaters . . . . .	30
Figure 6. Gallons of Recreational Boat Sewage Pumped . . . . .	31
Figure 7. Number of Household Members. . . . .	78
Figure 8. Ages of People in Household . . . . .	79
Figure 9. Age of Respondents . . . . .	80
Figure 10. Ethnicity of Respondents . . . . .	81
Figure 11. Hispanic/Latino Ancestry of Respondents . . . . .	81
Figure 12. Gender of Respondents . . . . .	82
Figure 13. Education of Respondents . . . . .	83
Figure 14. Annual Household Income of Respondents . . . . .	84
Figure 15. Demographics: County of Respondents . . . . .	85
Figure 16. Associations of Town Officials . . . . .	86
Figure 17. Acreage of Open Space for Active and Passive Outdoor Recreation . . . . .	95
Figure 18. Citizens’ Rating of State and Local Park Conditions . . . . .	96
Figure 19. Town Officials’ Ratings of Facility Conditions, 2017 . . . . .	97
Figure 20. Town Officials’ Ratings of Facility Sufficiency: Courts & Fields . . . . .	98
Figure 21. Town Officials Sufficiency Rating of Local Recreation Facilities: All Others . . . . .	99

Figure 22. Town Officials’ Ratings of Inadequate Facilities . . . . .	100
Figure 23. Household Participation Rates in Land-based Activities . . . . .	102
Figure 24. Household Participation Rates in Water-based Activities . . . . .	103
Figure 25. Average Frequency of Participation in Land-Based Recreation Activities . . . . .	104
Figure 26. Average Frequency of Participation in Water-based Recreation Activities . . . . .	105
Figure 27. Ranking of Recreational Activities by Use Frequency Index (UFI) . . . . .	107
Figure 28. Percentage of Outdoor Enthusiasts Selecting Activity as First Choice . . . . .	109
Figure 29. Overall and First Choice Activities of Outdoor Enthusiasts . . . . .	110
Figure 30. Frequency of Participation in Outdoor Enthusiasts’ First Choice Activities . . . . .	111
Figure 31. Percentage of Outdoor Enthusiasts Frequently Participating in First Choice Activities . . . . .	112
Figure 32. Gender of Outdoor Recreation Enthusiasts in Recreational Activities . . . . .	113
Figure 33. Average Age of Outdoor Enthusiast Participants in Recreational Activities . . . . .	114
Figure 34. Participation in Land-based Activities by Household Income . . . . .	115
Figure 35. Participation in Water-Based Activities by Household Income . . . . .	116
Figure 36. Income Distribution of Outdoor Enthusiasts by Activity . . . . .	117
Figure 37. Most Popular Land-Based Activities of Enthusiasts by County . . . . .	119
Figure 38. Most Popular Water-Based Activities of Outdoor Enthusiasts by County . . . . .	119
Figure 39. Places Where Outdoor Enthusiasts Engage in Activities . . . . .	121
Figure 40. Household Visits to Municipal-Owned Recreation Areas . . . . .	122
Figure 41. Household Visits to State-Owned Recreation Areas . . . . .	123
Figure 42. Visits to Recreation Areas by Household Income . . . . .	124
Figure 43. Frequency of Visits to Municipal-owned Facilities by Income . . . . .	125
Figure 44. How Citizens Travel to State Recreation Facilities . . . . .	126
Figure 45. Citizens’ Visits to Out-of-State Recreation Areas . . . . .	127
Figure 46. Reasons Outdoor Enthusiasts Participate in Recreation Out-of-State . . . . .	128
Figure 47. Outdoor Enthusiasts’ Participation in Activities Out-of-State . . . . .	129
Figure 48. Town Officials’ Perceived Ability to Meet Needs by Age Group . . . . .	132
Figure 49. Households Reporting a Need for Facilities . . . . .	134
Figure 50. Comparing Demand as Measured by Need and Participation . . . . .	135
Figure 51. Most Pressing Community Needs Reported by Town Officials . . . . .	137
Figure 52. Inadequate Facility Components as Rated by Town Officials . . . . .	138
Figure 53. Reasons Preventing Households from Using Facilities . . . . .	139
Figure 54. Obstacles to the Enjoyment of Outdoor Recreation by Enthusiasts . . . . .	140
Figure 55. Most Significant Issues Impacting Recreation of Outdoor Enthusiasts . . . . .	141
Figure 56. ‘Other’ Significant Issues Impacting Recreation Activities of Outdoor Enthusiasts . . . . .	141
Figure 57. Most Pressing Needs of Recreation Areas Reported by Outdoor Enthusiasts . . . . .	142
Figure 58. How Citizens Learn About Facilities and Activities . . . . .	143
Figure 59. Most Important Facilities to Develop in Municipal-Owned Areas as Rated by Citizens . . . . .	146
Figure 60. Most Important Facilities to Develop in State-Owned Areas as Rated by Citizens . . . . .	147
Figure 61. Citizens’ Support for Outdoor Recreation Funding . . . . .	149
Figure 62. Most Important Funding Initiatives Rated by Citizens . . . . .	150
Figure 63. Most Important Community Needs Ranked by Town Officials . . . . .	151
Figure 64. Citizens’ Support for Increased Facility Fees . . . . .	152

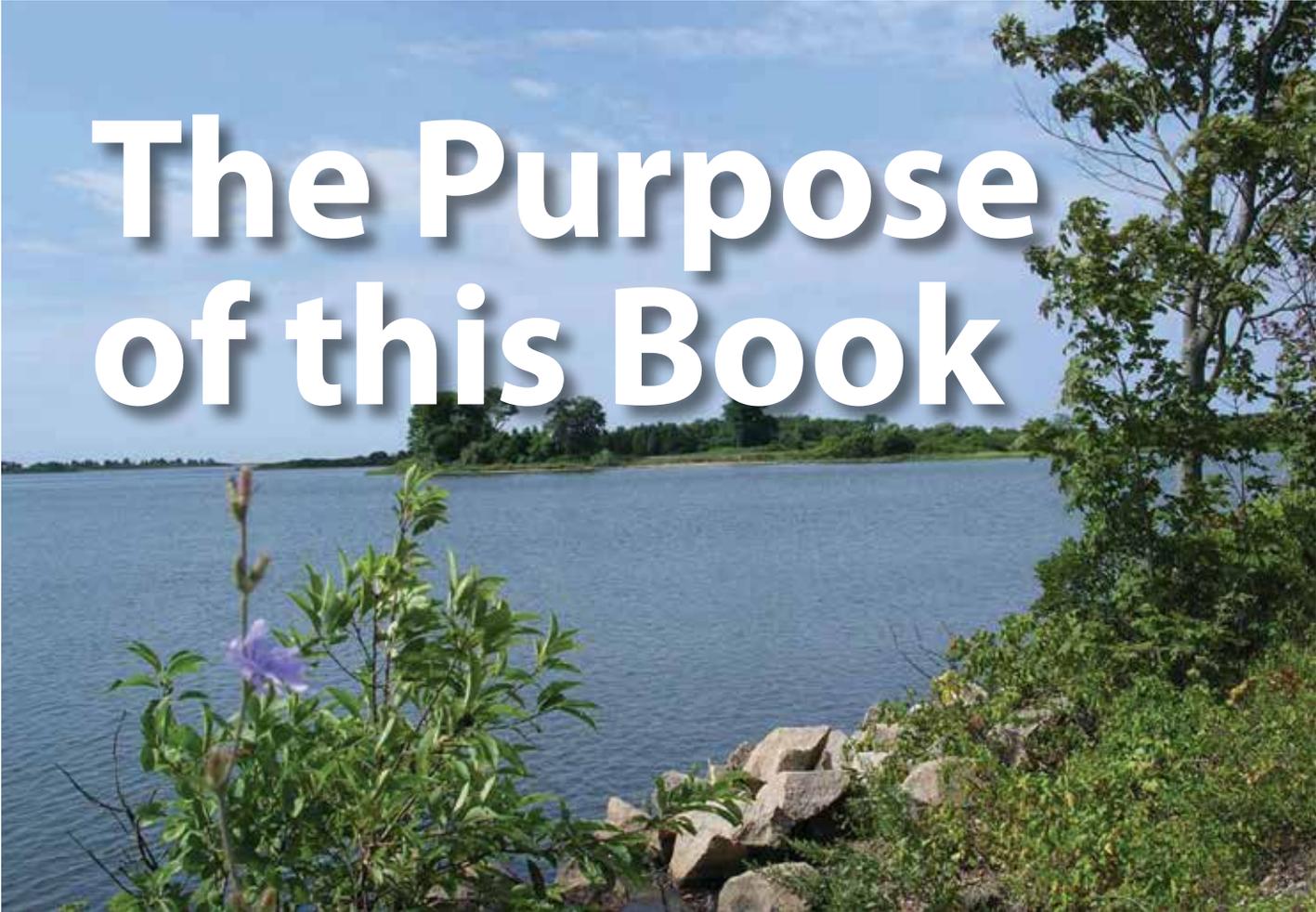
# GOING OUTSIDE in CONNECTICUT

The Statewide  
Comprehensive  
Outdoor Recreation  
Plan  
2017–2022





As the agency having the authority to represent and act for Connecticut in communicating 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 2017-2022 Statewide Comprehensive Outdoor Recreation Plan (SCORP) to the Secretary and to the people of Connecticut. The plan is a cooperative product of DEEP staff, the SCORP Advisory Committee, the Southern Connecticut State University Department of Recreation, Tourism & Sport Management, the Central Connecticut State University Center for Public Policy and Social Research, and the many Connecticut residents who participated in the development process.



# The Purpose of this Book

## The Statewide Comprehensive Outdoor Recreation Plan (SCORP)

is a document that identifies outdoor recreation issues of statewide significance, and evaluates the supply of, and demand for, outdoor recreation resources and facilities in Connecticut. The SCORP provides guidance to state and municipal officials as they develop and expand outdoor recreation opportunities for their respective constituents.

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.

In a state with recreation opportunities as diverse as its population and ecological communities, presenting one plan that fully represents the often divergent interests of its 3.5 million residents is very challenging. However, DEEP sincerely believes that this SCORP fairly addresses the state's significant outdoor recreation issues and represents the best plan to the greatest number of people.



## Benefits of Outdoor Recreation

Outdoor recreation provides benefits far greater than the personal enjoyment individuals derive from participation in recreational activities. Research addressing the benefits of recreational activities, particularly in outdoor settings, provides a solid justification for the allocation of resources to support facilities and programs that promote and provide for outdoor recreation.

In a landmark case study published by National Recreation and Parks Association, *Parks Build Healthy Communities: Success Stories*, forty-four communities explained the benefits of their efforts to incorporate parks into the promotion of healthy communities. Parks were cited as the force encouraging collaborative community building, increasing physical activity, improving nutrition, supporting economic development, addressing the obesity epidemic, and reducing tobacco use.<sup>1</sup>

The Centers for Disease Control and Prevention and the Department of Health and Human Services provide funding for local communities to address issues and implement policy and environmental changes that promote healthier lifestyles and reduce the risk of chronic diseases such as obesity, diabetes, arthritis, cardiovascular disease, stroke, and cancer. Parks play a crucial role in bringing about positive changes in communities.

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.

<sup>1</sup> <http://www.nrpa.org/publications-research/research-papers>



From an economic perspective, it is estimated that parks in the state of Connecticut generated \$1,107,632,241 in direct, indirect, and induced economic activity and supported 8,439 jobs with a labor income of \$417,751,961 in 2013. Residential property values are increased when homes are adjacent to protected open spaces or have access to open space for outdoor recreation.<sup>2</sup> The economic significance of recreational boating in Connecticut is \$1.3 billion annually. The boating industry in Connecticut is comprised of 537 businesses and supports 7,313 jobs.<sup>3</sup>

Between 2012 and 2015, over seven hundred articles were published in professional journals and open sources that address the importance of outdoor recreation facilities and activities for our citizenry. This research indicates that there is approximately one park for every 2,266 residents in the US, 9.6 acres of parkland for every 1,000 residents and one built playground for every 3,633 residents.

Parks and other outdoor amenities contribute in many ways to the quality of life of our citizens. Paramount to the continued success of Connecticut's parks, open spaces and outdoor sites is the obligation to strategically assess current and projected demands for such places in order to allocate sufficient resources to meet these needs.

<sup>2</sup> <http://www.nrpa.org/parkeconreport>

<sup>3</sup> National Marine Manufacturers Association 2012 Boating Economic Impact Study.



Parks were cited as the force encouraging collaborative community building, increasing physical activity, improving nutrition, supporting economic development, addressing the obesity epidemic, and reducing tobacco use.

PAGE 4



PART I

# CONNECTICUT

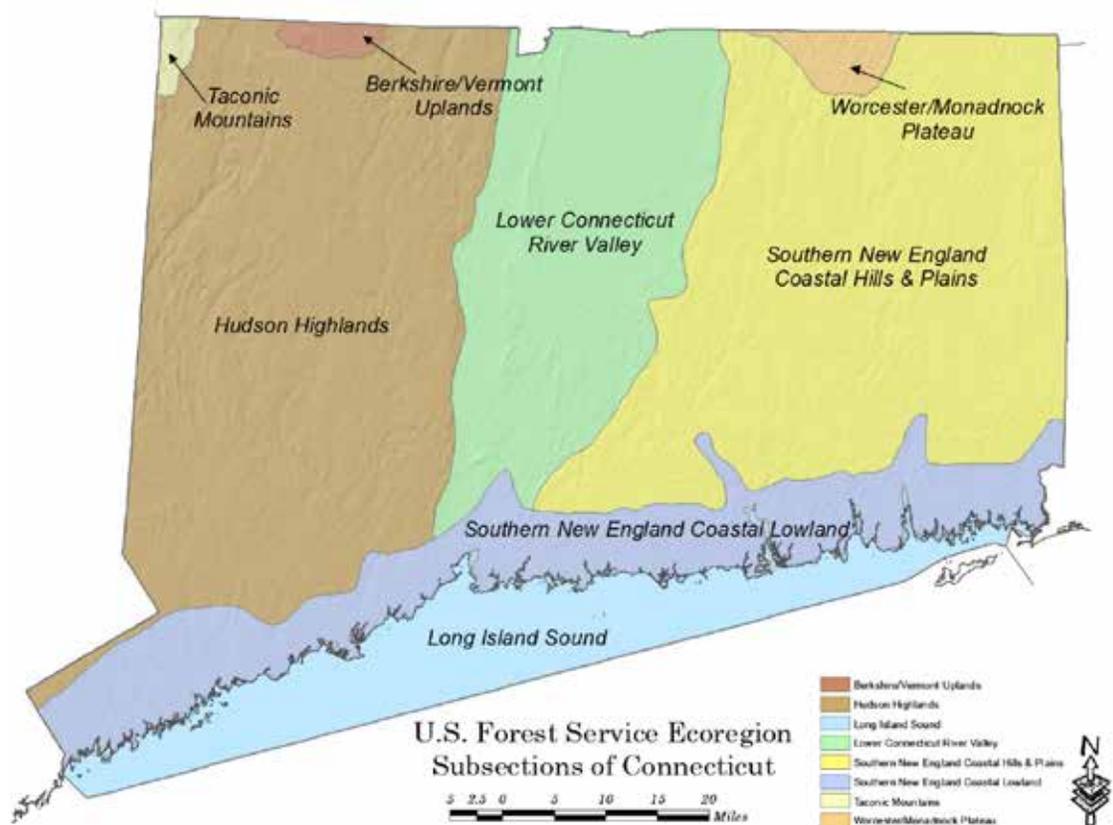


# PART I: CONNECTICUT

## 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. 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, the Lower Connecticut River Valley bisecting 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 limited areas that represent the southern extent of New England's mountainous interior zones.



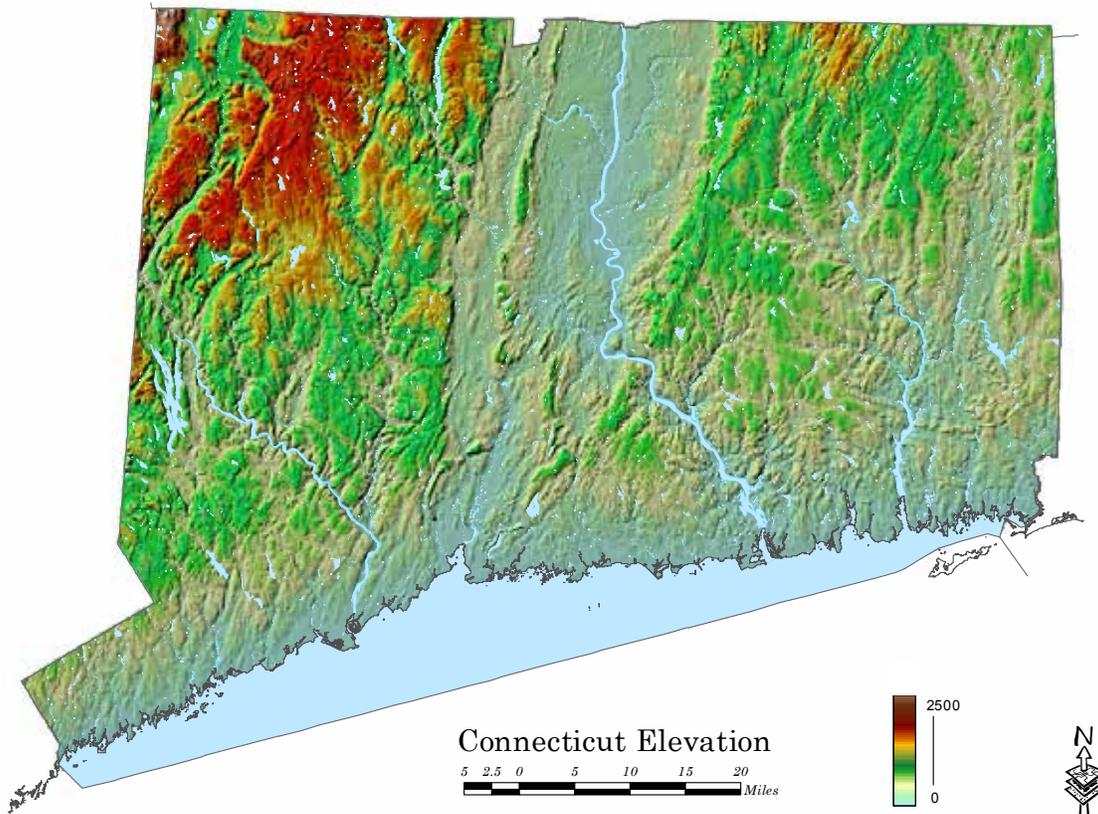
**Figure 1. U.S. Forest Service Ecoregions of Connecticut.**

The Southern New England 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. It includes numerous small coves and inlets, creating 458 miles of actual coastal frontage.

The Lower Connecticut 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 trap rock 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 Hudson Highlands 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. Generally, this area is more rugged than the Southern New England Coastal Hills and Plains, though its southern hills are gentle. While the Southern New England Coastal Hills and Plains and the Hudson Highlands both have scattered pockets of good croplands, they are largely unsuitable for extensive agriculture. Most of the land is either forests or pastures.

The remaining areas of the state are hilly regions sloping gradually toward the south and the east. The Southern New England Coastal Hills and Plains are continuous with the New England Highlands in Massachusetts. Near the Massachusetts border elevations range from 500 feet to 1,100 feet, while in the southeast elevations range from 200 to 500 feet.



**Figure 2. Shaded Relief Map of Connecticut.**

## 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. 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 the northwestern uplands, and 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 shoreline averages 35 inches.

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 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 thirty times annually. These storms can be severe, and the state averages one tornado per year.

## Ecological and Developmental History

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 aspect 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 became widespread and hundreds of small dams built to impound storage for the mills' water wheels eventually appeared on virtually every watercourse in the state. As a result, Connecticut was indeed experiencing economic prosperity, but without the canopy and ground cover of 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 land was cleared for agriculture, habitat and natural prey for apex predators slowly vanished and protection of vulnerable livestock made wolves and mountain lions 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 historic patterns of land development.

While the population shift to urban areas helped to relax pressure on the terrestrial landscape, 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 and 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 explosion of the human population and untreated sewer systems substantially increased nutrient input into aquatic ecosystems, unnaturally accelerating the ontogeny of the state's water bodies. Meanwhile, as the increasing availability of personal automobiles precipitated another demographic shift, this time into suburbia, the augmented fertilization of manicured residential and golf course lawns 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 recreationists base their 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 develops, 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 continued 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.



## Department of Energy and Environmental Protection Agency Structure

The management of outdoor recreation in Connecticut benefits from the organizational structure of the Department of Energy and Environmental Protection. The department is organized into the Office of the Commissioner and three branches: 1.) Environmental Quality, 2.) Environmental Conservation, and 3.) Energy Policy and Regulation (Table 1).

**Table 1. Agency Structure for the Department of Energy and Environmental Protection.**

Branch	Bureau	Division
Office of the Commissioner	Commissioner	Environmental Justice
		Public Affairs
		Human Resources
		Financial Support Services
		Agency Support Services
		Office of Planning and Programs Development
		Office of Information Management
		Office of Adjudications
		Office of Legal Counsel
Environmental Quality	Air Management	Planning and Standards
		Radiation
		Engineering and Enforcement
	Water Protection and Land Reuse	Water Planning and Management
		Land and Water Resources
		Remediation
	Materials Management and Compliance Assurance	Emergency Response & Spill Prevention
		Engineering and Enforcement
		Permitting and Enforcement
		State Emergency Response Commission
Regulation Coordination		
Environmental Conservation	Outdoor Recreation	State Parks and Public Outreach
		State Environmental Conservation Police
		Boating
	Natural Resources	Fisheries
		Forestry
		Wildlife
Energy	Public Utility Regulatory Authority	—
	Energy and Technology	—

The management of outdoor recreation in Connecticut benefits from the organizational structure of the Department of Energy and Environmental Protection.

Most of the state’s population resides in urban areas. Many of those residents lack adequate transportation to outdoor recreational opportunities, and public transportation is often not available to Connecticut’s outdoor recreation areas.

PAGE 14



The Environmental Quality Branch is responsible for protecting the basic elements of the environment including air, land and water. Its Bureau of Water Protection and Land Reuse plays direct roles in protecting water resources through its Land and Water Resources Division, 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, both under the direction of the Deputy Commissioner for Environmental Conservation. The Bureau of Natural Resources consists of the Divisions of Wildlife, Forestry, and 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.

The benefit of this organizational structure to outdoor recreation in Connecticut is the ability of the various divisions to cooperate and collaborate efficiently and effectively under the unified leadership of the Commissioner of DEEP. The ultimate beneficiaries of this streamlined structure are the outdoor recreational resources of the state and the participants who utilize them.

## Outdoor Recreation in Connecticut

Although a relatively small state, and the fourth most densely populated of the fifty United States, the *Constitution State* provides a wealth of outdoor recreation opportunities to its residents and visitors. With 458 miles of Long Island Sound coastline, with direct access to the Atlantic Ocean, and hundreds of inland water bodies and watercourses, Connecticut supports most water-based forms of recreation.

Due to a four season climate, the state also provides numerous land-based recreational opportunities, all of which are accessible within a relatively short drive. For all the state has to offer, however, Connecticut has no shortages of challenges for outdoor recreation.

Most of the state's population resides in urban areas. Many of those residents lack of adequate transportation to outdoor recreational opportunities in the less populated areas, and public transportation is often not available to Connecticut's outdoor recreation areas and facilities.

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 landscape 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.

Outdoor recreation is a significant contributor to the quality of life for Connecticut residents. In order to effectively support this important asset, the DEEP, in conjunction with the Center for Public Policy and Social Research at Central Connecticut State University, developed and conducted a statewide research effort to more fully understand the present status of outdoor recreation in the state. The detailed findings of that research, found in Section III of this plan, were used by DEEP and the SCORP Advisory Committee to inform the goals, strategies and objectives presented in PART II of this plan.



## Major Accomplishments, 2011-2016



### Introduction

The Statewide Comprehensive Outdoor Recreation Plan (SCORP or The Plan) is a planning document for Connecticut that defines a path forward for the Department of Energy and Environmental Protection as it strives to fulfill the mission of making outdoor recreation available to all residents and visitors 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, five-year agency agenda to which others can easily refer and upon which they can also rely as they formulate and implement their own planning agendas for outdoor recreation and environmental conservation programs and facilities in their respective jurisdictions. For these reasons, the outdoor recreation goals set forth in a SCORP must be clearly stated and they must be based on careful consideration of present and evolving outdoor recreation issues of statewide significance.

In general terms, the DEEP's outdoor recreation goals represent a logical progression of strategic planning and proactive measures to ensure that residents and visitors enjoy an optimal experience when visiting any of the outdoor recreation facilities managed by the DEEP, including 110 state parks, 32 state forests, 92 wildlife management areas, five wildlife sanctuaries, seven natural area preserves, 117 boat launch ramps, 140 miles of shoreline, nine miles of sandy beach, and one coastal preserve.<sup>1</sup>

In specific terms, the DEEP's outdoor recreation goals arise in part from public feedback regarding what visitors wish to find—or wish not to find—during their outdoor recreation experiences, and in part from the

<sup>1</sup> [http://www.ct.gov/deep/lib/deep/open\\_space/greenplan/2016GreenPlan-BackgroundSection.pdf](http://www.ct.gov/deep/lib/deep/open_space/greenplan/2016GreenPlan-BackgroundSection.pdf)

institutional knowledge of agency staff and Advisory Committee members regarding the past and current status of specific outdoor recreation facilities or trends in Connecticut. In practice, institutional knowledge of Connecticut’s outdoor recreation history and present status combines with the expressed preferences of the recreating community to establish goals that move existing DEEP programs forward in a direction that is compatible with expressed desires and that define new initiatives for future development.

Because knowing where you’re going is difficult unless you know where you’ve been, it is valuable to recall the previous efforts of the DEEP to provide excellent stewardship of the state’s resources. DEEP’s 2011 – 2016 SCORP goals and associated objectives resulted in the accomplishment of a number of important initiatives on the part of the divisions within the DEEP Environmental Conservation Branch. The following information provides insight into the many accomplishments during the previous five-year period.

## Land Acquisition and Management Unit

The Land Acquisition and Management Unit implements DEEP’s open space programs and is responsible for acquiring lands to be added to the Department’s system of parks, forests, wildlife management areas, water access areas, and other conservation and public recreation areas. The Land Acquisition and Management Unit works in cooperation with other divisions, as well as with its federal, municipal, land trust, and water company partners, to protect and steward open space across the state.

In 2016, DEEP published an update of its Comprehensive Open Space Acquisition Strategy, also known as *The Green Plan*. The plan specifically sets acquisition priorities and targets for outdoor-based recreation, such as lands that serve to close gaps in trails, provide public access to the coast, and provide for more hunting and fishing opportunities. In accordance with *The Green Plan* priorities, and with assistance from state bond funding, the Community Investment Act, and other funding sources, between 2016 and 2020, *The Green Plan* calls for DEEP and its conservation partner to protect 11,500 acres of open space.

The DEEP’s outdoor recreation goals represent a logical progression of strategic planning and proactive measures to ensure that residents and visitors enjoy an optimal experience when visiting any of the outdoor recreation facilities managed by the DEEP.

PAGE 15



Between 2011 and 2016, DEEP through its Recreation and Natural Heritage Trust Program completed the acquisition of 58 properties, adding 4,118 acres to DEEP’s parks, forests, wildlife management, and other conservation and outdoor recreation areas. Two of these properties, the 289-acre Saner Property at Salmon River State Forest in Colchester and the 925-acre Preserve in Old Saybrook, were acquired with significant funding assistance from the National Park Service Land and Water Conservation Fund.

In 2011, the State purchased from the Mason Family an additional 454 acres located adjacent to the 282-acre Belding Wildlife Management Area in Vernon. This acquisition ensures the protection of much of the watershed and entire riparian zone for over 2.5 miles of the Tankerhoosen River, protecting significant habitat for wild trout and other wildlife. Funded in its entirety by the State Recreation and Natural Heritage Trust Program, this property is one of the largest and most significant open space acquisitions in Connecticut history. The property provides year-round outdoor recreational opportunities, as well as a living classroom for students within the greater Hartford area. In 2014, the former Apple Orchard, LLC Property was donated to the State of Connecticut in memory of Dorothy and Bernard Schiro, and further protected by a conservation easement held by the Connecticut Forest and Park Association. Now called the Auerfarm State Park Scenic Reserve, this 40-acre property located in Bloomfield abuts property owned by the local 4-H club. The property provides additional scenic greenspace and outdoor recreational opportunities within the greater Hartford area.

In 2015, after fifteen years of negotiations with the seller, DEEP partnered with The Trust for Public Land, The Nature Conservancy, the Town of Old Saybrook, and the Essex Land Trust, with contributions from other groups and private individuals, to successfully protect The Preserve: a nearly 1,000-acre coastal forest having key habitats and water resources that was once slated for development. The property now serves as a new state and local public open space with trails for hiking, wildlife viewing, and more.

Also between 2011 and 2016, the State Open Space and Watershed Land Acquisition Grant Program completed 111 projects, protecting 8,780 acres in 50 towns. Many of these grants funded the protection of open space located in or near densely populated areas, thereby providing urban communities greater access to green spaces. The State of Connecticut receives a permanent conservation and public access easement on property acquired through this program to ensure that the property is protected and available to residents as open space in perpetuity. Table 2 provides a summary of land acquisitions completed with the assistance of an open space grant from DEEP from 2011 - 2016.

**Table 2. Financially Complete/Closed Acquisitions.**

Year	Acres	Number of Projects	DEEP Grant Amount (\$)
2011	1,603.67	23	7,560,342
2012	740.33	11	2,045,478
2013	1,230.88	15	2,896,150
2014	1,541.53	16	3,807,960
2015	1,424.46	19	6,098,366
2016	2,238.87	27	8,723,933
Total	8,779.74	111	31,132,229

## State Parks and Public Outreach Division

Established in 1913, the mission of the Connecticut State Park System is to provide natural resource-based public recreational and educational opportunities through a system of state park and forest recreation areas, environmental centers, and nature centers that provide an understanding of, access to, and enjoyment of, the state’s historic, cultural and natural resources.

Budget reductions in 2016 and 2017 led to a 45% reduction in funding available for seasonal staffing, as well as continued attrition of full-time staff. As a result of these conditions, the Division closed four state park campgrounds, and reduced the days and hours of operations of many museums and nature centers, reduced maintenance schedules, as well as a lifeguard coverage. New mechanisms have been researched to support

sustainable funding for state parks operations, including the creation of “Passport to Parks” to provide free park access to Connecticut residents, while charging a small fee on each motor vehicle registration. The “Passport to Parks” concept was adopted in the 2018-2019 biennial state budget in October of 2017.

DEEP’s State Parks and Public Outreach Division received significant administrative and legislative support for increased investment in state parks infrastructure. These improvements included replacement of the West Beach bathhouse, which included concessions, lifeguard, and ENCON offices at Hammonasset Beach State Park in Madison. The new Meigs Point Nature Center was built in collaboration with the Friends of Hammonasset. Gillette Castle State Park in East Haddam installed a new heating, ventilation and air conditioning system. Major renovations were completed on the Oak Lodge Nature Center, originally constructed by the Civilian Conservation Corps, at Chatfield Hollow State Park in Killingworth.

Major rehabilitation of the main pavilion and new water main and distribution system was completed at Sherwood Island State Park in Westport. The Seaside Sanatorium in Waterford, with approximately 32 acres, became the Seaside State Park in September 2014, and in 2016 a master plan was completed.

One step in prioritizing future renovation plans in state park management units has been to develop and finalize general management plans. Six state park management units were evaluated for current and future programming to prioritize infrastructure improvement needs at each unit.

With a renewed commitment to energy efficiency, renewable energy initiatives were incorporated into major projects at Hammonasset Beach State Park, including several solar projects, and geothermal and solar at the new Meigs Point Nature Center. Solar panels were installed at the pavilion at Sherwood Island State Park in Westport. New electric vehicle charging stations were installed at Dinosaur, Rocky Neck and Hammonasset Beach State Parks and the Marine District Headquarters.

The Connecticut State Park system celebrated its 100<sup>th</sup> anniversary during the 2013-2014 period with a series of events including print and media efforts to highlight the first 100 years of our state parks, and to present





an initial vision for the next 100 years. The celebration began with the State Parks Centennial SoJourn, a 169 mile trek (one mile for each Connecticut municipality) that commenced in August of 2013. The journey began at Quaddick State Park in northeast Connecticut and concluded in Sherwood Island State Park in Westport, Connecticut's first state park. Participants biked, hiked, paddled and camped while visiting nearly twenty state parks along the route. In 2014, the group crossed the state again beginning at American Legion State Forest in Barkhamsted in the northwest corner and ending at Harkness Memorial State Park in the southeast.

As part of the State Parks Centennial Celebration, rustic cabins were completed in eight campgrounds at American Legion State Forest, Black Rock, Hammonasset Beach, Hopeville Pond, Housatonic Meadows, Kettle town, Lake Waramaug, and Rocky Neck State Parks. Centennial banners were placed at the entrances to 50 state parks and a Centennial 18 Month Calendar containing all the Centennial activities was printed featuring historic and current photos.

In planning for the State Parks Centennial, the task of digitizing historical photographs and documents, and collecting digital audio interviews was initiated. Digital audio interviews of retiring long- term staff members,

The Connecticut State Park system celebrated its 100<sup>th</sup> anniversary during the 2013-2014 period with a series of events including print and media efforts to highlight the first 100 years of our state parks, and to present an initial vision for the next 100 years.

PAGE 18



Effectively marketing state parks became one of DEEP's priorities leading to the creation of a number of videos, publications, interpretive signage and the use of improved technology and social media.

with decades of in-the-field park experiences, have been collected for the initial part of this oral history project. The recordings will be transcribed so they may be cross-referenced for research in the future. While many historical documents exist in print, in various locations and states of condition, DEEP will continue to digitize many thousands of pages of park history into a permanent, searchable, digital library available internally for ease of staff reference. This work makes research and basic information gathering more efficient as staff time continues to decrease due to continued budget constraints.

In combination with the digital print archive of park history, the scanning of archived photographs, some dating from before there was a State Park Commission, has grown to include both black and white prints and negatives which number in the high hundreds and the 6-8,000 35mm color slide collection. This ongoing project will continue to be carried out by seasonal park staff as time and scheduling allow.

Effectively marketing state parks became one of DEEP's priorities leading to the creation of a number of videos, publications, interpretive signage and the use of improved technology and social media.

Several videos were published in 2014 and 2015. ***Air Line State Park Trail*** consists of a five minute introductory video and an eighteen minute highlights video. Ten separate three-minute videos were produced in cooperation with Middlesex Community College including: ***CT State Parks: Step Back in Time*** which showcases the historical significance of state parks in Connecticut, featuring Putnam Memorial, Dinosaur, Gillette Castle, and Fort Trumbull. ***CT State Parks: Experience the Beauty*** showcases the natural beauty of state parks in Connecticut, featuring Sleeping Giant, Talcott Mountain, Devil's Hopyard, Wadsworth Falls, Silver Sands

and Hammonasset Beach. **CT State Parks: An Adventure for all Seasons** showcases adventurous activities in Connecticut's state parks, featuring Mohawk Mountain, Burr Pond, Air Line Trail, and Rocky Neck. Also created, **A History of CT State Parks: 1913-2013**, a narrated presentation of the history of Connecticut State Parks featuring interesting facts and photos. Visitor center orientation videos are now featured at Putnam Memorial and Gillette Castle State Parks, the latter having been viewed by over 200,000 people to date.

A template was developed for new and consistent signage at each park's point of entry. Comprised of an area map, general overview information, historical background, regulations using international symbols and emergency information, this new signage lends a uniform look and provides necessary and up-to-date visitor information.

To improve the visitor experience and make use of available technology, the CT State Park App, **Pocket Ranger**, was deployed in 2013 to assist visitors with information, both before and during visits to state parks. This trend continued with the **CT Rail Trail Explorer**, an interactive map and planning tool for our State Park Rail Trails, developed and launched in partnership with CT DOT in 2016. Also 25 State Park and Forest geo-referenced trail maps were made available. These maps allow trail users to see their real-time location on our trail maps.

As interpretive staff decreased at some important locations due to limited budgets, the State Parks and Public Outreach Division has added cell phone tours and information as an extension of its interpretive outreach. The multi-functional agency phone network is able to provide multi-layered call-ins and can now reach cell phone using audiences where coverage is substantial enough to dial in. Beginning with Fort Griswold Battlefield State Park in Groton and Chatfield Hollow State Park in Killingworth, DEEP will endeavor to provide cell phone tours at two additional state parks during each of the next five years.



The **Adopt a Park** program began in 2013 and was well received by residents of Connecticut. In less than five months, the adopting volunteers helped control litter problems, painted buildings, removed invasive species, cleared and maintained hiking trails, marked trees, led tours, maintained historic gardens, personally welcomed campers, and received feedback to improve service at campgrounds. The first 100 adopting volunteers (including individuals, groups and families) donated 1,023 hours of service in the first four months. A 58% increase in the number of active, Adopt a Park program volunteers produced a 44% increase in the number of service hours from 2013.

**Park Interpretive Sites** The State Parks and Public Outreach Division manages eleven **historic sites and museums**: Dinosaur State Park, Rocky Hill; Fort Griswold Battlefield State Park, Groton; Fort Trumbull State Park, New London; Gillette Castle State Park, East Haddam; Harkness Memorial State Park, Waterford; Putnam Memorial State Park, Redding; Stone Museum at Peoples State Forest, Barkhamsted; Heublein Tower at Talcott Mountain State Park, Simsbury; Topsmead State Forest, Litchfield; Civilian Conservation Corps (CCC) Museum at Shenipsit State Forest, Stafford Springs; and the Osborne Homestead Museum, Derby. Two of these historic sites are discussed below.

**The Osborne Homestead Museum** is a Colonial Revival-style historic house museum which was the home of Frances Osborne Kellogg, a prominent business woman, dairy breeder, and community leader. The museum is a member of the Connecticut's Historic Gardens and is listed on the Connecticut Women's Heritage Trail. With popular public programs and increasing participation from new decorating clubs, the yearly attendance at the museum has risen from 1,282 in 2012 to 2,078 in 2016. Over the past five years, the attendance during the regular season has steadily risen from 397 in 2012 to 641 in 2016. Likewise, the holiday attendance increased from 885 in 2012 to 1,437 in 2016.

**Table 3. Osborne Homestead Museum Attendance 2013 – 2016.**

Year	Regular Season	Holiday Season	Total
2016	641	1,437	2,078
2015	613	1,368	1,981
2014	982	1,378	2,360
2013	526	987	1,513

During 2012-2016, **Dinosaur State Park** annual admissions varied from a low of 43,501 in 2013 while the park was closed for renovations for five weeks, to a high of 49,014. The five year average was 46,591 for museum visitors. An additional 10,000 people annually use only the trails, picnic and track casting areas. Approximately 140 groups visit the park (the remainder are families and individuals) and the park provides an average of 60 fully guided programs to school groups each year.

The Friends of Dinosaur State Park sponsored double DinoDays in 2013 and 2016. This was for the observance of the 100th anniversary of Connecticut State Parks and the 50th anniversary of the discovery of the tracks, respectively. A full year of special programming was sponsored by the Friends in 2016 for the 50th anniversary, including a monthly giveaway of 50 free prizes, a new scouting program, a Build a LEGO Dinosaur contest, a month long visit from three large LEGO dinosaur models, book signings, butterfly and arboretum walks, a Dino-tots program, an on-line geology/paleontology “Ask-the-Experts” program, bird-Olympics, a trail adventure, and a visit from Dr. Robert Bakker, one of the best known paleontologists of his generation.





A major renovation of the Discovery Room was completed in 2013 with major support from the Friends of Dinosaur Park & Arboretum. Funding was secured to conduct some major renovations on the park's trails scheduled for completion within the next year. Currently under consideration are a major renovation of the museum exhibits; expanded office, classroom and storage space; and uncovering of the buried track way.

**Kellogg Environmental Center and Osborne Homestead Museum** provide educational outreach for DEEP by integrating recreation and resource conservation into classroom and public programs. The mission is to develop environmentally literate citizens connected to their environment and able to make informed decisions.

Kellogg Environmental Center staff coordinates the national environmental programs: Projects WILD, WET, and Food, Land and People, and has hosted 252 professional development workshops utilizing these materials. 1,291 pre-K-college teachers participated in Projects WET, WILD, Learning Tree, and Food, Land and People workshops; 18,000+ students are reached annually through programs and workshops.

In addition, the Center developed webinar series and seminars for increased educational access and implemented electronic interactive learning into field studies with schools. It also served as one of four state agencies to create and continue support of Green LEAF School Program to develop green and sustainable schools for staff and students.

The FE3 (Facilitating Environmental Education Excellence) workshop was established to expand resources in classrooms to support Next Generation Science Standards and STEM applications using outdoor recreation and state parks as thematic lessons. Projects include Recycling Education, Schoolyard Habitat, Health and Nutrition in Schools, Air Quality Awareness, and Citizen Science and Climate Change. In 2014, FE3 hosted a national conference for Project Food, Land and People and in 2015 participated in reviewing and updating Connecticut's Environmental Literacy Plan.

Working in partnership with the Friends of Hammonasset, and utilizing a Land and Water Conservation Fund Grant, the new **Meigs Point Nature Center in Madison**, opened in May 2016. The new nature center features space for a marine life touch tank, fresh and saltwater fish tanks, reptile and amphibian habitat, birds habitat, and assembly space as well as touch screens with rotating educational information. The building is powered by geothermal and solar sources.

**The James L. Goodwin Conservation Center in Hampton** continues with its mission of forestry, wildlife and general conservation education for youth and adults, welcoming over 2,500 people a year to its diverse education and recreation programs. One of the programmatic highlights is the Master Naturalist certification program that began as a pilot in 2014. Participants receive extensive training on natural history and, as part of the program, travel state-wide to provide education and outreach to local communities. Level 1 (Apprentice



Naturalist) consists of a minimum of 35 hours of instruction composed of classroom sessions and field trips. Level 2 (Master Naturalist) is taught by a number of experts in the natural resource community as well as university professors, state and federal agency biologists and specialists.

Thousands more use the 17+ miles of well-maintained hiking, biking, horseback riding and cross-country skiing trails as well as the youth group campsite and picnic pavilion.

Goodwin Conservation Center's **Haley Native Plant Wildlife Gardens** are beautiful and wildlife friendly. These native plants offer a glimpse of what it is like to garden in a sustainable way. Three large ponds offer non-motorized boating and fishing year round. The Conservation Center displays videos and photographs of over 100 years of forestry history and "Pine Acres Farm", which was the name of the property that was eventually given to the state by James L. Goodwin in 1964.

**No Child Left Inside®** is a promise to introduce children to the wonder of nature - for their own health and well-being, for the future of environmental conservation, and for the preservation of the beauty, character and communities of the great state of Connecticut. The No Child Left Inside® initiative provides the necessary opportunity for children to unplug from technology and unearth the vast opportunities that Connecticut's State Parks and Forests have to offer.

**No Child Left Inside® Great Park Pursuit (GPP):** CT State Parks Family Adventure celebrated its 10th Anniversary in 2015 and has continued to inspire both children and adults to go outdoors and enjoy Connecticut state parks, forests, and water bodies. Over the past five years, a more diverse audience



has been attending the programs. GPP was held for seven weekends in the spring with a different theme each week – forestry, wildlife, hiking, fishing, boating, camping, interpretive centers, energy, etc. Each year about 140 families (approximately 500 people) have completed all seven weeks and have been eligible to receive a Connecticut State Park Season Pass. In addition, No Child Left Inside® and Connecticut Aquatic Resources Education (CARE) continue to co-sponsor the NCLI® Winter Festival and Saltwater Fishing Day.

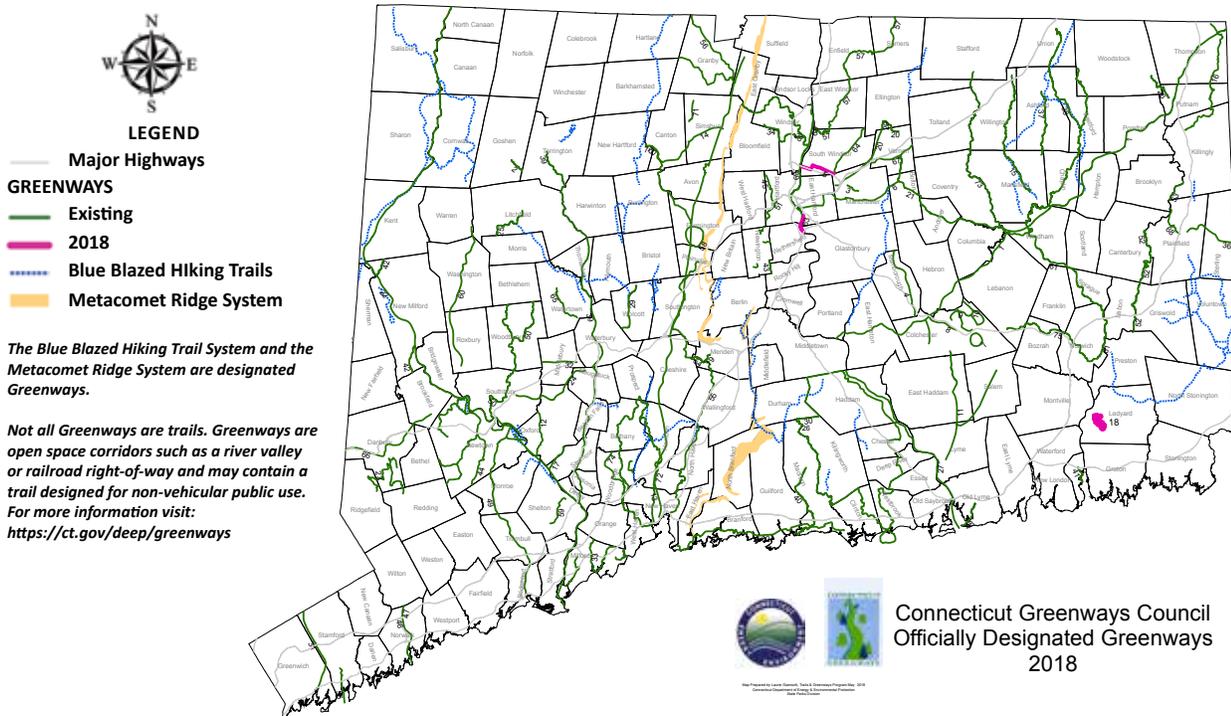
**Sky's the Limit Hiking Challenge** was designed to promote hiking in Connecticut's State Parks and Forests. The 2015 theme was high elevations, 2016's theme water bodies and in 2017 the focus was on historic sites. Participants in this friendly competition receive a hiking staff medallion for visiting ten designated locations. Those who visit all fourteen locations are eligible to receive a hand-carved hiking staff. In the first two years over 700 people participated in the challenge.

**First Day Hikes** originated more than 25 years ago at the Blue Hills Reservation, a state park in Milton, Massachusetts, with a hike on New Year's Day. The program was launched to promote both healthy lifestyles throughout the year and year round recreation at state parks. Connecticut began offering First Day Hikes in 2012 with about 100 people participating at one park; the number has since risen to 836 participants hiking 1,634 miles of trails at five different parks. 2015 marked the first time all fifty state park systems joined together to sponsor First Day Hikes.

## Connecticut Trails and Greenways Program

This program, administered by the Division of State Parks and Public Outreach, consists of management of a recreational trail grants program, agency support for trail planning and construction, and coordination and support for the Connecticut Greenways Council (CGC). Members of the Connecticut Greenways Council (CGC) are appointed by the Governor and the leaders of the General Assembly. Their duties include advising and assisting in the coordination of state agencies, municipalities, regional planning organizations, and private citizens, in voluntarily planning and implementing a system of greenways. The Council also provides assistance to these same stakeholders in the technical aspects of planning, designing and implementing greenways. This assistance includes advice on securing state, federal and nongovernmental grants, and establishing criteria for the designation of greenways.

Since 2011, Connecticut designated 14 additional Greenways, bringing the total number of officially designated Greenways in the state to 68. One of the 68 official greenways, the Connecticut Blue-Blazed Hiking Trail System, is comprised of thirty-five mostly separate trails and trail systems totaling over 825 miles. It is important to note that not all Designated Greenways offer recreational opportunities. Some greenways are designated for environmental, wildlife corridor or scenic resource protection.



**Figure 3. Connecticut Officially Designated Greenways.**

Section 23-10a of the Connecticut General 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 pass. The Connecticut Blue Blazed Hiking Trail System is maintained by the Connecticut Forest and Park Association, Inc., a volunteer organization which also works to establish protection of the trail where it exists on private property.

Since 2011, Connecticut designated 14 additional Greenways, bringing the total number of officially designated Greenways in the state to 68.

## New England Trail

The 215-mile New England Trail (NET) includes portions of four largely contiguous trails: the Mattabesett, Menunkatuck and Metacomet Trails in Connecticut and parts of the Metacomet-Monadnock Trail in Massachusetts. The NET was designated a national scenic trail in 2009. The principal trail stewards of the NET are the staff and volunteers of the Connecticut Forest and Park Association (CFPA) in Connecticut, and the Berkshire Chapter of the Appalachian Mountain Club (AMC) in Massachusetts. They are assisted by the National Park Service (NPS) in managing, protecting, restoring and caring for this scenic New England treasure.<sup>2</sup>

NET accomplishments in 2016 include the Town of Farmington's purchase of 107 acres of preserves and 0.6 miles of trail. Also, the Guilford Land Conservation Trust purchased the last unprotected property in the Northwoods of Guilford located on the trail.<sup>3</sup>



## East Coast Greenway

The East Coast Greenway, founded in 1991, is the nation's longest connected biking and walking route. It accommodates bicyclists, walkers, runners, inline skaters, horseback riders, wheelchair users, cross-country

skiers and people of all ages and abilities. It travels through 25 cities and 450 communities from Maine to Key West, Florida. Despite being smaller than most East Coast Greenway states, Connecticut has one of the longest stretches of the route, at 200 miles. For a long time, an overwhelming majority of those miles were on-road. Currently, over half of the trail is off-road. Since 2011, 79 miles of trails have been protected.



Figure 4. East Coast Greenway in Connecticut.

<sup>2</sup> For more information, including guides and maps, please visit [www.newenglandtrail.org](http://www.newenglandtrail.org).

<sup>3</sup> For a full report of the New England Trail accomplishments since 2011 see <https://www.newenglandtrail.org/about-trail/news-publications>.

## Recreational Trails and Greenways Funding

When funds are available, the state provides funding for development and stewardship of its system of recreational trails and greenways. These funds play a pivotal role in facilitating numerous partners and developing a statewide system of trails and greenways for a burgeoning number of trail users.

**Table 4. Recreational Trail Development Grants 2011 - 2016.**

Grant Round	Total Allocations	Recipients
2011	\$1,167,419	8
2012	\$478,085	5
2013 and 2014	\$3,403,056	21
2015	\$6,720,817	39
2016	\$400,000	7
Total	\$12,169,377	80

Table 4 lists funds available through recreational trail development grants over the last six years. Fortunately, DEEP has numerous programs and partners to assist with Greenway and trail development through advocacy, maintenance and public relations efforts in support of the trail systems.

For example, work has begun on the 44-mile Naugatuck River Greenway trail which follows the Naugatuck River from Torrington to Derby.

## The Connecticut Forest and Park Association

Established in 1895, the Connecticut Forest and Park Association (CFPA) is a strong advocate for hiking trails, maintaining 825 miles representing the Blue-Blazed Hiking Trail System. CFPA trail volunteers contribute thousands of hours annually to the maintenance and upkeep of this statewide network of trails.

In 2016, CFPA volunteers donated over 29,000 hours of in-kind work valued at over \$800,000. This work included the organization of 43 trail work parties with help from over 300 volunteers. Volunteer training opportunities attracted 130 volunteers to the eighteen training sessions. The volunteer group, the Garden Gang, had a busy spring and summer maintaining the beautiful gardens around CFPA headquarters and have established a meadow along the entranceway. Two new volunteer positions, an Activity Leader and a Habitat Steward, were added to the CFPA structure. The Ramble Guides held 38 Rambles that connected over 600 participants to the trails, walking locations, and open spaces our state has to offer.

In an effort to attract the next generation of conservation conscious supporters, the Junior Conservation Ambassador Program was offered to sixteen students were able to connect to the land thanks to a volunteer organizer and the support of ten volunteer presenters.

Twenty-one Land Stewards monitored the 2,100+ acres of open space and forested land which CFPA protects. This work ensures CFPA properties are appropriately utilized and also helps to strengthen CFPA's name in the community.

## The Connecticut Horse Council

The Connecticut Horse Council is a strong advocate for multi-use trails emphasizing the value of unpaved trails to equestrian traffic. During 2016, the Connecticut Horse Council's Volunteer Horse Patrol (VHP) had a total of 1,284 patrols. They logged 2,426 patrol hours valued at over \$47,000.00 in service to the state. VHP's 14 years of volunteer hours total 37,980 hours which translated to services worth \$740,000.00. The VHP patrols state and private lands monitoring trail conditions and reporting to the property owners as well as providing assistance to trail users.



### Additional Supporters

The New England Mountain Bike Association (NEMBA) is a respected partner in multi-use trail design and construction. Connecticut NEMBA also conducts fundraising events for host property owners. BikeWalkCT is a strong supporter for multi-use trails, of which there are currently 200 miles in Connecticut. The New England Trail Riders Association and the Connecticut Off-Road Enthusiasts Coalition advocate for additional public trail systems that accommodate motorized use.



### Boating Division

The Boating Division’s mission is to enhance boating safety, improve boating access and associated infrastructure on Connecticut’s waters, foster environmental stewardship and reduce or eliminate user conflicts. The division works in cooperation with other divisions as well as with its federal, municipal, and boating safety stakeholders to provide clean, safe, and well-maintained boating access.

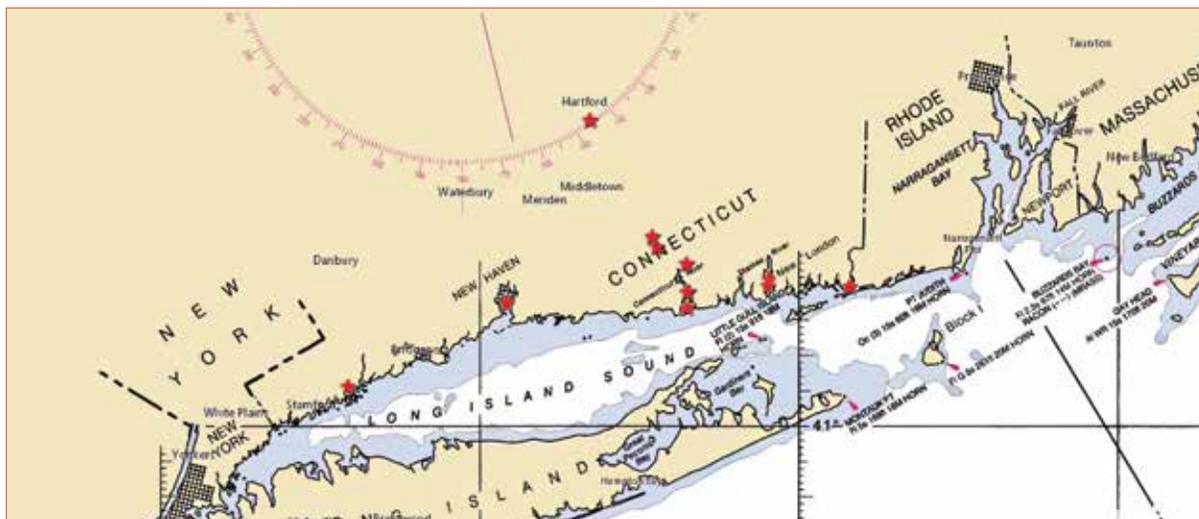
The Division receives financial assistance to carry out the cooperative agreement with the United States Coast Guard and to locally support their National Recreational Boating Safety Program. This assistance allows DEEP to implement State initiatives to reduce the number of boating accidents, injuries and deaths on Connecticut waters. Through education and outreach, strategic placement of regulatory markers, regulated events, improved access, and active law enforcement, the boaters on Connecticut’s waters become more knowledgeable. This ensures the boaters of Connecticut have a safe, secure and enjoyable recreational boating experience.

State boat launches were renovated at Branford River, Lake Lillinonah, Burr Pond, Rainbow Reservoir, Glasgo Pond, Dooley Pond, and Bashan Lake. Existing boat ramps were replaced with bituminous concrete or concrete ramps. Where possible, fixed or floating dock systems were added and accommodations were made for launching manually propelled vessels. Parking lots, turning areas and access roads were paved or re-graveled. Solar powered lights, ADA accessible parking and portable toilet platforms and screens were added where warranted.

The Division administers the Boating Infrastructure Grant program (BIG) on behalf of the U.S. Fish and Wildlife Service. Congress created this program (Federal Register, 50 CFR 86, January 18, 2001) recognizing that insufficient tie-up facilities exist for transient, non-trailerable boats (26' or over in length). Specifically, this program aims to assist boaters to enjoy many recreational, cultural, historic, scenic, and natural resources of the United States.

BIG program funds are made available to public and private agencies, marinas and facilities that provide transient tie-up opportunities for non-trailerable boats. Eligible projects include the construction, renovation, and maintenance of publicly or privately owned facilities including docks and moorings; upland amenities such as bathrooms, showers, laundry facilities and picnic areas; and installation of navigational aids for safe passage to the tie-up facility and education materials.

Ten projects have been completed and can be found on the newly-created DEEP interactive Facilities for Transient Boaters Facility Map.<sup>4 5</sup>



**Figure 5. Facilities for Coastal Transient Boaters.**

### **Aquatic Invasive Species Control**

Invasive species threaten the quality of recreational aquatic sites. In order to maintain the quality of this resource, several initiatives have been enacted and will continue to be implemented for the foreseeable future.

The Zebra Mussel Task Force, formed in 2010 in response to the discovery of zebra mussels in the Candlewood Lake area, was expanded to become a Regional Lake Task Force. The Regional Lake Task Force includes individuals and agencies with expertise in zebra mussels, DEEP Directors of Inland Fisheries and Boating, and lake community residents and representatives. The scope of the water quality topics covered by the task also increased to include invasive plants and blue-green algal blooms.

In 2012, Connecticut General Statute 15-180 was amended to require the inspection of the vessels and trailers for aquatic invasive species (AIS), such as zebra mussels.

In 2016, over 5,000 vessel inspections were completed by seasonal boating staff. The percentage of boater awareness of AIS laws has increased from 89% to 97.3%. More boaters (increase from 84% to 97.1 %) are self-inspecting their boats for AIS as well.

### **Clean Water Management**

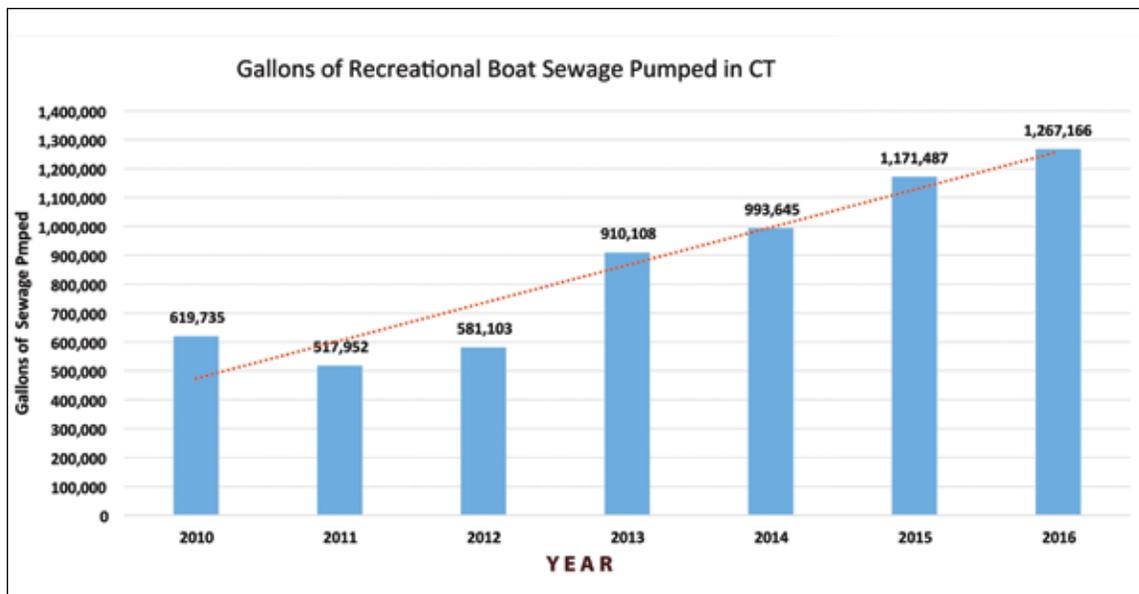
Clean water and clean air make boating experiences more enjoyable. By becoming aware of some of the environmental hazards that are associated with boating, and using sound environmental boating practices, boaters are educated by the Division to help protect our resources and ensure the future health of Connecticut's waters. In 2016, there were 8,247 clean boater pledges received.

<sup>4</sup> [www.ct.gov/deep/transientboaterfacilities](http://www.ct.gov/deep/transientboaterfacilities).

<sup>5</sup> For more information about the program please visit: [http://www.ct.gov/deep/cwp/view.asp?a=2686&q=322280&deepNav\\_GID=1620](http://www.ct.gov/deep/cwp/view.asp?a=2686&q=322280&deepNav_GID=1620)

Since its inception, the Federal Clean Water Act has prohibited the discharge of untreated sewage from vessels in all of Long Island Sound. All of Connecticut’s coastal waters from the Rhode Island state boundary in the Pawcatuck River to the New York State Boundary in the Byram River and extending from shore out to the New York state boundary have been designated by EPA as a federal No Discharge Areas. In these waters the discharge of any sewage from any vessel is prohibited.

The Boating Division has awarded approximately \$7 million in Clean Vessel Act Grant funds to qualifying projects which provide boat sewage disposal facilities. The Boating Division has provided a pump-out vessel on Candlewood Lake as well. A new interactive web app was created so that a boater can easily locate a pump-out facility or pump-out boat from their smart phone or tablet. Visit: [www.ct.gov/deep/pumpoutdirectory](http://www.ct.gov/deep/pumpoutdirectory).



**Figure 6. Gallons of Recreational Boat Sewage Pumped.**

The Division is positioned to continue to educate boaters about clean and safe boating. The Division achieves these goals through the deployment of Boating Education Assistants at State boat launches, through boating safety classes and outreach events at boat shows and other on-water venues, and through innovative educational programming in the Student Ambassador Program.

### State Environmental Conservation Police Division

The Division of State Environmental Conservation Police (EnCon) mission is natural resource protection and public safety through education, outreach, and enforcement. The Division is composed of certified police officers with the primary responsibility for enforcing the state’s wildlife, commercial and recreational fishing and boating laws, and providing traditional law enforcement services in Connecticut State Parks and Forests. EnCon also enforces Connecticut’s off-road vehicle statutes to prevent environmental degradation of sensitive landscapes. These efforts improve the quality of life for our citizens that recreate in Connecticut State Parks and Forests and on the waterways of our state.

The Division of State Environmental Conservation Police has maintained two public outreach trailers outfitted for use at public events to highlight the Division’s mission of natural resource protection and public safety through education, outreach and enforcement. These public outreach trailers are taken to events including large agricultural fairs, boat shows, hunting and fishing shows and public safety events done in conjunction with other law enforcement agencies. This gives uniformed officers the opportunity to interact with the public in a positive setting and to respond to questions about a variety of topics ranging from wildlife concerns to boating safety requirements. From 2011 through 2017, officers from the EnCon Police Division participated in 891 public outreach events.



In 2011, the EnCon Police Division instituted a K-9 program with four officers selected for the unit. In the spring of 2012, the teams completed three weeks of rigorous training by the State Police K-9 unit and were certified in search and rescue tracking and evidence recovery. For the first three years of the program, the K-9 unit's skills and abilities were called upon numerous times to assist in the search for lost and missing persons and the location of evidence.

In 2015, the unit developed a training program to detect illegally taken wildlife. Working with the Connecticut State Police K-9 unit, a training program was developed and initiated in the spring of 2015. The EnCon K-9 Unit Fish and Game program was the first of its kind in the New England State Police Administrators Council. During the training, these officers and their K-9 partners used freshly caught fish, as well as frozen samples, to teach the K-9s to identify the odor of three key species of fish and three major game species that Connecticut sportsmen most often harvest.

In 2015, the Division began efforts to initiate a new program called Connecticut Operation Game Thief. The goals of the program will be to promote outdoor recreation including hunting and fishing, bring awareness to the public of the consequences of poaching, be a recruiting tool for the

profession of conservation law enforcement, and identify and apprehend wildlife violators.

During the period January 1, 2011 through December 30, 2016, EnCon Police officers issued 2110 citations and 2,516 warning for fishing violations and 462 citations and 536 warnings for hunting violations.

The EnCon K-9 Unit Fish and Game program was the first of its kind in the New England State Police Administrators Council.

## Bureau of Natural Resources

The Bureau of Natural Resources celebrated its 150th anniversary of Natural Resource Conservation in 2016. The anniversary was celebrated with many *Connecticut Wildlife Magazine* articles highlighting the history of the Bureau of Natural Resources including *A History of Wildlife Conservation in Connecticut; Inland Fisheries- Never Better!; From 'Special Protectors' to EnCon Police Officers; Then and Now* articles, and more. Special web pages were developed to highlight historical events and milestones over the Bureau's 150-year history.<sup>6</sup>

The Bureau of Natural Resources has offered an Annual Hunting and Fishing Day for the last seven years. The event continues to draw increasing numbers of people with fishing, hunting, trapping, shooting, archery, animal telemetry tracking, and field trial dog demonstrations.

The state's 29 Nature Conservancy preserves, the U.S. Fish and Wildlife Service's Stewart B. McKinney and Silvio O. Conte National Wildlife Refuges, 19 Connecticut Audubon Society wildlife sanctuaries, and four major Audubon Connecticut sanctuaries, together with 110 state parks, 32 state forests, and 97 wildlife management areas (WMAs), all provide crucial habitats for Connecticut's most intriguing and important wildlife species.

*Connecticut Wildlife Magazine* continues to be popular with articles about inland and marine fisheries, forestry, and wildlife, and encouraging the interest of all outdoor enthusiasts. Five articles about WMAs and watchable wildlife have been printed in *Connecticut Wildlife Magazine* since 2012, in an effort to inform the public about places to view wildlife.

<sup>6</sup> For access to Connecticut Wildlife Magazine visit: [www.ct.gov/deep/wildlifemagazine](http://www.ct.gov/deep/wildlifemagazine)

DEEP staff and many DEEP-produced educational materials are involved in the Connecticut Envirothon. The Connecticut Envirothon is a natural resource-based education program started in 1992 by the state's Soil and Water Conservation Districts. High school students work in teams led by a teacher/advisor. During the school year, teams receive curriculum materials and are invited to a series of training workshops in the Envirothon study areas of Soils, Aquatics, Wildlife, Forestry, and a Current Environmental Issue. These workshops are presented by foresters, soil scientists, aquatic ecologists, wildlife biologists, and many others. Students benefit from meeting people working in a broad range of environmental careers. Teachers also benefit and find the program a wonderful source of networking and professional growth for their own careers. A spring competition among teams results in a state winner. The winning team earns the chance to represent Connecticut at the North American Envirothon, a weeklong event held at a college campus in the summer. They compete with about 60 teams from across the USA and Canada for scholarships and other prizes. Many Envirothon alumni go on to further study leading to environmental careers and are eligible for special scholarships.

In 2016, 101.6 million Americans 16 years old and older, 40% of the U.S. population, enjoyed some form of fishing, hunting or wildlife-associated recreation. Outdoor recreation is a huge contributor to our nation's economy, and expenditures by hunters, anglers, and wildlife-watchers were \$156.3 billion. This equates to 1% of Gross Domestic Product; one out of every one hundred dollars of all goods and services produced in the U.S. is due to wildlife-related recreation. (U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation)

## Forestry Division

Programs within the Division of Forestry focus on working with partners to protect Connecticut's forest resources. These programs encourage private landowners to practice responsible long-term forest management. Private landowners possess 73% of Connecticut's forest, with more than two-thirds of that owned by families or individuals. The Division protects Connecticut's forest resources from the effects of fire, insects, disease, and misuse, provides accurate and timely information about Connecticut's forest resources, certifies forest practitioners, manages the large blocks of contiguous forest land in state forests, engages municipalities and citizens in the work of urban forestry, and encourages the local forest industry.

The Forestry Division, working with the Wildlife Division, Natural Resources Conservation Service, and private landowners, works to create more young forest habitat on state and private land to benefit wildlife species. The threatened New England cottontail was the focus of much of this work and, because of the work done in Connecticut and throughout the northeast, the US Fish & Wildlife Service decided that the New England cottontail did not require listing under the Federal Endangered Species Act.

Since 2011, Connecticut's Forest Legacy Program has permanently protected an additional 73 acres in Simsbury and is currently working on a project in Stafford that was awarded funding by the US Forest Service. Once complete, this project will permanently protect more than 1,500 acres using \$3,935,000 in federal funds and additional \$1,325,000 in matching funds. This will be added to Connecticut's existing Forest Legacy Program project list totaling 8,125 acres, with interests valued over \$20,000,000, using a total of \$8,386,000 in federal funds.

The US Forest Service and the Natural Resources Conservation Service (NRCS) have provided a significant





amount of money since 2011 in the form of grants and technical assistance, with guidance from the Forestry Division, to private landowners and non-profits to improve Connecticut's forests. Through the NRCS, from 2009 to 2015, \$336,000 was awarded to prepare forest stewardship plans. From 2010 to 2016, \$5.2 million was provided to complete forestry improvement projects and New England cottontail habitat projects. The Forest Service has awarded over \$700,000 in competitive grants to Connecticut non-profit agencies.

The Urban Forestry Program awarded over \$800,000 to municipalities and non-profits through a combination of US Forest Service funds and Regional Greenhouse Gas Initiative (RGGI) funds, through outreach grants, and America the Beautiful grants.

In 2015, the Forestry Division completed a review of its Forest Action Plan, making minor changes and additions to reflect changes that occurred since its completion in 2010. A full update and revision will be completed by 2020. The Forest Action Plan is a document intended to guide the management of forests by the DEEP Forestry Division and the State's forest conservation partners (academia, extension, non-profits, regional organizations, municipalities, and private landowners).

The Community Forest Program is a Forest Service competitive grant program that provides financial assistance to local governments, tribal governments, and qualified non-profits to establish community forests that provide continuing and accessible community benefits to private forests threatened by conversion to non-forest land uses. Land is acquired in fee, there is a 50% match requirement, and public access is required. The community is also involved in the establishment and long-term management of the forest through the required community forest plan. The Forest Service is responsible for monitoring the terms of the program. Connecticut received its first Community Forest Program (CFP) grant from the US Forest Service in 2016. The non-profit New England Forestry Foundation was awarded \$175,000 to increase permanently protected land in the Niantic River watershed.

The State Vegetation Management Task Force was formed in response to a recommendation by the Two Storm Panel Report to better manage Connecticut's roadside trees and forests. One of the major outcomes of the task force's report was that Tree Wardens now must be certified so that they are better able to manage municipal trees. As of April 2017, 151 of 169 Connecticut municipalities have a designated individual, typically a licensed arborist or an individual that has completed required coursework, that meets Connecticut statutory requirements qualifying such person to be either the Tree Warden or Deputy Tree Warden, per CGS 23-59a.

## Fisheries Division – Inland

A major role of the Fisheries Division is to conserve and actively manage Connecticut’s fish and fisheries for the benefit of an informed public, one that appreciates the ecological, recreational, and economic value of our fisheries. Integral to this mission are the contributions made by volunteers whose service hours annually exceed \$168,750 of donated time and expertise.

### Connecticut Aquatic Resources Education (CARE)

The CARE program, established in 1986, strives to recruit people to the sport of fishing through a diverse set of free educational courses and hands-on experiences. A primary focus is to provide the skills and confidence to beginner anglers so they may choose fishing as an activity of choice. Accomplishments during the period of 2011 to 2016 include the following:

*Let’s Go Fishing*, a family fishing guide for beginners to fishing in Connecticut, was published in 2015.<sup>7</sup> This program trained and certified 341 fishing instructors to lead fishing classes in their communities. Over 49,407 people were introduced to fishing through direct contact at one or more events or courses. The Division developed and utilized a DEEP Fisheries trailer to display fishing information for the public. Use of the CARE Fisheries Center was expanded to host fishing trips for school-aged children. New anglers were recruited resulting in an increase in fishing license sales and a boost to the industry.

### Recruitment, Retention, Reactivation (R3) Activities within the Fisheries Division

The Division introduced innovative legislation that enabled implementation of the addition of two *Free Fishing License Days* to the existing Free Fishing Day. Discount licenses were made available for anglers age 16 and 17. Additionally, waivers were provided for fishing licenses for schools with fishing integrated into their curriculum.

The Division implemented the Youth Fishing Passport, free to anglers age 15 or younger. Passport holders are eligible for rewards from passport sponsors and can participate in two year-round fishing activities, the fishing challenge and geo-catching.

The *Lapsed Angler* reminder campaign, via traditional mail and email, lets anglers know that fishing is much more than catching fish. By the end of December 2016, the number of participants in the Lapsed Angler Campaign had increased by 8.7% (15,363) over the 2011 value adding to the annual growth in fishing participants.

The distribution of relevant fishing information was greatly enhanced through the use of many popular social media platforms including Facebook, Facebook Live sessions, daily Facebook stocking updates and Twitter.

**Table 5. Increasing Angler Participation in Connecticut**

Year	Number of Fishing Participants (license holders)
2011	175,767
2012	182,663
2013	185,641
2014	187,173
2015	191,404
2016	191,130

Further outreach was accomplished through various media including *FishBrain*, *Weekly Fishing Report*, *CT Fishin’ Tips*, *Interactive Trout Stocking Map*, and freshwater and marine fishing brochures published in Spanish.

<sup>7</sup> Let’s Go Fishing is available at [http://www.ct.gov/deep/lib/deep/fishing/care/care\\_2015\\_workbook.pdf](http://www.ct.gov/deep/lib/deep/fishing/care/care_2015_workbook.pdf)



### Fisheries Education and Outreach

The Division expanded the Community Fishing Waters Program to six new municipalities. Additional outreach was achieved through distribution of the *Anglers Guide*, including starting a photo contest, and by including more relevant graphics and content.

Public presentations at various sporting clubs, groups, associations as well as television and radio interviews, along with Facebook Live sessions, brought the fishing message to new audiences. Fishing information and events were featured in *Connecticut Wildlife Magazine*, the official bimonthly publication of the DEEP Bureau of Natural Resources.

Efforts were made to increase interactive map based content and other featured links on the home web page.<sup>8</sup>

### Fisheries Division – Marine

Despite budgetary and staffing shortfalls, the Marine Fisheries Division has maintained continuity of several long-term sampling programs, most notably the Long Island Sound Trawl Survey (initiated in 1984) and the Connecticut River Shad Study (initiated in 1978).

The Marine Fisheries Division made great strides in improving our outreach to the state’s anglers and the citizenry at large. These efforts have included creation of regulation signs in multiple languages to better communicate with the state’s diverse citizenry, development of interactive web apps such as the Saltwater Resources Map,<sup>9</sup> securing a grant to fund outreach to licensing agents with the goal of improving saltwater license data, and incorporation of Long Island Sound Trawl Survey data into the NROC Northeast Ocean Data Portal,<sup>10</sup> which allows interested citizens an opportunity to learn about the fish community of Long Island Sound.

<sup>8</sup> Fishing Homepage [www.ct.gov/deep/fishing](http://www.ct.gov/deep/fishing)

<sup>9</sup> [www.ct.gov/deep/saltwaterfishingresourcemap](http://www.ct.gov/deep/saltwaterfishingresourcemap)

<sup>10</sup> [www.northeastoceandata.org](http://www.northeastoceandata.org)



Division support was instrumental in successfully passing Public Act No. 15-05 which created a commercial fishery management structure which can support a more vibrant commercial fishing industry.

The Division instituted an innovative “Striped Bass Bonus Harvest Program” that leverages a previously unused commercial striped bass quota allocated to Connecticut to provide additional harvest opportunities for Connecticut anglers.

The Division started a catch card survey targeted at private boaters. This survey provides important data on the species and sizes of fish caught and released by Long Island Sound anglers, which is information of crucial importance to stock assessment that was not readily obtained through existing survey programs.

An “Enhanced Shore Fishing” program was instituted through which selected shore access locations on Long Island Sound are subject to harvest regulations for some species that are less restrictive than prevailing regulations. This program was intended to enhance the opportunity for shore anglers to harvest fish, given that the sizes of fish available to shore anglers tend to be smaller on average than those available to boat-based anglers.

A comprehensive study to determine the presence of bifenthrin, cyhalothrin, permethrin, resmethrin, and methoprene in lobster tissue in Long Island Sound was completed. Two independent laboratories found no detectable levels of any of the pesticides in 45 lobsters collected from Long Island Sound.

The Division implemented an 80-day fall season closure for American lobster in Long Island Sound in an effort to address the continued recruitment failure in the southern New England lobster stock.

On the legislative front, Division support was instrumental in successfully passing Public Act No. 15-05 which created a commercial fishery management structure which can support a more vibrant commercial fishing industry in keeping with our maritime heritage and state fishery management policy.

The Division managed three federal ground fish disaster grants totaling \$312,977. These funds provided direct assistance to 39 fishermen in Connecticut for their economic losses resulting from the 2012 ground fish fishery disaster, and also provided funding to the Southern New England Fishermen and Lobstermen’s Association to ensure the viability of the primary ground fish port in the state and the sole fish processor who operates there. It also secured two federal grants totaling \$89,637, which assisted the state in making necessary improvements to its licensing programs to meet the data quality standards for exemption from the Federal Saltwater Angler Registry requirement.

Lastly, the Division collaborated with the Stevens Institute of Technology and NOAA NMFS to develop a high resolution model to simulate potential impacts of climate change on the Sound's ecosystem, including the effects on fish abundance. Trawl Survey abundance indices were used to generate 'Habitat Suitability Indices' for cold and warm temperate fish, grouped into fish 'guilds' and merged with daily water temperatures for 1979-2013, estimated from the climate model. The results showed a significant upward trend in the preferred temperatures for warm temperate species but no trend in the frequency of preferred temperatures for the cold temperate species, only a calendar shift. For lobster, results showed that the frequency of preferred temperature decreased over time, while the frequency of stressfully high temperatures increased. Projected future water temperatures, based on a doubling of atmospheric CO2 over 20 years, showed unsuitable temperatures for warm temperate species will decrease to half the historic values, increasing the probability of competition between the two guilds. For lobster, projected frequency of stressful temperatures nearly doubled.

## Wildlife Division

The mission of the Wildlife Division is to advance the conservation, use and appreciation of Connecticut's wildlife resources. Wildlife resources are managed to maintain stable, healthy populations of wildlife, including endangered and threatened species, in numbers compatible with both habitat carrying capacity and existing land use practices. To support a diversity of wildlife, habitats are managed on state forests and wildlife management areas. Educational programs and technical assistance are provided to enhance privately-owned habitats and promote an appreciation for the value of Connecticut's wildlife. Hunting seasons and bag limits are regulated for harvestable wildlife species. Public hunting opportunities are managed on state-owned, state-leased, and permit-required areas. With volunteer assistance, conservation education and safety programs are provided to promote safe and ethical hunting practices.

## Wildlife Action Plan

Connecticut updated its Wildlife Action Plan so as to establish both a state and national framework for proactively conserving our fish and wildlife, including their habitats, for the next decade of 2015-2025. Connecticut's List of Species of Greatest Conservation Need also was revised. This entire effort involved adding new information on climate change and its impacts to wildlife conservation, updating resource mapping, refining conservation threats, and incorporating information gained through the implementation of the first Wildlife Action Plan completed in 2005. The revision also included the identification of new or revised conservation actions to help advance wildlife conservation over the next decade. Participation by conservation partners, academic institutions, and the public was key to making the revised Wildlife Action Plan an effective tool for conserving Connecticut's diversity of wildlife resources for future generations.



The 2015 Plan was expanded to include 100 species of plants. A total of 67 animal species was added, while 75 were removed. The 2015 greatest conservation need (GCN) species list includes 26 mammals, 95 birds, 31 reptiles and amphibians, 73 fish, 242 invertebrates, and 100 plants. Connecticut's fish and wildlife diversity serves as a significant recreational attraction for residents and tourists alike.

## Important Bird Areas

DEEP designated five Important Bird Areas (IBAs) in the state. Establishment of these sites is the result of a partnership between DEEP, Audubon Connecticut, other conservation NGO's, and private landowners who are working together to protect, restore, enhance and increase awareness about these critical areas.

Identification of IBAs is an essential first step to protecting habitats crucial to birds in Connecticut. A second, vital step is public recognition of these sites. Public recognition benefits IBAs by increasing landowner, local community, and visitor knowledge on the value of the site to birds. People may visit or live near an IBA and be unaware of its value to birds and other wildlife. But once engaged, they become familiar with the birds the IBA protects, make an effort to prevent disturbing the birds or their habitat, and may become active stewards.



Identification of Important Bird Areas (IBAs) is an essential first step to protecting habitats crucial to birds in Connecticut. A second, vital step is public recognition of these sites. Public recognition benefits IBAs by increasing landowner, local community, and visitor knowledge on the value of the site to birds.

PAGE 38

The five landscape level IBAs, which include state-owned as well as privately held lands being recognized include:

- Mouth of the Connecticut River: this area is located in Old Lyme and Old Saybrook. It includes the Roger Tory Peterson Wildlife Area and the Ragged Rock Creek Wildlife Management Area.
- Lyme Forest Block: this area includes lands in several towns within Middlesex and New London Counties. Among state lands in this IBA are: Devil's Hopyard State Park, Babcock Pond Wildlife Management Area, Zemko Pond Wildlife Management Area, Eightmile River Wildlife Management Area, Nehantic State Forest, Selden Neck State Park, and Beckett Hill State Park.
- Macedonia Forest Block: this area is located in Kent and Sharon. It includes Audubon Sharon and Macedonia Brook State Park.
- Meshomasic Forest Block: this area covers lands in Hartford and Middlesex County, including Meshomasic State Forest and Gay City State Park.
- Miles Wildlife Sanctuary and Housatonic State Forest Block. This area is located in Sharon and Lakeville, and includes Housatonic State Forest and the Audubon Miles Wildlife Sanctuary.

The Forestry and Wildlife Divisions have partnered with the U.S. Department of Agriculture's Natural Resources Conservation Service and the Wildlife Management Institute to cooperate on the Regional Young Forest Initiative for At-Risk Species. Through the Regional Conservation Partnership Program, technical and financial assistance will be provided to non-industrial private forestland owners wishing to implement practices outlined in the USDA Environmental Quality Incentives Program. In Connecticut the program will result in an increase in the quantity and quality of young forest habitat essential to New England cottontail rabbits, American woodcock, and over 50 other species associated with young forest habitat.

## Endangered Species

The presence of endangered species in the state reminds us that our environment is fragile and subject to degradation if not properly cared for by all. Recreationists, through activities such as wildlife viewing and bird watching, can help to further support the efforts of the DEEP to protect these valuable resources. The DEEP has a long record of success in identifying and intervening in the management of threatened and endangered species.

In 1986, when the piping plover was added to the federal Endangered and Threatened Species List as a threatened species, only 20 pairs nested on nine Connecticut beaches. Thirty years later, in 2016, Connecticut had a record 63 pairs of plovers nesting on 15 beaches.

Critical to this effort is the updating of the Endangered, Threatened and Special Concern Species list. In 2015, the list was updated to include the addition of the following species. Three bat species (little brown, tri-color, and northern long-eared bats) that have suffered dramatic population declines due to the spread of white-nose syndrome are now on the endangered list. Northern diamondback terrapin and spotted turtle are threatened by the fragmentation and loss of suitable wetland habitats, collection for the pet trade, and disease



and road mortality. It was also noted that two damselflies and one dragonfly have very specific, but limited, habitat needs. Also, two lesser known plant species, the American reed and American bittersweet, do not grow or spread aggressively, unlike their more common non-native counterparts.

Other noteworthy developments included the documented observance of the 17-year periodical cicada (*Magicicada septendecula*) for the first time in Connecticut in 2013. Cicadas live underground for most of their life cycle, but every 17 years in late spring their nymphs emerge from the soil, climb vegetation, and transform into short-lived adults. This endangered cicada will not emerge again until 2030.

The Endangered Species/Wildlife Income Tax Check-Off Fund is voluntarily supported by Connecticut's state income tax payers to support efforts aimed at helping Connecticut's endangered species, natural area preserves and watchable wildlife. Some projects funded through this mechanism include: botanical field surveys, habitat restoration for the ghost dune tiger beetle, preserving chimney swift roosts through education, Indiana bat study, monitoring GCN bird species in shrub land and forest interior habitats, purple martin research, State-listed plant field work, monitoring ospreys using citizen science, stream salamanders living within exurban watersheds, installation of monofilament fishing line receptacles, conservation and stewardship of State endangered and threatened species, and assessment of heavy metal and organic contaminants in snapping turtles.

### Conservation Education/Firearms Safety

The Conservation Education/Firearms Safety program has 300 volunteer instructors who have donated more than 10,000 hours of service per year. These dedicated instructors have taught and encouraged more than 24,000 students in firearms, bow-hunting, and trapping over the past years to participate in recreational hunting and trapping.

The *Archery in the Schools* program is very popular with administrators, physical education teachers, and students. The program works with the school's physical education department to teach archery as part of standard curriculum with the intention of encouraging children to take this sport outdoors for recreational hunting. In 2008, Connecticut began the Archery in the Schools program. The Wildlife Division has expanded the program in 2016 to now include 29 schools participating.

### Habitat Management

DEEP works to enhance habitat across the state on Department-owned and privately-owned lands. For example, DEEP has focused on habitat management on Charles Island, a 114-acre Natural Area Preserve off the coast of Milford, which serves as home to one of Connecticut's largest heron and egret breeding colonies



(rookeries). The Audubon Society has designated this area as an Important Bird Area and a Long Island Sound Stewardship area. Over the last few years, the island was impacted by several natural disturbances, including severe storms, a plant disease that is affecting vegetation, and damage from deer browsing. Habitat restoration has included controlling and removing invasive non-native plants that are dominating the island; new trees were planted, and invasive plants and storm-related downed trees were mowed and drum-chopped in 2014 to allow for planting of native trees suitable for the island's habitat conditions. A deer management and reduction plan was implemented and deer-proof fencing was erected to protect native vegetation.

As a second example, DEEP has worked with private partners promoting New England cottontail habitat enhancement on approximately 700 acres of public land and 600 acres of private land in patches ranging from 6 to 100 acres in size. These projects benefit not only the New England cottontail, but also 47 other high priority species that are dependent on young forest habitat. The New England cottontail is the only native rabbit in Connecticut.

## Hunting

In Connecticut, approximately 50,000 hunters spend \$307 million annually while enjoying one million days a year in the field. Nearly 1.2 million Connecticut residents expend more than \$935 million annually engaging in wildlife viewing.<sup>11</sup>

In October 2015, a bill was passed to allow Sunday archery hunting on private land in areas where there is an over population of deer. This is a long overdue effort in deer management.

The Wildlife Division recently secured a grant from the U.S. Department of Agriculture's Natural Resources Conservation Service to increase public access on private land for hunting. Private landowners' participation is voluntary. Hopefully, the financial incentive will persuade landowners to consider participating. To date, two landowners are participating in the program, opening another 363 acres for hunting in fall 2017.



## Junior Hunter Training Day Events

In 2015, the Wildlife Division worked with the Northwestern Connecticut Sportsmen's Council to stock pheasants at NU-Skiff Mountain Cooperative Wildlife Management Area on Junior Hunting Day.

In 2015, the Wildlife Division worked with the Flaherty Field Trial Association to manage their event. In 2015 and 2016, the Wildlife Division supported sportsmen's clubs which held a total of eleven events during that time period.

In 2016, the Wildlife Division worked with the Northwestern Connecticut Sportsmen's Council to stock pheasants at NU-Skiff Mountain Cooperative Wildlife Management Area, Housatonic WMA, Goshen WMA, and Robbins Swamp WMA on Junior Hunting Day. Also In 2016, a bill was passed to allow Junior Pheasant Hunting days to occur on state lands.

Bow-hunting seasons have been opened at Collis P. Huntington State Park (1,040 acres) and the Centennial

<sup>11</sup> National Survey of Fishing, Hunting and Wildlife Associated Recreation. 2011

Watershed State Forest (6,826 acres) in densely populated Fairfield County, where public lands for hunting are in short supply.

### **Master Wildlife Conservationist Program**

Master Wildlife Conservationists (MWCs) volunteered close to 25,000 hours during 2011-2016. MWCs are provided training through the DEEP Wildlife Division and committed to provide assistance to the DEEP and other environmental organizations with research, habitat management, and outreach efforts. MWCs presented wildlife-related programs at libraries, schools, nature centers, and other environmental organizations and assisted with events associated with the No Child Left Inside® program.

### **Public Awareness and Education**

Connecticut's wildlife is remarkably diverse. The state has 84 species of mammals, 335 species of birds, 50 species of reptiles and amphibians, 169 species of fish, and an estimated 20,000 species of invertebrates. Wildlife watching participation continues to grow in popularity.

*Wildlife Highlights*, a free electronic newsletter for anyone interested in Connecticut's wildlife and the outdoors, became available in 2016.

Belding Wildlife Management Area (WMA), in Vernon, is visited by approximately 560 third and fourth grade school children each year along with roughly 200 summer program attendees and 40 college students. About a dozen walkers per day visit Belding WMA year-round. Sessions Woods WMA, in Burlington, is used by about 50 walkers per day year-round. Monthly public programs at Sessions Woods WMA are attended by approximately 25 people per program.

Viewing platforms, boardwalks, blinds, and educational signs were constructed at various DEEP locations statewide, to provide the public the opportunity to observe and photograph wildlife in its natural habitat and at the same time increase public awareness of the diversity and complexity of Connecticut's natural resources.

New web pages were created on purple martin banding, National Archery in the Schools Program, the Junior Hunter Program, and several wildlife fact sheets were updated or developed.

### **Species Management**

The Wildlife Division and the University of Connecticut are leading an effort to conduct an extensive Connecticut Bird Atlas. This multi-faceted project focuses on breeding and wintering birds. The first Atlas was originally published in 1986. This project is set to begin in the spring of 2018.

Since 2011, the Wildlife Division has been conducting acoustic monitoring surveys on nine 20-mile transects to determine the severity of white-nose syndrome on cave-roosting bats.

In 2012, the Wildlife Division initiated a project studying sources of mortality and recruitment of deer in northwest Connecticut. The project concluded in 2016 revealing that high bear densities appear to be impacting deer productivity and may have an impact on the deer population over time. The study will be continued in other areas of the state before making a final determination. Connecticut has a healthy bear population with approximately 6,700 sightings reported from 134 of 169 towns in 2016.

### **Important Chimney Swift Roost Identification and Celebration**

The Wildlife Division identified 75, and publicly recognized, seven important chimney swift roosts. The Wildlife Division has developed outreach materials for communities to use to enjoy watching the impressive annual migration phenomenon in their local communities. The Wildlife Division has hosted community celebrations at two important roosting sites.

### **Additional Reading on 2011-2016 Accomplishments**

The materials presented in the previous section represent some, but not all, of the innovative programs, public outreach, facility improvements, and management activities of the DEEP over the past five years.

For further information regarding a particular division in the DEEP, the reader is encouraged to visit the DEEP website at <http://www.ct.gov/deep/site/default.asp> to learn more about the contributions made to the quality of life in Connecticut through DEEP initiatives.

PART II

# THE PLAN





# Goals, Strategies, and Objectives

The following section presents the goals established for the next five years with correlating objectives, and data to support the decision making process.

Goal development for the 2017-2022 SCORP involved members of the SCORP Advisory Committee, Bureau of Outdoor Recreation (BOR) staff, and outside consultants from Southern Connecticut State University Department of Recreation, Tourism & Sport Management. Central Connecticut State University's Center for Public Policy and Social Research provided data derived from public surveys administered to various stakeholders throughout Connecticut to provide direction to the process. In addition, the draft plan was made available to the general public for review and comment for 30 days, with over 200 public comments.



Goals were chosen based on the need to build upon past success and address needs raised in the public surveys conducted by Central Connecticut State University's Center for Public Policy and Social Research. In addition to the four goals presented below, the strategic planning process identifies general strategies, distinct objectives, and supportive data to guide and measure progress toward the mission of the SCORP.

For the purposes of this report, goals are considered to be broad primary outcomes over a predefined time period. Strategies are planning concepts that allow for the maximum realization of the benefits of achieving a particular goal. Objectives are the specific, measureable, attainable, realistic, and timely steps taken to effectively achieve the stated goals. Each goal may have several strategies and objectives providing direction for the allocation of resources and tactical design of agency efforts over time. Supportive data may result from quantitative survey results and from the focus groups conducted by the Center for Public Policy and Social Research. Additional data reflects the initiatives proposed by the various DEEP divisions as they continue to fulfill their missions.

These goals represent a commitment by the DEEP to continue to be responsive to the needs of Connecticut residents while responsibly managing the available resources in order to realize the greatest return on investments made to the outdoor recreation system.

## Connecticut's 2017-2022 Outdoor Recreation Goals

The State of Connecticut, through its Department of Energy and Environmental Protection and its Bureau of Outdoor Recreation, is pleased to present the following outdoor recreation goals to the Secretary of the Interior and the people of Connecticut.

- Goal 1:** Protect, conserve, and manage Connecticut's natural, cultural, and historical resources as they support outdoor recreation.
- Goal 2:** Provide clean, safe, well-maintained outdoor recreation areas and facilities.
- Goal 3:** Ensure that all residents and visitors can locate and access all outdoor recreation areas and facilities.
- Goal 4:** Promote healthy lifestyles through increased participation in outdoor recreation.

# Goals, Strategies, and Objectives

## Goal 1: Protect, conserve, and manage Connecticut’s natural, cultural, and historical resources as they support outdoor recreation.

### Strategies

- A. Continue Green Plan implementation
- B. Increase technological innovations for customer service
- C. Improve DEEP’s understanding of where and when facilities are most heavily used
- D. Strategically coordinate SCORP goals internally and with other stakeholders
- E. Identify new opportunities for collaboration with additional state resources
- F. Implement conservation objectives for the Wildlife Action Plan

### Strategy 1A: Continue Green Plan implementation

Objective A. 1.	Continue to identify and prioritize property acquisition opportunities guided by the four major themes of natural waters and drinking water sources, areas significant to the coast, natural heritage resources, and natural resources-based outdoor recreation
Objective A. 2.	Secure reliable funding to achieve the open space acquisition goals set forth in CGS Section
Objective A. 3.	Award 20 State Urban Green and Community Garden grants to create or enhance urban open spaces
Objective A. 4.	Open seven new water bodies and 10 miles of rivers and streams for public fishing and other uses
Objective A. 5.	Encourage land conservation partners to implement the revised 2016-2020 Green Plan
Objective A. 6.	Increase the amount of State Forest and Wildlife Management Area lands under active management to 75,000 acres by 2021

### SUPPORTIVE DATA

#### The Green Plan: Overview

Connecticut’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.

With the intent of preserving undeveloped open space for future generations and lessening the loss of open space to urban sprawl, 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. Of the total open space goal, the general statute states that: 10% (320,576 acres) shall be held by the State of Connecticut (DEEP), and 11% (352,634 acres) shall be held by DEEP’s land conservation Partners (municipalities, non-profit land conservation organizations, and water companies).

# Goals, Strategies, and Objectives

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*,<sup>1</sup> 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.

Connecticut's *Comprehensive Open Space Acquisition Strategy* (Green Plan) serves as a statewide planning document developed by DEEP in partnership with municipalities and numerous conservation organizations to guide land acquisitions towards achieving the open space goals. Integral to the current Green Plan is a five-year action strategy with acquisition priorities and targeted acreages to protect specific lands identified as capable of providing certain benefits, such as critical habitats, recreational trails and buffers to the effects of climate change. As such, it provides specific guidance for program managers, is a tool for those who want to work with the state in preserving land, and offers a basic overview for the public of the state's land acquisition and protection programs.

The Green Plan's land acquisition priorities were developed in support of, and in coordination with, other key State planning documents related to open space, including the Statewide Comprehensive Outdoor Recreation Plan, the Climate Change Preparedness Plan, and the Forestry and Wildlife Action Plans.

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.

DEEP administers two programs to finance the conservation of undeveloped land for public open space purposes: one for the acquisition of its 10% share of public open space and the other to assist municipalities, water companies and land trusts partners with the acquisition of the other 11% share.

Under these programs, DEEP annually administers more than a hundred grants, typically exceeding a total of \$10,000,000. Tables 6 and 7, identify recipients, the number of financially completed grants (i.e., closed acquisitions) and State open space acquisitions by land designation and funding sources for the 2011 – 2016 period.



**Table 6. Open Space Grants — Financially Completed.**

Year	Acres	Number of Projects	Grant Amount \$
2011	1,603.67	23	7,560,342
2012	740.33	11	2,045,478
2013	1,230.88	15	2,896,150
2014	1,541.53	16	3,807,960
2015	1,424.46	19	6,098,366
2016	2,238.87	27	8,723,933
Total	8,779.74	111	31,132,229

<sup>1</sup> The 2016-2020 Green Plan can be accessed at [http://www.ct.gov/deep/lib/deep/open\\_space/greenplan/2016GreenPlan-CompletePlan.pdf](http://www.ct.gov/deep/lib/deep/open_space/greenplan/2016GreenPlan-CompletePlan.pdf)

# Goals, Strategies, and Objectives

**Table 7. State Open Space Land Acquisitions by Land Designation and Funding Source 2011- 2016.**

State Land Designation	Number of Acquisitions	Total Acres	State Contribution (\$)	Partner Contribution(\$)	Total Cost (\$)
Park	20	546	9,309,000	3,083,584	12,392,584
Forest	54	2,963	12,561,593	2,627,736	15,189,329
Wildlife Management Area	26	1,821	7,248,047	9,943,700	17,191,747
Water Access Area	3	119	2,905,000	46,000	2,951,000
Total	103	5,449	32,023,640	15,701,020	47,724,660

As of December 2016, 74.89% of this goal or 504,160 acres has been preserved through the direct purchase of open space by the State and DEEP’s partners. Table 8 identifies open space targets by priority area and acreage for 2020.

In addition to State resources, the following funding programs are available to aid in the attainment of the Green Plan acquisition goals.

**Long Island Sound Regional Conservation Partnership Project.** This 10 million dollar project coordinated among seven states includes \$900,000 dedicated to permanently conserve forest land strategically located to protect water quality in Long Island Sound.

**Southern New England Heritage Forest.** \$1.6 million budgeted for permanent forestland protection in Connecticut, with \$840,000, not including landowner match, for forest management plans and practices including wildlife habitat improvement and invasive species control.

**USDA Forest Service Forest Legacy Program** \$1.8 million was dedicated to permanently protect forest land in northeastern Connecticut through the Whip-Poor-Will Woods project.

**Table 8. Green Plan Open Space Targets Set for DEEP and Partners through 2020.**

Open Space Priority	Target Acres	DEEP Acquisitions (acres)	Partner Acquisitions (acres)
Natural Waters and Drinking Water Resources	5,000	1,500	3,500
		(30% of total)	(70% of total)
Significant Coastal Areas	1,000	300	700
		(30% of total)	(70% of total)
Natural Heritage Resources	1,000	750	250
		(75% of total)	(25% of total)
Outdoor Recreational Trails	2,000	500	1,500
		(25% of total)	(75% of total)
Other Recreation and Natural Resource Lands Held By DEEP	2,500	2,500	0
		(100% of total)	(0% of total)
Total (acres)	11,500	5,550	5,950

# Goals, Strategies, and Objectives

The Green Plan’s goals are attainable, but will require the procurement of adequate financial and staffing resources to achieve significant results. Using an average per acre cost of about \$9,000 for properties purchased between 2007 and 2015 under the State’s primary land acquisition program, and given the acreage needed to meet DEEP’s interim target of 5,550 acres acquired, DEEP’s total open space funding needs through 2020 would equate to \$49,950,000, or about \$9,990,000 each year.<sup>2</sup>

## Strategy 1B: Increase technological innovations for customer service

Objective B. 1.	Expand development and distribution of relevant BOR information using social and interactive media
Objective B. 2.	Increase opportunities for self-guided interpretive installations and increased use of technological innovations to further the interpretive goals
Objective B. 3.	Produce smart phone-based interpretive displays for two additional facilities in each of the next five years
Objective B. 4.	Continue process of establishing a publicly-accessible mapping system, known as the Land Registry, and continue to add new state parks to the system
Objective B. 5.	Continue to digitally preserve the historical document archive and the photography archive
Objective B. 6.	Continue the production of park orientation videos

### SUPPORTIVE DATA

#### National Research Findings

According to the National Recreation and Parks Association, park and recreation professionals increasingly have utilized data analysis to help them make these decisions. The insights help agencies make informed programming decisions for their facilities, help optimize capital expenditure budgets, and support master planning.

Park and recreation agencies are using data to support a number of key areas, including master planning, measuring facility usage, informing programming decisions and supporting current/increased funding. Additionally, park and recreation agencies are using a mix of internally collected data and information from other agencies and other third-party resources. Table 9 provides some insight into the current use of data for important agency functions.



**Table 9. Uses of Data by Park and Recreation Agencies**

Activity	Currently use data for decision making	Do not currently use, but plan to in the future
Support master planning	95%	5%
Inform capital investment decisions	88%	11%
Measure facility use and program participation	88%	11%
To justify current/increased agency funding	82%	16%
To increase understanding of customer/constituents	73%	23%

<sup>2</sup> Green Plan pp. 12-13

# Goals, Strategies, and Objectives

Additional information, provided in the NRPA publication *Relevant Research for Practice*, identifies current research, making up a growing body of scientific and professional literature on outdoor recreation and tourism that can be used to build the capacity of park and protected area management agencies.

*Research to Guide Management of Outdoor Recreation and Tourism in Parks and Protected Areas* (Manning 2014) presents background and a framework for management. This management-by-objectives framework includes, (1) formulating indicators and standards of quality, (2) monitoring indicators of quality and (3) implementing management actions designed to maintain standards of quality. The framework can be used to help balance the demand for outdoor recreation and tourism, and the need to protect park resources and the quality of the visitor experience. The article has conservation implications and the management framework, can be used by conservation practitioners to balance use and protection of national parks and protected areas.<sup>3</sup>

Research also tells us that websites and the internet are two of the most important sources of information for Connecticut residents seeking information about outdoor recreation opportunities in the state. Figure 58 indicates that internet use is second only to word of mouth regarding how citizens access information about facilities and activities. The growth of the internet as an important contributor to customer service has increased by approximately 75% since 2005.

Greater access to technology will result in an increased ability to collect and analyze data, adjust operations to meet observed needs, and share such data and resultant metrics with stakeholders. Utilizing technology to respond to observed data trends or information was highlighted in the NRPA report.

“Data is not only highly valued at park and recreation agencies, but also by the leaders of the cities and counties where the agencies operate. Four out of five park and recreation professionals agree that the leaders of their jurisdiction place a “high” or “very high” value on using data in strategic and day-to-day operational decision-making. A mere three percent of survey respondents report that the mayor, county executive or other jurisdictional leader has little use for data in decision-making.”<sup>4</sup>

Many divisions of the DEEP have successfully begun to develop and implement a wide range of technology-based innovations for increased customer service.

For example, the Public Use and Benefit Land Registry (Land Registry) portal allows users to browse state lands, determine property ownership, and research, view, and download copies of parcel information, including deeds, surveys, and land management plans. Greater levels of detail are available as the map zoom level is increased.

Public Act No. 14-169 required DEEP to:

“...establish a publicly accessible geographic information map system and database that contains a public use and benefit land registry that is capable of providing, at a minimum, the following information for lands owned by the Department of Energy and Environmental Protection, other state agencies, municipalities, land conservation organizations and state-owned water supply lands: (1) The location and ownership information for such lands, (2) categorizations for any such lands that are based on the use and level of protection applicable to such lands, (3) information data sheets for such lands that include any applicable deed, easement, land survey, maps and data for each parcel that constitutes such lands, and (4) whenever available, management and stewardship plans for such lands.”<sup>5</sup>



3 <https://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/relevant-research-practice-report.pdf>

4 <https://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/data-analysis-park-and-recreation.pdf>

5 <https://www.cga.ct.gov/2014/ACT/pa/pdf/2014PA-00169-R00SB-00070-PA.pdf>

# Goals, Strategies, and Objectives

## Strategy 1C: Improve DEEP's understanding of where and when facilities are most heavily used

- 
- |                 |   |
|-----------------|---|
| Objective C. 1. | Quantify the spatial and temporal distribution patterns of visitation to outdoor recreation areas and facilities by installing, calibrating, and maintaining automated car counting equipment |
| Objective C. 2. | Develop GIS database on visitor use   |
| Objective C. 3. | Continue to incorporate available third party data  |
- 

### SUPPORTIVE DATA

Assessing demand for outdoor recreational experiences is critical to the future planning for resource allocation to meet these interests. Connecticut residents' interests in outdoor recreation are as diverse as the demographics that describe the make-up of the state. Survey information from the CPPSR statewide survey confirms this fact. The frequency of participation in recreation activities, as presented in the survey research Ranking of Recreational Activities by Use Frequency Index, Figure 27 on page 107, demonstrates both the diversity of activity interests and activity participation levels.

All surveyed land-based and water-based recreational activities were assessed and ranked based on a metric called the Use Frequency Index (UFI). For each activity, each survey respondent indicated whether he or she engaged in that activity seldom (=1), at least once a month (=2), a few times per month (=3) or several times per week (=4). These responses were averaged and aggregated to produce an UFI for each activity. This analysis indicated a consistent preference for walking and hiking as the top land-based activity with a variety of aquatic activities ranking in the top five (see pages 104 and 105).

Additional delineations of activity preference by age, gender, income and level of involvement can be reviewed in the Demand Section of the CPPSR report (see pages 112-119).

The importance of trail use as an element in outdoor recreation activity in the state is further documented through the Connecticut Trail Census, a statewide volunteer data collection program intended to provide a better understanding of multi-use trail use in the state of Connecticut and to make this important information available to trail user groups, administrators, government agencies and the general public. The 2017-2018 pilot project is funded by a Connecticut Department of Energy and Environmental Protection Recreational Trails Grant. Fifteen trail sites have been selected to participate in the pilot data collection effort.<sup>6 7</sup>



6 For additional details see: <http://ctrailcensus.uconn.edu/about-the-connecticut-trail-census/> for a more detailed explanation of the project.

7 Volunteer data collection training is provided by the UConn Extension Service and is available online at <http://ctrailcensus.uconn.edu/training/#general>

# Goals, Strategies, and Objectives

## Strategy 1D: Strategically coordinate SCORP goals internally and with other stakeholders

- 
- |                 |  |
|-----------------|--|
| Objective D. 1. | Cross-reference SCORP with existing internal resource management plans   |
| Objective D. 2. | Complete re-evaluation of DEEP natural resource programs and strategically identify programs/activities that could be realigned or discontinued by the end of 2017 |
- 

## Strategy 1E: Identify new opportunities for collaboration with additional state resources

- 
- |                 |   |
|-----------------|---|
| Objective E. 1. | Identify natural, cultural, and historical organizations not currently partnered with DEEP  |
| Objective E. 2. | Develop a plan to collaborate with these additional agencies  |
| Objective E. 3. | Cultivate a closer relationship with the Connecticut Forest and Park Association, Connecticut Chapters of the New England Mountain Bike Association, the Connecticut Horse Council, the Connecticut Recreation and Parks Association, and the Connecticut Office of Tourism |
- 

### SUPPORTIVE DATA

**The Blue Plan** represents a far reaching, collaborative effort to coordinate the resources of several agencies to most effectively manage and protect Long Island Sound. The Blue Plan statute<sup>8</sup> establishes a process to create a resource and use inventory of existing data, and a spatial plan, all under the oversight of the DEEP Commissioner, in conjunction with the University of Connecticut and a 16-member advisory committee of gubernatorial and legislative appointees. A draft plan will be completed by 2019 and, after formal public hearings and comment, be submitted to the legislature for approval.



The plan is the result of work by a coalition of partners led by Connecticut Sea Grant and The Nature Conservancy, including agency staff, universities, and NGOs, through whose collaboration the concept of marine spatial mapping gained traction. The Working Group concluded that legislation would be needed to establish effective marine spatial planning in Connecticut, and worked towards the ultimate passage of PA 15-66, An Act Concerning a Long Island Sound Blue

Plan and Resource and Use Inventory, which was enacted unanimously in 2015.<sup>9</sup>

Since passage of the bill, the Advisory Committee has established three subcommittees—Inventory and Science, Stakeholder Engagement, and Policy—to coordinate activities of several hands-on work teams. The work teams, which will include experts and stakeholders who are not on the Advisory Committee, include a Plan Development Team, an ad hoc Vision and Goals Team, and Work Teams for Plan Development, Ecological Characterization, Data and Mapping, and Human Use Characterization. The subcommittees and work teams are currently developing data products to comprise the inventory, creating policy approaches to establish the Plan document, and initiating a number of public and stakeholder outreach efforts.<sup>10</sup>

**Connecticut's Fall Foliage** initiative by the DEEP provides essential on-line information to Connecticut residents and visitors on where to go and when to visit in order to view peak foliage. An interactive map tracks typical foliage change so visitors can better plan when and where to visit. Connecticut Forest Based Economy<sup>11</sup> reports that, 25% of Connecticut's \$1.2 in annual recreational sales can be attributed to fall foliage viewing.

8 CGS §25-157 at [https://www.cga.ct.gov/2016/sup/chap\\_483.htm](https://www.cga.ct.gov/2016/sup/chap_483.htm)

9 CGS §25-157t [https://www.cga.ct.gov/2016/sup/chap\\_483.htm](https://www.cga.ct.gov/2016/sup/chap_483.htm).

10 For further information consult the Blue Plan website, <http://www.ct.gov/deep/lisblueplan>

11 [http://www.ct.gov/deep/lib/deep/forestry/ct\\_forest\\_based\\_economy.pdf](http://www.ct.gov/deep/lib/deep/forestry/ct_forest_based_economy.pdf)

# Goals, Strategies, and Objectives

The following organizations provide services to the public that coincide with the mission and goals of DEEP regarding outdoor recreation. Each offers opportunities for collaborative efforts at enhancing the recreational experiences for residents and visitors to the state.

## Connecticut Forest and Park Association

**Mission:** The Connecticut Forest and Park Association (CFPA) is a nonprofit organization dedicated to connecting people to the land in order to protect forests, parks, walking trails, and open spaces in Connecticut for future generations.

## Connecticut Recreation and Parks Association

**Mission:** To provide a network of support to members through professional development and resources in order to enhance the quality of recreation and parks services in Connecticut.

## Connecticut Office of Tourism

**Mission:** The Office of Tourism works to make tourism a leading economic contributor and a source of pride for Connecticut. The Office partners with the Connecticut business community and three regional tourism districts to position the state as a prime destination for leisure and business travelers and to encourage strategic investment. The Office offers a broad range of services, including marketing, research, hospitality services, direct sales, and business marketing assistance. The Office of Tourism operates Connecticut's six welcome centers, the State's official tourism website [www.CTvisit.com](http://www.CTvisit.com), and social media sites.

## New England Mountain Bike Association

**Mission:** to promote the best that mountain biking has to offer, steward the trail systems where we recreate and preserve open space.

## Connecticut Horse Council, Inc.

**Mission:** The Connecticut Horse Council, Inc. is a nonprofit organization dedicated to serving all aspects of the horse industry in Connecticut.



## Strategy 1F: Implement conservation objectives for the Wildlife Action Plan (WAP)

Objective F. 1.	Protect land and water habitats that support Greatest Conservation Need (GCN) species
Objective F. 2.	Connect key habitats used by GCN species
Objective F. 3.	Restore key habitat conditions to support GCN species
Objective F. 4.	Manage key habitats to support GCN species
Objective F. 5.	Partner with stakeholders to identify habitats of common interest
Objective F. 6.	Inform the WAP and Conservation Opportunity Areas (COA's) efforts by addressing data needs and information dissemination

### SUPPORTIVE DATA

The Wildlife Action Plan focuses on priority conservation actions to address threats to Connecticut's GCN species and their associated key habitats. Identifying conservation actions and research, survey, and monitoring needs provides the foundation for the dynamic process of developing accurate and current information. Use and dissemination of this information enables the important step of incorporating it into land-use decisions and key conservation efforts across the state. Implementation of the actions will require the efforts of many conservation partners working together to incorporate the needs of GCN species and key habitats into their programs and plans throughout the next decade.

# Goals, Strategies, and Objectives

## Goal 2: Provide clean, safe, well-maintained outdoor recreation areas and facilities.

### Strategies

- A. Implement or update general management plans for each state outdoor recreation unit
- B. Use data-driven decision making practices
- C. Communicate recreation facilities' conditions to potential users to better inform visitor expectations
- D. Manage varied user groups to maximize access and minimize conflicts

### Strategy 2A: Implement or update general management plans for each state outdoor recreation unit

Objective A. 1.	Develop an assessment template for all facilities
Objective A. 2.	Develop General Management Plans for twenty state park management units to evaluate current and future programming and to prioritize infrastructure improvement needs at each unit, with five plans developed or updated each year
Objective A. 3.	Complete Forest Management Plans for three state forests in each of the next five years
Objective A. 4.	Conduct an assessment of needs for CT DOT directional signage from highway ramps to trailheads and other crossing safety needs at Air Line State Park Trail and complete re-surfacing of the trail with cooperation from CT DOT
Objective A. 5.	Identify and refine design and construction standards that allow for optimized maintenance efficiency in new or rehabilitated park facilities
Objective A. 6.	Develop by 2017, and implement by 2019, a succession plan for a future workforce
Objective A. 7.	Implement an RFP process to secure private sector partner(s) for developing a state park lodge to sustainably repurpose the historic buildings at Seaside State Park in Waterford
Objective A. 8.	Develop bathhouse, concession, boardwalk improvements, and other support elements at Silver Sands State Park in Milford
Objective A. 9.	Undertake major rehabilitation of 1930's era pavilion at Rocky Neck State Park in East Lyme
Objective A. 10.	Undertake major rehabilitation of the support complex to provide additional public interpretation amenities at Harkness Memorial State Park in Waterford
Objective A. 11.	Complete major utility upgrade project that will replace aging water, electric, gas, fiber optic cable and other infrastructure in the spring of 2018 at Hammonasset Beach State Park in Madison
Objective A. 12.	Replace the Soapstone Mountain Tower lookout at Shenipsit State Forest, with completion expected in mid-2018
Objective A. 13.	Undertake major renovation of the exhibit area at Dinosaur State Park in Rocky Hill
Objective A. 14.	Establish an internal committee to review and prioritize construction projects and liaise with external agencies
Objective A. 15.	Coordinate with lake organizations to promote Aquatic Invasive Species Prevention Week

# Goals, Strategies, and Objectives

## Strategy 2B: Use data-driven decision making practices

Objective B. 1.	Consolidate existing data (e.g., visitation, revenue, staffing, budget, capital needs) for individual facilities from disparate sources
Objective B. 2.	Research and utilize national standards, NRPA metrics and existing internal data to determine appropriate maintenance levels
Objective B. 3.	Continue updating the list of facility assets, current conditions, and priority capital repairs at each facility
Objective B. 4.	Identify and advocate for reliable operational funding streams

### SUPPORTIVE DATA

Existing funding streams provide critical support to the DEEP goals. Plans are being developed to increase revenue from timber harvests by 2021 by implementing sustainable forestry and wildlife management plans. Also, new business opportunities and new sources of revenue generation such as a fee-based “adopt an eagle” program will be studied for feasibility.

The DEEP, partnering with the National Park Service, has implemented an industry leading IBM Asset Management Software, *Maximo*, to manage DEEP’s critical park and recreation facility assets. To further quantify assets for maintenance purposes in 2016-17, over 1,000 DEEP buildings were inventoried. Information gathered in the process included location, building type, purpose/use, construction type, utilities present, heating/cooling systems, size, age, general condition and other pertinent information.

A draft Asset Priority Index (API) was developed taking into consideration Natural Resource Preservation, Recreational Experience/Visitor Use, Facility Support, and Asset Substitutability. This will be used to rank the importance of the maintenance needs for each building, structure, or asset.

A comprehensive condition assessment of over 50 structures at Hammonasset Beach State Park was completed. The deferred maintenance expense for every building was calculated, as well as the building replacement cost. Using these values and industry standards a Facility Condition Index is used to evaluate repair options versus full replacement.

In 2018-19, a comprehensive condition assessment will be completed at no less than 20 of DEEP’s most critical facilities which will provide comprehensive detailed information covering over 250 buildings.



## Strategy 2C: Communicate recreation facilities’ conditions to potential users to better inform visitor expectations

Objective C. 1.	Increase public outreach and education pertaining to facility use, capacity issues and quality of service
Objective C. 2.	Work with DEEP Communications to develop an outreach plan that better informs the public’s understanding of the conditions and status of agency facilities
Objective C. 3.	Identify the areas where use exceeds carrying capacity and refine strategies to minimize
Objective C. 4.	Increase engagement with traditional (anglers, hunters, forest users) and non-traditional natural resource stakeholders through strategic initiatives and, by 2019, identify quantitative baseline from which to measure increase

# Goals, Strategies, and Objectives

## SUPPORTIVE DATA

As described in Part III this report,

“Nearly nine-tenths (87%) of respondents rated local parks as “good” or “excellent” and about the same proportion (88%) issued “good” or “excellent” ratings for state parks (p.125) These percentages mark an increase from the 2005 SCORP because roughly four-fifths (81%) of local parks and state parks (83%) in 2005 had a “good” or “excellent” rating. The increase is clearly encouraging because it suggests that the condition of both local and state parks has improved over the last twelve years. Also, this increase puts Connecticut above the national average of eighty-five percent “good” or “excellent” ratings reported in the 2005 SCORP. However, while very few respondents rated park conditions as “poor,” it is still worth noting that for both local and state parks, thirteen percent of respondents to the Statewide Survey rated conditions as “fair” or worse. Thus, there is still room for some improvement.”<sup>12</sup>

## Strategy 2D: Manage varied user groups to maximize access and minimize conflicts

Objective D. 1.	Identify and assess all facilities that have historical or potential user conflicts or capacity issues and implement strategies to minimize such impacts or issues
Objective D. 2.	Continue to work with CT Chapters of the New England Mountain biking Association (NEMBA), The CT Horse Council (CHC), and the CT Forest & Park Association (CFPA) to identify needs for new hiking and multi-use trails and mobilize their members to help install, restore and maintain trails
Objective D. 3.	Finalize new multi-use trail installations at Moween State Park and Pachaug State Forest. Update trail plans for both
Objective D. 4.	Working with CFPA, Develop a hiking trail plan for Auerfarm State Park. This trail plan will be used as a model for updates of existing trail plans
Objective D. 5.	Update trail plan for Hurd State Park
Objective D. 6.	Continue work with the CT Off-Road Enthusiasts Coalition (COREC, Inc.) to determine feasibility of adding motorized multi-use trails in Cockaponset State Forest

## SUPPORTIVE DATA

With very few large land holdings in the state and with greater than 80% of land held privately, Connecticut’s 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 for accommodating multiple user groups.

DEEP has set up a process for user groups to propose new trails or modifications to existing trails on state lands. The DEEP Trails Committee, which is a multi-discipline group of staff resource professionals, was also established to review proposals. Between 2011-2016 CT NEMBA Chapters have been the most frequent users of this process with 17 submissions. Other proposals have come from CT Forest & Park Association, CT land trusts and municipalities. Over 90% of the proposals have been approved and installed.

From CPPSR “The enthusiasts participated in a wide range of outdoor recreation activities, including: trail running and walking, kayaking, lake and ocean swimming, horseback riding and horse camping, mountain and road biking, cross-country skiing, fishing, snowshoeing, hunting, ATV riding, and canoeing. Their chief concern was their inability to practice preferred activities safely and/or legally. An interesting interplay emerged which points to tensions that exist between those engaging in different outdoor activities, particularly those utilizing multi-use trails. This heated conversation concluded with enthusiasts agreeing that DEEP must re-evaluate its policies towards ATV riding on state property, taking into consideration the needs of numerous constituent groups.”

<sup>12</sup> Please refer to Part III, Section 2, Page 95

# Goals, Strategies, and Objectives

In 2002, DEEP formally adopted a guidance and management policy for the establishment of ATV facilities on State property. In addition, the Agency has met with representatives of the ATV community on numerous occasions to solicit their help in identifying public lands that might be suitable for ATV riding. DEEP also has completed the first phase of an assessment of state lands that may be suitable for motorized use. The assessment recommended Phase 2, a more detailed look into six state properties one of which is Cockaponset State Forest. Revenues currently collected from ATV riders who choose to register their vehicles with Connecticut’s Department of Motor Vehicles are directed to the State’s General Fund; DEEP does not receive any money from this source. As suggested in the policy, legislation requiring that all ATVs be registered, increased registration fees and the dedication of funds from the registrations to a special motorized trail account at DEEP has been proposed previously, but, the effort has failed to pass past legislative sessions. The successful development of ATV facilities will be dependent upon additional sources of revenue to address the tasks that lie before us in establishing such an area including area layout and planning, engineering, construction, maintenance, and enforcement.



## **Goal 3: Ensure that all residents and visitors can locate and access all outdoor recreation areas and facilities.**

### **Strategies**

- A. Implement a wide range of public outreach and communication tools**
- B. Increase accessibility to outdoor recreation areas and facilities for people with disabilities**
- C. Remove impediments to visiting outdoor recreation facilities**
- D. Identify, increase, and promote the availability of public transportation to and from outdoor recreation facilities**

### **Strategy 3A: Implement a wide range of public outreach and communication tools**

Objective A. 1.	Catalog current and potential methods to communicate with users and potential users and formulate strategies for outreach to such groups
Objective A. 2.	Utilize existing and new data tracking systems to characterize user interests and outdoor recreation areas of interest
Objective A. 3.	Reorganize DEEP’s outdoor recreation internet content to function as go-to sources for information about outdoor recreation resources and happenings at State-owned facilities
Objective A. 4.	Increase participation in fishing and wildlife associated recreation by 20% by 2021 (compared with 2011 base year) and maintain hunting participation at least at current levels
Objective A. 5.	Encourage schools to participate in programs that visit outdoor recreation areas
Objective A. 6.	Continue to utilize and expand the use of existing outreach programs (Project WET/WILD, Project Learning Tree, Student Ambassador Program)
Objective A. 7.	Increase the availability of geo-referenced trail maps with a focus on the state forest trail systems

# Goals, Strategies, and Objectives

## SUPPORTIVE DATA

According to CPPSR, in 2017, word of mouth remained the most common means by which residents learned about outdoor recreation facilities (59%), although it was less common than in 2005 (67%). Newspapers, maps/road signs, and magazines also were significantly less frequent means of communication in 2017 than 2005, with differences of at least 10%. Websites were the fourth most popular means of obtaining recreational information in 2005 (34% of respondents). This number was up to 58% of respondents in 2017. Furthermore, while not included as an option in the 2005 survey, 37% of survey respondents in 2017 indicated learning about recreational facilities through social media outlets (Facebook, Twitter, etc.). Social media was not widely used in 2005, but has expanded to become one of the primary modes of communication today. This is increasingly true among all age groups including older citizens. Developing a targeting plan for those who fall in the “digital divide—those without access to the internet—would also be fruitful.<sup>13</sup>

### Strategy 3B: Increase accessibility to outdoor recreation facilities for people with disabilities

Objective B. 1.	Identify and prioritize projects that will have the greatest benefit for recreational access
Objective B. 2.	Refine park user survey to encourage feedback regarding barriers to access
Objective B. 3.	Use the High Efficiency Trail Assessment Process to provide information on trail slope, cross slope, gradient and surface types empowering trail users with mobility issues
Objective B. 4.	Leverage partnerships to increase accessibility for persons with disabilities at State-owned outdoor recreation facilities, building upon a pilot trail project at Wharton Brook State Park
Objective B. 5.	Develop a pilot program at Air Line State Park Trail in collaboration with the Last Green Valley to include an outreach component

## SUPPORTIVE DATA

There are approximately 20 State boat launches that are ADA compliant. The Boating Division has design plans underway to renovate four boat launches to make them more accessible. New access roads, parking lots, turning areas, dock systems and launch ramps will improve recreational access for persons with disabilities. State boat launches at Bantam Lake in Morris, Beach Pond in Voluntown, Mansfield Hollow Lake in Mansfield and Winchester Lake in Winchester are popular launches that are not ADA compliant. They have old and worn access roads, turning areas, parking lots and ramps made of gravel or old bituminous concrete planks. In addition, these launch ramps lack accessible dock systems to provide efficient access to facilitate boat launching/retrieval. Work will include replacing the existing ramp surfaces with single lane, 20 foot wide pre-cast, v-grooved, concrete panel surfaces. The design will also include either an 8' x 60' fixed concrete dock or equivalent floating dock system. Where possible, a separate car-top launching area will be provided. The access roads, turning areas and ADA parking spaces will be paved with a 3" thick, bituminous concrete surface. The design will also include a solar powered light to adequately illuminate the launch and turning areas. An accessible concrete walkway to each ramp will also be incorporated.



Students in the Master of Arts degree program in Recreation Therapy at Southern Connecticut State University will use their capstone projects to work with the DEEP to extend and apply the findings from previous applied research projects, like Wharton Brook State Park, to identify and suggest mitigation strategies in order to increase accessibility at outdoor recreation facilities.

<sup>13</sup> Please refer to Part III, Section 4, Page 143

# Goals, Strategies, and Objectives

## Strategy 3C: Remove impediments to visiting outdoor recreation facilities

- 
- |                 |   |
|-----------------|---|
| Objective C. 1. | Ensure that directional and informational signage is properly maintained and replaced |
|-----------------|---|
- 
- |                 |  |
|-----------------|--|
| Objective C. 2. | Implement the newly enacted Passport to Parks initiative and continue to evaluate pre-ticketing options for park entrance or admission |
|-----------------|--|
- 
- |                 |  |
|-----------------|--|
| Objective C. 3. | Review and evaluate best practices from other government recreation agencies |
|-----------------|--|
- 

### SUPPORTIVE DATA

Results of research conducted for this SCORP indicate that many residents cited high fees, distance from their residence, lack of knowledge of facility locations, and not knowing what is offered as the top impediments to recreational facility use.<sup>14</sup>

The Park Entry Kiosk Informational Signs initiative introduces new and consistent signage at park points of entry. Comprised of an area map, general overview information, emergency information, historical background, and facility regulations using international symbols and emergency information. This new signage will lend a definitive look and provide necessary and up-to-date visitor information at our most popular parks.

## Strategy 3D: Identify, increase, and promote the availability of public transportation to and from outdoor recreation facilities

- 
- |                 |  |
|-----------------|--|
| Objective D. 1. | Review CTTransit and regional district local service routes for proximity to DEEP and other outdoor recreational sites |
|-----------------|--|
- 
- |                 |  |
|-----------------|--|
| Objective D. 2. | Identify common interests and points of collaboration including park maps and advertisement on buses in CTTransit system to promote greater awareness of public transportation opportunities |
|-----------------|--|
- 
- |                 |  |
|-----------------|--|
| Objective D. 3. | Work with CTTransit and regional transit districts to improve service to outdoor recreation facilities |
|-----------------|--|
- 

### SUPPORTIVE DATA

In surveys administered by CPPSR for this SCORP, Connecticut residents were asked to identify all the ways that they or members of their household travel to outdoor recreation facilities in their local community and throughout the state of Connecticut.<sup>15</sup> Unsurprisingly, the vast majority of residents (88%) travel to outdoor recreation facilities via automobile.

Still, over half (56%) of households surveyed reported walking to outdoor recreation facilities in their area, and one-quarter (25%) of households reported biking to such facilities. These figures are encouraging, as they suggest that a significant portion of state residents have access to and utilize outdoor recreation areas within walking or biking distance of their residence.



<sup>14</sup> See: Figure 53, pg. 139

<sup>15</sup> See: Figure 44, pg. 126

# Goals, Strategies, and Objectives

Notably, one in six (16%) use public transportation (bus or train) to travel to outdoor recreation areas in Connecticut. In consideration of the relatively limited public transportation service accessing state recreation facilities, the proportion of households that report traveling to outdoor recreation areas via bus or train is encouraging. However, as mentioned earlier, limitations in accessibility to recreation areas via public transportation systems may serve as a barrier to the use of these facilities, particularly among households with lower incomes. Additional efforts should to be made to connect to outdoor recreation facilities to maximize accessibility.

According to town officials, public transportation to a facility, as a support service, remains the most widely-cited inadequate support component, with nearly one-third (31%) of the 55 towns that participated in the survey identifying public transportation as inadequate.<sup>16</sup>

## Goal 4: Promote healthy lifestyles through increased participation in outdoor recreation.

### Strategies

- A. Encourage schools to include outdoor recreation in educational programming
- B. Encourage support of related agency outdoor recreation programs
- C. Develop partnerships in healthy lifestyle promotion
- D. Determine whether affordability creates a barrier for some potential users
- E. Implement a Recruitment, Retention, and Reactivation (R3) Program
- F. Continue to expand the National Archery in the Schools Program (NASP)
- G. Encourage more residents to participate in hunting

### Strategy 4A: Encourage schools to include outdoor recreation in educational programming

- 
- Objective A. 1. Maintain and enhance communication lines with public and private schools
  - Objective A. 2. Develop marketing tools for schools
- 

### Strategy 4B: Encourage support of related agency outdoor programs

- 
- Objective B. 1. Continue support of No Child Left Inside® and all other relevant outdoor recreation programs
  - Objective B. 2. Identify all related programs in outdoor education beginning with state and local agencies
  - Objective B. 3. Establish opportunities for collaboration with identified programs
  - Objective B. 4. Develop collaborative experiential education opportunities
- 

### SUPPORTIVE DATA

A portion of the CPPSR findings on the most popular recreational activities gave town officials the opportunity to provide open-ended responses on the needs of various age groups. From these open-ended responses, several themes emerged. The most frequently cited deficiency was a lack of community centers or other indoor facilities for programming. This was followed by a lack of financial resources to pay for additional staff for program expansion, as well as a general lack of outdoor recreation spaces such as fields, trails, and splash pads.

---

<sup>16</sup> See Figure 52, pg.138

# Goals, Strategies, and Objectives

## Strategy 4C: Develop partnerships in healthy lifestyle promotion

Objective C. 1.	Highlight the benefits of increased participation in outdoor recreation as a strategy to support healthy lifestyles
Objective C. 2.	Access and reference state and national data related to outdoor recreation and healthy lifestyles
Objective C. 3.	Support schools that teach basic boating courses and encourage adoption of that model in other school systems

### SUPPORTIVE DATA

In 2013, with support from the National Recreation Foundation, the National Recreation and Park Association (NRPA) provided grants to five communities across the U.S. to enhance existing “park prescription” programs designed to strengthen linkages between the public park and healthcare sectors. “Park Prescriptions” is a concept that connects the healthcare community and public lands to create healthier people.

Communities that linked outdoor recreation to local health services such as doctors, hospitals and health centers, municipal health departments, health insurance providers and other stakeholders through programs such as *RxPlay* (Portland OR and Lakeside CA), *Livewell* (Greenville SC), *Docs in the Parks* (Baltimore MD), and *DCPark RX* (Washington DC) experienced marked improvements in measurable health outcomes such as increased physical activity, healthier eating habits, reductions in childhood obesity rates and increased positive interaction between residents and the health care community.<sup>17</sup>

Parks and wellness have been linked due to their relationship to physical activity and the benefits of outdoor activity in promoting a healthy lifestyle. Evidence to support this comes from a variety of professional and academic fields. The summaries provided below (NRPA, 2015) are an indication of the interest in this type of research and the positive effects of outdoor recreation for all age groups.

Funded by the Active Living Research and the Robert Wood Johnson Foundation, *Promoting Active Living in Rural Communities*, (Hansen and Hartley, 2015), asserts that rural children and adults have significantly higher rates of obesity than their urban counterparts, even after accounting for differences such as socioeconomic factors, eating behaviors, and physical activity.

Higher rates of overweight and obesity among rural residents suggests that rural environments themselves may somehow promote obesity. Differences across geographic regions illustrate the complexity of understanding how and where rural residents are physically active. Since active transportation (walking and biking to destinations) is often difficult to achieve in dispersed rural and remote areas where residents live far from schools, worksites, and other common destinations, there is a need for environments that support active recreation, even if residents must drive to get to them. Safe playgrounds, parks, bike paths, trails and other recreational facilities can offer rural residents opportunities to be more physically active. Efforts should be made to ensure that these amenities are accessible, well-marked, adequately maintained, clear of snow, and that they provide adequate shade.<sup>18</sup>

According to the authors of *How Urban Park Systems Can Best Promote Health and Wellness* (Harnik and Welle, 2012), 49% of Americans get less than the minimum recommended amount of physical activity and



<sup>17</sup> <https://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/relevant-research-practice-report.pdf> p. 14

<sup>18</sup> IBID.

# Goals, Strategies, and Objectives

36 percent of U.S. adults engage in no leisure-time physical activity at all. These people are not all obese, but lack of exercise is certainly a risk factor for being overweight; the U.S. is the most overweight nation on earth. On average, an obese American racks up nearly \$1,500 more per year in health care costs than an American of normal weight, for a national total of \$147 billion in direct medical expenses. With health costs making up between 17 to 18% of the U.S. gross domestic product, there is no doubt that the population needs to be more fit. It is well established that physical activity helps prevent obesity and related medical problems, and there is mounting evidence that providing places to exercise (parks, primarily) can improve health. One method by which to increase participation in leisure activities in older adults is to educate them about the importance of serious leisure in their lives.<sup>19</sup>

Research is also uncovering physical and mental health benefits simply from interacting with nature, including reduced levels of attention deficit disorder and aggressive behaviors, improved cognitive ability, and a general recharge of the brain. In April 2008, The Trust for Public Land organized a two-day colloquium with twenty-two leading professionals in public health, parks and recreation, landscape architecture, and urban planning. The group agreed on a primary principle that for a park system to foster mental and physical well-being, it must be well used by the public. The attendees concurred on six primary factors that can stimulate public use: maximized programming, traffic and stress reduction, good design, closer proximity, connectivity, and partnerships. That guidance, along with additional research, has yielded this open source booklet. <http://cloud.tpl.org/pubs/ccpe-health-promoting-parks-rpt.pdf> Harnik, P. and Welle, B., (2012).<sup>20</sup>

Health disparities occur when adverse health conditions are unequal across populations due in part to gaps in wealth. These disparities continue to plague global health. Decades of research suggests that the natural environment can play a key role in sustaining the health of the public. However, the influence of the natural environment on health disparities is not well-articulated. Green spaces provide ecosystem services that are vital to public health. This paper, *Approaching Environmental Health Disparities and Green Spaces: An Ecosystem Services Perspective*, discusses the link between green spaces and some of the nation's leading health issues such as obesity, cardiovascular health, heat-related illness, and psychological health. These associations are discussed in terms of key demographic variables—race, ethnicity, and income. The authors also identify research gaps and recommendations for future research.<sup>21</sup>

## Strategy 4D: Determine whether affordability creates a barrier for some potential users

---

Objective D. 1. Evaluate whether the new Passport to Parks program and the associated elimination of parking fees for state residents impacts park usage

---

Objective D. 2. With the most significant affordability barrier being addressed with the Passport to Parks, focus analysis on other facility fees (e.g. camping, museums, out-of-state parking fees)

---

### SUPPORTIVE DATA

As previously cited (p. 165) entry fees and proximity to facilities were cited by residents as the major barriers to park and facility usage. However, the recent passage of the Passport to Parks has now significantly changed the affordability of park visitation at many state parks. Moving forward, DEEP will look for opportunities to assess the affordability impacts of the range of other fees currently in place.

---

19 <https://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/relevant-research-practice-report.pdf> p. 14

20 From Fitness Zones to the Medical Mile: How Urban Park Systems Can Best Promote Health and Wellness. Trust for Public Lands, Washington, DC.

21 International Journal of Environmental Research and Public Health, 12, 1952-1968.

# Goals, Strategies, and Objectives

## Strategy 4E: Implement a Recruitment, Retention, and Reactivation (R3) Program

- 
- Objective E. 1. Work to stabilize or reverse the downward trend in hunter participation
  - Objective E. 2. Develop a strategic plan based on recommendations from the Council to Advance Hunting and Shooting Sports and the U.S. Fish and Wildlife Service
- 

### SUPPORTIVE DATA

Beginning in 2018, the Wildlife Division shall be actively involved in the national movement in the conservation community to increase participation of hunting, angling, target shooting, trapping, and other outdoor recreation opportunities. The strategic plan will identify action items, work with hunting and shooting-sports oriented groups to build an active stakeholder base, and work with media outlets to publicize the cooperative effort and hunting/shooting programs and events.

## Strategy 4F: Continue to expand the National Archery in the Schools Program (NASP)

- 
- Objective F. 1. Encourage schools to participate in NASP as part of physical education programming
  - Objective F. 2. Continue to expand NASP focusing on urbanized school districts
  - Objective F. 3. Coordinate more Connecticut tournaments
- 

### SUPPORTIVE DATA

NASP has expanded to include thirty schools in 2017 twenty two of which are new as of this year. Thirty-three teachers have been certified since February and many new schools have either purchased or are in the process of purchasing equipment.

## Strategy 4G: Encourage more residents to participate in hunting

- 
- Objective G. 1. Continue expanding the Conservation Education/Firearms Safety (CE/FS) program with seminars on turkey and waterfowl hunting; and a hunter marksmanship clinic
- 

### SUPPORTIVE DATA

The CE/FS courses teaches hunters and trappers proper ethics, firearms safety, and wildlife conservation; and maintains these activities as safe, enjoyable and available to citizens of Connecticut. Today's hunter and trapper education graduates are helping to preserve the future of these longstanding traditions in Connecticut's great outdoors.





PART III

# THE DATA



# CPPSR

Center for Public Policy and Social Research

Governor William A. O'Neill Endowed Chair in Public Policy and Practical Politics



## CT Department of Energy & Environmental Protection

### 2017-2022 Statewide Comprehensive Outdoor Recreation Plan Data

Diana T. Cohen, Ph.D.  
Principal Investigator

Kimberly A. Iacino  
Research Associate

Alex J. Tomczuk  
Research Associate

**ISSUED OCTOBER 2017**



To capture the attitudes and behaviors of various stakeholders in the state, three separate surveys were issued: one to town officials, a second to avid outdoor recreation enthusiasts, and a third to Connecticut's general population. Additionally, four focus groups offered a qualitative lens into topics regarding the barriers to recreation and the concerns of Connecticut residents. Drawing on data from both the 2005-2010 and 2011-2016 SCORP reports, this document provides valuable insight into longitudinal outdoor recreation trends in the Nutmeg State.

## Executive Summary

### Overview

This study represents a collaboration between the state of Connecticut's Department of Energy and Environmental Protection (DEEP) and the Center for Public Policy and Social Research (CPPSR) at Central Connecticut State University (CCSU). In January 2017, CPPSR was commissioned to collect data and provide analysis to assist DEEP with the drafting and assembly of the 2017-2022 Statewide Comprehensive Outdoor Recreation Plan (SCORP). The data collected will help DEEP evaluate the supply and demand of public outdoor recreation resources throughout Connecticut.

To capture the attitudes and behaviors of various stakeholders in the state, three separate surveys were issued: one to town officials, a second to avid outdoor recreation enthusiasts, and a third to Connecticut's general population. Additionally, four focus groups offered a qualitative lens into topics regarding the barriers to recreation and the concerns of Connecticut residents. Drawing on data from both the 2005-2010 and 2011-2016 SCORP reports, this document provides valuable insight into longitudinal outdoor recreation trends in the Nutmeg State.

One methodological objective of the Statewide Survey was to offer results that could be reasonably generalized to the state's general population. This objective was met, with the demographic profile of the 2017 Statewide Outdoor Recreation Demand Survey closely mirroring that of Connecticut's 2015 American Community Survey (ACS) figures. Given that the Outdoor Enthusiast Survey is non-random, that profile of study participants was not expected to closely mirror census figures. Instead of generalizability to the general population, the goal of this survey was to capture the sentiments of self-identified outdoor recreation enthusiasts.

Additionally, a survey was distributed to Connecticut's town officials. Slightly more than one-quarter (26.5%) of the 55 respondents were from Hartford County, while a similar percentage (24.5%) were from Fairfield County. Most respondents (92%) were associated with their town's parks and recreation department.

### Assessment of Supply

In 2005, the Center for Population Research (CPR) at the University of Connecticut undertook the task of establishing the first comprehensive database of outdoor recreational facilities and resources in the state.

To construct the database, the state drew upon survey responses and interviews with local and state officials to comprise a list of “discrete identifiable recreation places” (DIRPs) for each of the state’s 169 municipalities. Findings reveal that Connecticut is slightly above average in providing public access to playgrounds. In fact, Connecticut shows above average access to all recreational resources, except for gardens, for which it was only slightly below average. The biggest discrepancies were seen in the provision of baseball/softball fields (3,461 Connecticut residents per site compared to 9,461 U.S. residents) and soccer fields (6,880 Connecticut residents per site compared to 12,226 U.S. residents). More densely populated counties (i.e., New Haven, Hartford, and Fairfield) exhibited the greatest unmet need in terms of number of resources by population. In the 2011 SCORP, town officials reported nearly a 27% increase in the number of sites either newly added to the inventory or newly renovated, with roughly half (49%) being new and the remainder (51%) being completely renovated. Of the 22 categories queried, only hunting and camping accommodations were characterized by no increases or improvements from 2005 to 2011.

New to 2017, town officials were asked to provide the total acreage of open space land for both “active” and “passive” outdoor recreation use. More total acreage is dedicated to passive outdoor recreation use compared to active outdoor recreation use. Two in five towns (43%) feature 301 acres or more dedicated to passive recreation—a number that drops to less than one in five towns (17%) when measuring active recreation acreage in the same acreage range (301+ acres).

The condition of local and state parks was assessed through ratings given by Connecticut citizens on the Statewide Survey. In 2017, nearly nine-tenths (87%) of respondents rated local parks as “good” or “excellent” and about the same proportion (88%) issued “good” or “excellent” ratings for state parks. These percentages mark an increase from the 2005 SCORP because only four-fifths (81%) of local parks and state parks (82%) in 2005 had a “good” or “excellent” rating. Town officials in 2017 were generally much less satisfied with the condition of recreational facilities than the average Connecticut citizen. They were most satisfied with artificial turf fields and least satisfied with camping areas, tennis courts, and basketball courts. Also, hunting areas, boating and fishing access, picnic areas, winter sport facilities, volleyball courts, and playgrounds emerged as facilities in which “poor” and “needs improvement” responses were elevated. Swimming facilities were ranked among those in the best condition by town officials; these same facilities are those for which Connecticut citizens reported the most demand.

Overall, it appears that town officials today feel better equipped to meet the recreation needs of their communities than they did in 2005. The only facility that did not show an apparent increase in “sufficient” responses were volleyball courts, which two-thirds (67%) of town officials rated as “insufficient” in 2017. Additionally, camping and winter sport facilities were areas with heightened unmet need, since 69% and 63% of 2017 Town Officials Survey respondents rated them as “insufficient.”

Seven in ten (69%) of respondents on both the Statewide and Town Officials Surveys rated camping facilities as insufficient, indicating a clear need for increased facilities within the state. Connecticut citizens also agreed with town officials that snowboarding/skiing facilities were lacking: 70% of Connecticut residents indicated that their needs were not at all or only somewhat met and 63% of town officials rated their facilities for winter activities as insufficient.

Finally, respondents to the Town Officials Survey were asked to identify which “support components” were inadequate at any of the facilities in their community. Public transportation to a facility remains the most widely-cited inadequate support component, with nearly one-third (31%) of all towns identifying this deficiency. Public restrooms are the second most-cited support component, with over one-quarter (27%) of officials mentioning this shortcoming. Shelters have seen the most improvement since the 2005-2010 SCORP, with almost a one-half (46%) reduction in citation.

## Assessment of Demand

In the Statewide Survey, based on 2,026 responses, the most popular outdoor land-based activity was walking/hiking, with nearly nine-tenths (86%) of households and two-thirds (65%) of individuals reporting participation in the last twelve months. Least popular among the residents surveyed were horse camping (3% household and 2% individual participation rates), disc golf (5% household and 3% individual participation rates), and hunting/trapping (8% household and 4% individual participation rates). Along with biking, camping,

Powerful trends emerged in the Avid Outdoor Enthusiast Survey examining the relationship between outdoor activity frequency and demographic variables. Most popular among female avid outdoor enthusiasts were horseback riding, gardening/landscaping/farming, swimming/tubing, non-swimming beach activities, bird watching/nature activities, and picnicking/BBQing. Most popular among male outdoor enthusiasts were hunting/trapping, disc golf, motorized biking, fishing, mountain biking, and rock climbing.

and golf, tennis and bird watching were among the activities which showed the steepest decline in household participation between the 2005 and 2017 Statewide Demand Surveys. The top three most popular water-based recreation activities were non-swimming beach activities (67% household and 57% individual participation rates), swimming in outdoor pools (57% household and 49% individual participation rates), and swimming in fresh/saltwater (53% household and 44% individual participation rates). The three least popular water-based recreation activities were sailing (9% household and 6% individual participation rates), snorkeling or scuba diving (11% household and 7% individual participation rates), and river rafting or tubing (11% household and 8% individual participation rates).

Similar to findings presented in the section concerning participation rates for land-based activities, walking/hiking sits at the top of the list when it comes to frequency of engagement. Roughly two-fifths (39%) of households reported walking or hiking several times a week and an additional one-quarter (27%) reported engaging in the activity a few times a month. Running was also a frequently practiced activity, with seventeen percent of households reporting running several times a week. Geocaching, letterboxing, and/or mobile application gaming emerged as a surprisingly popular activity, with one-quarter (23%) of households reporting engagement in this activity within the past year. It was also characterized by a high frequency of participation, with two-fifths (41%) of those participating in the activity engaging in it several times per week. Four land-based activities stand out for their low frequency rates: sledding, camping, downhill skiing or snowboarding, and cross-country skiing or snowshoeing.

Non-swimming beach activities, swimming in outdoor pools, and swimming in fresh/saltwater were water-based activities with both a high rate of household participation and a high rate of participation frequency. Two-thirds (67%) of households reported engagement in non-swimming beach activities within the past year and almost two-fifths (37%) of these rated the frequency of their participation as either “a few times a month” or “at least once a month.” The water-based recreation activities with the lowest rates of participation were water skiing/tubing/wakeboarding (13% household participation), snorkeling/scuba diving (11% household participation), and sailing (9% household participation).

Powerful trends emerged in the Avid Outdoor Enthusiast Survey examining the relationship between outdoor activity frequency and demographic variables. Most popular among female avid outdoor enthusiasts were horseback riding (94% female), gardening/landscaping/farming (68% female), swimming/tubing (63% female), non-swimming beach activities (63% female), bird watching/nature activities (58% female), and picnicking/BBQing (57% female). Most popular among male outdoor enthusiasts were hunting/trapping (94% male), disc golf (94% male), motorized biking (85% male), fishing (83% male), mountain biking (81% male), and rock climbing (79% male).

In the Statewide Survey, households with at least one adult over the age of sixty-five had a higher rate of bird watching (44%) than households without an adult over sixty-five (33%), as well as a higher rate of visiting historic sites (61% versus 53%). Also, golf and walking were activities popular among seniors and showed participation rates very similar to those of households without an individual over the age of 65 (25% and 14%, respectively). Disc golf, rock climbing/caving, and automobile off-roading or motorized biking were activities most frequently practiced by younger avid outdoor enthusiasts.

For land-based activities, the largest disparities in participation between lower and higher income households are most pronounced for activities such as golf, skiing/snowboarding, and cross-country skiing/snowshoeing, with wealthier households being more likely to engage in these activities. In general, households with higher annual incomes tended to engage in more outdoor recreational activities. Camping, geocaching/letterboxing, motorized biking, and backpack camping were the only land-based activities for which households with incomes below \$100,000 had participation rates exceeding those with household incomes of \$100,000 or more. For water-based outdoor recreational activities, a consistent pattern was seen in which higher household income predicted greater participation in all activities but freshwater/ice fishing. Participation trends by county were also witnessed.

Town Officials were asked which activities have shown an increase, as well as a decrease, in participation over the past five to ten years. Officials ranked “walking” and “pool use” in their list of activities with increasing participation. Both baseball/softball and tennis were activities that Town Officials felt were experiencing declines in participation.

In the Statewide Survey, the incidence of outdoor recreation area visitation was strong, with households being slightly more likely to visit municipal-owned areas (71%) as opposed to state-owned areas (67%). Additionally, municipal-owned areas attract a larger subset of frequent visitors (20+ visits). Despite the numerous outdoor recreational opportunities Connecticut offers, many residents report engaging in recreational activities out-of-state. A slight majority of households (54%) reported that they had not visited any out-of-state parks or outdoor recreation areas in the past year. Of the 46% of households who did visit these areas, seven in ten (71%) made between 1 and 5 visits in the past year, while 29% visited out-of-state areas 6 times or more. Unsurprisingly, avid outdoor enthusiasts were more likely to utilize out-of-state facilities than members of the general population.

Town officials were asked to list the two most popular resources or activities provided by their town for various age groups. Officials felt significantly better able to meet the needs of individuals of all age groups

Findings reveal that Connecticut is slightly above average in providing public access to playgrounds. In fact, Connecticut shows above average access to all recreational resources, except for gardens, for which it was only slightly below average.

PAGE 68



compared to 2005 SCORP findings. The most substantial increase in this ability was for adolescents. The most frequently cited need was a lack of community centers or other indoor facilities in which to provide programming. This was followed by a lack of financial resources with which to pay for program expansion and additional staff, as well as a general lack of outdoor recreation spaces such as fields, trails, and splashboard areas.

Respondents to the Statewide Outdoor Recreation Demand Survey were asked to indicate whether they or any member of their household had “a need or desire for additional access” to each of 28 recreational facilities. As was the case in 2005, picnic areas/shelters and historic sites/areas showed the greatest need among respondents to the survey. The greatest apparent increase in need from 2005 to 2017 was for outdoor pools, water parks, and splash pads, with 44% indicating a need for these facilities in 2005, and 53% reporting a need in 2017. Unpaved single-use trails, overnight camping areas, sports fields, snorkeling/scuba diving areas, off-roading areas, and hunting/trapping areas all showed increases in need on a smaller scale.

Town Officials were asked to identify which outdoor recreation facilities or programs not currently provided in their community should be provided. Nearly one-quarter (24%) of Town Officials cited pools/aquatic facilities as their most pressing need, closely followed by non-aquatic outdoor recreation facilities (21%). Fields (15%), trails (11%), and a community center (11%) were also cited by more than one in ten officials, respectively. Town Officials were also asked to indicate which support components were inadequate at any of the outdoor recreation facilities in their community. Three in ten (31%) cited public transportation to the facility, while slightly more than one-quarter (27%) of all Town Officials indicated that public restrooms were inadequate.

Over half (55%) of all Connecticut residents identified at least one obstacle to recreation. The top-cited boundaries in 2017 were fees (23%) and distance from a personal residence (21%). Outdoor enthusiasts cited litter (22%) as the most significant issue impacting their participation in outdoor recreation activities, followed by parking (16%). Statewide Survey participants were asked how they learn about outdoor recreational facilities, resources, and activities in Connecticut. As in 2005, word of mouth was most common (59%).

### Projections of Future Trends and Funding Directions

Town officials project that walking and hiking, as well as demand for associated facilities (e.g., paved and unpaved single- and multi-use trails), will gain popularity over the next 5-10 years. Activities such as organized sports, tennis, and golf were projected to lose popularity over that same time span.



Town officials were asked to provide the total acreage of open space land for both “active” and “passive” outdoor recreation use. More total acreage is dedicated to passive outdoor recreation use compared to active outdoor recreation use.

PAGE 68

Picnic areas and shelters, as well as unpaved and paved multi-use trails were the facilities most frequently noted as top priorities by state citizens in 2017. Playgrounds also showed a high degree of importance. State residents support increasing funding for the maintenance and improvement of existing recreational facilities. This is preferred over additional programming/activities and the development of new facilities. For state-owned recreation areas, nearly three-quarters (68%) of all residents indicated some level of support for an increase in fees to help pay for increased operating expenses.

## Focus Group Findings

Two groups of avid outdoor enthusiasts, each comprised of five individuals, convened on campuses within the Connecticut State Colleges and Universities (CSCU) system. Individuals were identified through personal contacts at CPPSR, with the results being non-representative beyond those who participated in this portion of the study.

The enthusiasts participated in a wide range of outdoor recreation activities, including: trail running and walking, kayaking, lake and ocean swimming, horseback riding and horse camping, mountain and road biking, cross-country skiing, fishing, snowshoeing, hunting, ATV riding, and canoeing. Their chief concern was their inability to practice preferred activities safely and/or legally. An interesting interplay emerged which points to tensions that exist between those engaging in different outdoor activities, particularly those utilizing multi-use trails. This heated conversation concluded with enthusiasts agreeing that DEEP must re-evaluate its policies towards ATV riding on state property, taking into consideration the needs of numerous constituent groups.

There was a strong call for raising awareness about local resources. In particular, participants wanted access to more information about the location of outdoor areas and facilities in the state. List-serves containing outdoor recreation organizations should be continually updated to account for emerging groups. A primary challenge the groups saw for DEEP was to effectively promote the fact that Connecticut has such natural beauty available for residents to enjoy.

Two groups of limited recreationists were also established using the same processes described for the avid outdoor enthusiast focus groups. “Limited recreationists” are defined as those who self-identify as experiencing significant barriers to outdoor recreation. Some of these limited recreationists engaged in infrequent outdoor recreation, such as walking on a rail trail once a month, while others engaged in zero outdoor activities.

The most widely-cited barrier to participation in outdoor recreation activity was time limitations resulting from the busy life schedules. Between work (which for some included multiple jobs) and family/caretaking responsibilities, leisure time often takes a back seat. Some participants expressed frustration over having to spend time traveling to a recreation area—time that they did not feel they had. Establishing a larger number of smaller-scale facilities such as trail loops or parks, particularly in urban areas, may be an effective way to bring outdoor recreation opportunities to those who are currently most deprived.

Among limited recreationists, two key themes emerged regarding the topic of fees. First, participants felt that fees were not worth the money given the little time that they had to spend in the outdoor recreation area, which was usually 30 minutes or less. Second, participants expressed an expectation that facility fees would be effectively used to fund amenities at facility locations. Both limited recreationist focus groups concluded with participants expressing that they want to know more about outdoor recreation activities in their area. Findings emphasize the importance of increasing the visibility of DEEP and its services, as well as communication and collaboration with citizens and non-profit organizations.

Town officials in 2017 were generally much less satisfied with the condition of recreational facilities than the average Connecticut citizen. They were most satisfied with artificial turf fields and least satisfied with camping areas, tennis courts, and basketball courts.

PAGE 68

# SECTION 1: Introduction and Methodology

## About this Study

This study represents a collaboration between the state of Connecticut's Department of Energy and Environmental Protection (DEEP) and the Center for Public Policy and Social Research (CPPSR) at Central Connecticut State University (CCSU). In January 2017, CPPSR was commissioned to collect data and provide analysis to assist DEEP with the drafting and assembly of the 2017-2022 Statewide Comprehensive Outdoor Recreation Plan (SCORP). The data collected will help DEEP evaluate the supply and demand of public outdoor recreation resources throughout Connecticut.

To capture the attitudes and behaviors of various stakeholders in the state, three separate surveys were issued: one to town officials, a second to avid outdoor recreation enthusiasts, and a third to Connecticut's general population. Additionally, four focus groups offered a qualitative lens into topics regarding the barriers to recreation and the concerns of Connecticut residents. Drawing on data from both the 2005-2010 and 2011-2016 SCORP reports, this document provides valuable insight into longitudinal outdoor recreation trends in the Nutmeg State.

## Review of Previous SCORP Methodologies

### 2005-2010 Plan

The 2005-2010 SCORP was developed utilizing two key components: supply and demand. Information concerning supply was captured in a detailed inventory of Connecticut's outdoor recreational properties and facilities. These properties and facilities could have been owned by the federal, state, or municipal governments. Too, they could have been owned by a non-profit and/or commercial businesses. In fact, property-ownership was often distributed between multiple parties.

Meanwhile, demand for outdoor recreational facilities was retrieved via several surveys, including the Statewide Demand Survey, which was sent to 10,000 individuals of the state's general population. Additionally, demand was gauged from three other surveys that were distributed to different audiences. One of these surveys was sent to municipal recreation officials, while another survey was sent to Connecticut's expert/avid outdoor recreationists. The final survey was not conducted by DEEP nor the University of Connecticut's Center for Population Research; rather, it was sourced outside from the U.S. Department of Agriculture's National Survey of Recreation and the Environment (2004). Lastly, demand for outdoor recreational facilities was gathered from three public meetings at sites across Connecticut.<sup>1</sup>

### 2011-2016 Plan

The 2011-2016 SCORP employed many measures similar to the 2005-2010 SCORP; however, the 2011-2016 SCORP was designed to collect information on the changes since the 2005-2010 SCORP. There were five key methods utilized: (1) A thorough agency review that entailed interviewing 20 DEEP employees who provided qualitative insights into accomplishments and new agency initiatives undertaken since the previous SCORP; (2) nine SCORP Advisory Committee meetings, giving a diverse grouping of stakeholders the ability to vocalize statewide concerns, as well as important new initiatives, regarding outdoor recreation; (3) four public meetings, held in four geographical quadrants of the state, to allow for public input into the SCORP, (4) a non-random questionnaire electronically distributed to 741 individuals, with the intention of understanding emerging demands for outdoor recreation since 2005; (5) a municipality query, completed by 12 towns, that sought to update DEEP's understanding of new and/or renovated outdoor recreation facilities.

<sup>1</sup> Language from the 2005-2010 SCORP, page i of executive summary.

## Methodology for the 2017-2022 Plan

Three separate surveys were distributed as part of the data collection effort for the 2017-2022 SCORP:

### Statewide Demand Assessment Survey

To measure the demand for public outdoor recreation resources throughout the state, CPPSR executed the Statewide Demand Assessment Survey (hereafter referred to as the Statewide Survey), which was a fully-online, non-probability survey of 2,026 Connecticut residents. Through the use of quotas, the survey sample closely mirrors the state demographics as they apply to geography, gender, household income, and ethnicity. This means that, based on these four demographic categories, findings from the Statewide Survey can be reasonably extrapolated to those of Connecticut residents more broadly. The online survey was distributed electronically in English.

### Outdoor Enthusiast Survey

To better understand the recreation habits and needs of those who are passionate about outdoor activity in the state, CPPSR conducted the Avid Outdoor Enthusiast Survey (hereafter referred to as the Outdoor Enthusiast Survey), which was a fully-online, non-random survey of 2,649 avid outdoor enthusiasts. Referred to as “Avid Users” in previous SCORPs, this group of survey-takers have self-identified as those who currently participate in outdoor recreation activities. The survey was distributed via numerous channels, including list-serve contacts from SCORP members and the DEEP Facebook page. The survey was distributed electronically in English.

### Town Officials Survey

To update DEEP’s understanding of public outdoor recreation resources throughout Connecticut, CPPSR conducted a telephone survey of Connecticut’s 169 municipalities. Fifty-five towns responded to the Town Officials Survey, with recreation directors serving as the initial point of contact. In circumstances where the recreation director was unable to answer the survey questions, additional town/city officials were contacted on an as-needed basis. The survey was administered both electronically and via telephone in English.

Overall, it appears that town officials today feel better equipped to meet the recreation needs of their communities than they did in 2005. The only facility that did not show an apparent increase in “sufficient” responses were volleyball courts, which two-thirds of town officials rated as “insufficient” in 2017. Additionally, camping and winter sport facilities were areas with heightened unmet need, since 69% and 63% of 2017 Town Officials Survey respondents rated them as “insufficient.”

PAGE 68

## Focus Groups

To triangulate the quantitative data, four qualitative focus groups were assembled. Two groups, each containing five individuals, were comprised of avid outdoor enthusiasts. The remaining two groups, also containing five individuals per group, were comprised of those who perceive significant barriers to the use of Connecticut's outdoor recreation resources. Focus group locations included the Eastern Connecticut State University and Central Connecticut State University campuses. Data from these focus groups are interspersed throughout the report, with a summary of major themes being offered in the Methodological Appendix.

## Statewide Demographics

### Overview

This statewide demographic profile reflects some of the latest population estimates made available by the United States Census Bureau. The statistics cited are from the 2015 American Community Survey (ACS) 1-Year Estimates, which is conducted every year by the Census Bureau.<sup>2</sup> When it is not a census year, the ACS provides the most accurate and up-to-date information for many topics.<sup>3</sup> Overall, the demographics covered include population density, age, race/ethnicity, income, and education. These statistics provide a snapshot as to how demographics have changed since the last SCORP, thus, aiding where state investments and resource allocation should be targeted.

### Population Density

According to 2015 ACS data, the population of Connecticut is 3,590,886, marking a 0.5% increase since the 2010 census. Similar to 2010, three-quarters (75.3%) of Connecticut residents are concentrated in the Fairfield, Hartford, and New Haven counties. Too, it is interesting to note that all but Fairfield and Hartford counties experienced declines in population. Litchfield County experienced the largest decline with a recorded 183,603 (3.3% decrease) persons living there in 2015.

In 2015, educational attainment levels of Connecticut's adult population (25 years and older) were higher than the national average.

PAGE 77



<sup>2</sup> 2010 U.S. Census Bureau data cited in this section can be located on the United States Census Bureau *American FactFinder* search feature: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

<sup>3</sup> 2015 ACS data cited in this section can be located on the United States Census Bureau *American FactFinder* search feature: <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

## Age

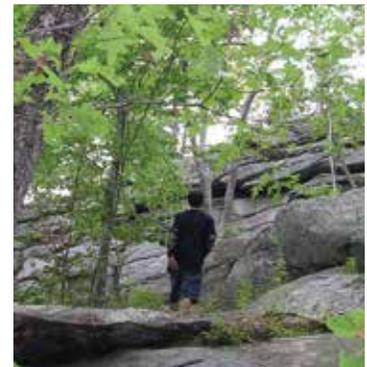
Connecticut’s median age was above the national median age in 2010 and remains so in 2015. The state’s median age rose to 40.6 years (0.6-year increase) in 2015, while the national median grew by 0.6 years (to 37.8 years) over the five years. Connecticut’s adult population (defined as 25 years and older) accounted for 68.0% of the total state population in 2010, a figure that rose to 69% (1% increase) in 2015. The cohort of 55 to 59 years of age experienced the largest growth (0.9%) relative to all other age groups since the decennial census. The remaining age groups, young adults (20–24 years) and children/early adults (19 years and younger) correspond in the following manner: 6.9% and 24.3% of Connecticut’s population. Nationally, the corresponding percentages were 66.0% (1.3% increase) adults, 7% (no change) young adults, and 25.7% (1.3% decrease) children/early adults.

## Race and Ethnicity

Connecticut continues the trend of hosting a larger percentage of White residents relative to the national average. In 2015, those that identified as White (one race) in the state equated to 76.5% (1.1% decrease) of the population, while the national average was 73.1% (0.7% increase). Despite most the population identifying as White (one race), Connecticut’s diversity is expanding, with 2015 ACS data reporting 10.6% (0.5% increase) Black or African American, 0.2% (0.1% decrease) American Indian and Alaska Native, 4.4% (0.6% increase) Asian, and 5.6% “some other race.” The remainder reported two or more races (3.2%, 0.6% increase) and less than 1,000 persons indicated that they are Native Hawaiian or another Pacific Islander. Nationally, the corresponding figures are as follows: 12.7% (0.1% increase) Black or African American, 0.8% (0.1% decrease) American Indian and Alaska Native, 5.4% (0.6% increase) Asian, 4.8% (1.4% decrease) “some other race,” 3.1% (0.2% increase) two or more races, and 0.2% (no change) Native Hawaiian or another Pacific Islander.

As for ethnic origins, the U.S. Census Bureau only collects two ethnicities, which are Hispanic or Latino origin and Non-Hispanic or Latino. Over four-fifths (84.6%, 2% decrease) of Connecticut’s population classify themselves as Non-Hispanic or Latino, while 15.4% (2% increase) identify as having Hispanic or Latino origins. As was the case for racial demographics, Connecticut has a larger population of Non-Hispanic/Latino persons

Connecticut continues the trend of hosting a larger percentage of White residents relative to the national average.



compared to the national average. According to 2015 data, 82.4% (1.3% decrease) of the United States population are Non-Hispanic/Latino and 17.6% (1.3% increase) have Hispanic or Latino origins.

**Income**

In 2015, the U.S. Census Bureau issued the ACS and found that Connecticut’s per capita income is \$39,430 (\$4,352 increase), which is 1.32 times the national average of \$29,979 (\$3,920 increase). Additionally, the ACS reported Connecticut’s median household and family incomes to be 1.28 and 1.34 times the corresponding national medians. The state’s median household income is \$71,346 (\$7,314 increase) and the median family income is \$91,388 (\$10,142 increase). Nationally, median household income is \$55,775 (\$5,729 increase), while median family income is \$68,260 (\$7,651 increase). Connecticut is above the national average when it comes to two or more workers in a household. In the state, 37.7% of households have two or more workers, while the national average is 35.1%.

**Education**

In 2015, educational attainment levels of Connecticut’s adult population (25 years and older) were higher than the national average. As a state, 90.2% (1.6% increase) of the adult population had a high school degree or higher, while the national figure is 87.1% (1.5% increase). Furthermore, 38.3% (2.8% increase) of Connecticut’s adult population had a bachelor’s degree or higher, compared to 30.6% (2.4% increase) across the United States.



In 2015, the U.S. Census Bureau found that Connecticut’s per capita income is \$39,430, which is 1.32 times the national average of \$29,979. Additionally, the American Community Survey (ACS) reported Connecticut’s median household and family incomes to be 1.28 and 1.34 times the corresponding national medians.

## Conclusions

One of the methodological objectives of the Statewide Survey was to offer results that could be reasonably generalized to the state’s general population. This objective was met, with the demographic profile of the 2017 Statewide Survey closely mirroring that of Connecticut’s 2015 ACS figures. Given that the Outdoor Enthusiast Survey is non-random, that profile of study participants was not expected to closely mirror census figures. Instead of generalizability to the general population, the goal of this survey was to capture the sentiments of self-identified outdoor recreation enthusiasts.

Throughout the upcoming section, demographic comparisons are made between the Statewide Survey, Outdoor Enthusiast Survey, and 2015 ACS figures. Also, when data is available, demographic comparisons are made between the 2005-2010 and 2017-2022 SCORP surveys. These comparisons provide a valuable snapshot as to how survey demographics have changed between the SCORP reports.

## Study Participant Demographics

### Number of Individuals per Household

Study participants taking the Statewide Survey were asked to identify the number of individuals living in their household. The 2015 ACS reports that slightly less than one-third (33.2%) of Connecticut residences contain two members in the household—a percentage that was very closely matched (35%) in the 2017 Statewide Survey (see Figure 7). Meanwhile, almost one-third (31%) participating in the 2017 Statewide Survey indicated that four or more individuals reside in the household. The remaining share indicated that three people reside in their household (18%) or reported to be living alone (16%).

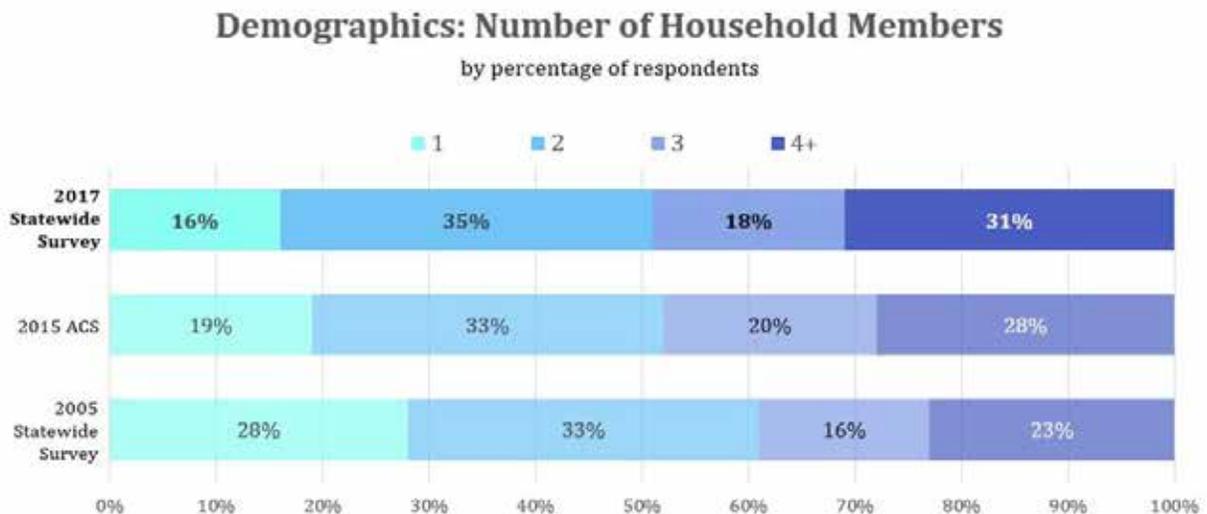
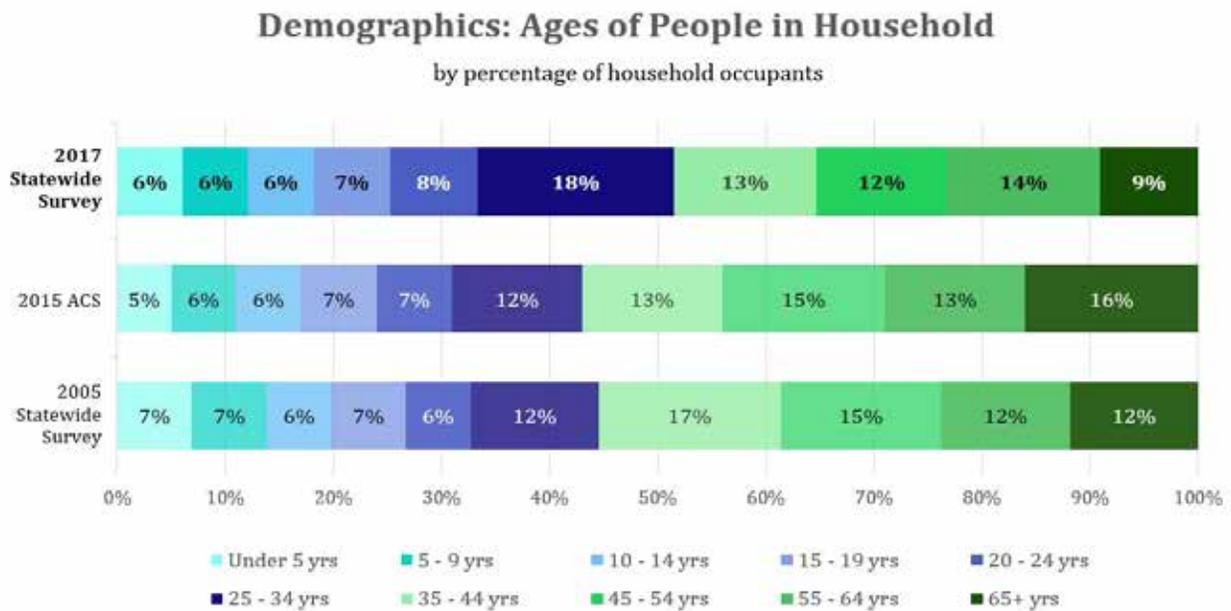


Figure 7. Number of Household Members.

### Age of People in Household

Study participants were asked to identify their age and the age of those living in their household. Respondents were provided with categories consisting of either five-year or ten-year increments. In the 2017 Statewide Survey, roughly two-thirds (66%) of the household individuals are aged 25 years and older (see Figure 8). This finding is consistent with data from the 2015 ACS, which reports that those 25 years and older equate to nearly seven-tenths (69%) of a household. However, according to the 2015 ACS, a larger share of those aged 45–54 years and 65 years and older were reported. The remainder of the household in the 2017 Statewide Survey were nearly evenly divided across five age categories, which are as follows: 20–24 years (8%), 15–19 years (7%), 10–14 years (6%), 5–9 years (6%), and under 5 years (6%).

In comparison with the 2005 Statewide Survey, the age distribution in 2017 is relatively similar. The household age distribution in 2005 for those aged 25 and over represented a slightly larger portion of the household—68% vs. 66%—(see Figure 8). This can be explained by a decline in the share of individuals aged 35 and over (56% vs. 48%), while the young adult population (25–34 years) has increased (12% vs. 18%).



**Figure 8. Ages of People in Household.**

### Age of Respondents

Study participants were asked to identify their age range, with categories consisting of either five-year or ten-year increments. In the 2017 Statewide Survey, eighty-five percent of study participants were over the age of 25 years old, with just over one-quarter (27%) being over the age of 55 (see Figure 9). The most common response was the 25–34 age group (27%). Outdoor enthusiasts represent an older demographic. About three in five respondents to the 2017 Outdoor Enthusiast Survey (61%) were over the age of 45, while only two in five (42%) Statewide Survey respondents fell into that same category. Data retrieved from the 2015 ACS acts as a median between the 2017 Statewide and Outdoor Enthusiast Surveys. The 2015 ACS reports that almost one-half (44%) of Connecticut residents are over the age of 45. Additionally, a larger share of a young cohort is reported, compared with those identified in the surveys; thus, demonstrating that age distribution is more evenly distributed.

The 2017 Statewide Survey yielded a younger sample compared to the 2005 survey. In 2005, over half (55%) of all respondents were over the age of 45 (Figure 9). This figure dropped to slightly more than two in five (42%) in the 2017 study. This year, nearly three-fifths (58%) of all study participants were under the age of 44—a figure that was 18% lower in 2005 (40%). The age of study participants was not collected in the 2005 Outdoor Enthusiast survey, so no comparisons can be made between 2005 and 2017 data. It is important to note that in 2017, due to Institutional Review Board restrictions, study participants (across all three surveys) could not be minors (individuals under the age of 18).

## Demographics: Age of Respondents

by percentage of respondents

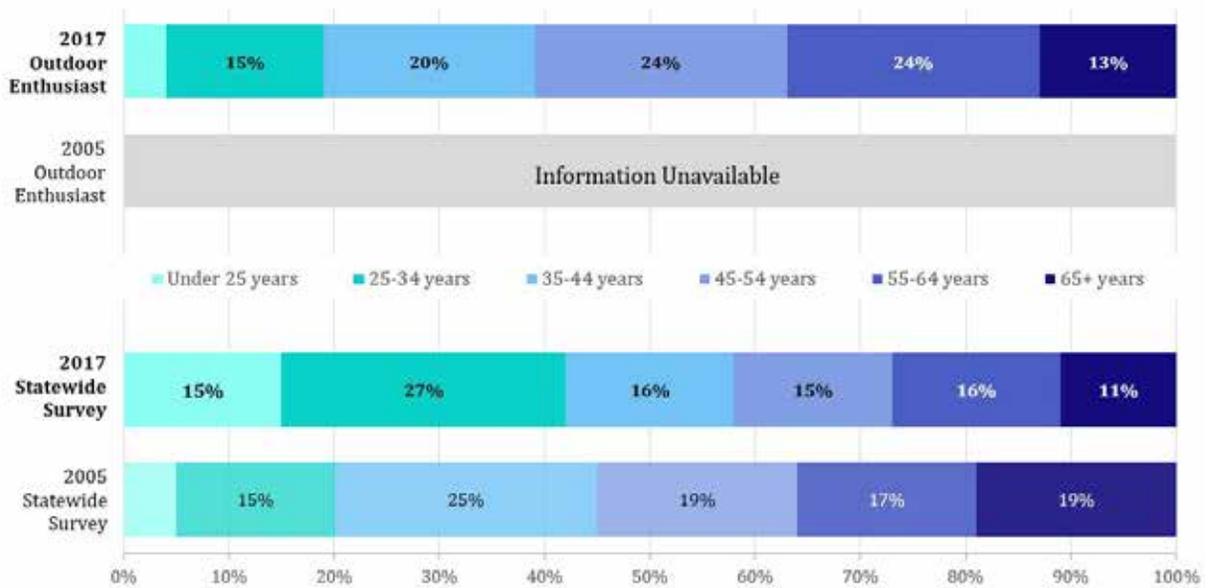


Figure 9. Age of Respondents

### Ethnicity and Race

Study participants were asked to identify their ethnicity, choosing from multiple options. As anticipated, the 2017 Statewide Survey closely approximates 2015 ACS figures. In 2017, slightly more than three-quarters (76%) identified as White/Caucasian, while just above one in ten (12%) identified as African American (see Figure 10). This marks a significant diversification of the ethnic/racial backgrounds of study participants since the 2005 Statewide Survey, when eighty-five percent of participants identified as White/Caucasian and only 7% of participants identified as African American. Additionally, in 2017, respondents identifying as Hispanic/Latino (8%), Asian American (5%), or a different ethnic category (1%) increased. Notably, in a subsequent survey question, over one in ten (13%) participants indicated that household members were of Hispanic, Latino, or Spanish ancestry (see Figure 11) a figure that closely approximates 2015 ACS findings (15%). Again, this subsequent question revealed that demographics have changed since 2005, with a 6% increase in participants reporting Hispanic or Latino ancestry.



### Demographics: Ethnicity of Survey Respondents

by percentage of respondents (multiple choices could be made)

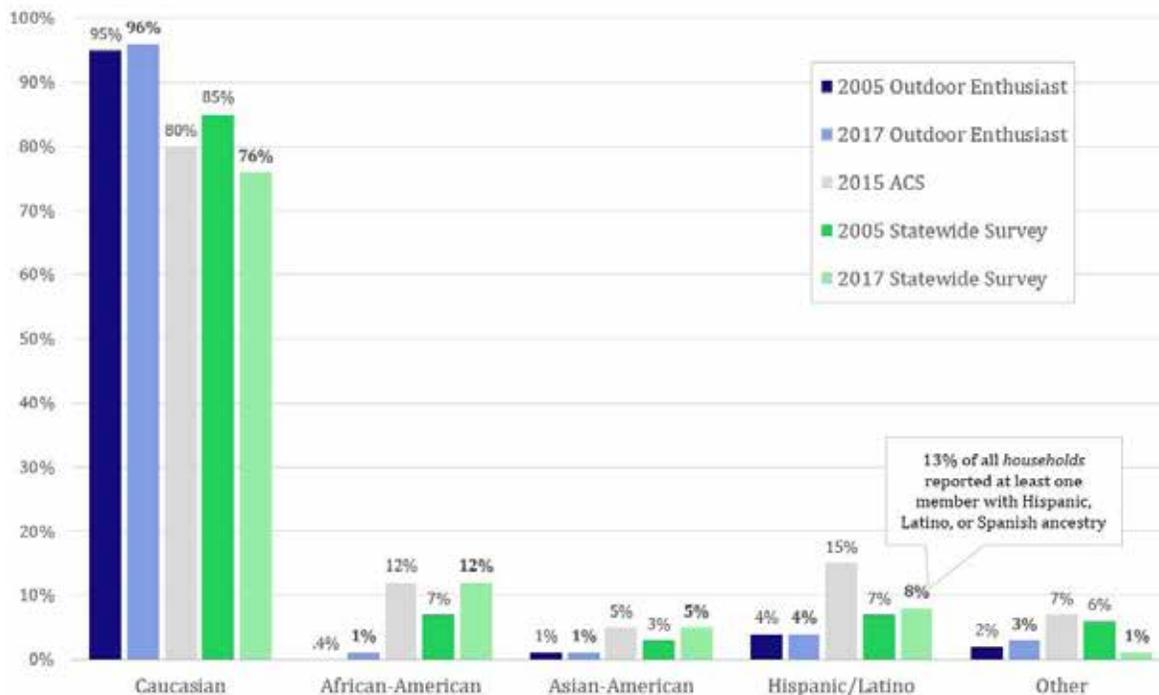


Figure 10. Ethnicity of Respondents.

By comparison, the 2017 Outdoor Enthusiast Survey featured a significantly less diverse respondent base. Ninety-six percent of all study participants self-identified as White/Caucasian. Less than one in twenty (4%) were Hispanic/Latino, while the remainder either fell under the “other” category (3%), were Asian American (1%), or African American (1%). Similar to the Statewide Survey, Outdoor Enthusiast Survey respondents were asked if any members of their household were of Hispanic, Latino, or Spanish ancestry, with approximately 4% (4.4%) indicating that this was the case. Notably, 15% of outdoor enthusiasts declined to respond to this question, meaning that the exact percentage is not known.

### Demographics: Anyone in Household of Hispanic or Latino Ancestry

by percentage of respondents

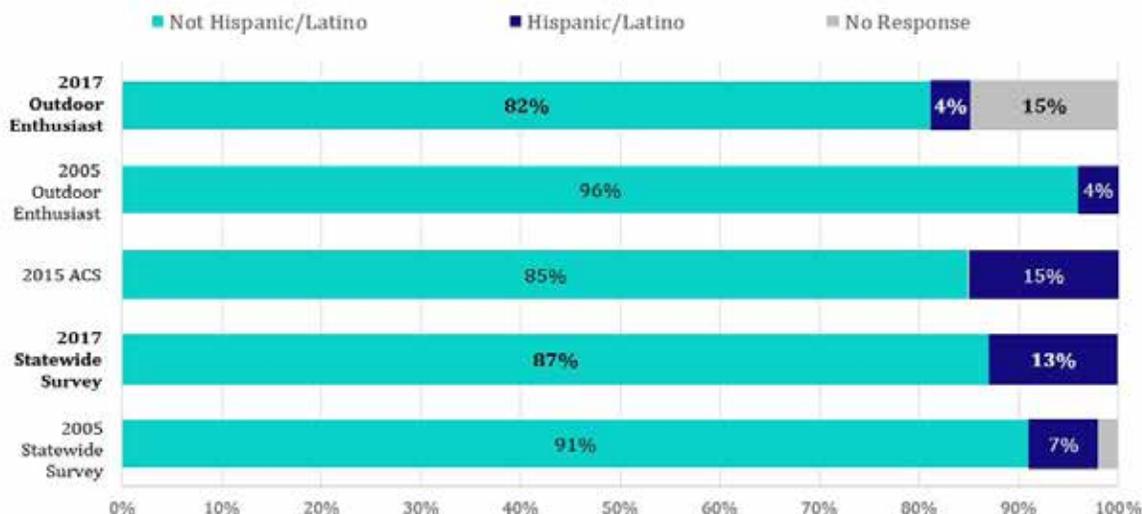
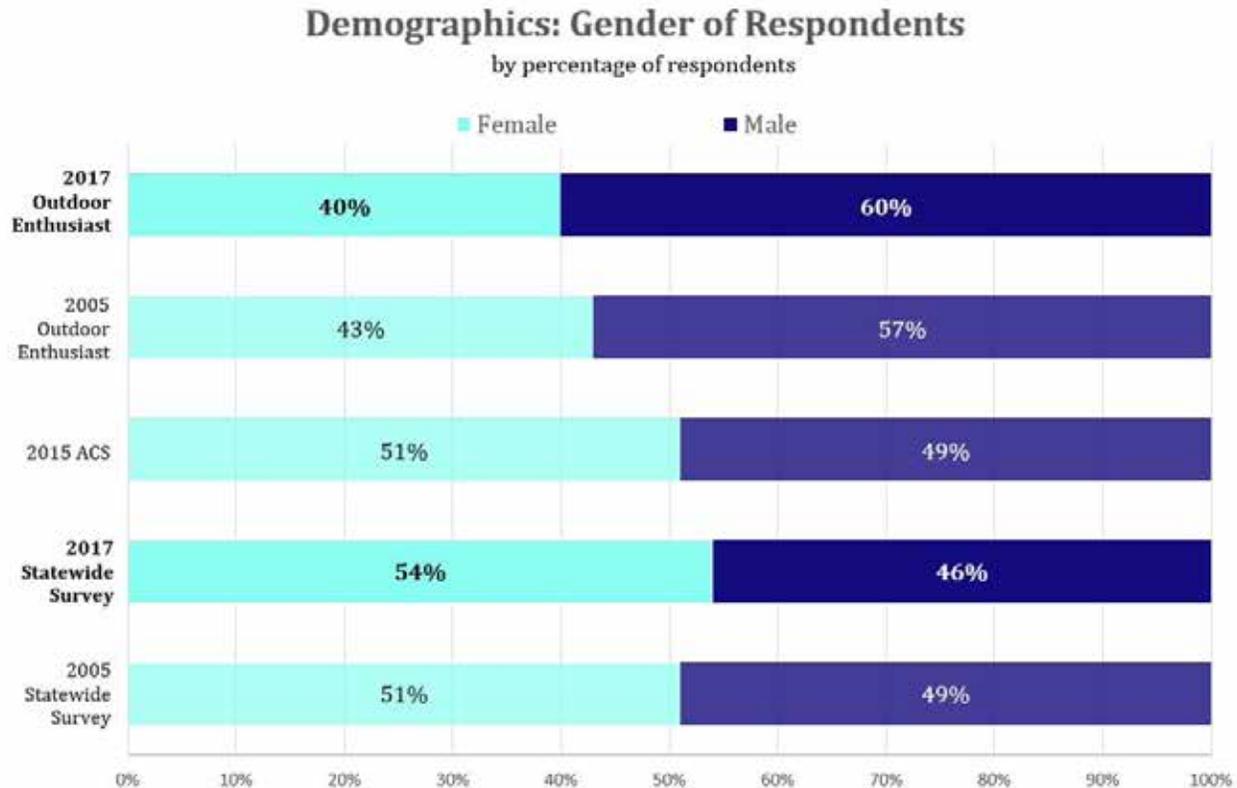


Figure 11. Hispanic/Latino Ancestry of Respondents.

## Gender

Study participants were asked to self-identify as either male or female. A slight majority (54%) of 2017 Statewide Survey-takers self-identified as female, while the remainder (46%) identified as male (see Figure 12). This represents a slight uptick in female participants (up 3 percentage points) compared to the 2005 Statewide Survey, as well as from the 2015 ACS, which reveals that 51% of Connecticut residents are female. The 2017 gender breakdown for outdoor enthusiasts also fell within a three-percent margin of its 2005 counterpart. In 2017, three-fifths (60%) of the sample was male, while two-fifths (40%) identified as female. Despite a slightly smaller share of male participants in the 2005 study (57%), males still occupy the majority.



**Figure 12. Gender of Respondents.**

## Education

Over half (55%) of all participants in the 2017 Statewide Survey reported having at least a college degree, with just over one-fifth (21%) indicating that they possess a post-graduate degree (see Figure 13). Meanwhile, nearly three in ten (27%) had some college or trade school training, whereas the remainder had a high school diploma (17%) or did not graduate from high school (1%). The 2017 Statewide Survey sample is more educated than estimates produced by the 2015 ACS. The ACS estimates report a higher share of Connecticut residents not graduating from high school (10%) and only having a high school degree or equivalent (27%). Naturally, this caused a smaller portion of university graduates to be reported.

Compared with both the 2017 Statewide Survey and 2015 ACS, the 2017 Outdoor Enthusiast Survey sample was noticeably more educated. Seven in ten (70%) obtained at least a college degree—15% more than study participants in the Statewide Survey. Too, the 2005 and 2017 samples for both the Outdoor Enthusiast and Statewide Surveys are quite comparable, with no major changes to report.

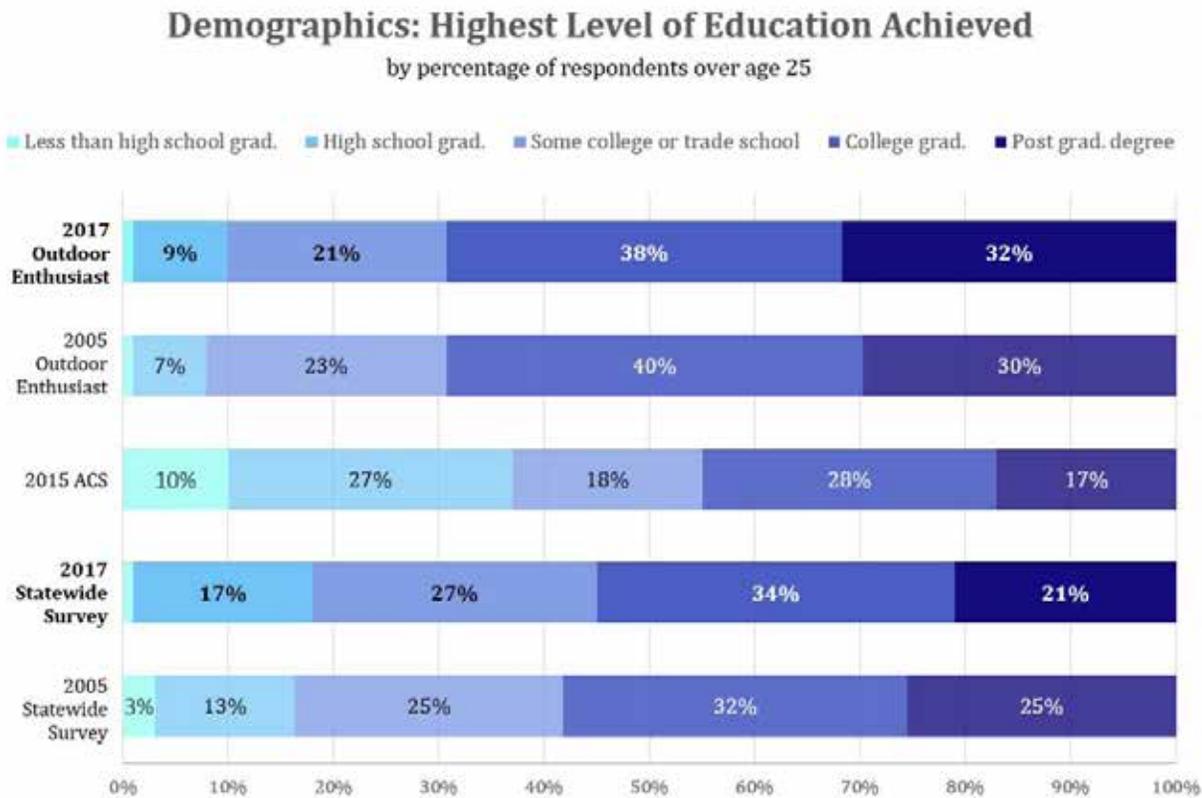


Figure 13. Education of Respondents.

### Income

Participants were asked to identify their annual household income, with categories ranging from under \$15,000 to \$200,000 or more; however, some income categories have been consolidated to provide comparative analysis across surveys and ACS data. Nearly two in five (38%) of 2017 Statewide Survey participants indicated that their household income was \$75,000 or more (see Figure 14). This figure closely mirrors that found in the 2015 ACS, which indicates that just over one-third (35%) of Connecticut residents have an annual household income \$75,000 or more. Meanwhile, almost seven in ten (68%) respondents to the Outdoor Enthusiast Survey in 2017 noted that their household income was \$75,000 or more.

The most common response for 2017 Statewide Survey participants is the \$25,000–\$49,999 category (24%), whereas most 2017 Outdoor Enthusiast Survey respondents fell into the \$100,000–\$149,999 category (27%). Since 2005, the share of outdoor enthusiasts with an annual household income of \$75,000 or more has been increasing. In 2005, roughly three-fifths (58%) of Outdoor Enthusiast Survey participants reported income levels at \$75,000 or greater. By 2017, 68% have reported that income level, which marks a ten percent increase in twelve years. As for changes since the 2005 Statewide Survey, no insight can be offered because one in ten (10%) respondents refused to identify their income in 2005; however, the income distribution is roughly the same.

Since 2005, the share of outdoor enthusiasts with an annual household income of \$75,000 or more has been increasing.

### Demographics: Annual Household Income by percentage of respondents



Figure 14. Annual Household Income of Respondents.

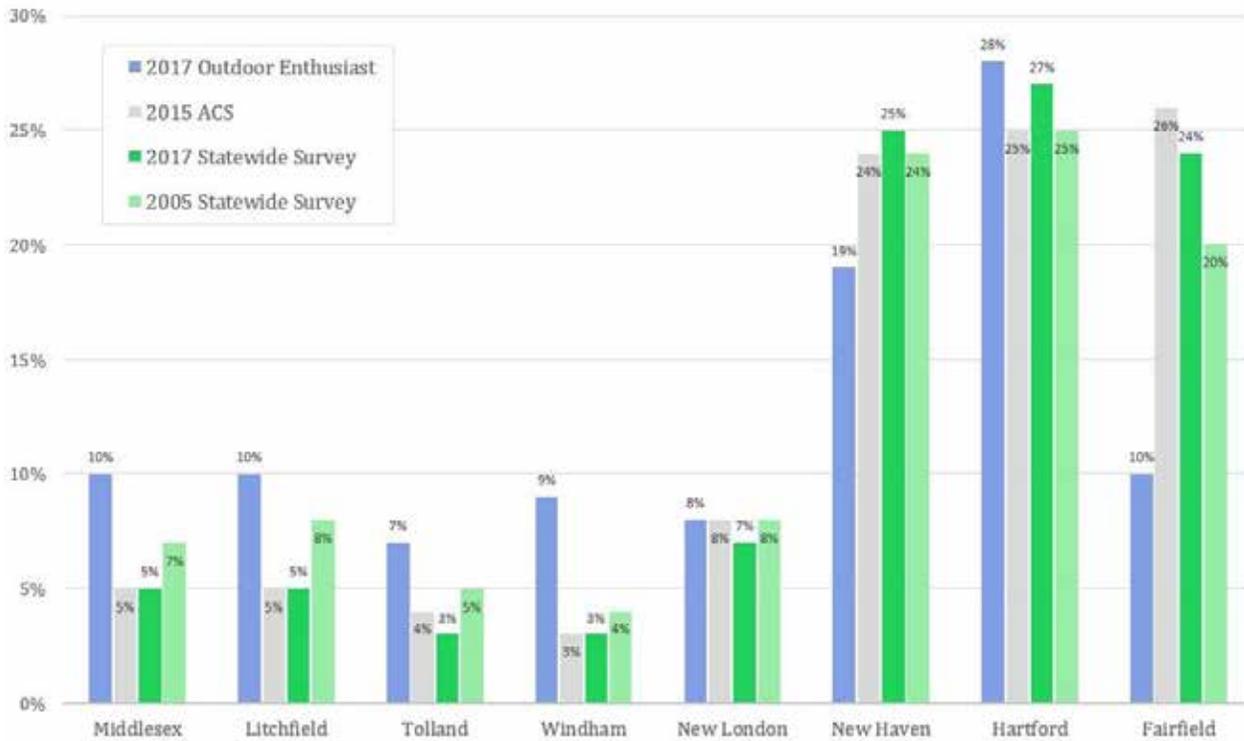
#### Region

Hartford was the most represented county in the 2017 Statewide Survey, with slightly more than one-quarter (27%) of respondents residing within this county (see Figure 15). Also, New Haven County (25%) and Fairfield County (24%) accounted for roughly one-quarter each of study participants. The remainder of study participants resided in New London (7%), Litchfield (5%), Middlesex (5%), Tolland (3%), and Windham (3%) Counties. A similar breakdown was reported in the 2005 Statewide Survey; however, New London, Litchfield, Middlesex, Tolland, and Windham had a slightly larger share. This was fueled by a smaller share of participants residing in Fairfield (20%). Overall, this survey offers a strong parallel to 2015 ACS figures, with Middlesex, Litchfield, and Windham counties being equal to the distribution reported in the ACS. Compared with the 2015 ACS, in 2017, New Haven and Hartford counties are slightly over-represented, while Fairfield, Tolland, and New London counties are slightly under-represented.

Outdoor enthusiasts represent an older demographic. About three in five respondents to the 2017 Outdoor Enthusiast Survey were over the age of 45, while only two in five Statewide Survey respondents fell into that same category.

## Demographics: County of Respondents by percentage of respondents

THE DATA



**Figure 15. Demographics: County of Respondents.**

Similar to the Statewide Survey, Hartford (28%), New Haven (19%), and Fairfield (10%) Counties were the most well-represented geographical areas in the Outdoor Enthusiast Survey. With that said, there was a lower concentration of participants in two of these three counties. Nearly three-fifths (57%) of Outdoor Enthusiast Survey respondents live in these areas, compared with over three-quarters (76%) of Statewide Survey respondents. The remaining five counties were slightly over-represented in the Outdoor Enthusiast Survey compared with both the 2015 ACS and Outdoor Recreation Survey, with both Litchfield and Middlesex counties accounting for one in ten (10%) participants. Windham (9%), New London (8%), and Tolland (7%) Counties constituted the remainder of the sample.

### Demographics of Town Officials

All 169 municipalities were contacted for a telephone interview, but only 55 towns were included in the data set because this was the share that completed at least one-fifth of the Town Officials Survey. Five towns elected not to self-identify. Of those that did, slightly more than one-quarter (26.5%) were from Hartford County, while a similar percentage (24.5%) were from Fairfield County. The remainder were from New Haven (14.3%), Litchfield (10.2%), New London (8.2%), Middlesex (8.2%), Tolland (6.1%), and Windham (2%) (Table 10, page 86).



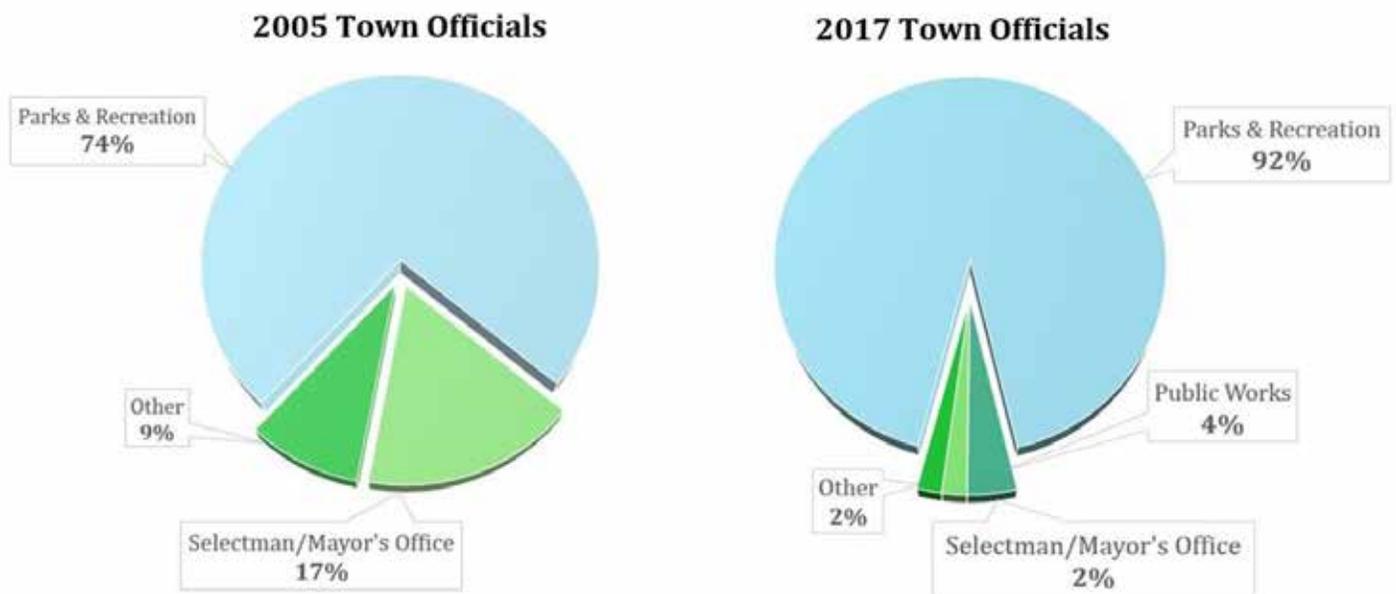
**Table 10. Towns Represented by Town Officials Survey Respondents**

TOWNS BY COUNTY							
Hartford	Fairfield	New Haven	Litchfield	New London	Middlesex	Tolland	Windham
Avon	Darien	Branford	Goshen	Colchester	Clinton	Coventry	Putnam
Berlin	Fairfield	Guilford	Kent	East Lyme	Durham	Hebron	
Bristol	New Canaan	Madison	Litchfield	Groton	E. Haddam	Mansfield	
Burlington	Newtown	Milford	Torrington	Waterford	Westbrook		
Canton	Norwalk	New Haven	Woodbury				
E. Windsor	Redding	Southbury					
Glastonbury	Ridgefield	Wolcott					
Granby	Shelton						
Marlborough	Stamford						
Newington	Stratford						
Simsbury	Trumbull						
S. Windsor	Weston						
Wethersfield							

As indicated in Figure 16, most respondents (92%) were associated with their town’s parks and recreation department, primarily as director or superintendent. This differed somewhat from the demographics reported in the 2005 SCORP because only three-quarters (74%) of respondents were associated with the town’s parks and recreation department. This was the case in 2005 because a larger share (17%) of town officials identified as working for the selectman or mayor.

## What Town Department Are You Associated With?

by percentage of respondents



**Figure 16. Associations of Town Officials.**

## SECTION 2: Assessing Supply

### Measuring Inventory: Supply of State Recreation Facilities

#### Construction of the DIRP Database

In 2005, the Center for Population Research (CPR) at the University of Connecticut undertook the task of establishing the first comprehensive database of outdoor recreational facilities and resources in the state. This database was intended to serve as an up-to-date, validated, and publicly accessible resource for both administrators and citizens in the state. It was proposed that information contained within the database could be used to assess funding requests and to help prioritize and plan recreational development efforts by location. For citizens, this database would ideally serve as a searchable central resource for recreational opportunities in the state. Citizens would be inclined to use the database because most of Connecticut's recreational areas are small and scattered; thus, unknown to the public. Indeed, "I do not know what is being offered" and "I do not know the locations of facilities" were cited as the two main reasons respondents to the 2005 Statewide Survey did not use recreational facilities more often (36% and 27%, respectively).

To construct the database, the state drew upon survey responses and interviews with local and officials to comprise a list of "discrete identifiable recreation places" (DIRPs) for each of the state's 169 municipalities. For each DIRP, information is provided for over 50 characteristics related to the facility or resource, when possible. Some of the characteristics included are as follows: size, ownership, condition, restroom availability, parking availability, and accessibility for persons with disabilities. As well, information regarding the existing space or resources needed to practice each of a vast number of sports and other outdoor recreational activities is included. Also, the number and/or length/size of individual areas (fields, courts, trails, etc.) within each DIRP is specified.

#### DIRPs in the State

When the 2005 SCORP report was published, the database was described as "nearly comprehensive," with the idea that the collection of more in-depth information on these recreation sites would be ongoing. At the time, the database included a total of 4,291 DIRPs in the state of Connecticut. Table 12 (page 89) lists the total recreational components among all DIRPs provided in 2005.

DIRPs = discrete identifiable recreation places

Online access to the Connecticut Coastal Access Guide (CCAG), a platform which allows users to search for shoreline facilities based on factors such as activities, features, services, and geographic regions, was established by the University of Connecticut and DEEP in 2011. Another online resource, WalkCT, was developed by the Connecticut Forest and Park Association to provide information on publicly accessible trails located in one's vicinity; however, the need and desire for a single comprehensive database persists.

PAGE 94

**Table 11. Connecticut Recreation Supply 2005**

Recreation Site	# of Components	
Sites with baseball/softball fields	984	(1,806 fields)
Sites with football fields	154	(189 fields)
Sites with multi-use fields	624	(847 fields)
Sites with soccer fields	495	(860 fields)
Sites with basketball courts	645	(830 courts)
Sites with tennis courts	384	(1,186 courts)
Sites with volleyball courts	74	(90 courts)
Total golf courses	125	
Sites with playground areas	1,065	
Sites with swimming pools	137	
Sites with fresh/saltwater 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	
<b>Total acreage:</b>	<b>328,000</b>	<b>(approx. 10% of state)</b>

Table 12 replicated from data provided by the 2005 SCORP report, shows the number of publicly accessible recreational sites per 10,000 residents for the most frequently used recreation resources across the state. For this analysis, the number of sites with a particular asset was considered, but the number of assets per recreation site was not taken into consideration. The statewide averages below can be compared with town averages to determine whether a community provides more or less than the standard amount of resources for the state. As indicated by highlighting in Table 12, nine recreational resources are present at sites at a rate exceeding one site per every 10,000 citizens: playgrounds, baseball/softball fields, trails, picnic areas, fishing access, basketball courts, multi-use fields, soccer fields, and tennis courts.

DIRPs = discrete identifiable recreation places

**Table 12. Resident Access to State DIRPs in 2005.**

Resource	DIRPs per 10,000 Residents (Statewide)	Residents per Site with Resource (Statewide)	Residents per Site with Resource (NRPA Comparison)
Playgrounds	3.1	3,198	3,633
Baseball/Softball Fields	2.9	3,461	6,453-19,226
Trails	2.6	3,801	--
Picnic Areas	2.0	5,030	--
Fishing Access	2.0	5,091	--
Basketball Courts	1.9	5,280	7,080
Multi-use Fields	1.8	5,458	12,468
Soccer Fields	1.5	6,880	6,199-12,226
Tennis Courts	1.1	8,869	4,375
Boating Access	0.8	11,949	--
Winter Sports	0.7	14,309	--
Beach Activities	0.5	19,350	--
Football Fields	0.5	22,114	26,350
Swimming Areas	0.4	24,858	33,040
Golf Courses	0.4	27,245	--
Gardens	0.3	31,244	31,000
Historic Sites	0.3	34,400	--
Hunting	0.3	38,700	--
Camping	0.3	38,700	--
Volleyball Courts	0.2	46,021	15,250

  = recreational resources exceeding one site per every 10,000 citizens

To compare data to national standards and across recreation activities, a standard unit of measurement of sites per 10,000 people for any given activity was adopted.



Table 12 also includes the number of residents per site with each resource statewide; as an example, in 2005, Connecticut had one site with a playground for every 3,198 residents. These numbers can be compared with national standards published by the National Recreation and Park Association (NRPA) to determine whether Connecticut is above or below average in providing access to any one of the resources listed. Whereas comparisons are not available for most of the resources listed, those for which information is available are included in Table 12. According to the NRPA, there is one playground for every 3,633 U.S. residents; thus, Connecticut is slightly above average in providing public access to playgrounds. In fact, Connecticut shows above average access to all recreational resources, except for gardens, for which it was only slightly below average. The biggest discrepancies were seen in the provision of baseball/softball fields (3,461 Connecticut residents per site compared to 6,453-19,226 U.S. residents) and soccer fields (6,880 Connecticut residents per site compared to 6,199-12,226 U.S. residents).

The number of DIRPs with each recreational resource per 10,000 individuals as reported in 2005 is shown in Table 12 for both the state overall and each of its eight counties. Cells highlighted in orange are those which are significantly lower than the statewide average for that resource. As indicated, more densely populated counties (i.e., New Haven, Hartford, and Fairfield) exhibited the greatest unmet need in terms of number of resources by population. To some degree, this is unavoidable because less densely populated areas will have a greater ratio of available recreational land to citizens in the county, particularly for activities requiring larger areas (e.g., hunting, fishing, boating, trails, etc.). At the same time, there is room for improvement. Some resources lacking in densely populated areas, like that of playgrounds, picnic areas, and sports fields, offer better opportunities for incorporation into urban and suburban communities.

### Ownership of State DIRPs

State and local governments, non-profit organizations, and commercial establishments contribute to the recreational needs of Connecticut citizens. Table 14 (page 92) shows the distribution of ownership between the state, a municipality, and outside organization(s) (i.e., non-profit and/or commercial business) for each publicly available resource. For instances where 50% or more of a resource is owned by a single entity, a cell is highlighted in yellow. Additionally, when 25%–50% of a resource is owned by one entity, a cell is highlighted in orange. Despite the state owning a majority of Connecticut’s recreational land, municipalities comprise the majority of ownership for most individual resources. As noted in the 2005 report, Connecticut may be especially concerned with the long-term acquisition of open space; therefore explaining why the state offers more opportunities for activities requiring large swaths of land, such as hunting, camping, boating, and fishing. Of all the resources, only golf courses were primarily owned by an outside organization (i.e., commercial business).

Geocaching, letterboxing, and/or mobile application gaming emerged as a surprisingly popular activity, with one-quarter of households reporting engagement in this activity within the past year. It was also characterized by a high frequency of participation, with two-fifths of those participating in the activity engaging in it several times per week.

PAGE 104

**Table 13. Sites with Recreational Resources by County (by number of sites per 10,000 residents).**

Resource	Statewide	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham
<b>Acres</b>	<b>964</b>	<b>365</b>	<b>427</b>	<b>4,002</b>	<b>2,435</b>	<b>383</b>	<b>2,234</b>	<b>2,201</b>	<b>2,709</b>
Playgrounds	3.1	2.7	3.6	4.1	2.2	2.8	3.8	3.2	3.7
Baseball	2.9	2.1	3.3	4.0	2.6	2.7	3.5	4.0	3.7
Trails	2.6	2.5	1.8	5.5	4.1	1.5	3.7	5.6	5.8
Picnic Areas	2.0	1.8	1.4	5.2	3.5	1.4	2.8	2.3	2.7
Fishing	2.0	1.4	1.0	6.6	4.5	1.1	3.0	4.1	4.1
Basketball	1.9	1.1	2.2	2.7	1.9	2.0	2.4	2.4	1.7
Multi-use Fields	1.8	1.6	1.6	4.1	1.2	1.3	3.4	2.6	2.7
Soccer	1.5	0.9	1.7	2.4	1.7	1.2	1.4	2.7	2.0
Tennis	1.1	1.0	1.2	1.9	1.0	1.1	1.1	1.2	1.3
Boating	0.8	0.6	0.3	2.5	2.6	0.3	1.6	1.8	2.1
Winter Sports	0.7	0.5	0.6	2.3	0.9	0.4	0.5	1.7	1.1
Beach	0.5	0.5	0.1	1.4	0.9	0.5	0.8	1.1	0.7
Football	0.5	0.3	0.5	0.4	0.5	0.5	0.5	0.7	0.5
Swimming	0.4	0.3	0.7	0.4	0.5	0.2	0.4	0.4	0.5
Golf	0.4	0.3	0.4	0.6	0.6	0.2	0.6	0.7	0.6
Gardens	0.3	0.4	0.3	0.2	0.3	0.2	0.3	0.2	0.4
Historic Sites	0.3	0.3	0.2	1.0	0.6	0.1	0.4	0.1	0.4
Hunting	0.3	0.1	0.1	1.2	0.1	0.1	0.7	0.7	1.6
Camping	0.3	0.2	0.0	0.9	0.4	0.1	0.7	0.4	1.2
Volleyball	0.2	0.1	0.1	0.3	0.3	0.1	0.5	0.4	0.1

= Significantly below the statewide average.



**Table 14. Ownership of State DIRPs in 2005.**

Resource	State Ownership	Municipal Ownership	Other Ownership
(Acreage)	66%	17%	17%
Baseball/Softball Fields	1%	91%	9%
Basketball Courts	1%	91%	9%
Beach Activities	10%	55%	35%
Boating Access	30%	37%	33%
Camping	33%	25%	42%
Fishing Access	26%	42%	32%
Football Fields	1%	88%	12%
Gardens	6%	70%	24%
Golf Courses	1%	24%	75%
Historic Sites	24%	59%	17%
Hunting	71%	2%	27%
Multi-use Fields	5%	83%	11%
Picnic Areas	12%	68%	20%
Playgrounds	0%	88%	11%
Soccer Fields	1%	90%	9%
Swimming Pools	2%	69%	30%
Tennis Courts	1%	91%	8%
Trails	18%	50%	32%
Volleyball Courts	0%	68%	32%
Winter Sports	29%	52%	19%

= 25%-50% of DIRPs owned

= >50% of DIRPs owned

### Updates to the Database in 2011

The 2011 SCORP took a more qualitative approach to assessing the supply of DIRPs in Connecticut; however, some quantitative techniques were used. To provide updates to the DIRP database, town officials were asked to indicate what additions and/or renovations had been made to recreational facilities in their municipality. Twelve towns responded in 2011, yielding results which have been reproduced in Table 15 (page 93). Rows highlighted in orange represent those that have experienced a 25% or greater increase between the 2005 and 2011 SCORPs, whereas those in yellow have experienced an increase of less than 10%. Overall, since 2005, town officials reported nearly a 27% increase in the number of sites either newly added to the inventory or newly renovated, with roughly half (49%) being new and the remainder (51%) being completely renovated.

**Table 15. Additions to Outdoor Recreation Supply Since 2005**

Resource	Total (2005)	Added Since 2005			Total (2011)	Percent Increase
		New	Renovated	Total		
Sites with Restrooms	64	3	5	8	72	13
Sites with Handicap Access	89	5	13	18	107	20
Total Baseball/Softball Fields	67	4	18	22	89	33
Total Football Fields	9	0	2	2	11	22
Total Multi-use Fields	49	5	0	5	54	10
Total Soccer Fields	37	5	4	9	46	24
Total Basketball Courts	49	5	0	5	54	10
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 Playgrounds	59	10	11	21	80	36
Sites with Pools	18	0	2	2	20	11
Sites w/ Beach/Lake Swimming	9	0	1	1	10	11
Sites with Picnic Areas	42	9	90	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/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

<10% increase since 2005
  > 25% increase since 2005

Of the 22 categories queried, only hunting and camping accommodations were characterized by no increases or improvements from 2005 to 2011. The number of sites with boating, fishing, and winter sports access also showed low rates of development, each with increases of less than 10% among the 12 municipalities reporting. Resources with the largest increases were gardens (171%), historic or educational sites (100%), tennis courts (81%), and trails (52%).

In noting these differences, it is important to consider the nature of the development (i.e., new or renovated). For instance, while both trails and tennis courts showed significant development over the six-year time span, 80% of the developments to trails were new facilities, while 90% of tennis court developments were classified as renovations to existing structures. It is recommended that tennis courts be resurfaced every 4-8 years; thus, emphasizing why most developments of this resource take the form of renovations. At the same time, well-maintained trails do not frequently require renovation; therefore, developments reflect an expansion of trail networks consistent with the state’s recreational initiatives. These findings are consistent with the fact that survey

respondents consistently indicated a much greater need or desire for additional access to trails than for tennis courts. Too, there is a large gap in the number of individuals and households who utilize each of these resources, with trails being much more popular.

Multi-use fields, playground areas, and picnic areas all had a relatively high proportion of new vs. renovated facilities, while the opposite was true for baseball/softball fields, basketball courts, and sites with handicap access. Again, these results are encouraging because the new facilities being developed align with those which survey respondents consistently identify as recreational priorities. Too, these developments suggest that many facilities are being retrofitted to accommodate persons with disabilities under the Americans with Disabilities Act (ADA).

### Status and Future Directions of the Database

As mentioned previously, “I do not know what is being offered” (36%) and “I do not know the location of facilities” (27%) were the top barriers to recreational participation, according to respondents of the 2005 Statewide Survey. In the 2017 analysis, these two reasons were surpassed by concerns about fees (23%) and distance from one’s residence (21%): each mentioned by one-fifth (20%) of respondents to the Statewide Survey. These figures suggest that the state’s effort to disseminate information about recreational facilities has, overall, been effective. However, at the time of the publication of the 2005 SCORP report, Connecticut still did not have a single, centralized resource for citizens to find information about recreational opportunities in the state. Online access to the Connecticut Coastal Access Guide (CCAG), a platform which allows users to search for shoreline facilities based on factors such as activities, features, services, and geographic regions, was established by the University of Connecticut and DEEP in 2011. Another online resource, WalkCT, was developed by the Connecticut Forest and Park Association to provide information on publicly accessible trails located in one’s vicinity; however, the need and desire for a single comprehensive database persists.

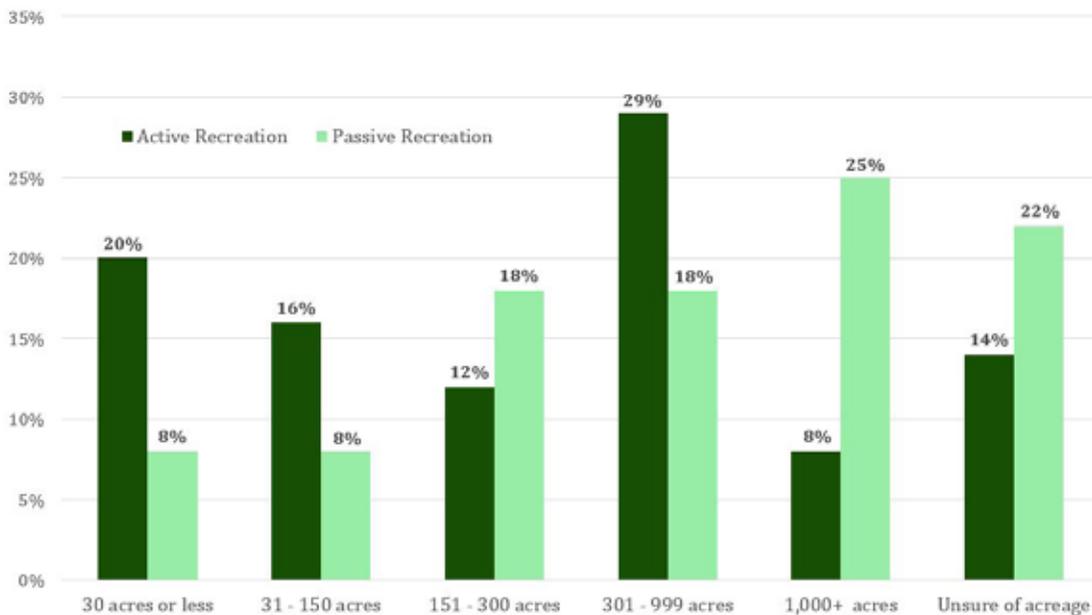
### Measuring Open Space

In 2017, town officials were asked to provide the total acreage of open space land for both “active” and “passive” outdoor recreation use. Examples were provided to help guide participants as to the distinction between “passive” and “active.” Examples of “active” outdoor recreation facility included sports fields, playgrounds, swimming pools, golf courses, and skate parks. Meanwhile, examples of “passive” outdoor recreation facilities included hiking and nature trails, rails-to-trails, town greens, non-developed fields, wildlife observation areas, hunting sites, and fishing sites. The results of this query are depicted in Figure 17.

More total acreage is dedicated to passive outdoor recreation use compared with active outdoor recreation use. More than two in five towns (43%) feature 301 acres or more dedicated to passive recreation—a figure that drops slightly (37%) when measuring active recreation acreage in the same acreage range (301+ acres). One-quarter of all towns (25%) reported having 1,000 acres or more dedicated to passive outdoor recreation, a figure that drops to less than one in ten (8%) when comparing land for active outdoor recreation use in the same acreage range (1,000+ acres). More than one in ten (14%) town officials were unsure of the active outdoor recreation acreage in their town, and more than two in five (22%) were unable to cite the passive outdoor recreation acreage.



### Acreege of Open Space Land for Active and Passive Outdoor Recreation by towns reported



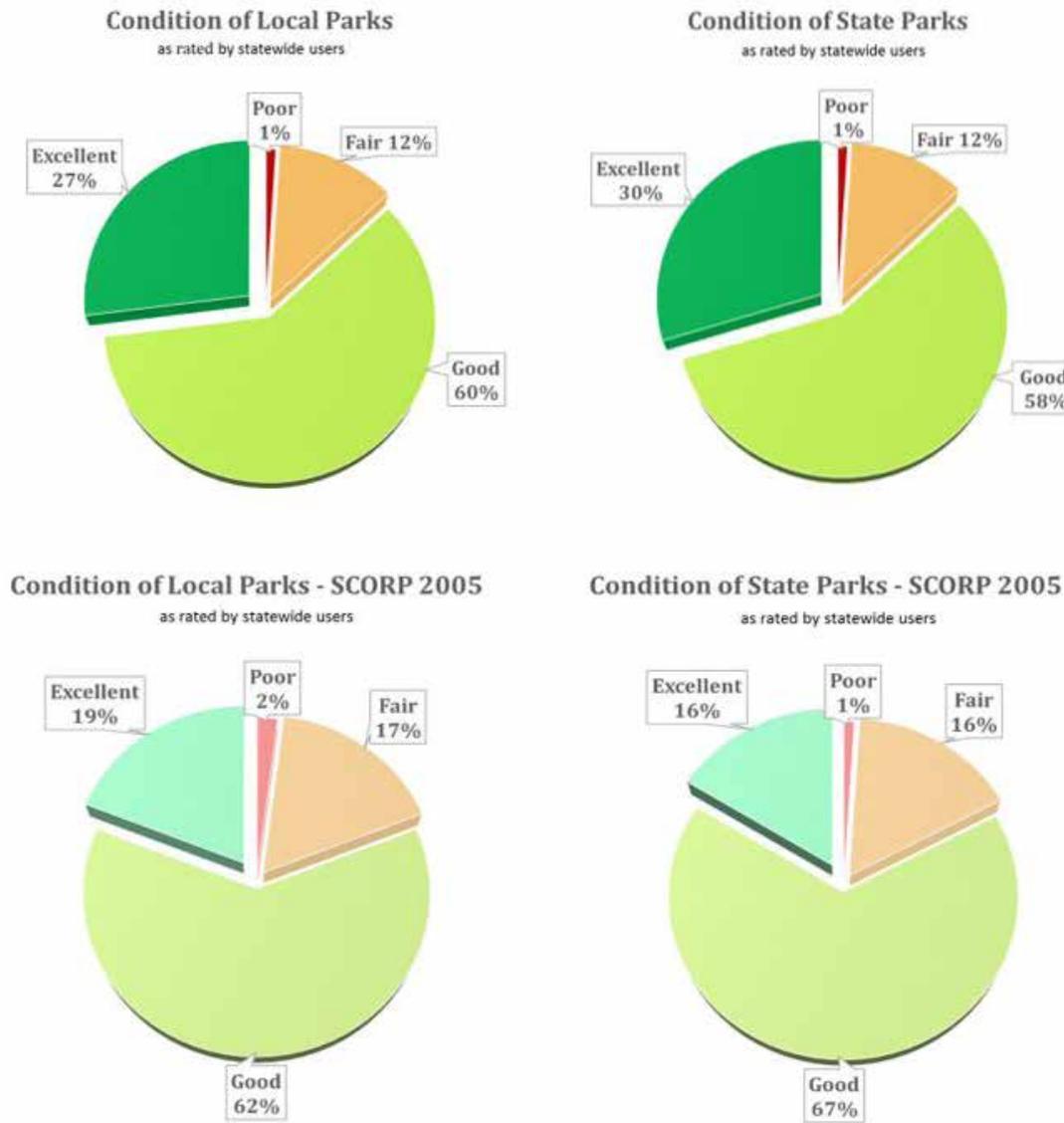
**Figure 17. Acreege of Open Space for Active and Passive Outdoor Recreation.**

## Assessing the Quality of Supply

### Assessment of Supply: Constituent Ratings of Facility Conditions

The condition of local and state parks was assessed through ratings given by Connecticut citizens on the Statewide Survey. Figure 18 displays these results along with a comparison to data reported in the 2005 SCORP. In 2017, nearly nine-tenths (87%) of respondents rated local parks as “good” or “excellent” and about the same proportion (88%) issued “good” or “excellent” ratings for state parks. These percentages mark an increase from the 2005 SCORP because roughly four-fifths (81%) of local parks and state parks (83%) in 2005 had a “good” or “excellent” rating. The increase is clearly encouraging because it suggests that the condition of both local and state parks has improved over the last twelve years. Also, this increase puts Connecticut above the national average of eighty-five percent “good” or “excellent” ratings reported in the 2005 SCORP. However, while very few respondents rated park conditions as “poor,” it is still worth noting that for both local and state parks, thirteen percent of respondents to the Statewide Survey rated conditions as “fair” or worse. Thus, there is still room for some improvement.

While both trails and tennis courts showed significant development over the six-year time span, 80% of the developments to trails were new facilities, while 90% of tennis court developments were classified as renovations to existing structures.



**Figure 18. Citizens' Rating of State and Local Park Conditions.**

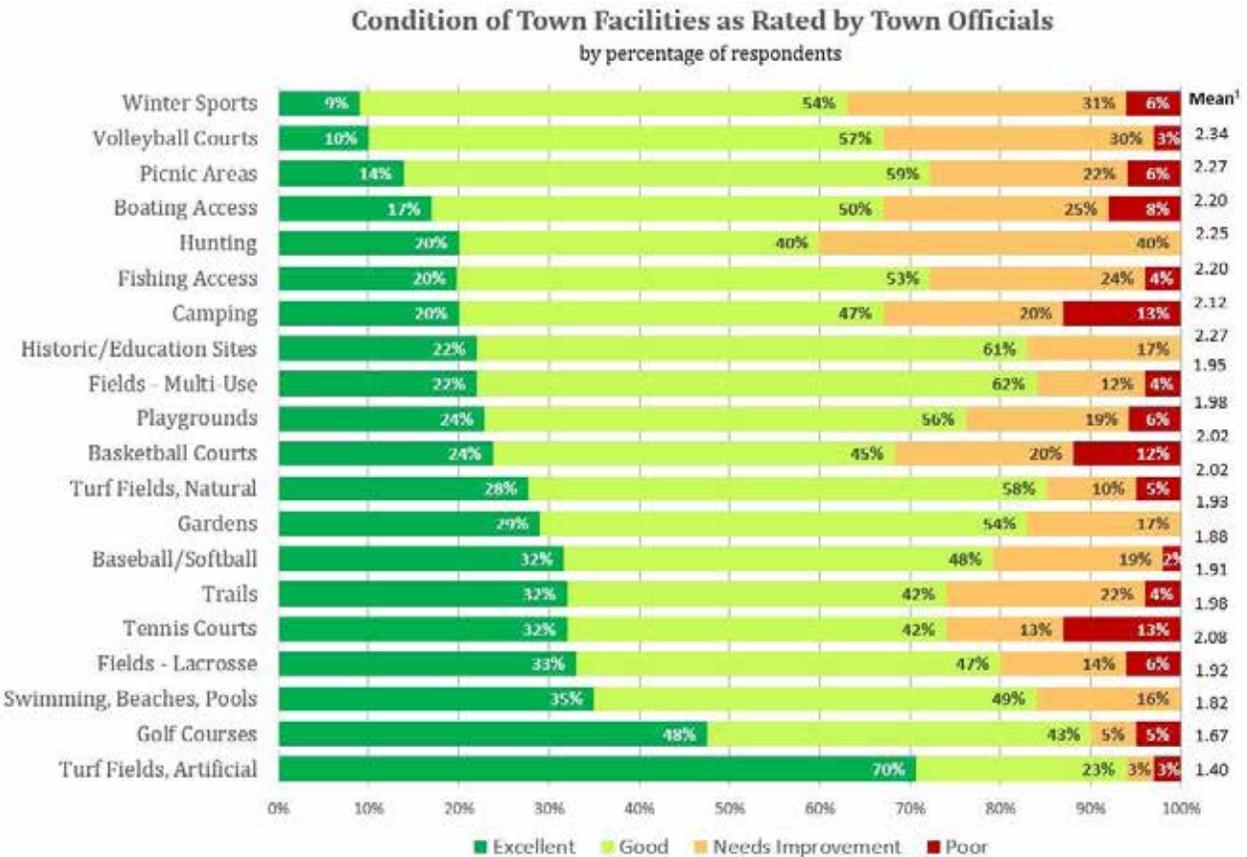
The 2017 Outdoor Enthusiast Survey did not ask respondents to rate the general condition of parks; however, among outdoor enthusiasts who reported that their needs were not being met by activity-specific facilities, 14% of those who provided additional comments mentioned issues pertaining to condition and upkeep. Later in the Outdoor Enthusiast Survey, study participants were asked to identify which characteristics and/or features they like most about the outdoor recreation areas that they use. Over one-quarter (26%) identified “enjoying natural environments,” whereas one in five (19%) cited the “ease of access or proximity.” Other responses included “not crowded, quiet, or remote” areas (13%), “good management, staff, maintenance, or stocking” (13%), and the “variety of terrain or multi-use facilities” (8%).

**Assessment of Supply: Town Official Ratings of Facility Conditions**

Like results reported in the 2005 SCORP, town officials in 2017 were generally much less satisfied with the condition of recreational facilities than the average Connecticut citizen. However, it should be noted that while respondents to the Statewide Survey were asked about the general condition of local and state parks, respondents to the Town Officials Survey were asked about the condition of more activity-specific facilities. Given this, a direct comparison should not be made in this case, because the general rating of local park

conditions may or may not correspond to ratings of recreational facilities contained within a park.

Figure 19 displays town officials’ ratings of the condition of recreational facilities within their respective towns. Town officials were most satisfied with artificial turf fields, with seven in ten (70%) indicating that the facilities were in “excellent” condition. Thereafter, about one-half (48%) of respondents rated golf courses as being in excellent condition, and just over one-third said the same for swimming areas (beaches and pools). Facilities with the highest percentage of “poor” ratings included camping areas (13%), tennis courts (13%), and basketball courts (12%). Also, hunting areas, boating and fishing access, picnic areas, winter sport facilities, volleyball courts, and playgrounds emerged as facilities in which “poor” and “needs improvement” responses were elevated.



**Figure 19. Town Officials’ Ratings of Facility Conditions, 2017.**

For the most part, town officials indicated better facility conditions in 2017 than in 2005. Facilities with the greatest improvement in condition included swimming areas, tennis courts, multi-use fields, and volleyball courts, which showed a 5%-10% decrease in “poor” or “needs improvement” responses. Less improvement was seen with gardens, golf courses, picnic areas, and winter sport facilities, which were characterized by a 5%-8% decrease in “poor” or “needs improvement” responses. However, despite improvements, many of the facilities still show a relatively high percentage of “poor” and “needs improvement” ratings, which indicates that upgrades are still needed.

In three instances, there was evidence of deterioration in facility condition since measurement in the 2005 SCORP. Baseball fields and boating areas showed a 5%-7% increase in “poor” or “needs improvement” responses; however, the greatest concern is hunting areas, which showed a one-quarter (26%) increase in “poor” or “needs improvement” responses. While it is unclear exactly what factors town officials might consider when rating the condition of a hunting area, data from the Outdoor Enthusiast Survey suggests that crowding and inadequate stocking/management are central issues. Among outdoor enthusiasts who elaborated on issues related to hunting facilities, one in four (26%) mentioned crowding or stocking issues, while only 1% mentioned lack of maintenance and upkeep. It is also interesting to note that whereas swimming facilities were ranked among those in the best condition by town officials, these facilities are also those for which Connecticut citizens reported the most demand. With just over one-half (53%) of respondents to the Statewide Survey indicating that they had a need or

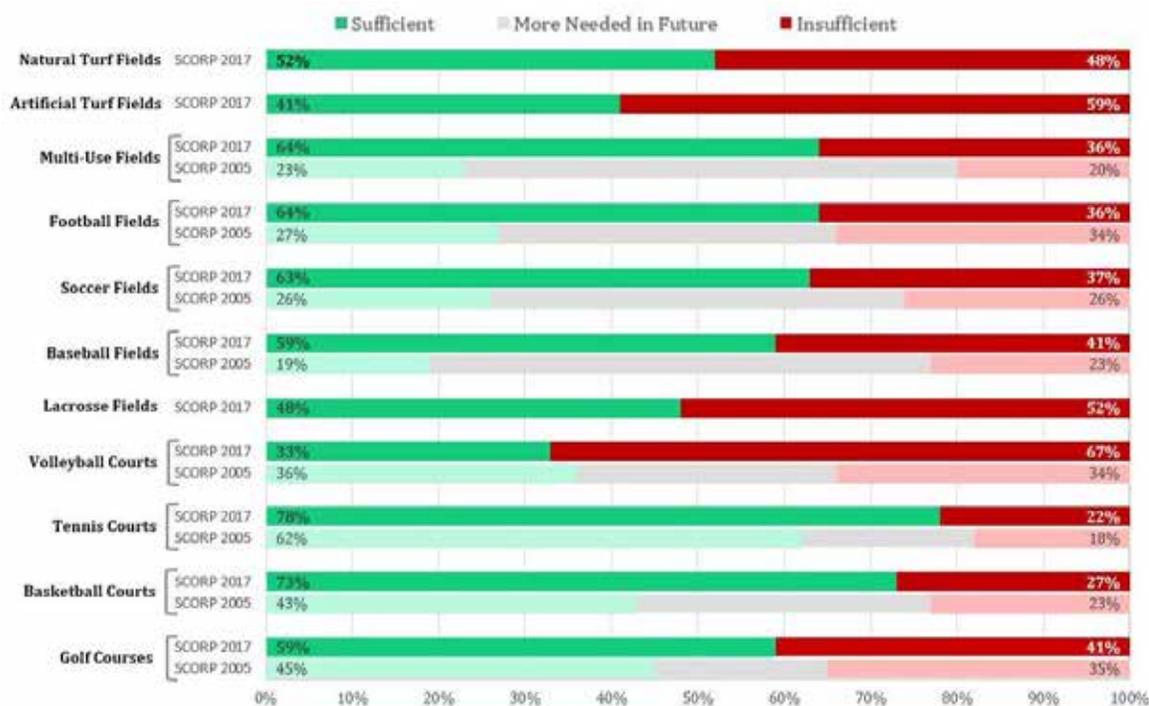
desire for additional access to swimming facilities, it seems that while existing swimming facilities may generally be in good condition, more of them are required to meet the demands of citizens.

### Town Officials Rate Sufficiency of Supply

To get a more complete assessment of community needs, respondents to the Town Officials Survey were asked to rate various facilities as “sufficient” or “insufficient” for meeting demand in their town. Figures 20 and 21 display the results from the town officials surveyed in 2017, as well as comparison data from the 95 town officials surveyed in the 2005 SCORP where available. It should be noted that direct comparison is difficult, since the 2005 Town Officials Survey included the third option of “more needed in the future,” which was not included in the 2017 version. In terms of “need,” this response category indicates, at the very least, that the current resources will be insufficient in the future if additional resources are not developed; thus, aligning more closely with the “insufficient” response in this year’s survey.

Despite the inability to make this comparison with certainty, it seems that overall, town officials today feel better equipped to meet the recreation needs of their communities than they did in 2005. The only facility that did not show an apparent increase in “sufficient” responses were volleyball courts, which two-thirds (67%) of town officials rated as “insufficient” in 2017. Additionally, camping and winter sport facilities were areas with heightened unmet need, since 69% and 63%, respectively, of 2017 Town Officials Survey respondents rated them as “insufficient.” This is consistent with results from the 2017 Statewide Survey, where respondents indicated the greatest unmet need for camping and snowboarding/skiing facilities.

**Town Officials Sufficiency Rating of Local Recreation Facilities - Courts & Fields**  
by percentage of towns reporting



**Figure 20. Town Officials’ Ratings of Facility Sufficiency: Courts & Fields.**

## Town Officials Sufficiency Rating of Local Recreation Facilities - All Others



**Figure 21. Town Officials Sufficiency Rating of Local Recreation Facilities: All Others.**

A direct comparison between the Statewide and Town Officials Surveys is difficult due to a difference in the rating scales used. However, combining the “needs not at all met” and “needs somewhat met” categories of the Statewide Survey might reasonably be considered a basis for comparison with the proportion of town officials who rated their supply of facilities as insufficient. Seven in ten (69%) respondents on both the Statewide and Town Officials Surveys rated camping facilities as insufficient, indicating a clear need for increased facilities within the state. Connecticut citizens also agreed with town officials that snowboarding/skiing facilities were lacking: 70% of Connecticut residents indicated that their needs were not at all or only somewhat met and 63% of town officials rated their facilities for winter activities as insufficient. However, in open-ended survey responses related to winter activities, many respondents to the Outdoor Enthusiast Survey acknowledged that there was little-to-nothing that could be done about global warming and lack of snow in Connecticut, nor the state’s limited topography. Thus, although it may be the case that facilities for winter activities are lacking in the state, meeting the population’s needs in this area would likely be an unrealistic goal.

Interestingly, only about three-tenths (28%) of town officials in 2017 rated swimming areas in their towns as insufficient to meet the community’s needs, while seven-tenths (70%) of Connecticut citizens rated their need for swimming areas as not at all or only somewhat met. The reason for this discrepancy is not clear, but town officials should be aware that they may be underestimating the need for these facilities in their communities. Respondents to the Town Officials Survey felt most capable of meeting the need for historic areas (80%) and tennis courts (78%) in their communities. While the grouping of tennis with volleyball and basketball courts on the Statewide Survey makes a comparison impossible for this facility, a comparison of citizens’ and town officials’ ratings of historic areas reveals that citizens perceive a much greater unmet need for these facilities than local officials. Only one-fifth (20%) of respondents to the Town Officials Survey indicated that their community’s needs for historic sites were not met, but roughly three-fifths (58%) of those responding to the Statewide Survey rated their needs for these facilities as not at all or only somewhat met.

### Town Officials Rate Adequacy of Support Components

Finally, respondents to the Town Officials Survey were asked to identify which “support components” were inadequate at any of the facilities in their community, with the selection of multiple response options being permitted (see Figure 22). “Support components” are considered resources that make it easier and/or more enjoyable to practice outdoor recreational activities in a given recreational area. For example, restrooms are

considered a support component because they allow individuals to stay longer in an area to practice an activity. Using this definition, public transportation to a facility remains the most widely cited inadequate support component, with nearly one-third (31%) of all towns identifying this option. It is worth noting that substantial improvement has been made in this area since 2005, as this figure was more than double (64%) twelve years ago. Public restrooms are the second most-cited support component, with over one-quarter (27%) of officials mentioning this option. Water fountains (24%), recycling receptacles (23%), and directional or interpretative signage (22%) rounded out the five most commonly cited concerns of Connecticut town officials. Shelters (6%) and trash receptacles (9%) were the least-common resources cited, meaning that they are viewed as the most adequate support components. Shelters have seen the most improvement since the 2005-2010 SCORP, with almost a one-half (46%) reduction in citation.

### Inadequate Facility Components as Rated by Town Officials

by percentage of respondents (multiple choices could be made)

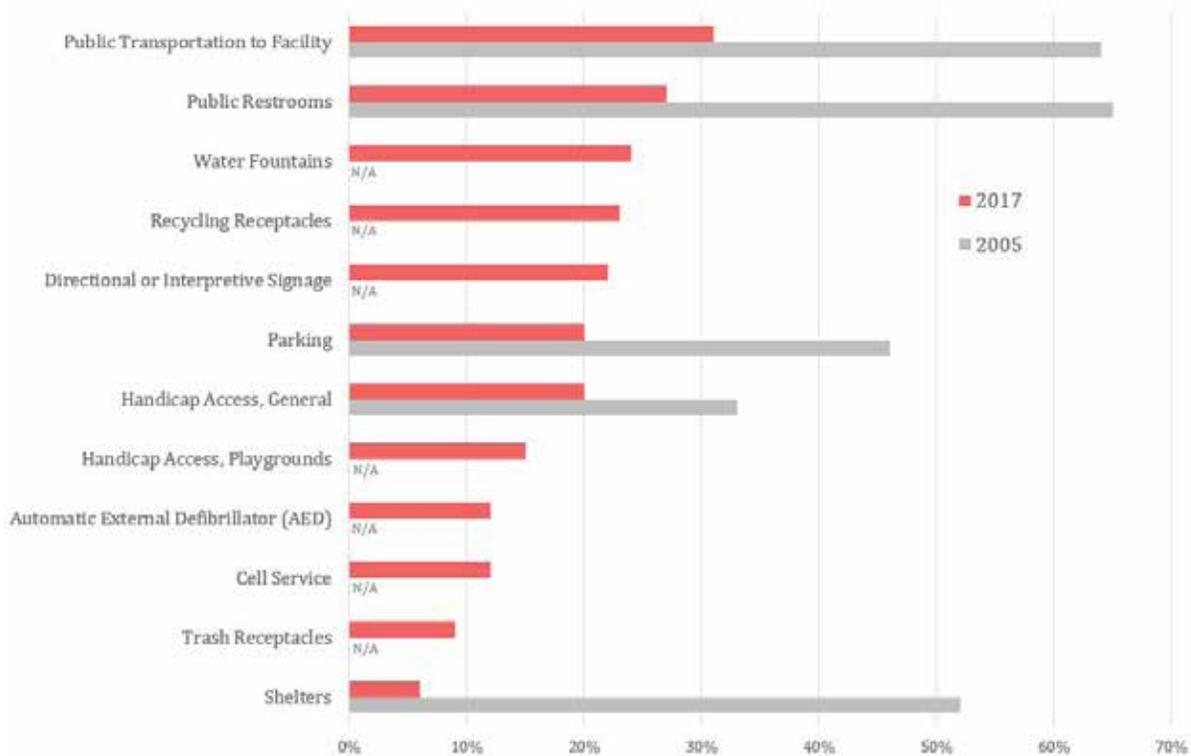


Figure 22. Town Officials' Ratings of Inadequate Facilities.



## SECTION 3: Assessing Demand

### Profile in Participation: Statewide Outdoor Recreation

To assess demand, this section begins with a profile of participation in outdoor recreation. The questions this section seeks to answer include: who participates in outdoor recreation activities, where, and how often? As well, this section concludes by answering the question of how well activity needs are being met in Connecticut.

#### Household Participation

A total of 2,026 state residents completed the Statewide Survey, which asked respondents to report the number of household members who, within the past year, participated in each of thirty-nine outdoor recreational activities listed. Since respondents were also asked to report the total number individuals in their household, both household participation rates (based on percentage of respondents) and estimated total population participation rates (based on percentage of total household members) can be calculated for this survey. Although both participation rates can be calculated, the following analysis focuses on household participation rates because it more accurately defines the activities that have wide appeal across age groups and varying interests.

#### Rate of Participation—Land-Based Activities

Presented in Figure 23 are the household participations in 25 land-based outdoor recreational activities, as reported by respondents to the Statewide Survey. Household participation rates from the 2005 SCORP are also presented for comparison. For the purposes of this comparison, running was combined with walking/hiking for the sake of consistency with the 2005 survey. Several activities (geocaching/letterboxing, backpack camping, Ultimate Frisbee, disc golf, and horse camping) were added to the 2017 survey and thus, cannot be compared across years.

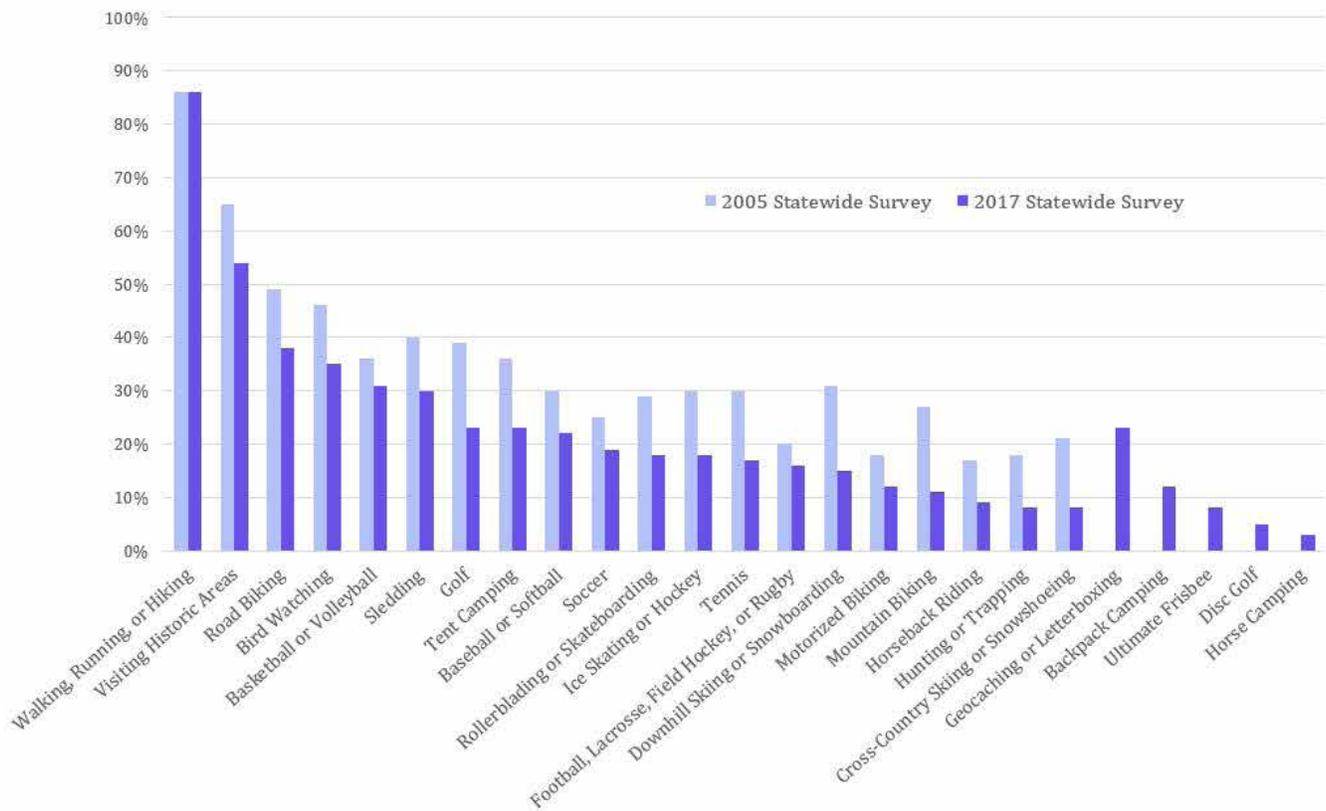
The most popular outdoor land-based activity was walking/hiking, with nearly nine-tenths (86%) of households and two-thirds (65%) of individuals reporting participation in the last twelve months. Rounding out the top three were running (48% household and 30% individual participation rates) and visiting historic sites (54% household and 43% individual participation rates). Least popular among the residents surveyed were horse camping (3% household and 2% individual participation rates), disc golf (5% household and 3% individual participation rates), and hunting/trapping (8% household and 4% individual participation rates).

Households with at least one adult over the age of sixty-five had a higher rate of bird watching than households without an adult over sixty-five, as well as a higher rate of visiting historic sites. Also, golf and walking were activities popular among seniors ... . Disc golf, rock climbing/caving, and automobile off-roading or motorized biking were activities most frequently practiced by younger avid outdoor enthusiasts.

PAGE 113

## Household Participation Rates in Land-Based Activities

by percentage of respondents (multiple choices could be made)



**Figure 23. Household Participation Rates in Land-based Activities.**

At first glance, it appears that since 2005, there has been a general decline in household participation rates for land-based activities; however, there are other factors which may be contributing to this apparent trend that must be considered. For instance, the sample of participants used in 2017 was more ethnically diverse than that of 2005, with seventy-six percent of the present sample identifying as Caucasian compared to eighty-five percent in 2005. The largest discrepancy was in the proportion of African-American respondents, with twelve percent identifying as African American in 2017 compared with seven percent in 2005. Previous reports on outdoor recreation in the United States note that the highest rate of participation is seen among Caucasians, whereas African Americans report the lowest rate of participation. Additionally, the 2017 sample had a slightly higher proportion of men than that of the 2005 survey (54% versus 51%), who have been demonstrated a higher rate of engagement in outdoor recreation than women.<sup>4</sup>

It is important to consider the difference in sampling methods between the two surveys. In 2005, responses were collected via a combination of telephone and mail surveys, whereas the 2017 survey was administered exclusively through the internet. It could be argued that people find mail and telephone surveys more tedious to complete than those presented online. This assumption is generated from the idea that most people ignore telephone surveys and because handwriting takes longer than clicking/typing for most people. Given this, it is reasonable to conclude that only individuals with strong motivations would complete the surveys. These individuals are likely to be those that are frequent participants in outdoor recreation; thus, causing the 2005 sample to be an over-representation of outdoor recreationists. As a result, the apparent decline in participation rates since 2005 may simply be signaling an adjustment to levels that more accurately represent Connecticut's population as a whole.

<sup>4</sup> For additional information, please see: <http://www.outdoorfoundation.org/pdf/ResearchParticipation2014.pdf>

### Rate of Participation—Water-Based Activities

Respondents to the Statewide Survey were also asked to report their household’s participation in water-based outdoor recreation activities. As shown in Figure 24, the top three most popular water-based recreation activities were non-swimming beach activities (67% household and 57% individual participation rates), swimming in outdoor pools (57% household and 49% individual participation rates), and swimming in fresh/saltwater (53% household and 44% individual participation rates). The three least popular water-based recreation activities were sailing (9% household and 6% individual participation rates), snorkeling or scuba diving (11% household and 7% individual participation rates), and river rafting or tubing (11% household and 8% individual participation rates). As was the case with land-based activities, water-based activities showed lower participation rates in 2017 than in 2005. Although, the same demographic and sampling factors cited in the discussion of land-based activities may also be at play here; therefore, making it difficult to estimate true differences in participation rates.

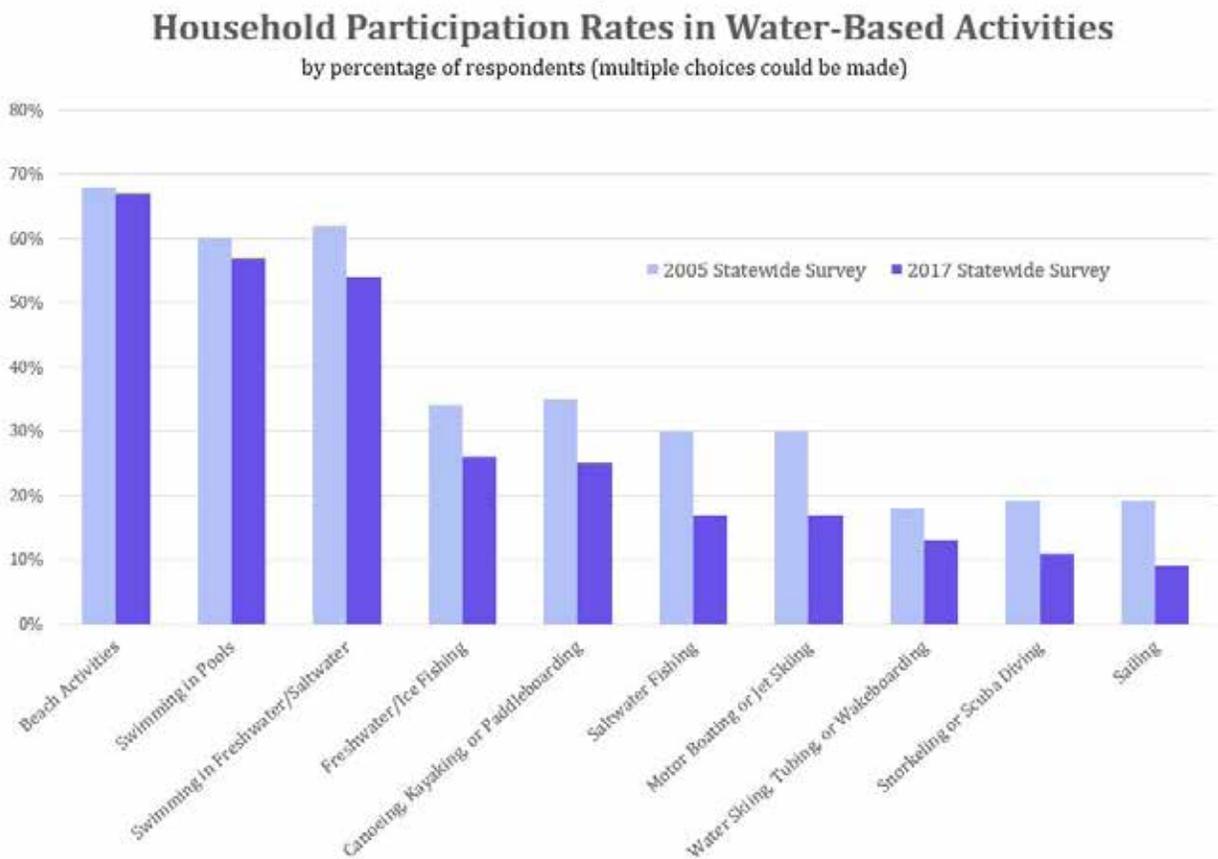


Figure 24. Household Participation Rates in Water-based Activities.

### Frequency of Participation—Land-Based Activities

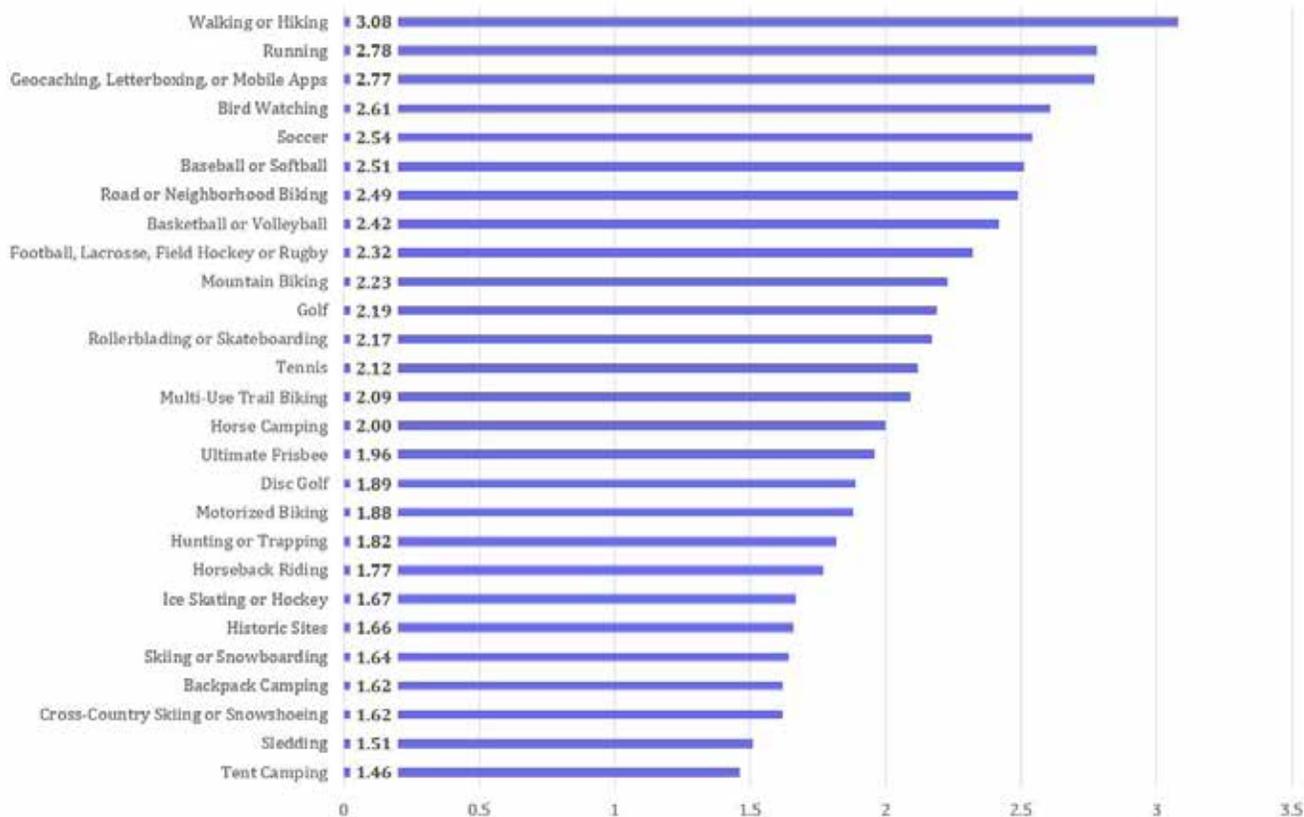
In addition to reporting the number of household members who participated in each activity, respondents to the Statewide Survey were asked to indicate the average frequency with which household participants engaged in these activities. Respondents were asked to rate this frequency on the following scale:

- 1 = seldom
- 2 = at least once a month
- 3 = a few times a month
- 4 = several times per week

Figure 25 ranks land-based recreation activities from the Statewide Survey according to the average frequency of participation within households.

## Average Frequency of Participation in Land-Based Recreation Activities

by household, on a scale from 1 (seldom) to 4 (several times a week)



**Figure 25. Average Frequency of Participation in Land-Based Recreation Activities.**

Similar to findings presented in the section concerning participation rates for land-based activities, walking/hiking sits at the top of the list when it comes to frequency of engagement. Roughly two-fifths (39%) of households reported walking or hiking several times a week and an additional one-quarter (27%) reported engaging in the activity a few times a month. Running was also a frequently practiced activity, with seventeen percent of households reporting running several times a week and an additional fifteen percent reporting running a few times a month. These results do not represent anything surprising because walking, hiking, and running are all outdoor activities that can be easily practiced by anyone at any location. Trails are found throughout state, while outdoor tracks and sidewalks [for running] are located in nearly every municipality; therefore, individuals and households have little to no barrier preventing them from engagement.

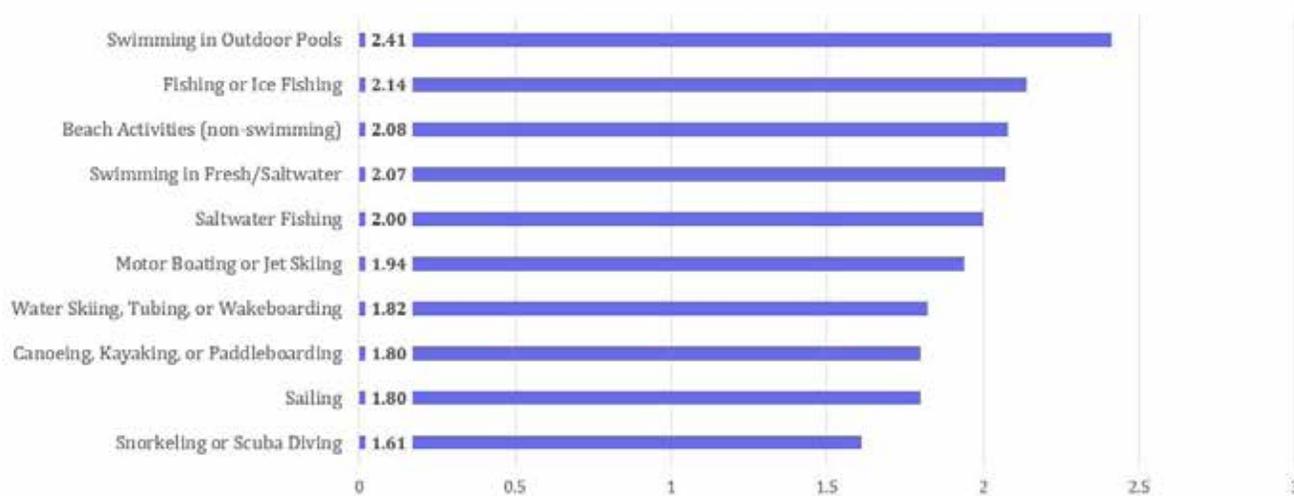
Geocaching, letterboxing, and/or mobile application gaming emerged as a surprisingly popular activity, with one-quarter (23%) of households reporting engagement in this activity within the past year. It was also characterized by a high frequency of participation, with two-fifths (41%) of those participating in the activity engaging in it several times per week. Since this activity was not included in the 2005 survey, it is impossible to estimate its growth in popularity over the last decade. However, the apparent popularity of geocaching, letterboxing, and/or mobile application gaming suggests that it has probably increased substantially in recent years. Furthermore, these results might suggest that individuals who participate in geocaching, letterboxing, or mobile application gaming tend to be more avid participants than those who participate in other activities; while interesting, these findings should not be accepted without question. For instance, there is a possibility that some respondents might have been unclear as to the definition of “mobile app games,” and may have mistakenly interpreted this to mean any game played on a mobile phone application. This in turn may have artificially inflated the frequency rate for this group of activities. Still, geocaching, letterboxing, and/or mobile application gaming seem to represent a popular and perhaps growing area of outdoor recreation within the state.

Four land-based activities stand out for their low frequency rates: sledding, camping, downhill skiing or snowboarding, and cross-country skiing or snowshoeing. Of those who reported participating in sledding, two-thirds (67%) reported seldom engagement in the activity, while just over three-fifths (63%) of those engaged in downhill skiing/snowboarding or cross-country skiing/snowshoeing reported the frequency of their participation as “seldom.” It makes sense that these winter activities show a lower frequency rate than others, as they are largely dependent on winter weather, which was especially mild this past year. Tent camping showed the lowest frequency of participation, with seven in ten (69%) campers engaging in this activity on a seldom basis. Camping tends to be an activity that requires a significantly higher degree of planning and preparation than the other activities surveyed; thus, the participation frequency rate for this activity would expectedly be low.

### Frequency of Participation—Water-Based Activities

Figure 26 ranks water-based activities from the Statewide Survey according to the average frequency of participation within households.

**Average Frequency of Participation in Water-Based Recreation Activities**  
by household, on a scale from 1 (seldom) to 4 (several times a week)



**Figure 26. Average Frequency of Participation in Water-based Recreation Activities.**

Non-swimming beach activities, swimming in outdoor pools, and swimming in fresh/saltwater were water-based activities with both a high rate of household participation and a high rate of participation frequency. Two-thirds (67%) of households reported engagement in non-swimming beach activities within the past year and almost two-fifths (37%) of these rated the frequency of their participation as either “a few times a month” or “at least once a month.” Almost three in five (57%) households swam in pools, with 46% of these reporting participation “a few times a month” or “at least once a month.” Fresh/saltwater swimming had a similar participation rate of fifty-four percent, however this type of swimming was practiced less frequently because nearly two-fifths (37%) of participants indicated swimming a few times or at least once per month. It is possible that respondents included use of their own personal outdoor pools when considering the frequency of participation, which would naturally lead to a greater frequency of participation than fresh or saltwater swimming, which is less accessible. Any future surveys may wish to specify “public outdoor swimming pools” when describing this activity.

While freshwater or ice fishing had a household participation rate (26%) substantially lower than that of beach activities and swimming (67% and 57%, respectively), it showed a participation frequency level (37%) that matched beach activities and fresh/saltwater swimming, as well as saltwater fishing. This suggests that despite different rates of participation, individuals seem to engage in these activities with a comparable frequency.

The water-based recreation activities with the lowest rates of participation were water skiing/tubing/wakeboarding (13% household participation), snorkeling/scuba diving (11% household participation), and sailing (9% household participation). Also, these activities were practiced with the least frequency, with the addition of canoeing/kayaking/paddleboarding. This pattern of findings makes sense because activities like swimming and fishing require minimal equipment compared to scuba diving, sailing, and water skiing/tubing/wakeboarding.

### **Combined Participation and Frequency Rates—Use Frequency Index (UFI)**

Alone, participation rates provide a partial view of recreation habits, as do frequency rates. In conjunction, however, they form the basis of a more complete picture of the intensity of participation in an activity. To compare intensity of participation across all outdoor recreation activities, taking both popularity and frequency of engagement into account, Use/Frequency (UF) scores were computed for each activity. The same computational methodology described in the 2005 SCORP report was used to calculate scores in 2017.<sup>5</sup> Use/Frequency scores were used to construct and chart a Use Frequency Index (UFI), which allows for the comparison of participation intensity across all activities. The UFI for an activity can range from 0 to 100, with a UFI of “100” being understood as an activity that is practiced by 50% of all people several times a week. While other combinations of use and frequency can produce a UFI of 100, it is still a viable means of comparing intensity of participation and can reasonably be generalized to the entire population of Connecticut. Figure 27 (see page 107) graphs all outdoor recreational activities from the Statewide Survey by UFI.

Table 16 (page 108) provides precise statistics, including UFI values for each activity in 2005 and 2017. As well, the following are reported in the table:

- Total UF values (frequency level multiplied by number of participants for each activity)
- UF of frequent (several times per week) and seldom (less than once per month) users
- Percentage of UFI attributable to frequent, moderate (at least once per month), and seldom users
- Percentage of the population that engages in each activity regardless of intensity
- Total estimated participants in the population of Connecticut based on percentages from the Statewide Demand Survey
- Estimates of the number of individuals in the population who engage in the activity with frequent, moderate, and seldom intensity, as well as the estimated number of non-participants

Unsurprisingly, walking/hiking had the highest UFI value (102.8), with nine-tenths (90%) of participants practicing the activity at least moderately often (once per month to a few times per month), and half of these reporting frequent participation (several times per week). Also, activities at the beach and swimming in fresh/saltwater had high UFI values (60.1 and 46.6, respectively); though these were still substantially lower than that for walking/hiking. In contrast to walking/hiking, most participants in beach activities and fresh/saltwater swimming reported participating in these activities only moderately often or seldom (less than once per month).

## **Profile of Participation: Outdoor Recreation Enthusiasts**

### **Rate of Participation—Outdoor Recreation Enthusiasts**

The Outdoor Enthusiast Survey was designed to measure the needs of individuals who participate in outdoor recreational activities most frequently. It differed from the Statewide Survey in that it asked respondents to self-report up to five outdoor recreation activities which they practiced most frequently. Unlike the Statewide Survey, it did not ask participants about their participation in a predetermined list of activities. As a result, participation rates from the Outdoor Enthusiast Survey should not be directly compared to those indicated by the Statewide Survey because they do not reflect actual participation rates, rather the percentage of respondents who mentioned an activity among their top five.

<sup>5</sup> These methodological procedures are articulated on page 104 of the 2005-2010 Connecticut Statewide Comprehensive Outdoor Recreation Plan.

# THE DATA

## Ranking of Recreational Activities by Use Frequency Index (UFI)

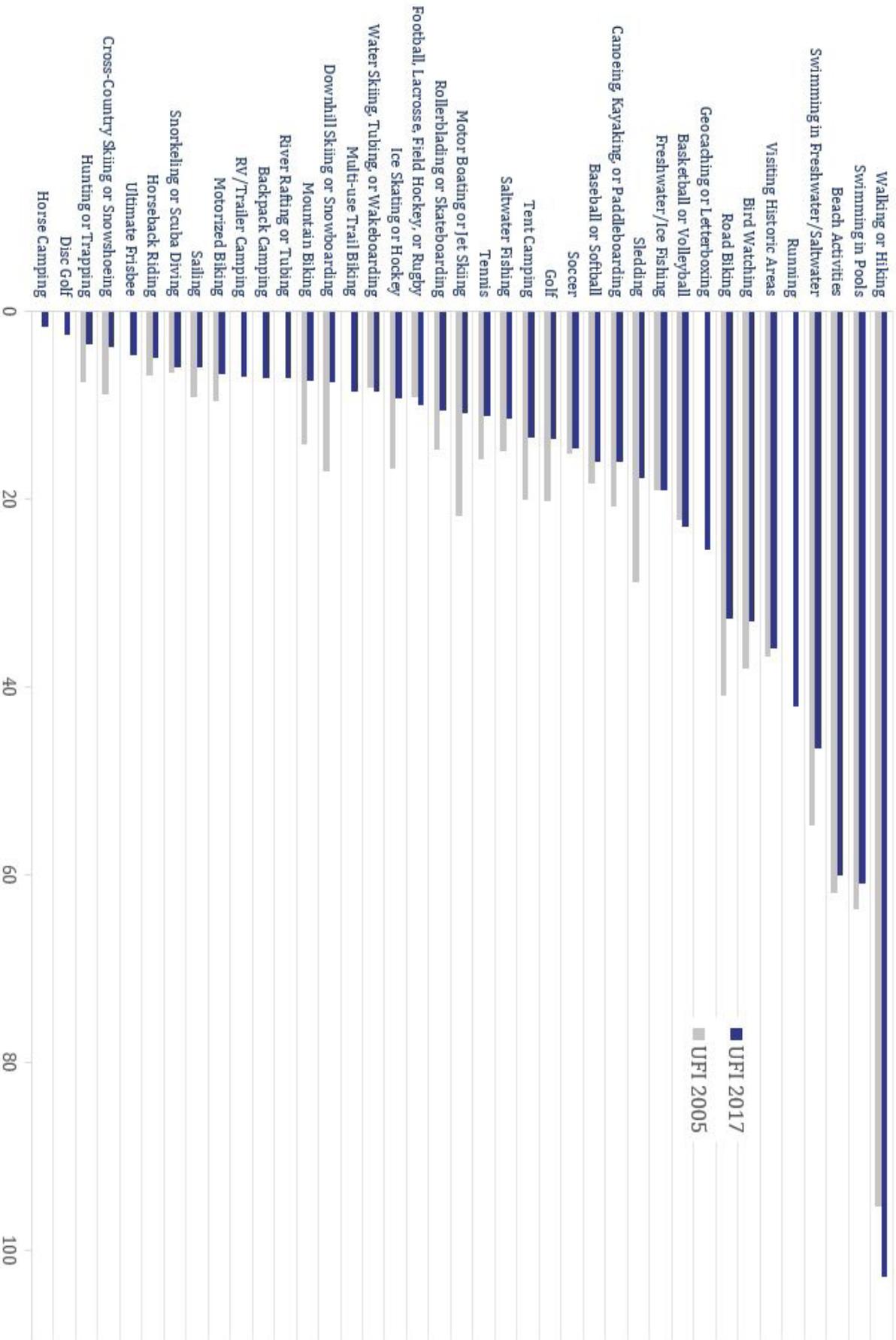


Figure 27. Ranking of Recreational Activities by Use Frequency Index (UFI).

**Table 16. Comparative Use Frequency Indices for All Outdoor Recreational Activities.**

Activity	Total UF	UF Frequent	UF Seldom	UFI (2005 SCORP)	UFI	Percent of UFI Frequent	Percent of UFI Moderate	Percent of UFI Seldom	Percent of Population	N of Population	N Frequent	N Moderate	N Seldom	Non-Participants
Walking or Hiking	11375	6572	341	95.3	102.8	45%	45%	9%	65%	2,334,150	1,050,368	1,050,368	210,074	1,256,850
Swimming in Outdoor Pools	6785	2684	733	63.7	60.9	25%	48%	27%	49%	1,759,590	439,898	844,603	475,089	1,831,410
Beach Activities	6699	1172	1111	62.0	60.1	9%	55%	35%	57%	2,046,870	184,218	1,125,779	716,405	1,544,130
Swimming in Freshwater/Saltwater	5195	940	865	54.7	46.6	10%	55%	36%	44%	1,580,040	158,004	869,022	568,814	2,010,960
Running	4687	2320	285	--	42.1	35%	48%	17%	30%	1,077,300	377,055	517,104	183,141	2,513,700
Visiting Historic Areas	3997	236	1271	36.7	35.9	2%	45%	53%	43%	1,544,130	30,882	694,859	818,389	2,046,870
Bird Watching or Wildlife Viewing	3680	1444	296	38.1	33.0	25%	54%	21%	26%	933,660	233,415	504,176	196,069	2,657,340
Road Biking	3653	1244	307	40.9	32.8	22%	56%	22%	26%	933,660	205,405	522,850	205,405	2,657,340
Geocaching or Letterboxing	2832	1736	214	--	25.4	44%	35%	21%	18%	646,380	284,407	226,233	135,740	2,944,620
Basketball or Volleyball	2566	876	241	22.2	23.0	21%	55%	24%	18%	646,380	135,740	355,509	155,131	2,944,620
Freshwater Fishing or Ice Fishing	2117	548	306	19.1	19.0	14%	53%	32%	17%	610,470	85,466	323,549	195,350	2,980,530
Sledding	1976	156	839	26.8	17.7	3%	32%	65%	23%	825,930	24,778	264,298	536,855	2,765,070
Baseball or Softball	1783	684	173	18.4	16.0	24%	51%	25%	13%	466,830	112,039	238,083	116,708	3,124,170
Canoeing, Kayaking, or Paddleboarding	1782	248	477	20.8	16.0	6%	45%	49%	17%	610,470	36,628	274,712	299,130	2,980,530
Soccer	1625	708	132	15.2	14.6	29%	49%	22%	11%	395,010	114,553	193,555	86,902	3,195,990
Golf	1515	396	238	20.2	13.6	15%	50%	35%	12%	430,920	64,638	215,460	150,822	3,160,080
Tent Camping	1503	80	633	20.0	13.5	2%	34%	64%	18%	646,380	12,928	219,769	413,683	2,944,620
Saltwater Fishing	1281	252	244	14.9	11.5	10%	51%	39%	11%	395,010	39,501	201,455	154,054	3,195,990
Tennis	1243	292	219	15.7	11.2	12%	50%	37%	11%	395,010	47,401	197,505	146,154	3,195,990
Motor Boating or Jet Skiing	1220	171	511	21.8	10.9	13%	44%	43%	12%	430,920	56,020	189,605	185,296	3,160,080
Rollerblading or Skateboarding	1177	352	216	14.8	10.6	16%	44%	40%	10%	359,100	57,456	158,004	143,640	3,231,900
Football, Lacrosse, Field Hockey, or Rugby	1114	348	135	9.2	10.0	18%	53%	29%	9%	323,190	58,174	171,291	93,725	3,267,810
Ice Skating or Hockey	1033	152	371	16.8	9.3	6%	34%	60%	11%	395,010	23,701	134,303	237,006	3,195,990
Multi-use Trail Biking	947	192	170	--	8.5	11%	51%	38%	8%	287,280	31,601	146,513	109,166	3,303,720
Water Skiing, Tubing, or Wakeboarding	942	168	205	8.1	8.5	9%	49%	43%	9%	323,190	29,087	158,363	138,972	3,267,810
Downhill Skiing or Snowboarding	845	124	298	17.0	7.6	6%	34%	59%	9%	323,190	19,391	109,885	190,682	3,267,810
Mountain Biking	827	152	103	14.2	7.4	10%	61%	28%	7%	251,370	25,137	153,336	70,384	3,339,630
Backpack Camping	793	96	279	--	7.1	5%	36%	59%	9%	323,190	16,160	116,348	190,682	3,267,810
River Rafting or River Tubing	791	120	219	--	7.1	7%	42%	51%	8%	287,280	20,110	120,658	146,513	3,303,720
RV/Trailer Camping	772	64	276	--	6.9	3%	38%	58%	9%	323,190	9,696	122,812	187,450	3,267,810
Motorized Biking	751	152	178	9.5	6.7	10%	44%	46%	7%	251,370	25,137	110,603	115,630	3,339,630
Snorkeling or Scuba Diving	673	140	259	6.6	6.0	9%	27%	64%	7%	251,370	22,623	67,870	160,877	3,339,630
Sailing	670	152	168	9.2	6.0	11%	42%	47%	6%	215,460	23,701	90,493	101,266	3,375,540
Horseback Riding	547	116	171	6.8	4.9	9%	35%	55%	6%	215,460	19,391	75,411	118,503	3,375,540
Ultimate Frisbee	522	112	106	--	4.7	11%	48%	41%	5%	179,550	19,751	86,184	73,616	3,411,450
Cross-Country Skiing or Snowshoeing	421	88	158	8.8	3.8	9%	30%	61%	5%	179,550	16,160	53,865	109,526	3,411,450
Hunting or Trapping	390	60	119	7.5	3.5	7%	39%	54%	4%	143,640	10,055	56,020	77,566	3,447,360
Disc Golf	275	60	62	--	2.5	10%	46%	43%	3%	107,730	10,773	49,556	46,324	3,483,270
Horse Camping	177	56	41	--	1.6	15%	40%	45%	2%	71,820	10,773	28,728	32,319	3,519,180

UF = Use/Frequency UFI = Use Frequency Index

Still, a comparison between these two surveys is illuminating. Consistent with results from the Statewide Survey, walking, running, and hiking were the most popular activities among outdoor enthusiasts. Road or rail trail biking, bird watching, and camping were also activities which showed a relatively high degree of participation on both surveys. Other activities, specifically motorized biking (including ATVs, dirt bikes, and other off-road vehicles), mountain biking, hunting/trapping, cross-country skiing/snowboarding, and horseback riding, showed a comparatively low percentage of household participation compared with the frequency with which they were mentioned by outdoor enthusiasts. This suggests that these activities are practiced by a relatively small portion of the state’s population; yet, these are activities for which participants tend to show a high degree of devotion. This contrasts with the activities of visiting historic sites, parks or playgrounds, sledding, and ball/ racket sports (e.g. basketball, baseball, tennis, etc.), which are practiced by a greater number of Connecticut households with seemingly less enthusiasm.

The percentage of outdoor enthusiasts who chose each of the twelve most commonly mentioned activities as their first choice is depicted in Figure 28, along with comparisons from the 2005 SCORP report. In some instances, methodological differences prevent direct comparison; specifically, it appears that mountain biking may have been categorized under “bicycling” in the 2005 SCORP report. Collectively, nine in ten (90.8%) respondents to the Outdoor Enthusiast Survey in 2017 chose one of the top twelve reported activity as their first-choice activity.

### Percentage of Outdoor Enthusiasts Selecting Activity as Their First Choice

by percentage of respondents

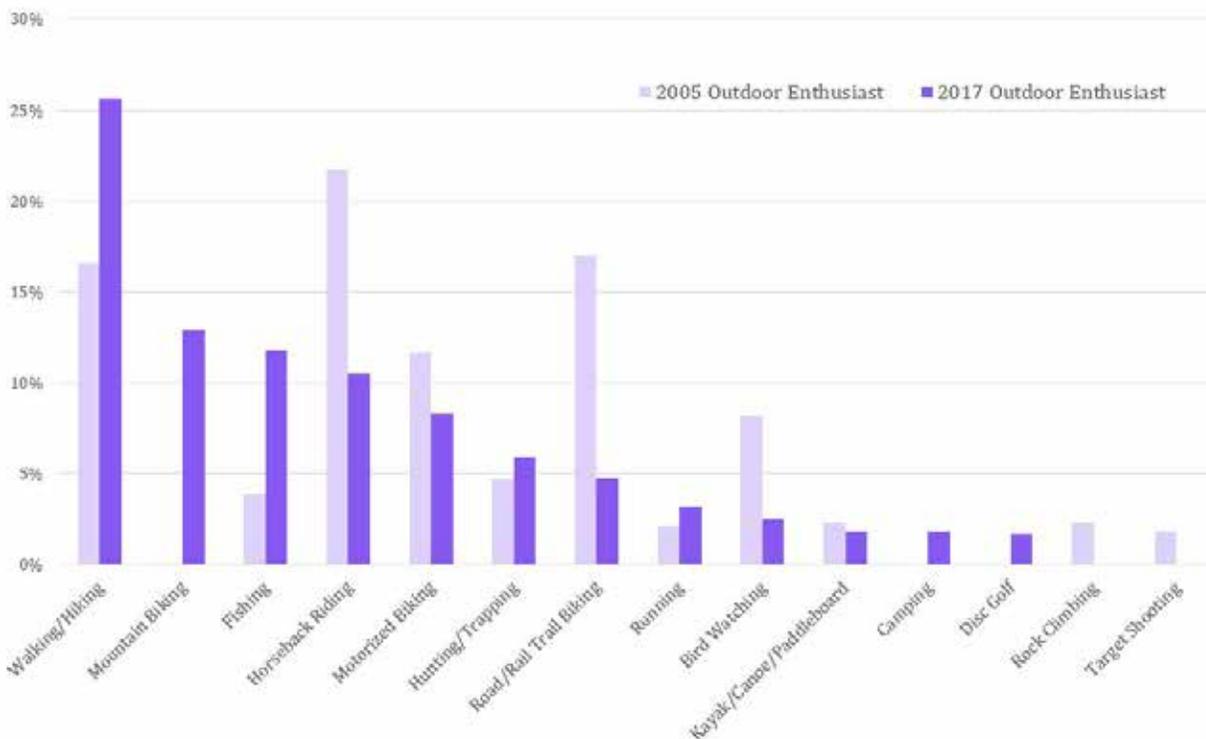


Figure 28. Percentage of Outdoor Enthusiasts Selecting Activity as First Choice.

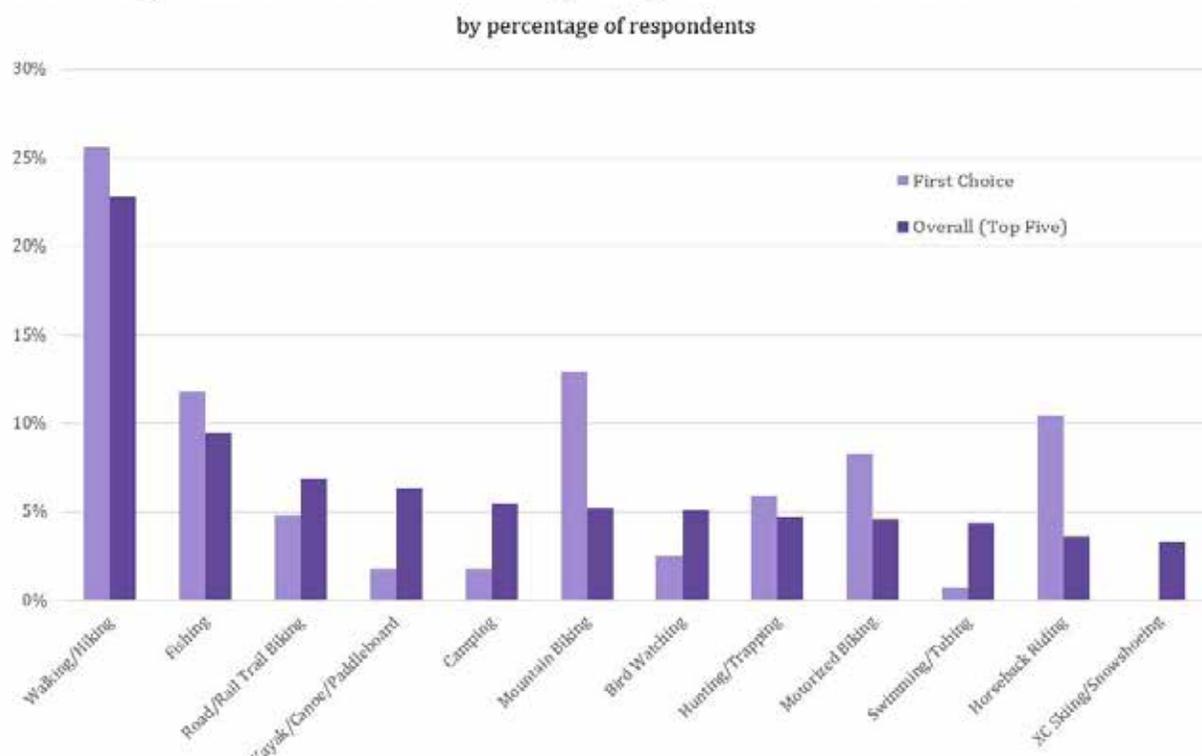
Looking at the participation rates of outdoor enthusiasts between 2005 and 2017 reveals that walking and hiking showed the greatest increase in first choice ratings, with one-quarter (25.6%) reporting either walking or hiking as their first-choice activity in 2017 compared with less than one-fifth (16.6%) in 2005. Road or rail trail biking, horseback riding, and bird watching showed substantial decreases in first-choice ratings from 2005 to 2017, with drops of 12.2%, 11.2%, and 5.7%, respectively. Camping and disc golf emerged in 2017 to replace rock climbing and target shooting in the top twelve activities reported by outdoor enthusiasts, with 1.8% listing

camping and 1.7% listing disc golf as their first-choice activities. This supports the notion that while disc golf is practiced by only a minority of the population in Connecticut, it appears to be an increasingly important outdoor activity for recreationists.

It should be noted that a comparison was made only for the first-choice of outdoor enthusiasts between 2005 and 2017 because 2005 data is limited; thus, making it difficult to make comparisons for the top five they identified. Interestingly, the relative frequency with which activities were mentioned differed somewhat when looking at all activities reported by enthusiasts, rather than only those reported as an individual’s top choice. Below, Figure 29 shows that activities like mountain biking, horseback riding, and motorized biking were chosen more often as first-choice activities than overall, therefore, demonstrating that these activities are those which garner participants who tend to be more dedicated or passionate.

In contrast, kayaking/canoeing/paddle boarding, camping, swimming/tubing, and cross-country skiing/snowshoeing were less likely to be ranked as outdoor enthusiasts’ first-choice activity, despite commonly being listed among respondents’ top five. This suggests that these activities, although popular among avid recreationists, do not tend to be practiced with as much enthusiasm as others indicated on the Outdoor Enthusiast Survey.

**Percentage of Outdoor Enthusiasts Reporting Activities as First Choice and Overall**



**Figure 29. Overall and First Choice Activities of Outdoor Enthusiasts.**

### Frequency of Participation—Outdoor Enthusiasts

Figure 30 shows the participation frequency in first-choice recreation activities for outdoor enthusiasts. As expected, enthusiasts engaged in these activities more frequently than individuals in the general population, with a very high percentage of “several times a week” frequency ratings. Only motorized biking, rock climbing, and camping showed a greater proportion of enthusiasts participating a few times a month than several times a week. This is consistent because individuals noted difficulties with access to these activities in their open-ended responses on the Outdoor Enthusiast Survey. Specifically, individuals noted a significant lack of areas where they can practice motorized biking or rock climbing, which made it necessary to travel farther or out-of-state, thereby, limiting the frequency of participation.

Additionally, several respondents to both the Outdoor Enthusiast and Statewide Surveys noted in open-

ended responses that a limited camping season, early closing of state campgrounds, and difficulties in securing campsite reservations made it difficult to practice their first-choice activity as much as they would prefer. The low percentage of respondents who engaged in camping several times a week is consistent simply with the fact that even if desired, fitting camping into one’s schedule several times a week is something that would not be feasible for most Connecticut citizens.

### Frequency of Participation by Outdoor Enthusiasts in First Choice Activities

by percentage of individuals reporting each activity

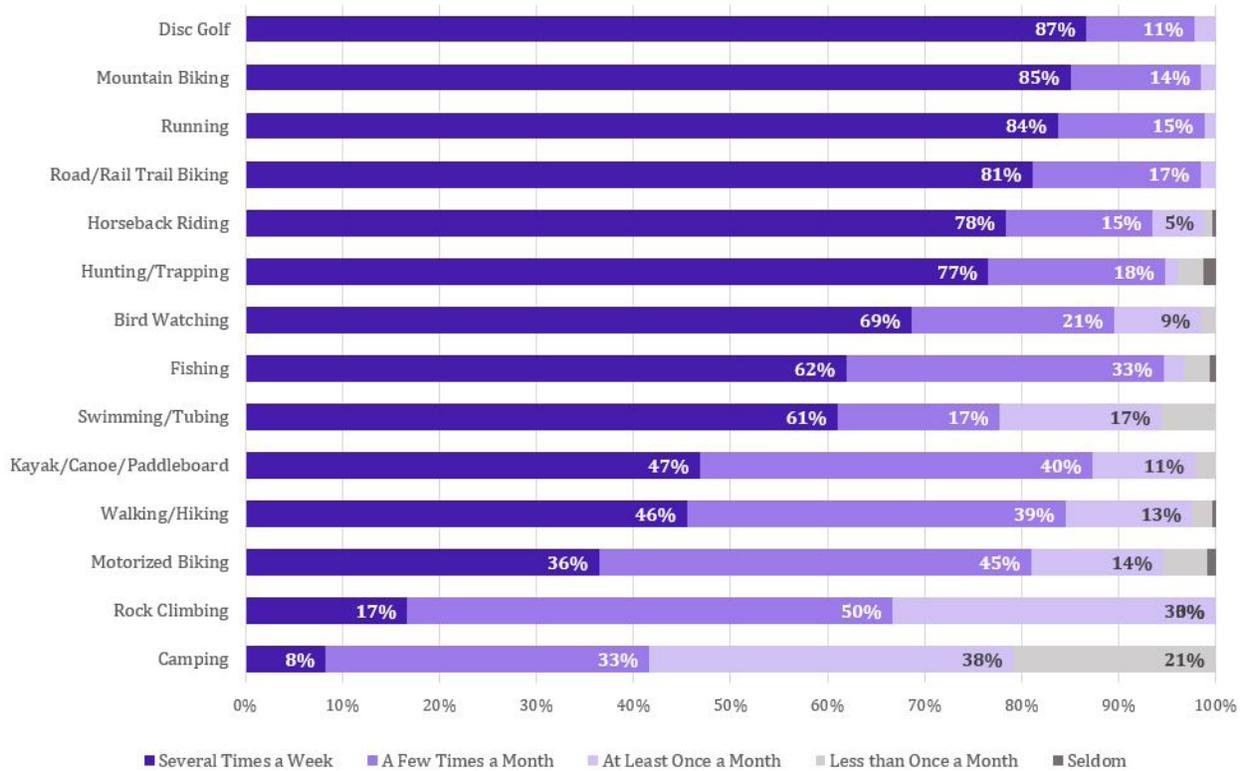
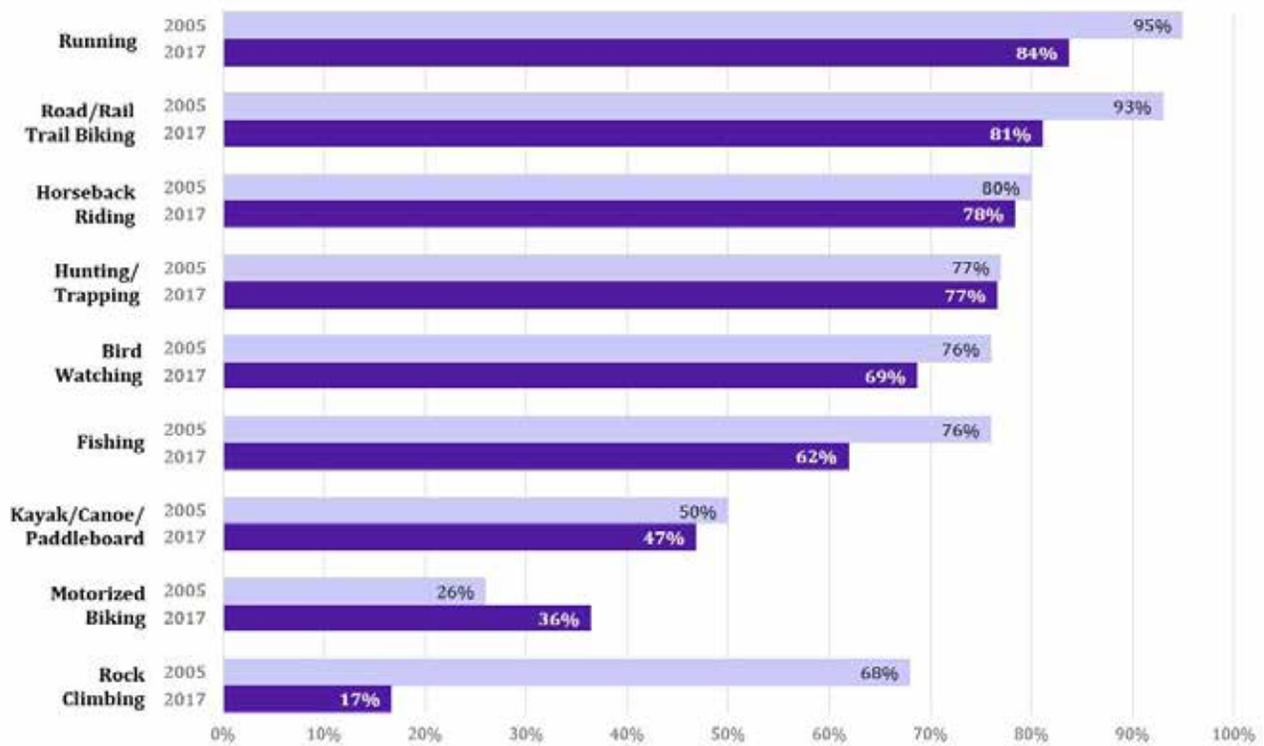


Figure 30. Frequency of Participation in Outdoor Enthusiasts’ First Choice Activities.

Some less readily interpretable differences are apparent in the comparison between the frequency of participation by outdoor enthusiasts in 2005 and 2017 (Figure 31). Activities such as horseback riding, hunting/trapping, and kayaking/canoeing/paddle boarding showed little-to-no difference between 2005 and 2017, while others (running, bicycling, fishing, and bird watching) showed a decline in frequency ratings of several times per week over the same years. Only motorized biking showed an increase in percentage of enthusiasts participating several times per week, which might suggest that this is an activity some have become more excited over in recent years. At the same time, fewer enthusiasts, overall, reported motorized biking as their first-choice activity in 2017 than in 2005. While it is possible that fewer participants have become more “avid” over recent years, there is not enough data to conclude this with any certainty. Most interesting in the comparison between 2005 and 2017 was the difference seen with rock climbing. This difference in “several times per week” frequency ratings is consistent with the decreased popularity of rock climbing as a first-choice activity among outdoor enthusiasts; however, the reasons for this decline are unclear. While some participants in rock climbing did mention issues related to access, there is no clear reason why access to this activity would be more limited today than in 2005.

**Percentage of Outdoor Enthusiasts Participating in First Choice Activity Several Times per Week**

by percentage of individuals reporting each activity



**Figure 31. Percentage of Outdoor Enthusiasts Frequently Participating in First Choice Activities.**

**Profile of Participation: Statewide Demographic Trends**

In addition to participation and frequency of engagement rates, potential correlations with demographic variables were explored, namely: gender, age, income, and county of residence.

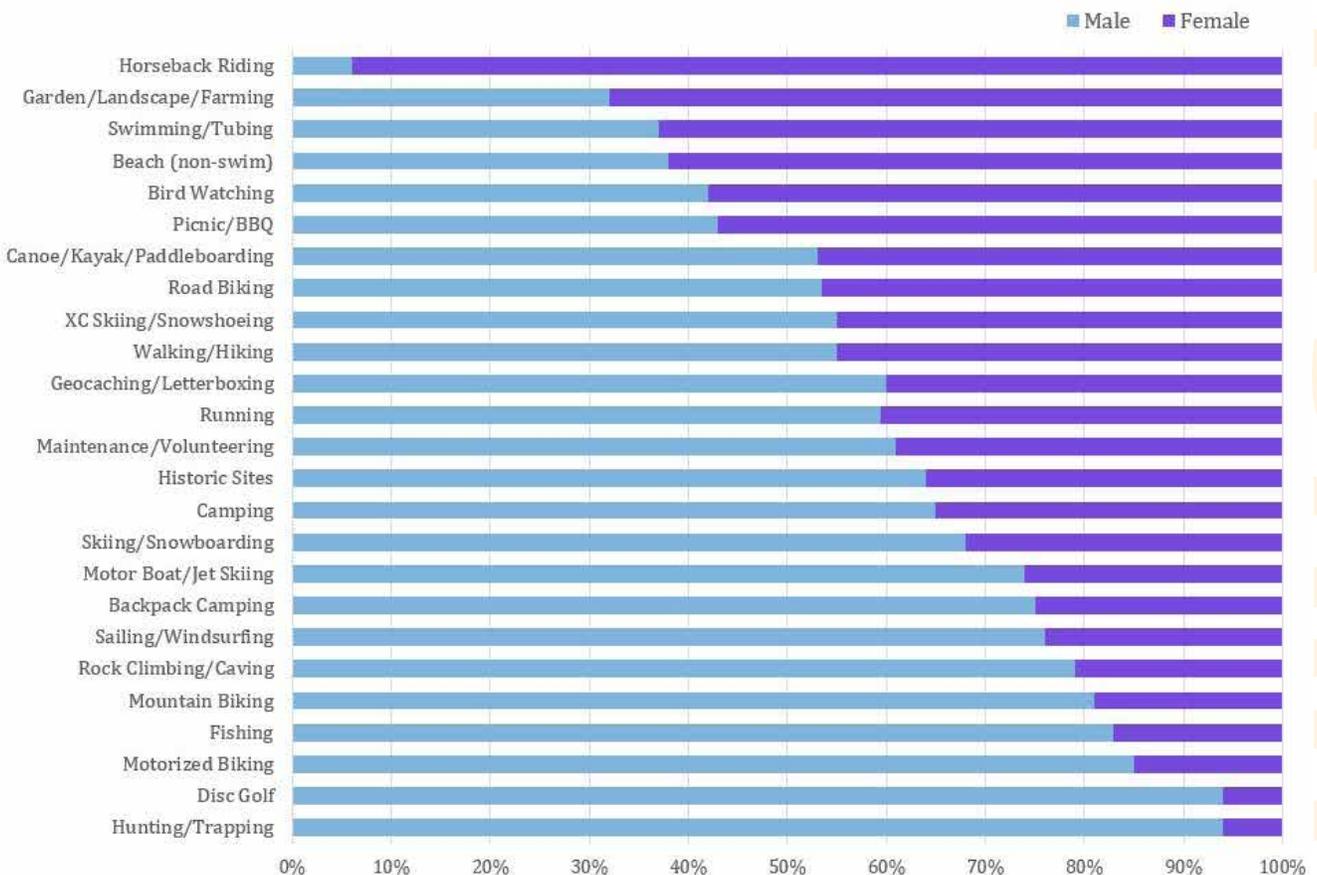
**Gender**

Since the Statewide Survey asked respondents to provide information generalized across all members of their household, it was not possible to look at the relationship between gender and participation in specific activities on this survey. Thus, it should be noted that the following discussion of gender differences is based solely on responses to the Outdoor Enthusiast Survey, and may not be generalizable to the general statewide population. Figure 32 shows the proportion of participants attributable to each gender for activities with fifty or more respondents.

For land-based activities, the disparities in participation between lower and higher income households are most pronounced for activities such as golf, skiing/snowboarding, and cross-country skiing/snowshoeing, with wealthier households being more likely to engage in these activities.

## Gender of Avid Outdoor Recreation Enthusiasts

by percentage of activity participants



THE DATA

**Figure 32. Gender of Outdoor Recreation Enthusiasts in Recreational Activities.**

It is evident that male and female outdoor enthusiasts exhibited different patterns of outdoor recreation activity. While some activities such as canoeing/kayaking/paddle boarding, road biking, cross-country skiing/snowshoeing, and walking/hiking were practiced by relatively equal proportions of men and women, others showed a strong tendency to be practiced by a particular gender. Most popular among female respondents were horseback riding (94% female), gardening/landscaping/farming (68% female), swimming/tubing (63% female), non-swimming beach activities (63% female), bird watching/nature activities (58% female), and picnicking/BBQing (57% female). Most popular among male outdoor enthusiasts were hunting/trapping (94% male), disc golf (94% male), motorized biking (85% male), fishing (83% male), mountain biking (81% male), and rock climbing (79% male).

In general, males exhibited a higher rate of participation in most outdoor recreational activities compared to females and, thus, comprised most participants for most of the activities shown. Although males represented the majority (60%) of the overall sample to the Outdoor Enthusiast Survey, the similarity of this year’s demographic profile to that reported for the 2005 survey (57% male) suggests that there is a true difference in the population rather than in the sampling.

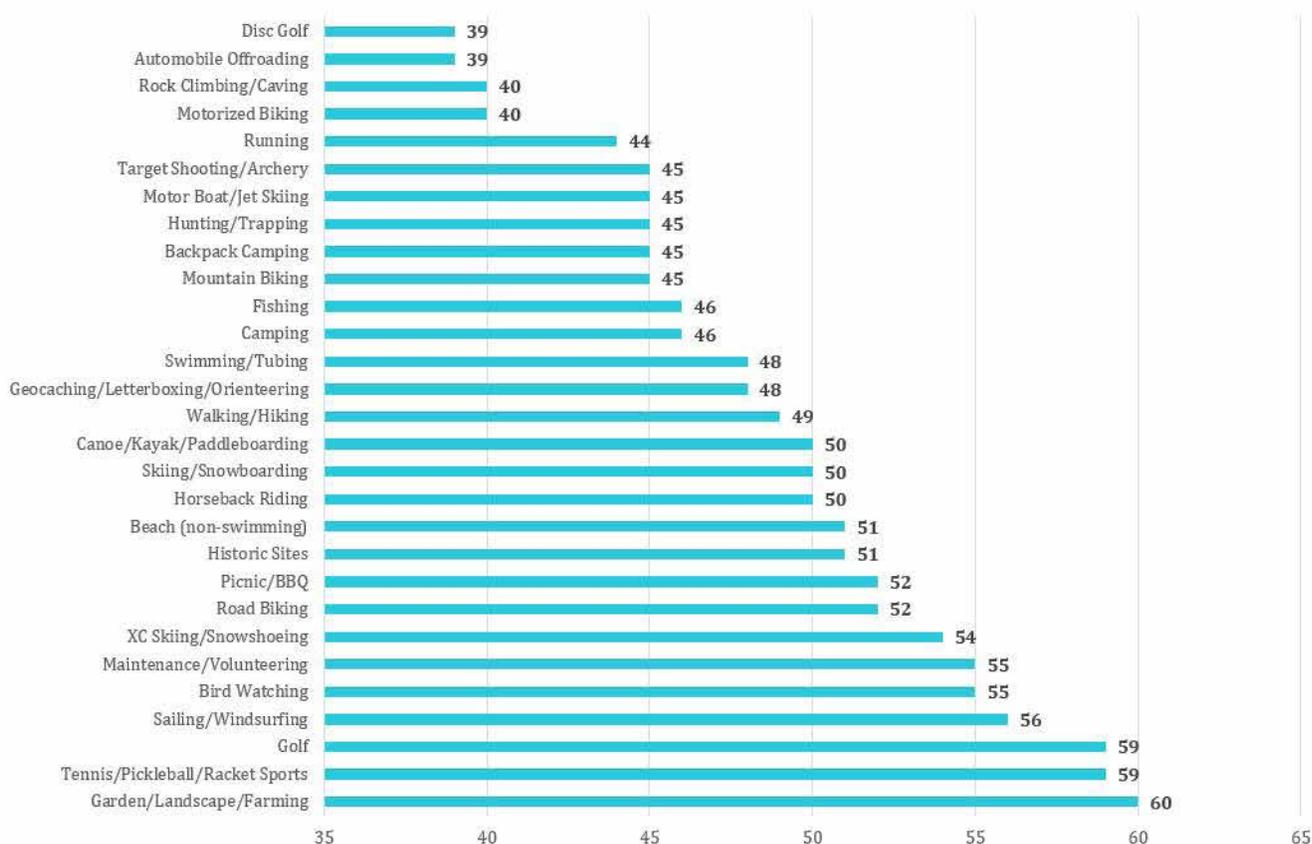
### Age

Again, due to the nature of responses to the Statewide Survey, it was not possible to accurately link the age of participants to specific activities; however, several trends can be identified. These trends are solely produced on the notion that respondents to the Statewide Survey provided participation rates and ages of household members. Households with at least one adult over the age of sixty-five had a higher rate of bird watching (44%) than households without an adult over sixty-five (33%), as well as a higher rate of visiting historic sites

(61% versus 53%). Also, golf and walking were activities popular among seniors and showed participation rates similar to those of households without an individual over the age of 65 (25% and 14%, respectively). Sledding was popular among households with children under the age of nine (53% participation versus 26% for households without children under age 9), while rollerblading/skateboarding and sports such as basketball, football, baseball, and soccer were popular among households with children and/or adolescents under fifteen years old. Unsurprisingly, households with children and/or adolescents tended to participate in a greater number of outdoor recreational activities than those without individuals in this age group.

Age could be more directly linked with specific activities via the Outdoor Enthusiast Survey, and the average age of individuals reporting each activity is displayed below in Figure 33. The overall median age of respondents to the Outdoor Enthusiast Survey was 49, which is significantly higher than the median of 41 reported by the Census Bureau for Connecticut in 2015. Unfortunately, comparisons cannot be made to the 2005 SCORP because the average age of outdoor enthusiasts was not reported; however, as discussed previously, the heavy reliance on outdoor recreation groups for the recruitment of participants may have contributed to this apparent age bias. Nevertheless, the relative comparison of average age across activities presented below is still useful in examining which activities are popular among younger versus older recreationists. This usefulness allows for predictability concerning which activities will show an increase or decrease in participation over coming years.

### Average Age of Avid Outdoor Recreation Enthusiasts



**Figure 33. Average Age of Outdoor Enthusiast Participants in Recreational Activities.**

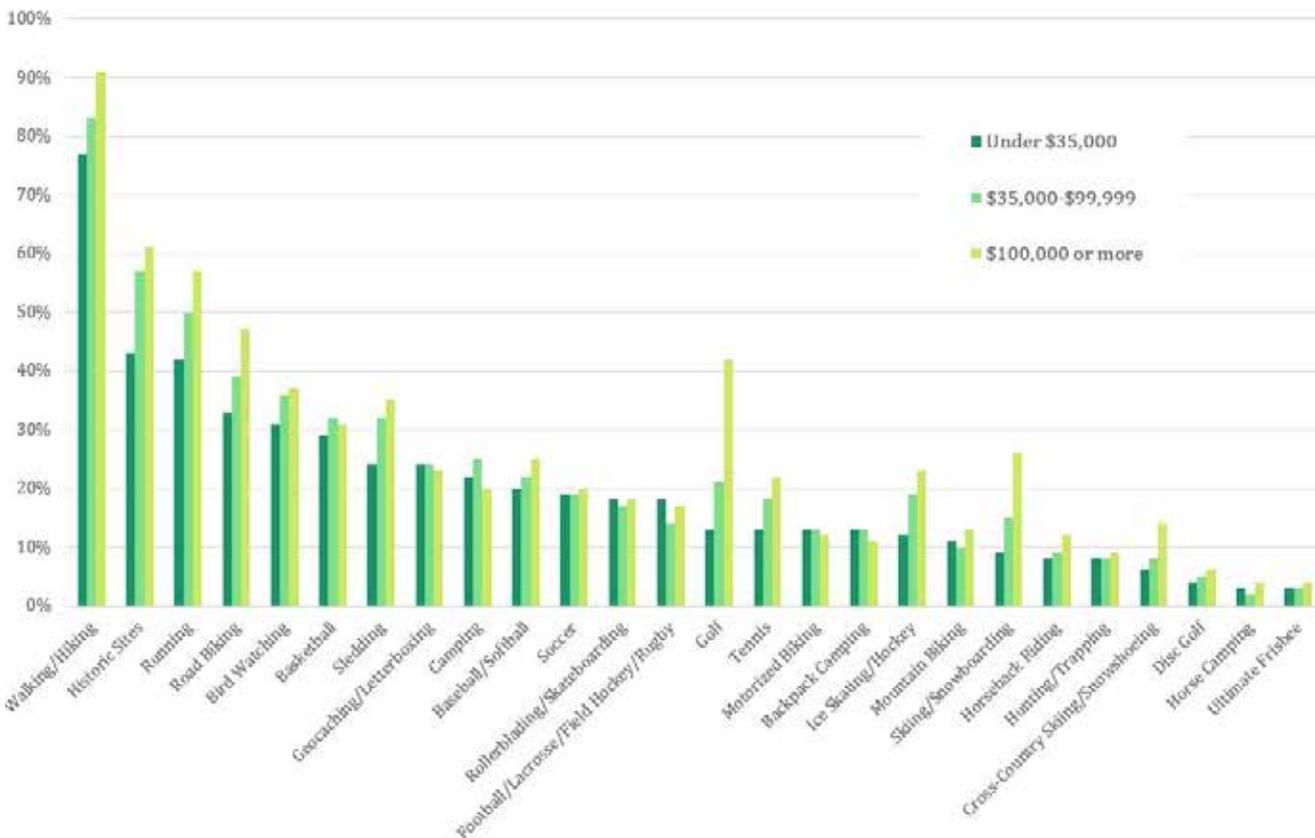
Disc golf, rock climbing/caving, and automobile off-roading or motorized biking were activities most frequently practiced by younger outdoor enthusiasts, which is consistent with the relatively recent emergence of these activities among recreationists. Gardening/landscaping/farming, tennis and other racket sports, golf, sailing/windsurfing, bird watching, and maintenance/volunteering were the most popular outdoor recreational activities among older respondents to the Outdoor Enthusiast Survey. It is reasonable to assume that these

activities have a larger appeal among older adults because of their lower physical demands, but note that racket sports and bird watching are becoming less popular among Connecticut residents over time. Indeed, along with biking, camping, and golf, tennis and bird watching were among the activities which showed the steepest declines in household participation between the 2005 and 2017 Statewide Surveys.

**Income**

Household income was a variable that applied to all members reported on the Statewide Survey; thus, the relationship between this variable and the type of activities practiced could be examined. Figures 34 and 35 depict the percentage of households who reported engaging in each land and water-based activity based on results from this survey.

**Participation in Land-Based Activities by Household Income**  
by percentage of households

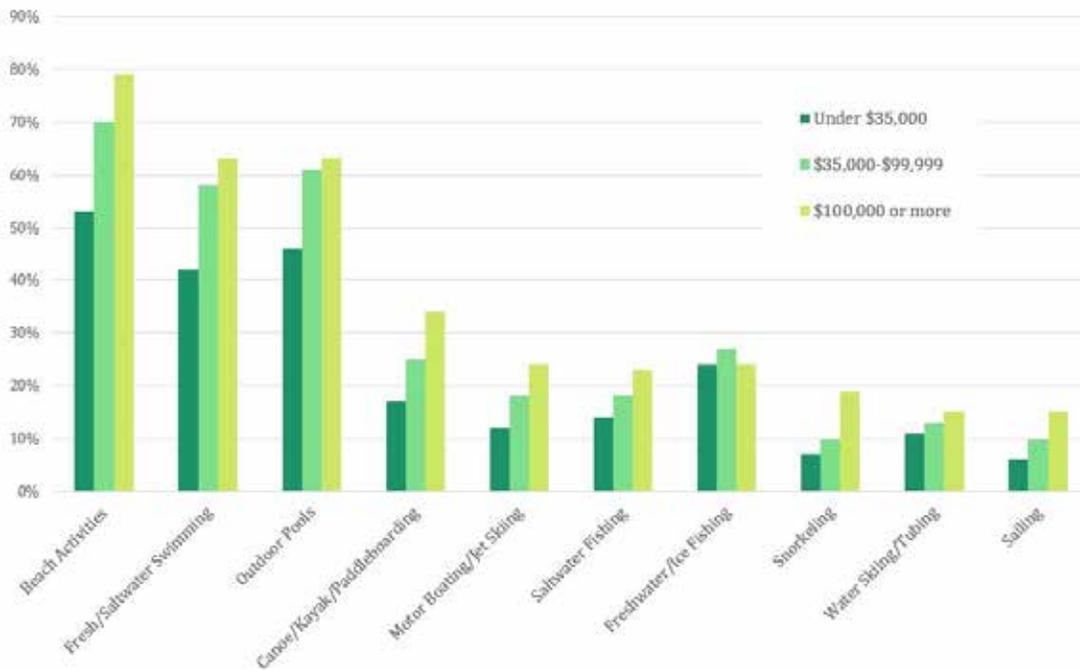


**Figure 34. Participation in Land-based Activities by Household Income.**

For land-based activities, the disparities in participation between lower and higher income households are most pronounced for activities such as golf, skiing/snowboarding, and cross-country skiing/snowshoeing, with wealthier households being more likely to engage in these activities. Activities such as walking, running, and biking also showed significant income disparity, with higher household income being related to higher levels of participation. Activities which showed a relatively even proportion of individuals from each of the three income brackets, included geocaching/letterboxing, soccer, rollerblading/skateboarding, motorized biking, mountain biking, hunting/trapping, horse camping, and Ultimate Frisbee. In general, households with higher annual incomes tended to engage in more outdoor recreational activities. Camping, geocaching/letterboxing, motorized biking, and backpack camping were the only land-based activities for which households with incomes below \$100,000 had participation rates exceeding those with household incomes of \$100,000 or more. For water-based outdoor recreational activities, a consistent pattern emerged in which higher household income predicted greater participation in all activities but freshwater/ice fishing.

### Participation in Water-Based Activities by Household Income

by percentage of households



**Figure 35. Participation in Water-Based Activities by Household Income.**

Interestingly, the lower rates of participation among households with lower incomes do not appear to derive primarily from a lack of access to these activities. That is, when asked whether their household had a need or desire for additional access to recreation facilities, those with lower incomes tended to report less additional need than those with higher incomes across nearly all activities. This was especially true for activities which showed the greatest disparity in participation rates by income; for example, only 17%–18% of households with incomes ranging from below \$15,000 to \$50,000 reported having additional unmet need for golf courses, compared with 35%–37% of households with annual incomes above \$150,000. However, households with lower incomes did cite lack of interest and/or time for recreation as a reason preventing them from utilizing outdoor recreational facilities, with one-quarter (24%) of those with incomes under \$15,000 citing this as a reason compared with seven percent of those with household incomes of \$100,000–\$149,999, eight percent of those with incomes of \$150,000–\$199,999, and twelve percent of those with incomes above \$200,000.

The cost of using outdoor recreational facilities is likely a factor because one-third (33%) of those with household incomes under \$15,000 and three-tenths (29%) of those with incomes of \$15,000–\$24,999 cited fees as an obstacle to their practice of outdoor recreation. In comparison, only one-tenth (9%) of those with incomes of \$150,000–\$199,999 and twelve percent of those with incomes over \$200,000 cited fees as an obstacle. Too, those with lower household incomes were more likely to be affected by inconvenient operating hours of outdoor facilities, with one-fifth (18%) of those with household incomes below \$15,000 and one-fifth (20%) of those with incomes of \$15,000–\$24,999 citing it as an impediment to their practice of outdoor recreation. In contrast, just over one-tenth (12%) of those with household incomes of \$150,000–\$199,999 and less than one-tenth (7%) of those with incomes over \$200,000 cited operating hours as an issue. It may likely be the case that those with lower annual household incomes find themselves needing to work additional or other than typical hours, which in turn impedes engagement in outdoor recreation. Indeed, several open-ended responses given by respondents to the Outdoor Enthusiast Survey noted that extended operating hours (e.g., parks open after dark) would allow them to engage in recreation which was otherwise severely limited by their work schedule.

An examination of the relationship between income and participation in outdoor recreational activities among enthusiasts generally supported the findings of the Statewide Survey and is depicted in Figure 36. That is, activities such as skiing/snowboarding, cross-country skiing/snowshoeing, and non-swimming beach activities tended to be practiced more frequently by those with higher incomes. Meanwhile, those with lower incomes tended to practice activities such as backpack camping, fishing, and hunting/trapping more often. At the same time, other activities such as mountain biking, geocaching/letterboxing, and disc golf showed a stronger positive relationship with income among outdoor enthusiasts than among statewide households. The exact reason for this discrepancy is unclear; however, it may be at least partially a result of the greater average income among respondents to the Outdoor Enthusiast Survey compared with respondents to the Statewide Survey. Half (49%) of respondents to the Outdoor Enthusiast Survey reported incomes above \$100,000 and only one-quarter (25%) of respondents to the Statewide Survey fell into this income bracket.

### Income Distribution of Outdoor Enthusiasts by Activity

by percentage of activity participants

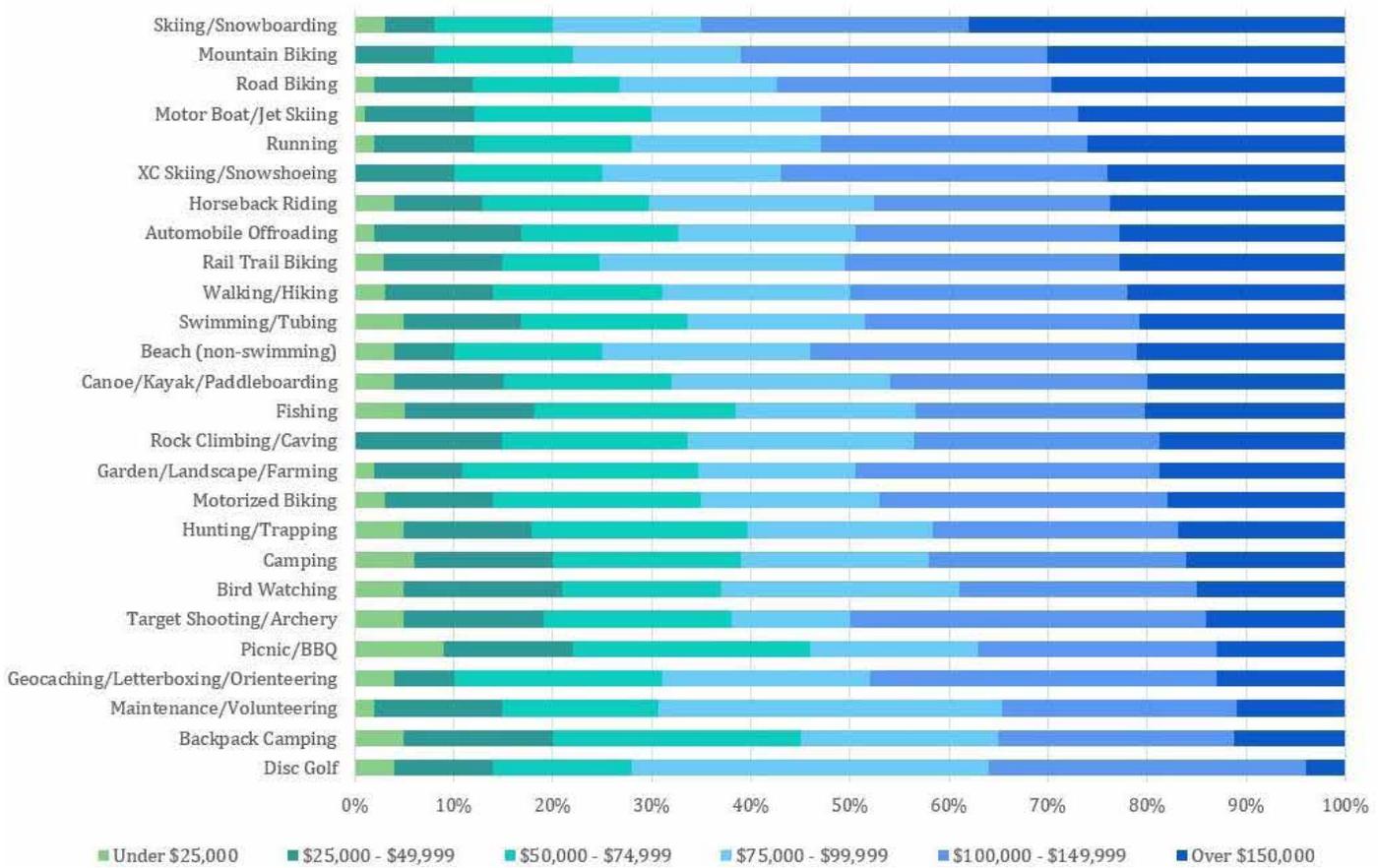


Figure 36. Income Distribution of Outdoor Enthusiasts by Activity.



## County

The rate of participation in outdoor recreational activities among Connecticut households was compared by county for both the Statewide and Outdoor Enthusiast surveys. Interestingly, the pattern of results differs considerably in some cases between the surveys. Without any ready explanation for these differences, results from the Statewide Survey should be considered the more reliable of the two due to the nature and size of the sample used. Thus, results from the Statewide Survey are discussed in depth below, followed by results from the Outdoor Enthusiast Survey presented solely in graphical form as Figures 37 and 38.

On the Statewide Survey, horseback riding was most popular among households in Litchfield and Middlesex Counties (21% and 13% participation compared with 6%–9% for all other counties). Motorized biking was also most popular in Litchfield (21% participation) and Middlesex (19% participation) Counties, and was practiced least in Fairfield and New London Counties (10% and 11%, respectively). It may be worth noting that Litchfield and Middlesex Counties contain the three largest “focus areas” identified by the Department of Environmental Protection Connecticut Resource Protection Project in *The Connecticut Green Plan: Open Space Acquisition*, which was first developed in 2001 and was most recently updated in 2017. Since horseback riding and motorized biking are activities that require relatively large areas of open space to practice, the acquisition of open land in Litchfield and Middlesex Counties may, at least, partially account for the popularity of these activities in those regions.

Bird watching or wildlife viewing was most practiced in Windham County (54% participation) and Tolland County (51% participation), which together have been described as “the quiet corner” of Connecticut. This area would naturally be well-suited for such an activity because bird and wildlife viewing requires a certain degree of tranquility in the environment. Windham, Tolland, and Litchfield were also the most popular counties for freshwater fishing (with 42%, 34%, and 36% participation) and these counties can be described as among the most rural in Connecticut. Similarly, hunting or trapping was practiced by fourteen percent of households in Litchfield County, eleven percent in New London and Middlesex Counties, and ten percent in Windham. Both hunting or trapping and freshwater fishing had the lowest rates of participation in Hartford County and New Haven County, which is unsurprising given their more urban geography.

Downhill skiing or snowboarding was most popular in Fairfield County (22% participation) and Litchfield County (20% participation), and least popular in New London County and Windham County (both 9% participation). Fairfield and Litchfield Counties are characterized by the highest income rates in Connecticut, whereas New London and Windham counties have among the lowest. As downhill skiing and snowboarding were shown to be practiced more frequently by households with higher incomes, this pattern of findings makes sense. At the same time, Fairfield and Litchfield counties contain the Taconic Mountain and Berkshire Mountain ranges of the Appalachian Mountains, which provides more suitable topography for downhill skiing and snowboarding. The pattern of participation for cross-country skiing or snowshoeing was less readily interpretable, with the highest levels of household participation occurring in Litchfield, Tolland, Fairfield, and Hartford Counties; whereas the lowest was in Middlesex, Windham, New Haven, and New London Counties. Aside from Fairfield and Windham Counties, the counties in the northern half of the state have the highest rate of participation in cross-country skiing/snowshoeing; thus, it is possible that higher levels of participation are correlated to areas that receive more or more frequent snowfall.

Finally, it is notable that Tolland and Windham Counties showed particularly low rates of motor boating/jet skiing, water skiing/wakeboarding, and river rafting/tubing, and moderately low rates of beach activities, sailing, canoeing/kayaking/paddleboarding, and snorkeling or scuba diving. At the same time, these counties were characterized by an elevated rate of freshwater fishing, and comparable rates of saltwater fishing and fresh/saltwater swimming. While not an all-encompassing explanation, it is worth noting that Tolland and Windham Counties have a noticeable shortage of Connecticut water utility properties. Water utility properties are areas that offer beaches, swimming opportunities, and non-motorized or electric boating to state residents. This shortage is depicted in the 2005 SCORP report.

### Most Popular Land-Based Activities Practiced by Outdoor Enthusiasts by County

by percentage of county respondents

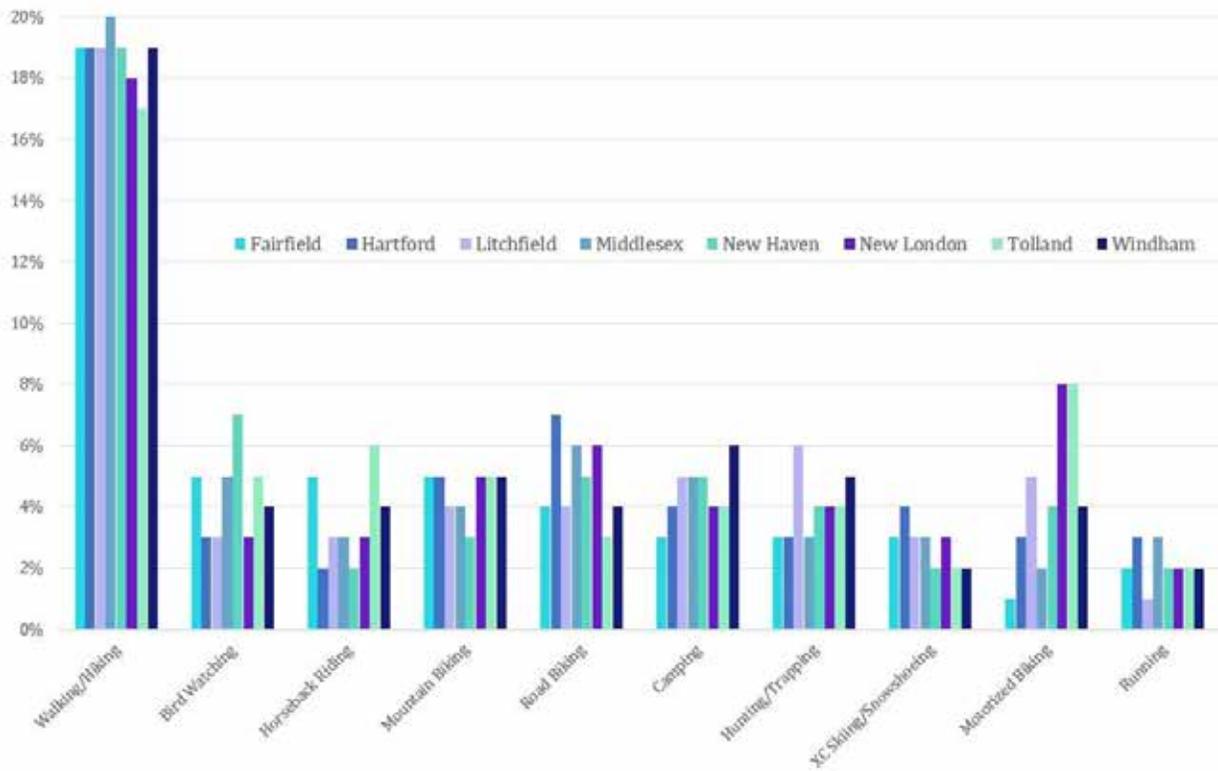


Figure 37. Most Popular Land-Based Activities of Enthusiasts by County.

### Most Popular Water-Based Activities Practiced by Outdoor Enthusiasts by County

by percentage of county respondents

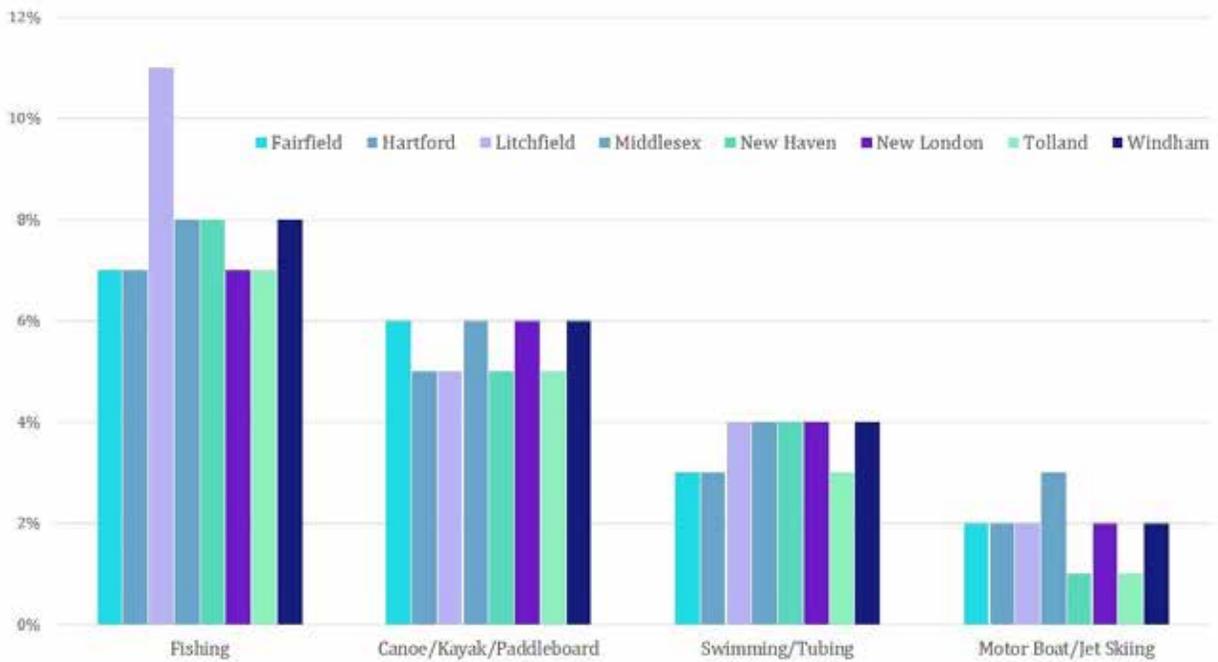


Figure 38. Most Popular Water-Based Activities of Outdoor Enthusiasts by County.

### Town Officials' View of Activity Trends

For a different perspective on recreation trends, town officials were asked which activities have shown an increase, as well as a decrease, in participation over the past five to ten years. The results of this query are presented in Table 17, and closely mirror the results of the Statewide Survey. Recall that the Use Frequency Index (UFI) ranked “walking or hiking” and “swimming in pools” as the top activities. Town officials have observed this trend, ranking “walking” and “pool use” in their list of activities with increasing participation. While “lacrosse” fell in the middle of the UFI chart, focus group participants agreed that this is an emerging sport.

Both baseball/softball and tennis, two activities that town officials felt were experiencing declines in participation, fell towards the middle of the UFI chart. Interestingly, comparing the most recent UFI data from that of the 2005-2010 SCORP, we see that both baseball/softball and tennis have declined in terms of statewide participation rates. It would be valuable to see if this trend continues in the next SCORP.

**Table 17. Activity Participation Rates Over the Past 5-10 Years as Ranked by Town Officials.**

<b>INCREASED</b>	<b>DECREASED</b>
↑ Summer Camp	↓ Baseball/Softball
↑ Lacrosse	↓ Adult Programming
↑ Walking	↓ Tennis
↑ Trails	↓ Other Outdoor Sports
↑ Pool Use	



“Support components” are considered resources that make it easier and/or more enjoyable to practice outdoor recreational activities in a given recreational area. For example, restrooms are considered a support component because they allow individuals to stay longer in an area to practice an activity. Using this definition, public transportation to a facility remains the most widely cited inadequate support component, with nearly one-third (31%) of all towns identifying this option.

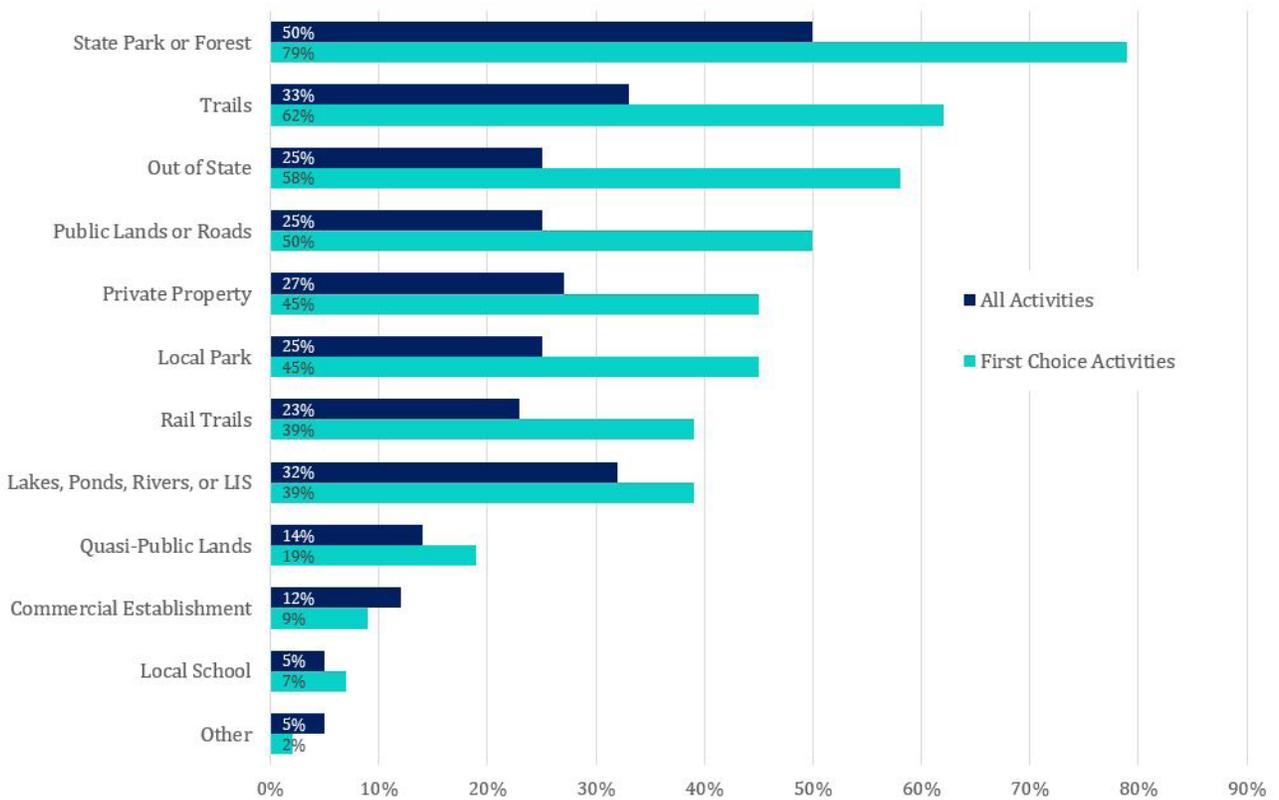
## Profile in Participation: Where Do People Recreate?

### Location of Recreation Participation by Outdoor Enthusiasts

Respondents to the Outdoor Enthusiast Survey were asked to identify the locations where they practice their top five outdoor recreation activities, with multiple responses being accepted. Figure 39 compares the preferred practice locations of enthusiasts' first choice (favorite) activities to those of all five activities in the aggregate.

### Places Where Outdoor Enthusiasts Engage in Activities

by percentage of total activities reported (multiple choices could be made)



**Figure 39. Places Where Outdoor Enthusiasts Engage in Activities.**

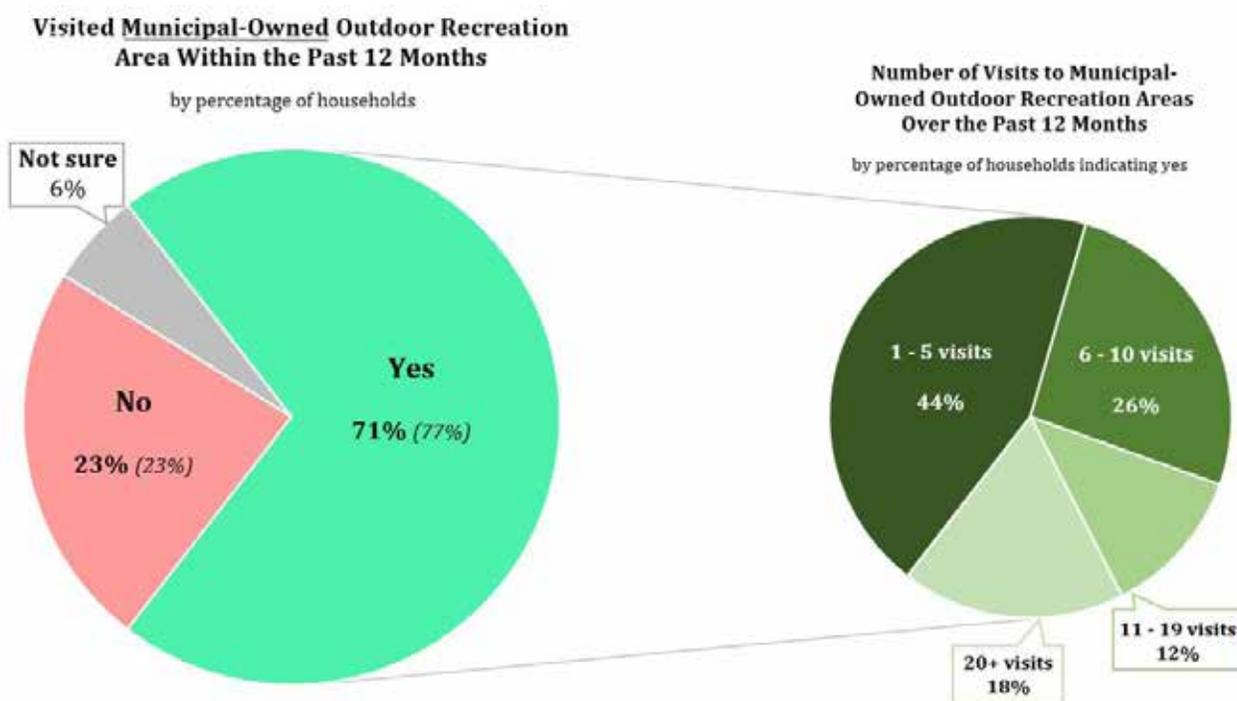
Outdoor enthusiasts tend to practice their favorite activity in a wider variety of locations than lower-ranked activities, with significantly higher percentages for nearly all locations. This finding is unsurprising, as respondents were instructed to identify their first-choice activity as the one in which they participated most frequently or to which they were most devoted. Naturally, individuals who are more devoted to an activity will practice that activity in a wider variety of places than other activities, whether they visit these locations for the primary purpose of engaging in this activity or not.

State parks or forests were the most popular activity location, with nearly four in five (79%) outdoor enthusiasts practicing their favorite activity here. Over three in five (62%) practice their favorite activity on trails, while a slightly smaller percentage (58%) participate out-of-state. Again, individuals who are particularly devoted to an activity are more likely to incorporate it into other activities such as out-of-state vacations, for instance. Half (50%) of respondents to the Outdoor Enthusiast Survey reported practicing their favorite activity on public lands or roads not designated as parks, with local parks and private property both following at 45%. Outdoor enthusiasts are less likely to practice their favorite activity at a commercial establishment, with 9% practicing their favorite activity here compared with 12% practicing any one of their listed activities.

## State and Municipal Park Visit Frequency

The clear reliance on state parks and forests (and to a lesser extent local parks) as places for outdoor enthusiasts to recreate emphasizes the importance of these facilities to those individuals most enthusiastic about outdoor recreation. To assess the extent to which state- and municipal-owned outdoor recreation facilities are being used by households from the general population of Connecticut, respondents to the Statewide Survey were asked if, and if so how frequently, they visited these outdoor recreation areas over the past 12 months. Results from this inquiry are depicted in Figures 40 and 41 below, with comparison data from the 2005 SCORP provided in parentheses, where available.

The incidence of outdoor recreation area visitation was strong, with households being slightly more likely to visit municipal-owned areas (71%) as opposed to state-owned areas (67%). Additionally, municipal-owned areas attract a larger subset of frequent visitors (20+ visits). Of those households indicating that they had visited a municipal-owned area within the past 12 months, nearly one in five (18%) had visited 20 or more times. Comparatively, slightly less than one in ten (8%) of households reported visiting a state-owned park 20 or more times. The majority (57%) of households reporting that they had visited a state-owned park in the past year made 1-5 visits, with just shy of one-quarter (24%) making 6-10 visits. Ease of accessibility (i.e., shorter distance of the location from one’s residence) may account for the uptick in visits to municipal-owned parks, with a larger percentage of households reporting more frequent visits. Little difference is apparent between data from 2005 and 2017, although somewhat fewer households visited state-owned recreation areas more than 20 times per year in 2017 than in 2005 (8% versus 13%).

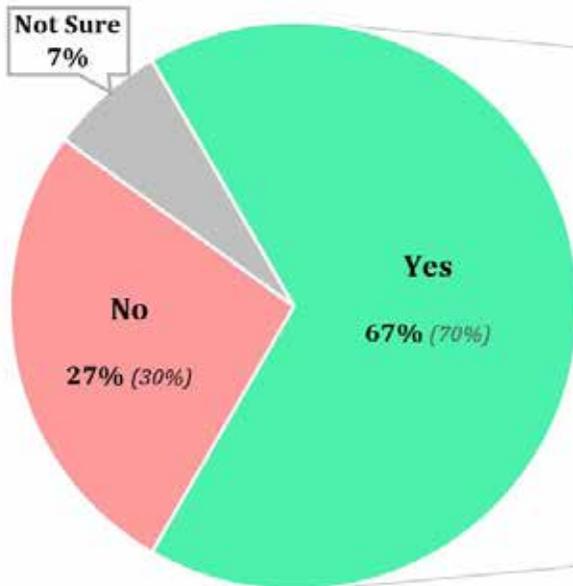


\* Data from the 2005 SCORP report are presented in parentheses, where available.

**Figure 40. Household Visits to Municipal-Owned Recreation Areas.**

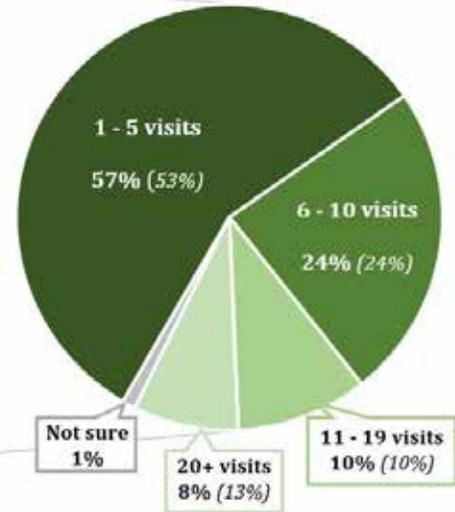
**Visited State-Owned Outdoor Recreation Area Within the Past 12 Months**

by percentage of households



**Number of Visits to State-Owned Outdoor Recreation Areas Over the Past 12 Months**

by percentage of households indicating yes



\* Data from the 2005 SCORP report are presented in parentheses, where available.

**Figure 41. Household Visits to State-Owned Recreation Areas.**

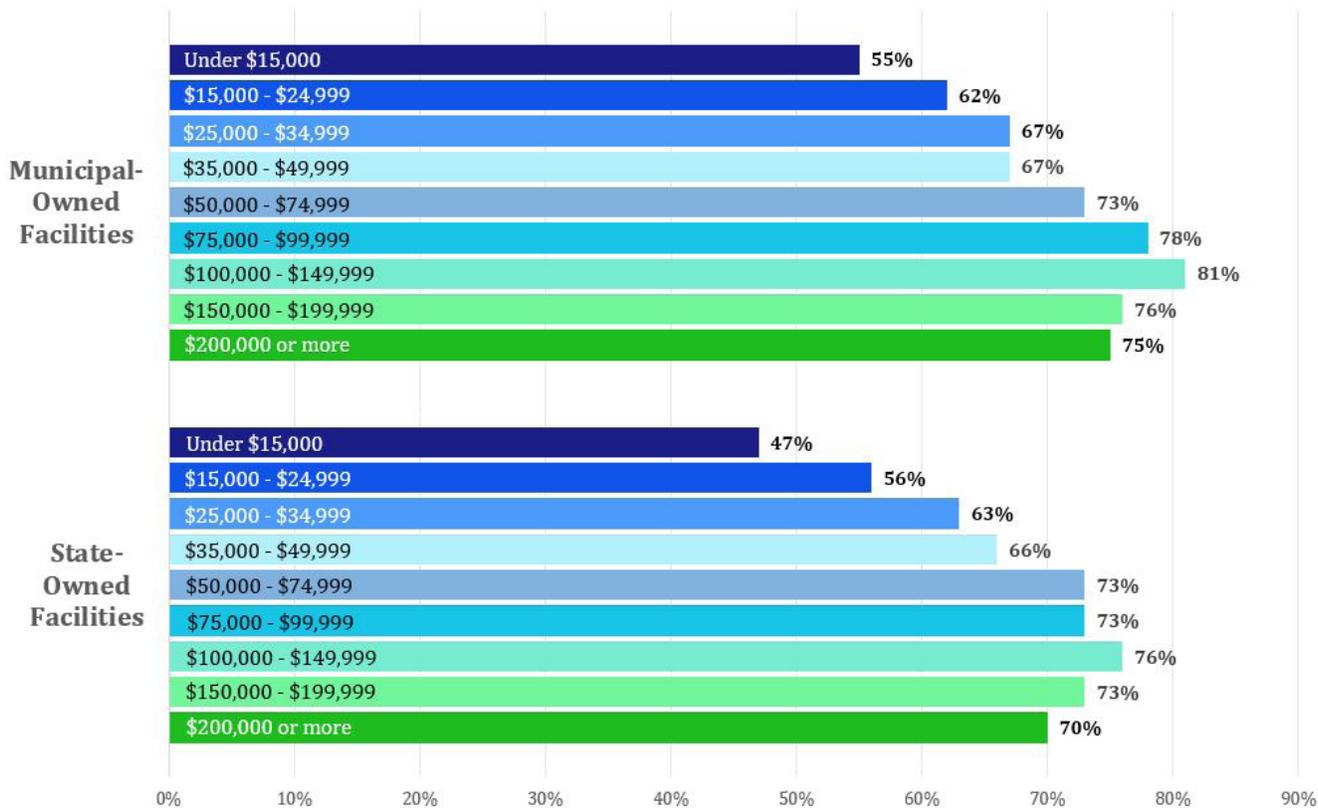
In addition to rates of visitation for municipal- and state-owned outdoor recreation facilities among the general population of Connecticut, an inquiry was made into rates of visitation among individuals of different household income brackets. Figure 42 shows the proportion of households from each income bracket who reported visiting municipal- and state-owned outdoor recreation areas at least once within the past year. Figure 43 shows the frequency of visits to municipal-owned outdoor recreation facilities based on household income (the pattern of results was comparable for state-owned facilities, which are not shown).

Households with incomes below \$15,000 were least likely to have visited a state or municipal recreation facility in the past 12 months, with 55% and 47% visiting municipal- and state-owned facilities, respectively. The most likely to have visited a state or municipal-owned outdoor recreation facility within the past year were those with annual incomes between \$100,000 and \$150,000, with 76% and 81% reporting visits to state and municipal facilities, respectively. In general, there was a trend towards a greater proportion of visitors to state and municipal recreation facilities with increasing household income; however, the percentage of households who visit these facilities appears to drop off somewhat among households with incomes above \$150,000.



## Visits to Outdoor Recreation Areas by Household Income

by percentage of households



**Figure 42. Visits to Recreation Areas by Household Income.**

In terms of frequency, households with incomes above \$200,000 and households with incomes below \$15,000 showed the greatest discrepancy. Whereas the visitation rate of households with incomes between \$15,000 and \$200,000 did not differ markedly or with any clear pattern, households with incomes below \$15,000 had a substantially higher proportion of those who visited a municipal-owned facility between 1 and 5 times over the course of the last year (58%) compared with households with incomes above \$200,000 (27%). Although fewer households with incomes below \$15,000 visited municipal facilities 20 or more times in the past year (17%) compared with households with incomes above \$200,000 (22%), the greatest difference was seen between the proportion of households which reported 6–10 or 11–19 visits over the past year. Thus, while there seems to be a significant portion of avid or frequent recreation facility users (i.e., those with 20 or more visits) among households with lower incomes, there are relatively fewer casual users (i.e., those with 1–19 annual visits), among households with incomes below \$15,000. There are several potential reasons for this observed discrepancy, one of which is the greater likelihood of those with lower incomes to experience difficulties with transportation. Such individuals may lack access to a personal vehicle, and consequently rely on other means of transportation, such as public transit (trains and buses). This in turn may make it more difficult to access certain facilities with as much frequency as might ideally be desired by the individual.

## Frequency of Visits to Municipal-Owned Facilities by Household Income

by percentage of households visiting at least once in the past 12 months

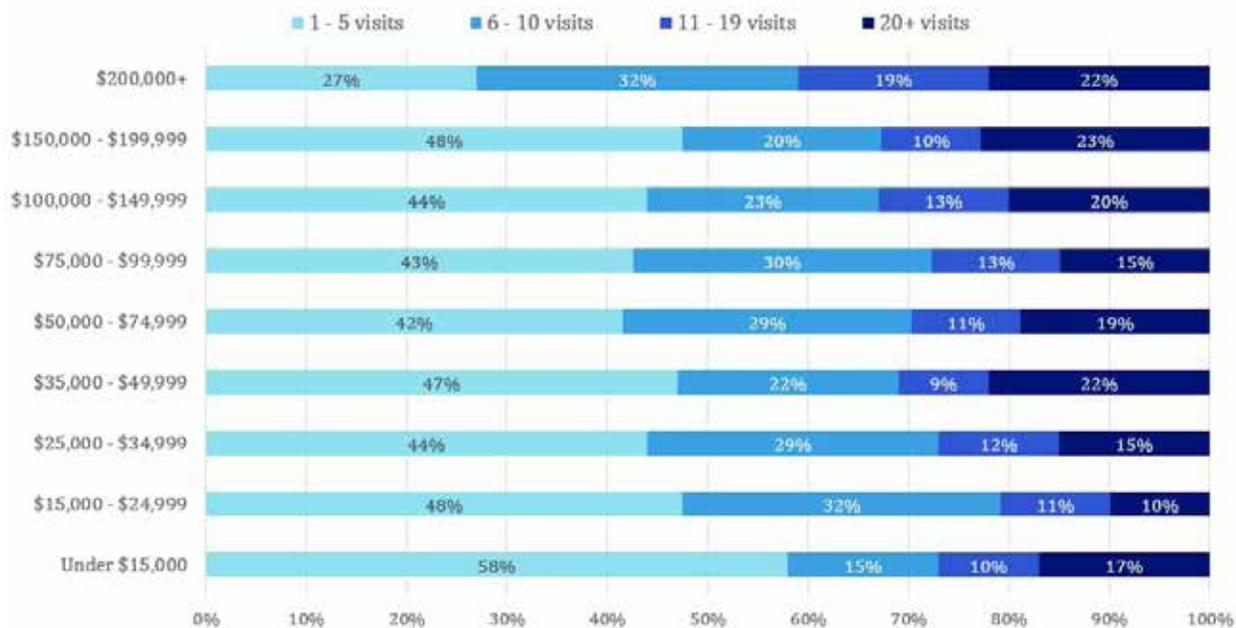


Figure 43. Frequency of Visits to Municipal-owned Facilities by Income.

### Assessing Modes of Transportation

#### How Residents Get to Outdoor Recreation Facilities

Connecticut residents were asked to identify the ways that they or members of their household, travel to outdoor recreation facilities in their local community and throughout the state of Connecticut. The results of this inquiry are presented in Figure 44. Unsurprisingly, most residents (88%) travel to outdoor recreation facilities via automobile. Still, over half (56%) of households surveyed in the Statewide Survey reported walking to outdoor recreation facilities in their area, and one-quarter (25%) of households reported biking to such facilities. These figures are encouraging, as they suggest that a significant portion of state residents have access to and utilize outdoor recreation areas within walking or biking distance of their residence.

Notably, more than one in ten (16%) use public transportation (bus or train) to travel to outdoor recreation areas in Connecticut. The remainder travel via boat (9%) or via an alternate option (3%) such as a motorcycle, scooter, or human locomotion (running/skateboarding). In consideration of Connecticut’s relatively low rate of public transportation use, the proportion of households who report traveling to outdoor recreation areas via bus or train is encouraging. However, as limitations in accessibility to recreation areas via public transportation systems may serve as a barrier to the use of these facilities, particularly among households with lower incomes. While the percentage of residents who report using public transportation to travel to recreational facilities is encouraging, efforts should continue to be made to connect facilities to public transportation systems to maximize accessibility for all state residents.



## How Citizens Travel to Outdoor Recreation Facilities in the State

by percentage of respondents (multiple choices could be made)

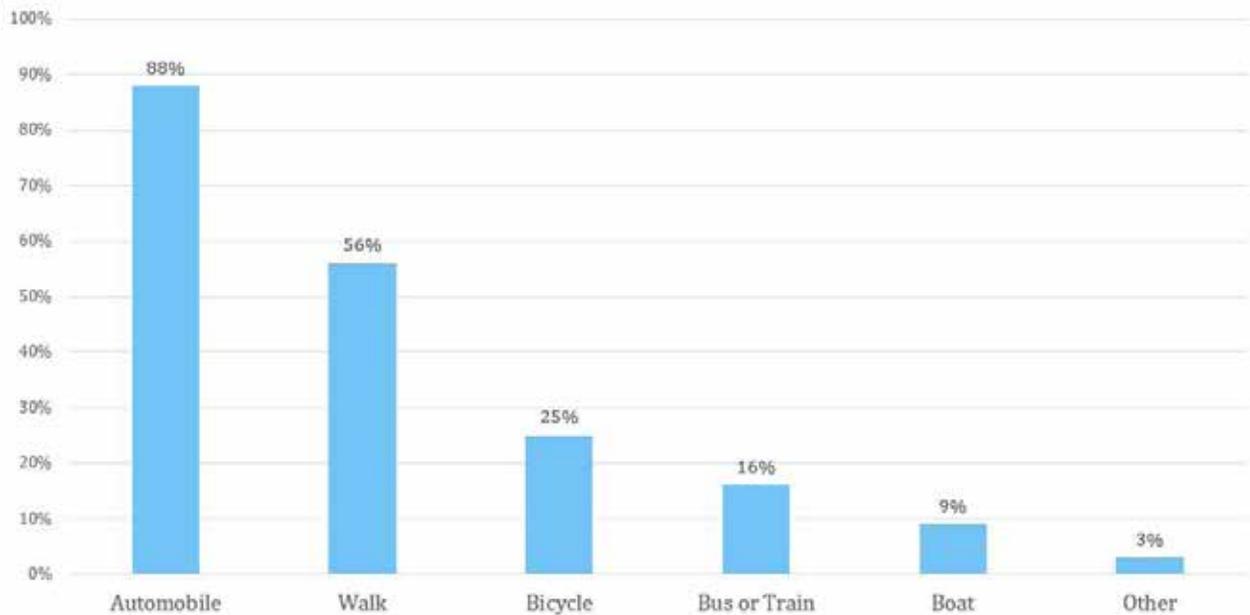


Figure 44. How Citizens Travel to State Recreation Facilities.

### Demand for Out of State Recreation

Despite the numerous outdoor recreational opportunities Connecticut has to offer, many residents report engaging in recreational activities out-of-state. New for 2017, data was collected on several factors related to residents' use of outdoor recreational facilities outside of the state. The most commonly cited out-of-state attractions by respondents to the Statewide Survey in order of popularity included Massachusetts (including Cape Cod), New York (including the Catskills and Finger Lakes), regional cities (including Boston, New York City/Central park), Florida (including beaches and the Everglades), and Acadia National park.

### Frequency of Out-of-State Recreation

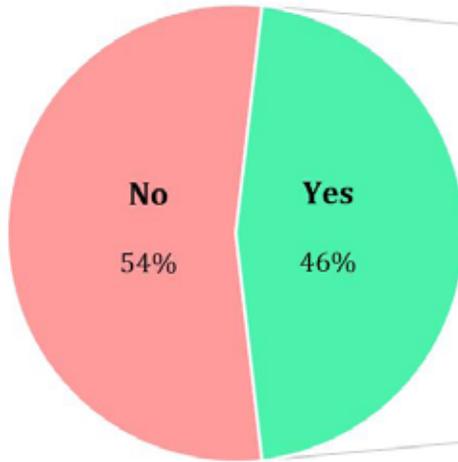
First, respondents to the Statewide Survey were asked if, during the past 12 months, either they or a member of their household had visited any parks or outdoor recreation areas located outside of Connecticut. The majority (54%) reported that they had not visited any out-of-state parks or outdoor recreation areas in the past year. Of the 46% of households who did visit these areas, seven in ten (71%) made between 1 and 5 visits in the past year, while 29% visited out-of-state areas 6 times or more. A very tiny cohort (4%) reported 20 or more out-of-state visits in the past year. These figures are displayed in Figure 45.



## Citizens' Visits to Out-of-State Recreation Areas

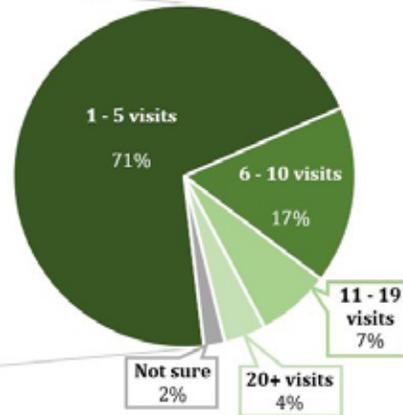
### Visited Out-of-State Park or Recreation Area Within the Past 12 Months

by percentage of households



### Number of Visits to Out-of-State Parks or Recreation Areas Over the Past 12 Months

by percentage of households indicating yes



**Figure 45. Citizens' Visits to Out-of-State Recreation Areas.**

Respondents to the Outdoor Enthusiast Survey were also asked whether they practiced each of their top five activities at outdoor recreational facilities outside of the state. Unsurprisingly, these enthusiasts were more likely to utilize out-of-state facilities than members of the general population, with 58% reporting that they had practiced their top-ranked activity at an out-of-state facility within the past year, compared with 46% of state households.

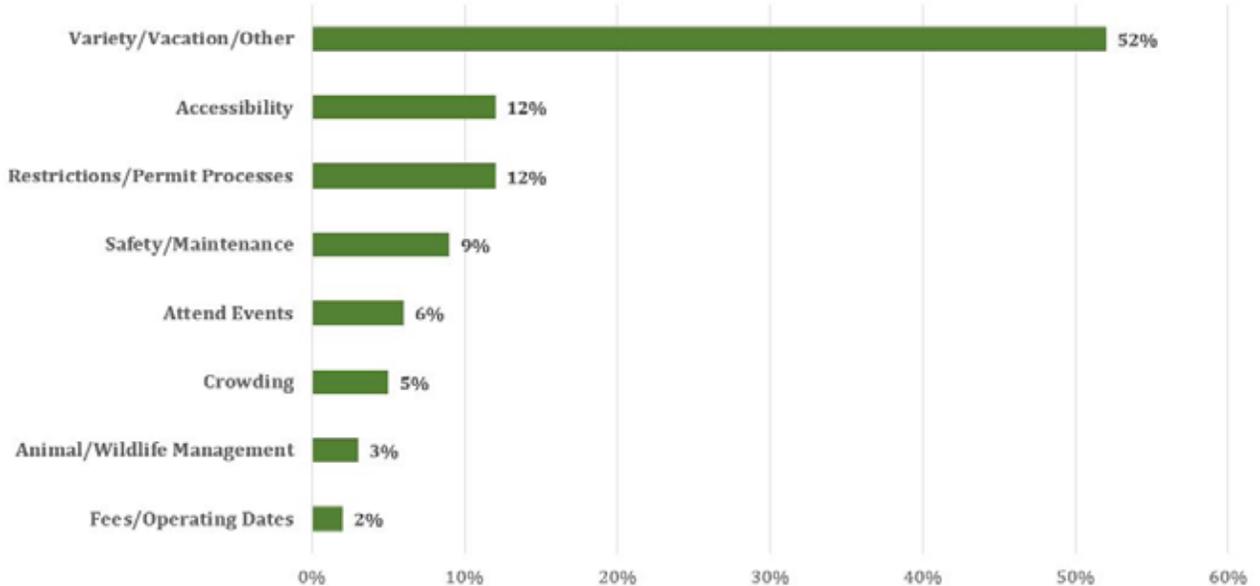
### Reasons for the Use of Out-of-State Recreation Areas

Respondents to the Outdoor Enthusiast Survey who indicated that they practiced any of their reported activities out-of-state were asked to explain their reasons for doing so in an open-ended response. Figure 46 shows the results of this query, with categories coded from individual free responses. Most individuals who engaged in recreational activities out-of-state did so for variety, incidentally as part of a vacation or other activity, or for other reasons unrelated to any dissatisfaction with the recreational offerings of Connecticut (52%).

Better accessibility and less restrictive access or permit processes were the next most commonly cited reasons for traveling out-of-state, at only 12%. Indeed, some survey respondents characterized surrounding New England states as less restrictive in general towards the use of recreational areas and other land, which was especially true for activities such as hunting, camping, and ATV/off-roading. While it is reassuring that most out-of-state recreation is not a reaction to unmet need within the state, it is still significant that a sizable portion of outdoor enthusiasts were motivated to travel out-of-state by factors such as better maintenance and safety. Physical condition of facilities was a clear draw for Connecticut residents, with 95% of respondents to the Statewide Survey rating out-of-state facilities as either "excellent" or "good", compared to only 88% for facilities within the state. While to a certain extent the more highly regulated nature of outdoor recreation in Connecticut is a necessary result of more limited space which must be shared by residents, the condition/maintenance and safety of recreational facilities are areas in which the state could easily strive to improve.

## Reasons Outdoor Enthusiasts Participate in Recreation Activities Out-of-State

by percentage of out-of-state participants (categories coded from responses)



**Figure 46. Reasons Outdoor Enthusiasts Participate in Recreation Out-of-State.**

### Outdoor Activities Practiced Out-of-State

Figure 47 depicts the proportion of outdoor recreation enthusiasts who reported practicing that activity at an out-of-state recreational facility within the past year. Among outdoor enthusiasts, ATV/off-road riding was the activity most frequently associated with visits to out-of-state facilities, with 64% of those engaging in this activity reporting that they had done so at an out-of-state recreational facility within the past year. Open-ended response questions on the Outdoor Enthusiast Survey, as well as information gathered from focus groups, provide insight into this association. Of respondents to the Outdoor Enthusiast Survey, 81% of those who engaged in ATV/off-road riding out-of-state within the past year indicated that they did so for legal reasons. Legal access to riding facilities was overwhelmingly mentioned by both outdoor enthusiasts and focus group participants as the primary concern, with many noting that there were no facilities in the state available for practicing these activities. Indeed, the CT DEEP website confirms that, “At the current time, Connecticut does not have any public areas open to quads.”

One focus group participant explained that bartering sometimes occurs, with ATV/off-road enthusiasts trading services and/or goods for permission to ride on the private property of others. It is also clear based on the open-ended responses of survey respondents that some individuals ride these vehicles illegally. As many survey respondents noted, the illegal use of ATV and off-road vehicles on trails often damages trails in ways which make their use less convenient for others. In fact, several respondents noted in open-ended responses that although they did not personally practice the activity, they believed that ATV/off-road vehicle users should be provided with facilities in which to do so for the benefit of all outdoor recreationists.

A significant number of outdoor enthusiasts who reported engaging in ATV/off-road riding noted in open-ended responses that residents must pay to register their ATV or off-road vehicle with the Department of Motor Vehicles, despite being provided with no legal place to ride. The CT DMV website confirms that “all-terrain vehicles operated in Connecticut must be registered, unless the vehicle is being operated on property owned or leased by the owner of the ATV.”<sup>6</sup> Overall, ATV/off-road riders were overwhelmingly unsatisfied with the recreation options available to them in Connecticut, and many appear to travel out-of-state specifically for the purpose of practicing this activity. Indeed, several respondents in open-ended responses noted that they were

6 <http://www.ct.gov/dmv/cwp/view.asp?a=810&pm=1&Q=285500&dmvPNavCtr=#42938>

forced to travel out of state and spend money which would have otherwise gone to the state.

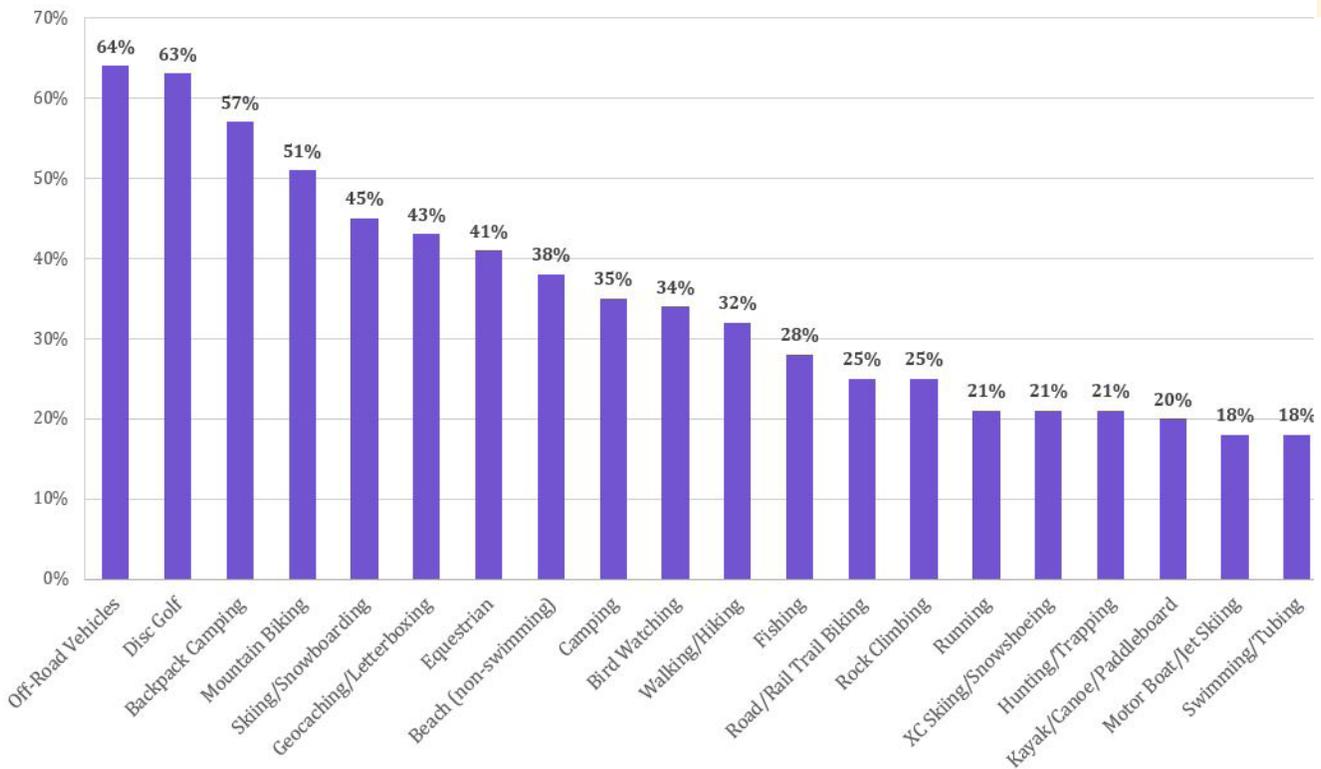
Most of the disc golfers (63%) also reported traveling out-of-state at least once in the past year. While it is estimated that the number of disc golf courses has expanded significantly since the production of the last SCORP, supply still does not meet demand. Of those disc golfers who report practicing their activity out-of-state, more than one-third (36%) do so for better access to courses, while over one-quarter (28%) do so for variety. The allure of tournament play also draws disc golfers away from the Nutmeg State.

More than half of all backpack campers (57%) reported engaging in this activity out-of-state within the past year. Of these individuals, more than one-third (36%) reportedly do so for variety, whereas a similar percentage (33%) do so for access. Slightly more than one in five (21%) traveling backpack campers go across state lines to avoid crowding. Many backpack campers complained of the lack of legal places to camp in Connecticut, and some cited the hassle of navigating permit procedures.

The issue of legal access and restrictions emerged as a chief concern across a multitude of other activities—a reality that drives some Connecticut recreationists out-of-state. Hunters and trappers, for example, indicated legal concerns that send them outside of state lines where regulations related to seasons, type and limit of hunted animals, permitted firearms, land use laws, and Sunday hunting are more relaxed. Kayakers, canoeists, and paddle boarders struggle to find legal access to launch their vessels, with much of the shoreline being privately owned or otherwise inaccessible to users. Swimmers and tubers found cleaner beaches and/or water in other states, as did non-swimming beach-goers. Finally, some outdoor enthusiasts perceive a stronger culture of recreation in other states where they feel their recreational interests are better accommodated and embraced. Mountain bikers and equestrian enthusiasts, in particular, reported feeling that their sport was more accepted and better promoted elsewhere.

## Outdoor Enthusiasts' Participation in Activities Out-of-State

by percentage of participants who reported each activity



\* Activities with fewer than 50 total participants not shown

Figure 47. Outdoor Enthusiasts' Participation in Activities Out-of-State.

## Town Officials Identify Age-group Demands

### Understanding Age-Group Activity Demands

For another perspective on popular recreational activities in the state, respondents to the Town Officials Survey were asked to list the two most popular resources or activities provided by their town for the following groups of people: families, preschool children 0-5, children 5-12, adolescents, adults, and seniors. The four most frequent responses for each group are presented in Table 18 (page 131) along with the most popular responses given by town officials in 2005. The percentage of respondents to the 2017 survey who listed an activity among their top two are provided in parentheses. Percentages from the 2005 SCORP were not available for comparison, and as this was an open-ended survey question, response categories were coded from individual responses. Overall, the resources and activities cited in 2005 and 2017 are similar and do not reveal any significant changes in activity popularity according to town officials, with the exception of skate parks replacing skiing as a popular resource/activity for adolescents.

The officials surveyed were also asked to report whether they felt their town was currently able to meet the outdoor recreation needs of each of the six age groups. Figure 48 shows responses from both the 2017 and 2005 SCORP, and indicates that town officials surveyed in 2017 felt significantly better able to meet the needs of individuals of all age groups. The most substantial increase in this ability was for adolescents, which showed a 37% increase from 2005 to 2017. The increase in ability to meet the needs of pre-school children is also striking, because the 2005 SCORP indicated a lack of resources and programming for toddlers, especially. Despite these increases, adolescents and toddlers remain the most underserved populations, with 29% of town officials indicating an inability to meet the needs of these age groups in their communities. It is worth noting that sample differences between the 2005 and 2017 Town Officials Survey may account for some of this change. The sample (“N”) for 2005 was almost double that of the 2017 survey, with an over-representation of wealthy communities influencing 2017 findings.

In addition to specifying whether the needs of each age group are being met, town officials were given the opportunity to expand upon any issues related to these needs. Among the open-ended responses, several themes emerged. The most frequently cited need was a lack of community centers or other indoor facilities in which to provide programming. This was followed by a lack of financial resources with which to pay for program expansion and additional staff, as well as a general lack of outdoor recreation spaces such as fields, trails, and splash pad areas. Regarding specific age groups, town officials indicated a need for additional indoor spaces specialized for senior activities (i.e., senior centers), and an inability to identify the recreation desires of adolescents in the community.



Most of Connecticut’s recreational areas are small and scattered; thus, unknown to the public. Indeed, “I do not know what is being offered” and “I do not know the locations of facilities” were cited as the two main reasons respondents to the 2005 Statewide Survey did not use recreational facilities more often.

PAGE 87

**Table 18. Ranking of Most Popular Town Activities/Resources by Town Officials.**

SCORP 2005	SCORP 2017
<p><b>Families:</b></p> <ul style="list-style-type: none"> <li>– swimming</li> <li>– sports</li> <li>– playgrounds</li> <li>– picnic areas</li> </ul>	<p><b>Families:</b></p> <ul style="list-style-type: none"> <li>– beaches, lakes ponds (26%)</li> <li>– parks and picnic areas (22%)</li> <li>– special events (15%)</li> <li>– athletic fields (13%)</li> <li>– swimming pools (13%)</li> </ul>
<p><b>Pre-School Children:</b></p> <ul style="list-style-type: none"> <li>– swimming</li> <li>– recreation programs:</li> <li>– picnic areas</li> <li>– playgrounds</li> </ul>	<p><b>Pre-School Children:</b></p> <ul style="list-style-type: none"> <li>– playgrounds (39%)</li> <li>– swimming pools (19%)</li> <li>– recreation programs (17%)</li> <li>– beaches, lakes, ponds (7%)</li> </ul>
<p><b>Children:</b></p> <ul style="list-style-type: none"> <li>– playgrounds</li> <li>– recreation programs</li> <li>– swimming</li> <li>– sports</li> </ul>	<p><b>Children:</b></p> <ul style="list-style-type: none"> <li>– recreation programs (26%)</li> <li>– fields (21%)</li> <li>– sports or playgroups (16%)</li> <li>– playgrounds (16%)</li> </ul>
<p><b>Adolescents:</b></p> <ul style="list-style-type: none"> <li>– sports leagues</li> <li>– recreation center</li> <li>– skiing</li> </ul>	<p><b>Adolescents:</b></p> <ul style="list-style-type: none"> <li>– fields (22%)</li> <li>– sports or playgroups (16%)</li> <li>– camps or programming (11%)</li> <li>– skate parks (10%)</li> </ul>
<p><b>Adults:</b></p> <ul style="list-style-type: none"> <li>– sports leagues</li> <li>– fitness facilities</li> <li>– walking and hiking trails</li> <li>– swimming</li> </ul>	<p><b>Adults:</b></p> <ul style="list-style-type: none"> <li>– walking or hiking trails (30%)</li> <li>– sports (13%)</li> <li>– trips, programs, or events (11%)</li> <li>– parks and picnic areas (10%)</li> </ul>
<p><b>Seniors:</b></p> <ul style="list-style-type: none"> <li>– community centers</li> <li>– fitness facilities</li> <li>– trips</li> <li>– swimming</li> <li>– walking trails</li> </ul>	<p><b>Seniors:</b></p> <ul style="list-style-type: none"> <li>– walking or hiking trails (25%)</li> <li>– trips, programs, or events (18%)</li> <li>– parks and picnic areas (15%)</li> <li>– fitness facilities/classes (11%)</li> </ul>



## Ability to Meet Recreation Needs by Age Group

by percentage of respondents

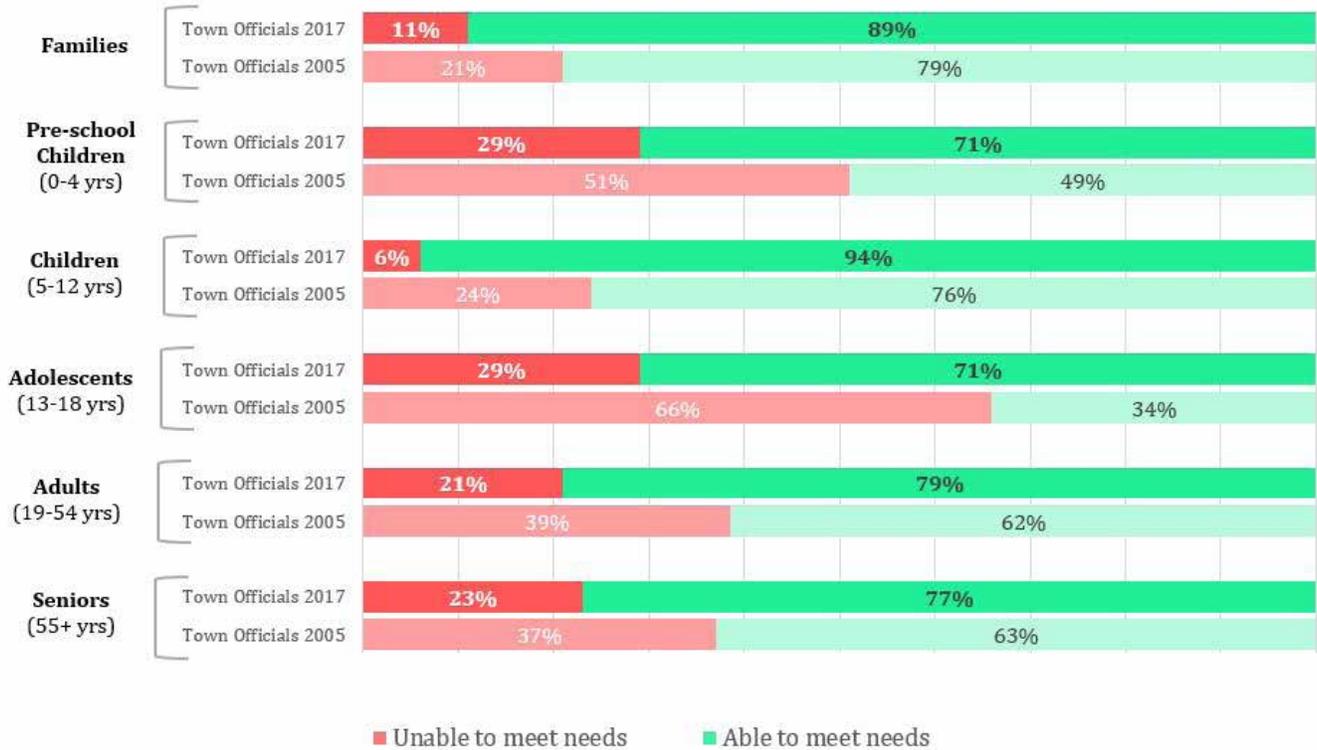


Figure 48. Town Officials’ Perceived Ability to Meet Needs by Age Group.

### Assessing Demand for Additional Facilities

With a better understanding of who participates in what outdoor recreation activities, we turn our attention to understanding the extent to which facility needs are being met throughout Connecticut.

### Citizens Rate Demand for Outdoor Recreation Facilities

Respondents to the Statewide Survey were asked to indicate whether they or any member of their household had “a need or desire for additional access” to each of 28 recreational facilities. Figure 49 shows the percentage of survey respondents who indicated that they had a need for each facility in 2005 and 2017, as well as the estimated number of households in the state population based on the total number of households in Connecticut.



As was the case in 2005, picnic areas/shelters and historic sites/areas showed the greatest need among respondents to the survey and appeared to be relatively stable across years. Fresh/saltwater swimming, paved multi-use trails, volleyball, tennis, and basketball courts, and fishing areas also showed consistent levels of need from 2005 to 2017. The need for unpaved multi-use trails, nature preserves and bird watching areas, ice skating/hockey areas, skiing/snowboarding areas, and cross-country skiing/snowshoeing trails decreased slightly from 2005 to 2017, with more significant decreases seen with golf courses and boating access.

The greatest increase from 2005 to 2017 was for outdoor pools, water parks, and splash pads, with 44% indicating a need for these facilities in 2005, and 53% reporting a need in 2017. Unpaved single-use trails, overnight camping areas, sports fields, snorkeling/scuba diving areas, off-roading areas, and hunting/trapping areas all showed increases in need on a smaller scale. Backpack camping and disc golf were not included in the 2005 survey, but while not among the top needed facilities were nevertheless heavily needed considering the smaller proportion of households that engaged in these activities.

Overall, the results of this analysis are consistent with themes identified in the present SCORP, which include a demand for fresh and saltwater swimming areas as well as motorized biking areas. In comparing the results of the 2005 and 2017 SCORPs, one methodological difference should be noted, however. In the 2005 survey, participants were asked to indicate whether they or any member of their household had “a need” for each of the recreational facilities listed; in the 2017 version of the survey, participants were asked to indicate whether they or any member of their household had “a need or desire for additional access” to each of the facilities. Respondents to the 2005 survey who selected “yes” to needing each of the facilities were further given the option of specifying that their needs were 100% met, whereas respondents to the 2017 survey were instructed only to select “yes” if their needs were not fully being met. Thus, the percentage of households needing each recreational facility may be slightly inflated in 2005 compared to 2017, as it includes individuals who use a recreational facility but whose needs are entirely met. This, in turn, would mean that in instances where there was a greater need for facilities in 2017 than 2005, the discrepancies may be even larger than they appear.



Motorized biking ... mountain biking, hunting/trapping, cross-country skiing/snowboarding, and horseback riding, showed a comparatively low percentage of household participation compared with the frequency with which they were mentioned by outdoor enthusiasts. This suggests that these activities are practiced by a relatively small portion of the state’s population; yet, these are activities for which participants tend to show a high degree of devotion.

PAGE 109

## Respondent Households Reporting a Need for Recreational Facilities

by percentage of respondents; multiple responses accepted

Estimated total number of households needing facilities are presented outside bars (based on 1,352,583 total households in CT)

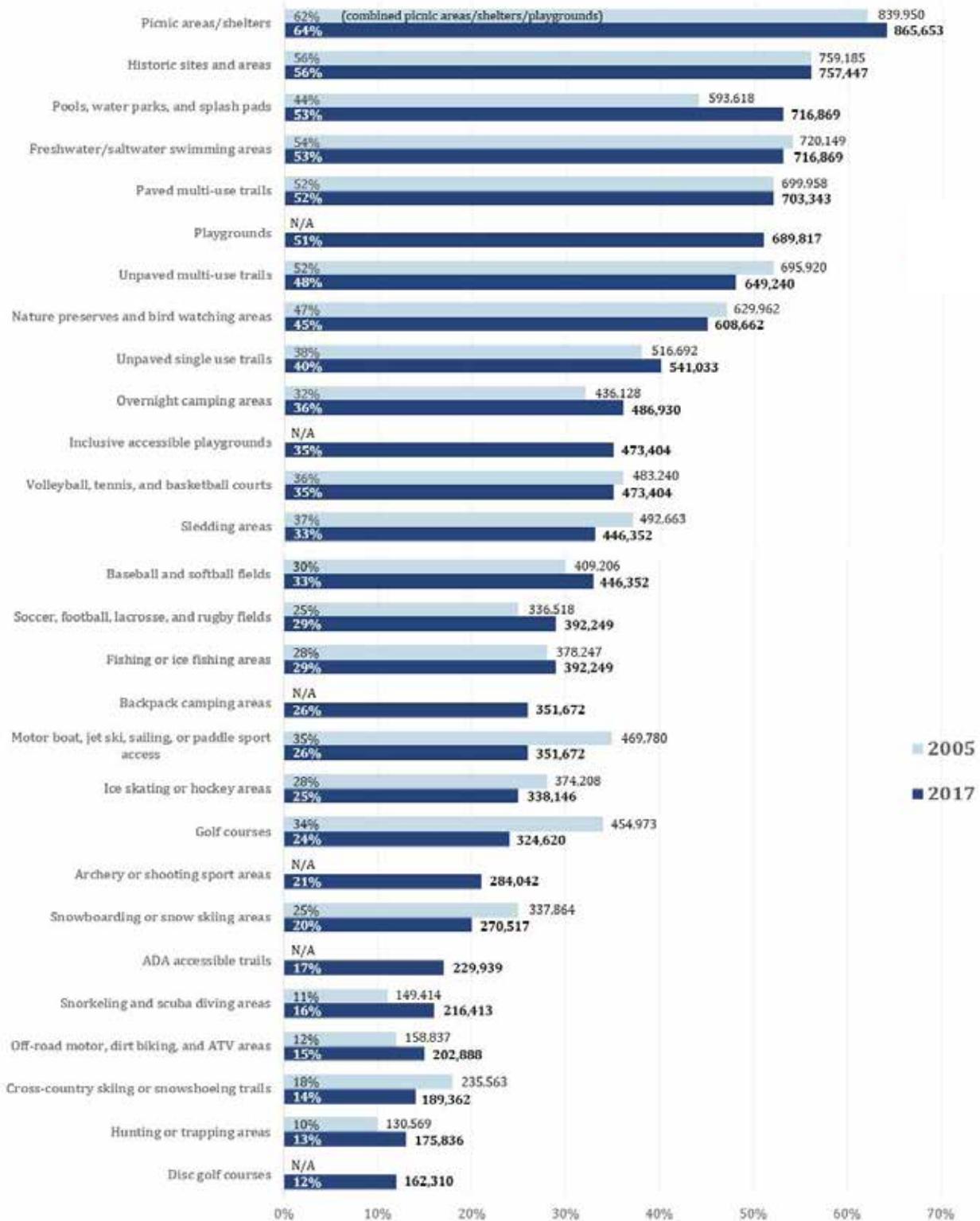


Figure 49. Households Reporting a Need for Facilities.

To get a better idea of citizens’ needs regarding state recreational offerings, the total estimated number of participants for each activity was compared to the total estimated number of people with an unmet need related to that activity. In Figure 50, eleven outdoor recreational activities with dedicated facilities are compared; facilities accommodating multiple activities such as paved or unpaved multi-use trails were not included. The total number of participants for each activity was estimated based on the number of household members who were reported as engaging in that activity within the past year on the Statewide Survey. The total number of state residents with a need or desire was estimated using the average number of household occupants for Connecticut (2.53).

### Comparing Demand as Measured by Expressed Need and Participation

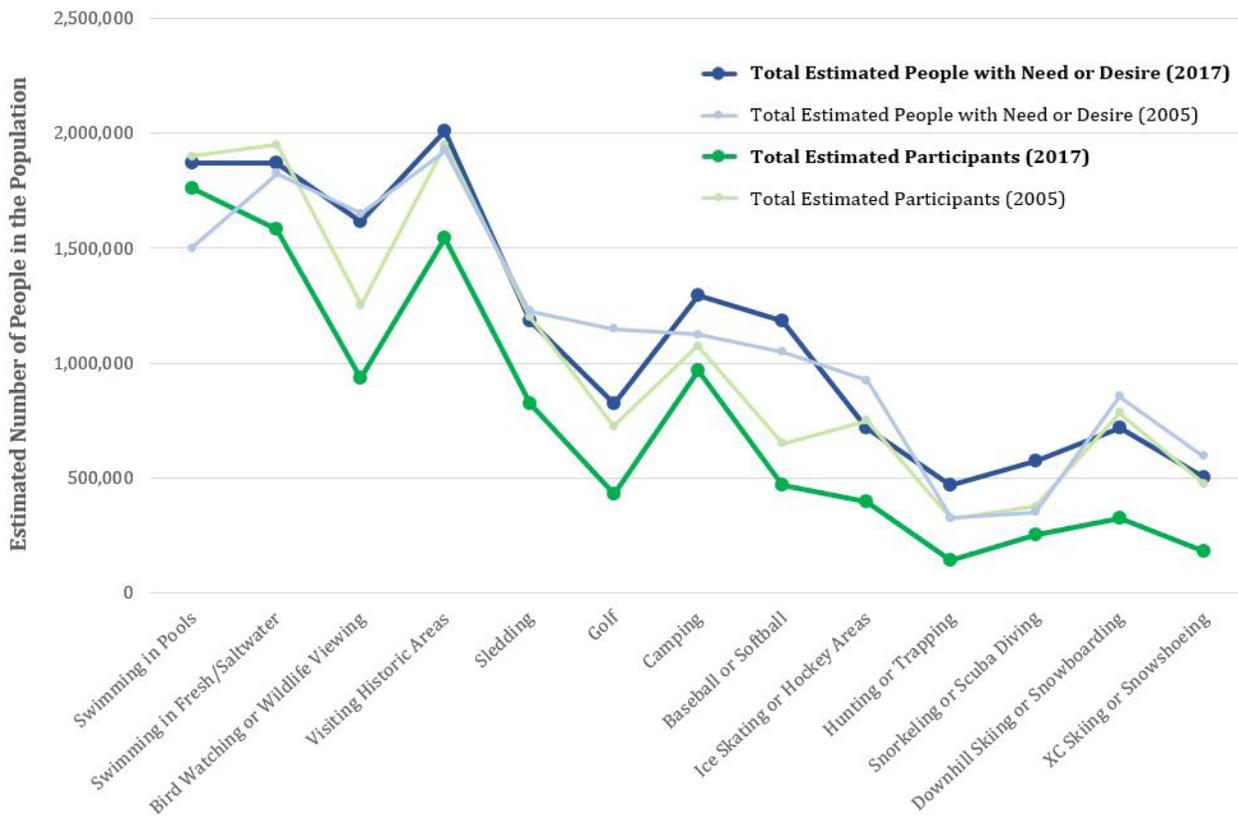


Figure 50. Comparing Demand as Measured by Need and Participation.

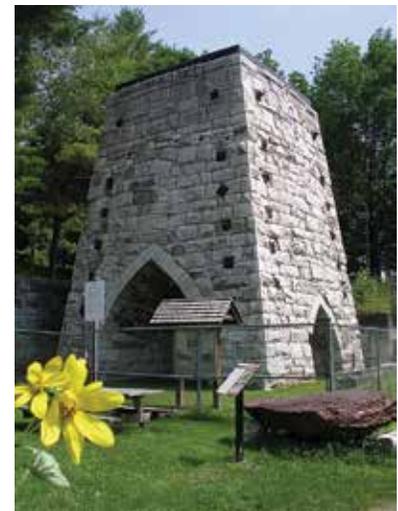
There are a number of things to note in Figure 50. Looking first at the lines in green, one can see that there are fewer participants in 2017 than 2005 across all activities. Whether this represents a true difference in the population or some type of sampling/measurement inconsistency between survey years is uncertain. For the former, the notion that participation in outdoor recreation has decreased over time is plausible given the seemingly ever-greater role of technology in the lives of individuals. For the latter, differences in characteristics of the survey samples from 2005 to 2017 may be a factor.

Citizens’ needs for resources were also assessed via the Statewide Survey in 2005 and 2017, the results of which are represented by the blue lines in Figure 50. For this variable, the values generated from the 2005 and 2017 surveys were more similar, although the pattern of discrepancy was less consistent than that of participation rates. Fresh/saltwater swimming, bird watching/wildlife viewing, visiting historic areas, and sledding had rates of need that remained virtually unchanged from 2005 to 2017. Needs grew slightly between 2005 and 2017 for camping, baseball/softball, hunting/trapping, and snorkeling/scuba diving, and more significantly for swimming in pools. Facilities with less need in 2017 than 2005 included golf, ice skating/hockey areas, and to a lesser extent, downhill skiing/snowboarding and cross-country skiing/snowshoeing areas.

The difference between the total estimated number of people who participate in an activity and the total estimated number of people who have a need for facilities and services related to that activity is depicted by the bolded lines in Figure 50. As is apparent, need surpasses participation for every activity in 2017. Whereas it seems counterintuitive that the number of individuals needing or desiring additional access to particular facilities could surpass the total number of participants in that activity, one must consider so-called “aspirational participants:” individuals who have interest in, but do not currently practice, an activity. Such individuals would likely have indicated a need or desire for additional access to these activities of interest; thus, the estimated number of people with needs or desires likely includes participants as well as non-participants. Results from a national survey indicate that the percentage of aspirational users is relatively high; for instance 13% of individuals ages 18-24 reporting an unexplored interest in backpack camping.<sup>7</sup> Furthermore, respondents to the Statewide Survey reported participation only over the past 12 months. Thus, the number of individuals with a need or desire for facilities may also include those who wish to “get back into” an activity that they last practiced more than a year prior.

The discrepancy between participation and need was smallest in 2017 for swimming in pools and largest for bird watching/wildlife viewing and baseball/softball. While the interest in additional swimming access is high among residents of the state, the proportion of individuals who have engaged in pool swimming within the past 12 months is also large. This likely reflects the fact that respondents may have considered the use of private swimming pools when indicating their participation in the activity but not when indicating their need or desire for additional access to swimming pools, thus inflating the rate of participation. Additionally, due to the relatively low barrier to entry, swimming in pools is less likely to have a significant number of aspirational users. While they might not necessarily engage in the activity with great frequency, many individuals experience swimming in a pool at least annually.

On the other hand, the difference between need and participation was pronounced for bird watching/wildlife viewing and baseball/softball among respondents to the Statewide Survey. Interestingly, together with golf, these were also the two activities which showed the greatest discrepancy between need and participation in 2005 as well. However, as is illustrated in the non-bolded lines in Figure 50, for all other activities in 2005 except ice skating/hockey areas, participation was equal or greater to need. As mentioned earlier, this was not the case for recreational activities in 2017, where need exceeded participation across the board. In some cases, such as swimming in pools, the discrepancy between need and participation grew mostly as a result of increased need, while in others such as swimming in fresh/saltwater, bird watching/wildlife viewing, visiting historic areas, and sledding, the growing discrepancy appeared to be owed primarily to decreases in participation in 2017. Golf and ice skating/hockey were the only activities for which need and participation both fell significantly from 2005 to 2017, while the more common pattern seen with activities such as camping, baseball/softball, hunting/trapping, and scuba diving/snorkeling was simultaneous increases in need and decreases in participation.



This contrasts with the activities of visiting historic sites, parks or playgrounds, sledding, and ball/racket sports (e.g. basketball, baseball, tennis, etc.), which are practiced by a greater number of Connecticut households with seemingly less enthusiasm. PAGE 109

<sup>7</sup> For more information, see: <http://www.outdoorfoundation.org/pdf/ResearchParticipation2016Topline.pdf>

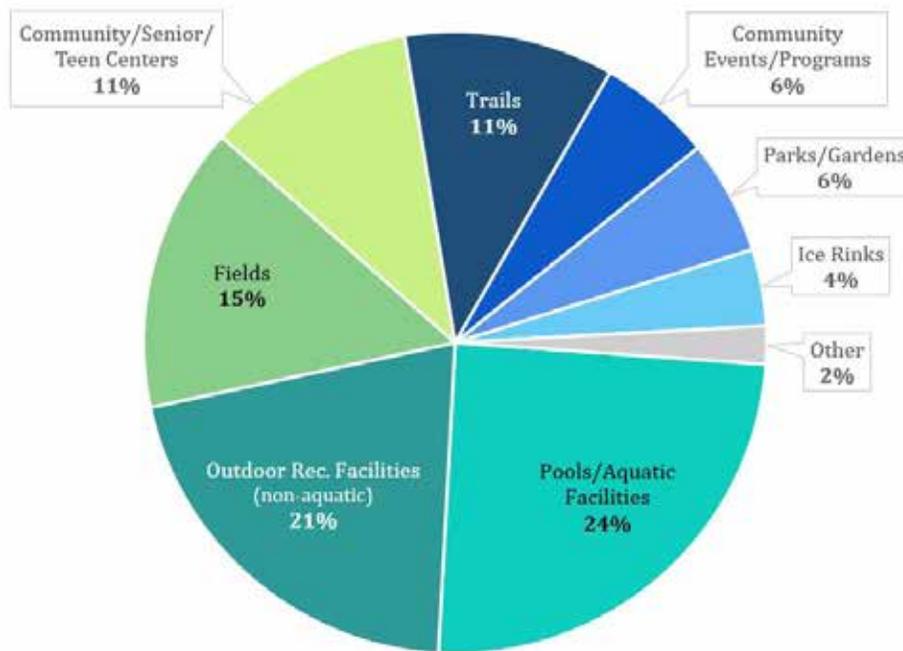
Overall, the results presented in Figure 50 do not necessarily paint an encouraging picture of the state’s progress in meeting the unfulfilled outdoor recreation needs of citizens. With the sole exception of golf, which is an activity less frequently provided by the state, there were larger differences between participation and need for all activities measured in 2017 than there were in 2005. However, as mentioned earlier, these results should not be accepted without question due to potential differences in the samples of survey participants. Looking solely at the estimated total number of people with need or desire and disregarding rates of participation, visiting historic sites, swimming in fresh/saltwater, and swimming in pools were the most needed activities in 2017, followed by bird watching/wildlife viewing. The need for these activities was generally unchanged from 2005 to 2017 with the exception of swimming in pools, and despite any true decreases in rates of participation these are activities which should continue to be prioritized in the consideration of the outdoor recreation needs of Connecticut citizens.

**Town Officials Rate Demand for Outdoor Recreation Facilities**

Respondents to the Town Officials Survey were asked to identify which outdoor recreation facilities or programs not currently provided in their community should be provided. Up to two open-ended responses were accepted, which were ultimately combined to provide a more holistic picture of town needs. These results are presented in Figure 51.

Nearly one-quarter (24%) of town officials cited pools/aquatic facilities as their most pressing need, closely followed by non-aquatic outdoor recreation facilities (21%). Fields (15%), trails (11%), and a community center (11%) were also cited by more than one in ten officials, respectively. Other resources that registered responses included parks and gardens (6%), community events and programs (6%), an ice rink (4%) or other responses (2%).

**Most Pressing Community Needs as Reported by Town Officials**  
by percentage of respondents (categories coded from responses)



**Figure 51. Most Pressing Community Needs Reported by Town Officials.**

Data from the 2017 Statewide Survey further substantiate the desirability of pools and/or aquatic facilities. Over half (53%) of all residents expressed a need or desire for additional access to outdoor pools, water parks, or splash pads—a 9% increase from 2005. Nearly half of all residents (49%) reported that at least one member

of their household swam in an outdoor pool in the past 12 months. Notably, looking across all water-based activities, swimming is done with the highest reoccurring frequency. Half (50%) of all swimmers take to the pool at least “a few times a month” or “several times a week.” The 2005 SCORP found that municipalities provide most of Connecticut’s swimming pools (p. iii). In 2017, one-quarter (25%) of all Connecticut residents stated their needs were “not at all met” regarding outdoor pools, indicating that private facilities are not adequate in filling the gap between supply and demand.

Non-aquatic outdoor recreation facilities were viewed as the second-most important demand that is not being met, with over one in five (21%) town officials picking this option. Connecticut residents agree that there is a gap between supply and demand in this area. Most state residents indicated that they had a desire or need for additional picnic areas/shelters (64%), historic sites/areas (56%), and playgrounds (51%). Further, the majority of Connecticut residents (52%) agree with town officials that there is need for additional paved multi-use trails. The need for unpaved trails is not quite as strong, with less than half (48%) indicating a need for unpaved multi-use trails, and an even smaller percentage reporting a need for unpaved single-use trails (40%). ADA accessibility should be a prominent consideration for any town considering the addition of trail resources. Nearly one-quarter (23%) of all state residents feel that their needs are “not at all met” when it comes to ADA accessibility with Connecticut’s trails.

### Town Officials Rate Support Components

Town officials were asked to indicate which support components were inadequate at any of the outdoor recreation facilities in their community (Figure 52). Three in ten (31%) cited public transportation to the facility, a concern echoed by participants in two-of-the-four focus groups. Slightly more than one-quarter (27%) of all town officials indicated that public restrooms were inadequate. A lack of water fountains (24%), recycling receptacles (23%), directional/interpretative signage (22%), and handicap access (20%) were all closely-grouped concerns.

## Inadequate Facility Components as Rated by Town Officials

by percentage of respondents (multiple choices could be made)

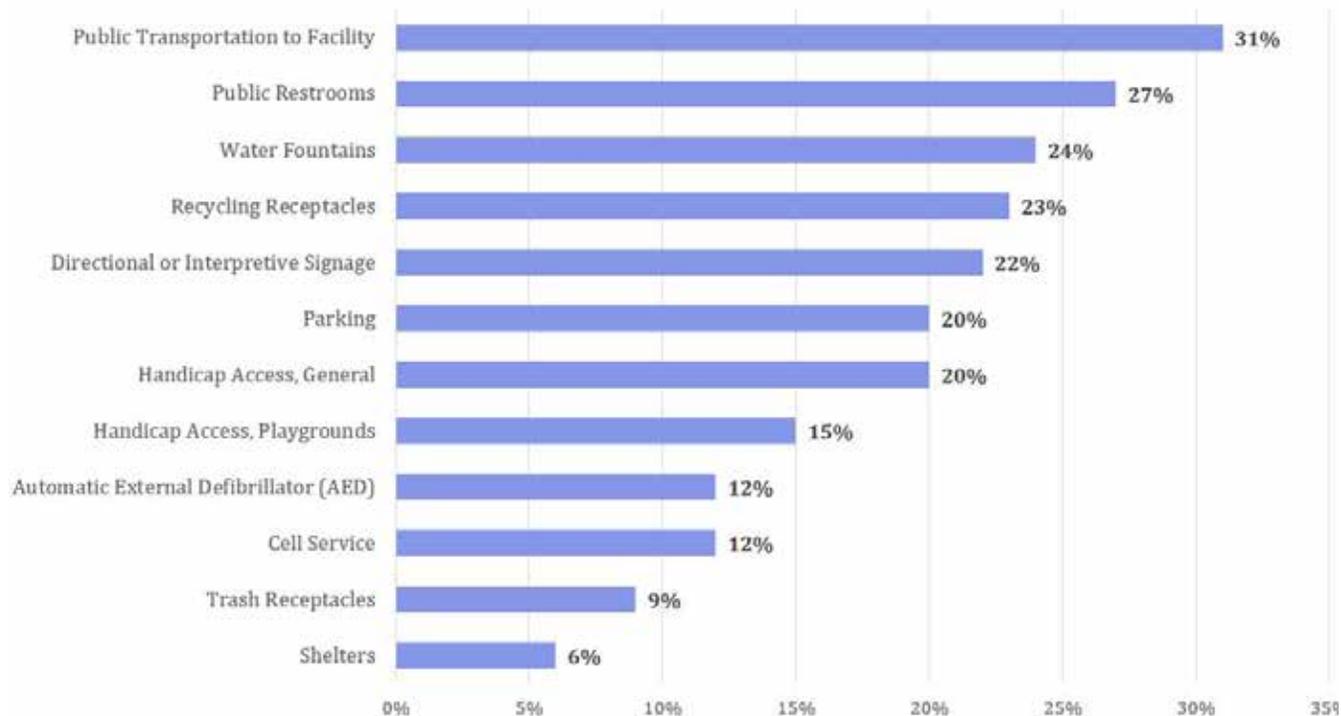


Figure 52. Inadequate Facility Components as Rated by Town Officials.

# SECTION 4: Barriers to Outdoor Recreation

## Residents Identify Barriers to Outdoor Recreation

Connecticut residents were asked to identify the reasons preventing themselves or members of their household from using outdoor recreation facilities in the state. Over half (55%) of all residents identified at least one obstacle to recreation. As indicated in Figure 53, the top-cited boundary in 2017 was fees, with nearly one-quarter (23%) of all residents picking this option. Distance from their personal residence was also well-cited, with just over one in five (21%) selecting this option. One in five (20%) felt that they do not know what recreational opportunities are offered, while the same percentage (20%) indicated that they do not know the location of facilities. Other study participants cited the following barriers to participation: lack of available parking (15%), facilities not being well-maintained (14%), parks not being well-maintained (14%), and operating hours not being convenient (14%). Some survey takers volunteered alternate responses, which included: the prohibition of dogs, town residency restrictions, lack of snow/ice removal, closed facilities, and disruptions to the outdoor recreation experience (such as unleashed dogs or unsupervised children).

### Reasons Preventing Households from Using Recreational Facilities

by percentage of respondents (multiple choices could be made)

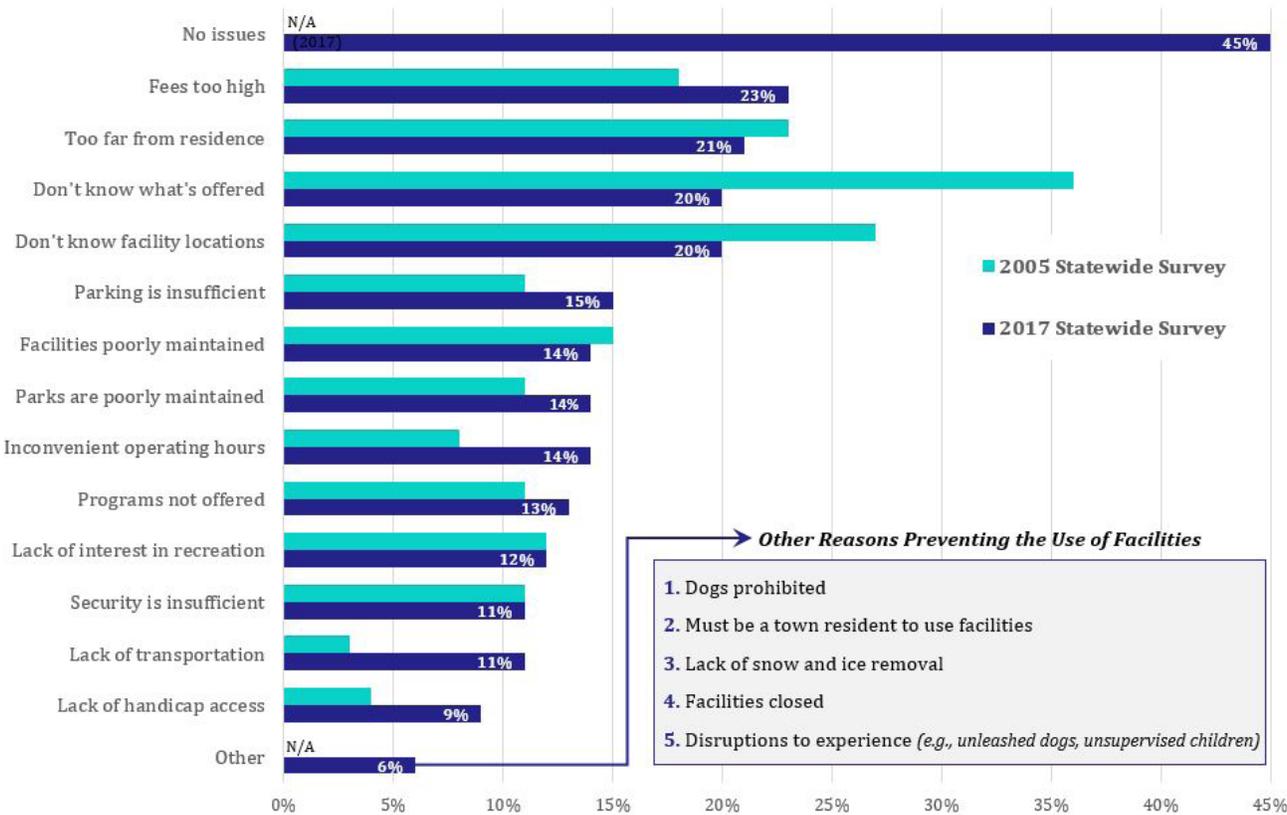


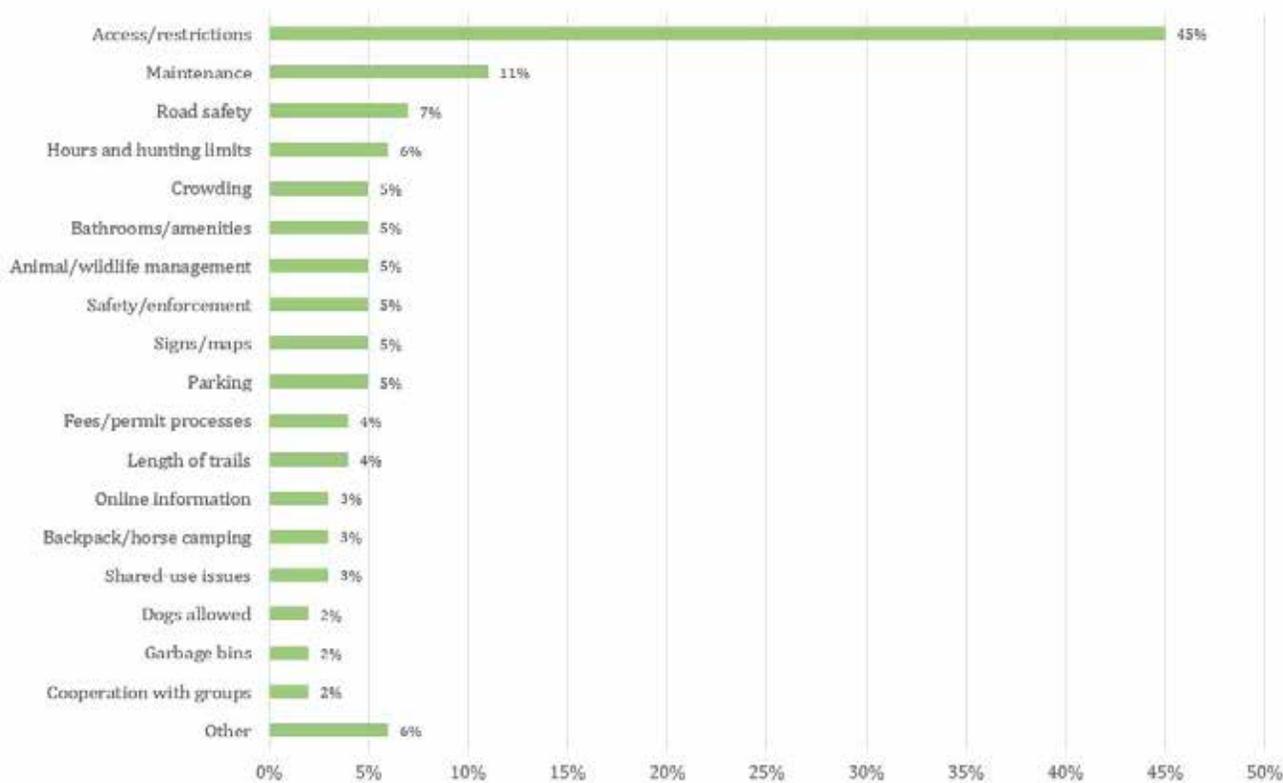
Figure 53. Reasons Preventing Households from Using Facilities.

## Outdoor Enthusiasts Identify Barriers to Outdoor Recreation

For each of their top five activities, outdoor enthusiasts were asked to what extent their needs for outdoor recreation facilities or resources were being met. Those indicating that their needs were not being “completely met” were subsequently asked to identify what problems they experienced. Just shy of half (45%) reported issues related to access/legal restrictions, a finding that is partially driven by ATV concerns. Other participants mentioned maintenance concerns (11%), road safety (7%), and hours/hunting limits (6%).

### Obstacles to the Enjoyment of Outdoor Recreation by Enthusiasts

by percentage of respondents indicating an unmet need for facilities (categories coded from responses)



**Figure 54. Obstacles to the Enjoyment of Outdoor Recreation by Enthusiasts.**

Outdoor enthusiasts were then asked to identify the most significant issue they encounter overall when engaging in any of the five preferred activities that they identified. Unlike the question discussed above, which was only asked to those who indicated that their outdoor recreation needs were not “completely met,” this question presents more of a general sentiment towards outdoor recreation. Two other methodological points are worth noting. Unlike the prior question, only one answer choice could be identified by each study participant. Further, this question required participants to select from closed-ended answer options, while the prior question was completely open-ended. However, 15% of respondents did choose to provide additional “other” responses, which are presented in Figure 56.

As depicted in Figure 55, slightly more than one in five (22%) outdoor enthusiasts cited litter as the most significant issue impacting their participation in outdoor recreation activities. Parking (16%) was the second issue cited, followed by alternate (other) responses (15%) and tick or mosquito-borne diseases (15%). Additionally, at least one in ten outdoor enthusiasts cited either crowding (13%) or obnoxious/reckless behavior (10%) as the most significant issue impacting their outdoor recreation activity.

### Most Significant Issue Impacting Recreation Activities of Outdoor Enthusiasts

by percentage of respondents

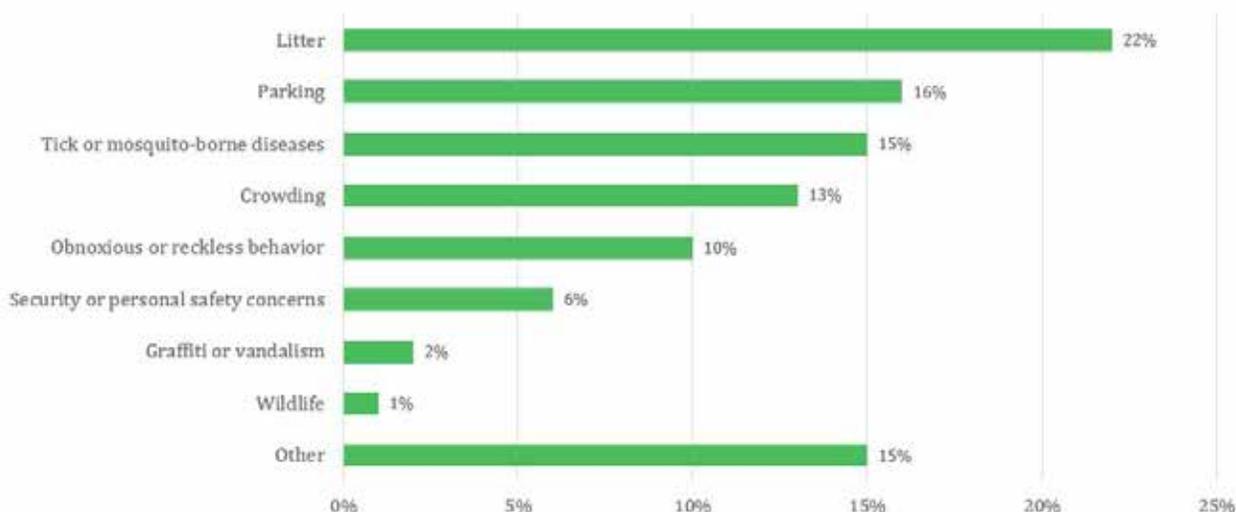


Figure 55. Most Significant Issues Impacting Recreation of Outdoor Enthusiasts.

Finally, all respondents to the Outdoor Enthusiast Survey were asked to identify what they perceived to be the most pressing needs of the outdoor recreation areas that they visit (Figure 57). Themes were coded based off open-ended responses, with multiple responses being accepted. Similar to when these individuals were asked about the most significant issue impacting the recreation activities that they engage in, access to facilities or activity restrictions emerged as the most pressing need. Nearly half of the sample (49%) identified this theme, with maintenance or quality of facilities being a distant second need (11%). Fees or permit processes (7%), crowding/lack of space (6%), and safety on public roads (6%) were viewed as the next set of priorities.

### 'Other' Most Significant Issues Impacting Recreation Activities of Outdoor Enthusiasts

by percentage of respondents selecting "other" (categories coded from responses; multiple responses accepted)

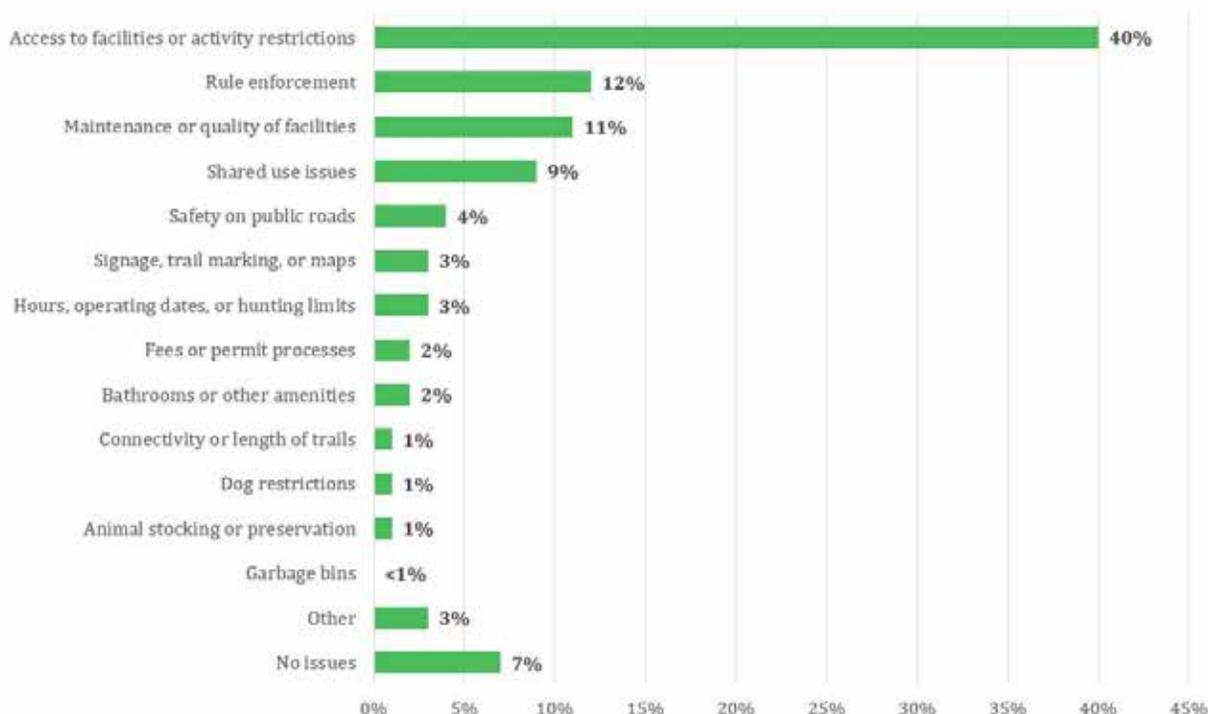


Figure 56. 'Other' Most Significant Issues Impacting Recreation Activities of Outdoor Enthusiasts.

## Most Pressing Needs of Recreation Areas as Reported by Outdoor Enthusiasts

by percentage of respondents (categories coded from responses, multiple responses accepted)

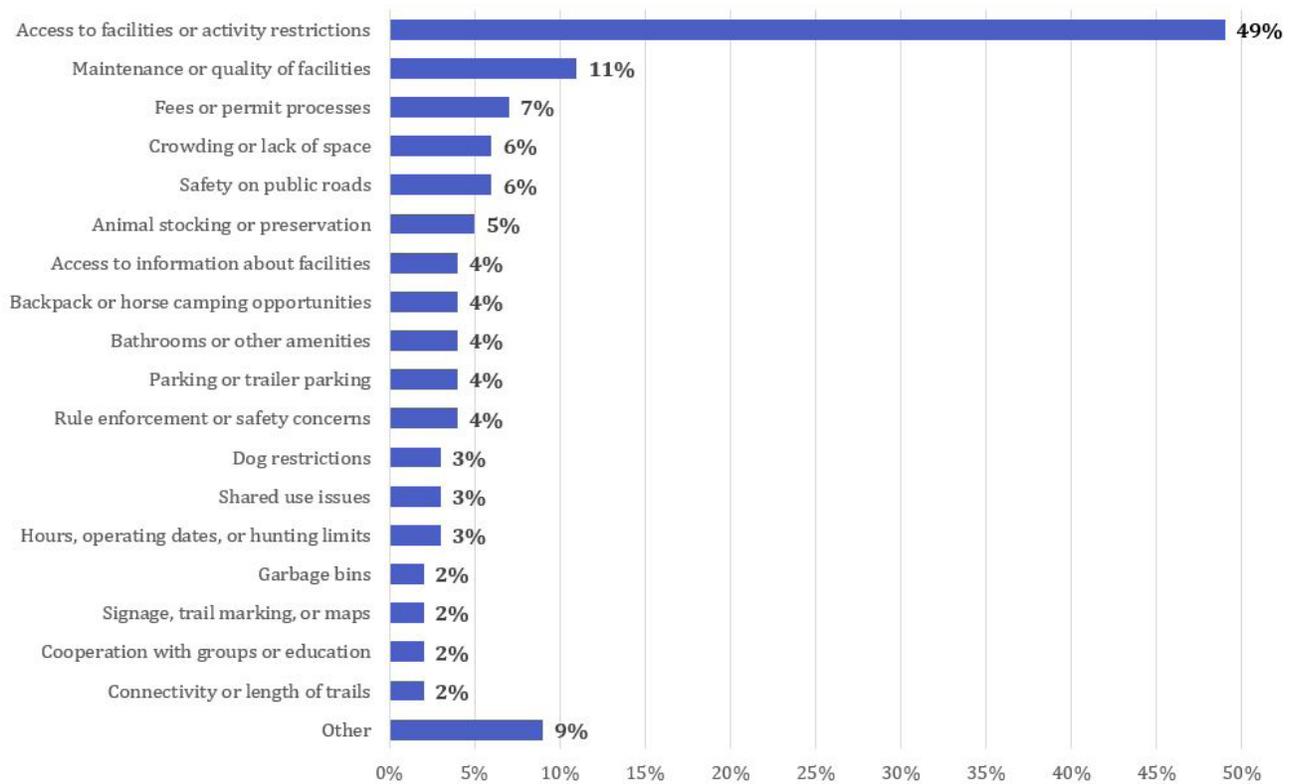


Figure 57. Most Pressing Needs of Recreation Areas Reported by Outdoor Enthusiasts.

### How Connecticut Citizens Learn about Recreation Facilities and Activities

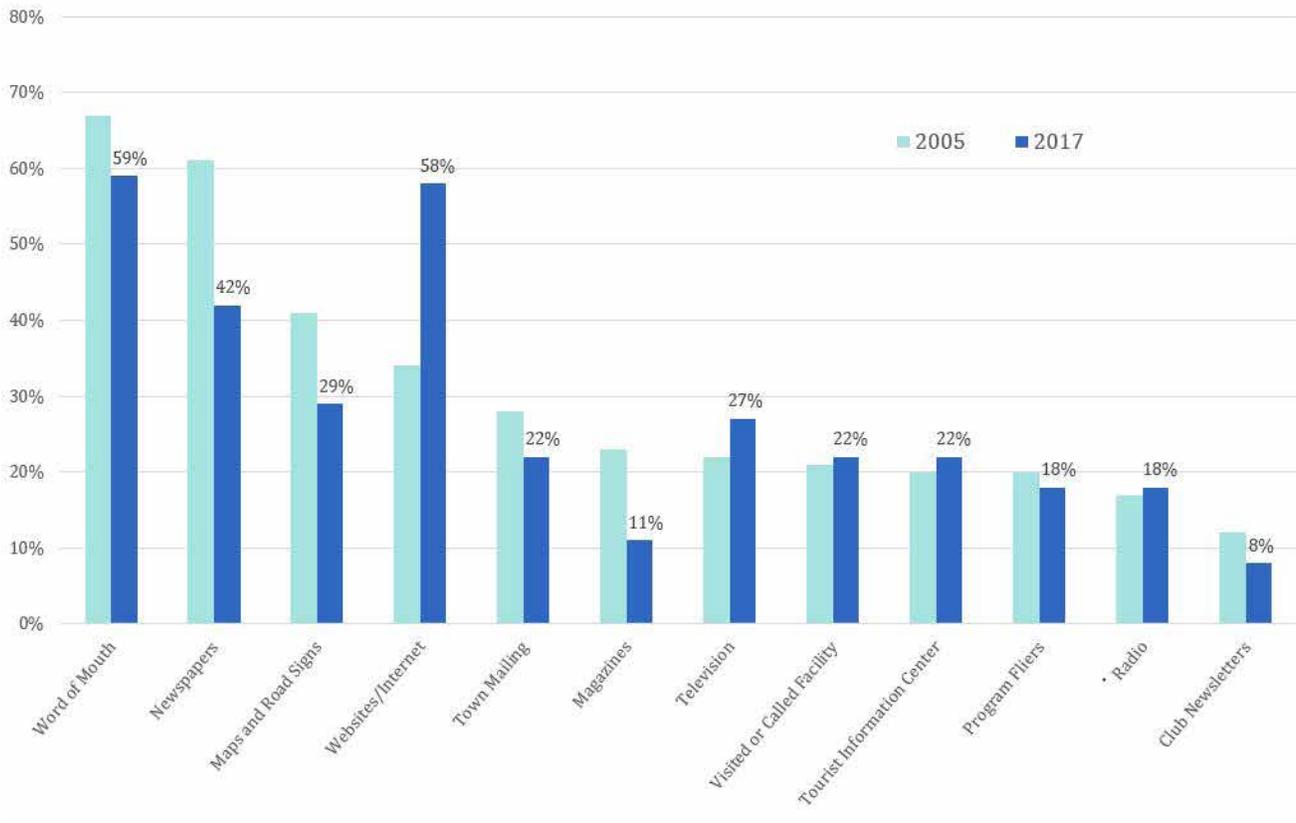
Finally, Figure 58 displays the ways in which respondents to the Statewide Survey learn about outdoor recreational facilities, resources, and activities in Connecticut. As in 2005, word of mouth was the most common means by which residents learned about facilities (59%), although it was less common than in 2005 (67%). Newspapers, maps/road signs, and magazines also were significantly less frequent means of communication in 2017 than 2005, with differences of at least 10%.

The most obvious trend in the data however is the movement towards digital advertising, specifically via the internet. While websites/internet was the fourth most popular means of obtaining recreational information in 2005 (34% of respondents), it was only 1% below the top method of obtaining information in 2017, with 58% of respondents. Furthermore, while not included as an option in the 2005 survey, 37% of survey respondents in 2017 indicated learning about recreational facilities through social media outlets (Facebook, Twitter, etc.). Social media was not widely used in 2005, but has expanded to become one of the primary modes of communication today. This is increasingly true among all age groups including older citizens. The average age of respondents to the Statewide Survey was 42.

The most obvious trend in the data however is the movement towards digital advertising, specifically via the internet.

## How Citizens Learn About Recreational Facilities and Activities

by percentage of respondents (multiple choices could be made)



**Figure 58. How Citizens Learn About Facilities and Activities.**

Internet and social media advertising can be done with little to no financial cost to the state, which is not true of most other avenues. With a low-cost yet effective alternative to other costlier means of advertising, it is natural that the state would increase its reliance on internet and social media advertising, perhaps to compensate for relatively less spending on printed communications. It is notable that numerous study group participants, including self-proclaimed avid outdoor enthusiasts, felt that they did not know what was happening at Connecticut’s outdoor recreation facilities. At the same time, these individuals are avid social media users, and expressed a willingness to “like” or “follow” CT DEEP online. Future policies should attempt to fill these communication gaps.

With that said, a word of caution is offered about an over-reliance on digital outlets as a means of disseminating information. As is noted in the 2005 SCORP report, the state’s reliance on free or low-cost advertising and word of mouth as means of disseminating information on recreational resources may mean that a significant portion of the population is not adequately informed of these opportunities—a theme that was echoed in all focus groups. Developing a targeting plan for those who fall in the “digital divide”—those without access to the internet—would also be fruitful.

Disc golf, rock climbing/caving, and automobile off-roading or motorized biking were activities most frequently practiced by younger outdoor enthusiasts, which is consistent with the relatively recent emergence of these activities among recreationists.

## SECTION 5: Projections of Future Trends and Funding Directions

### Town Officials Project Trends and Needs

Town officials were asked which outdoor recreation activity or activities provided by their department were predicted to gain and/or lose popularity over the next 5 to 10 years (Table 19). Open-ended responses were coded, with multiple responses being accepted per study participant. For the most part, the predictions of town officials appear to be consistent with recent trends in recreation as far as can be discerned from the data. Virtually all activities included in the Statewide Survey showed lower participation rates in 2017 than in 2005, thus trends in the popularity of individual activities are difficult to discern. However, the relative popularity of activities such as walking, hiking, or bicycling as well as the high demand for associated facilities (e.g., paved and unpaved single- and multi-use trails) suggest that these activities will continue to be popular among state residents in the coming years. Swimming areas, which in this instance may be included in beach activities, were one of the activities for which residents indicated the most desire for additional access on the Statewide Survey, which is also consistent with town officials’ predictions.

Similarly, the prediction that activities such as organized sports, tennis, and golf will lose popularity over the next 5-10 years was supported by data from the Statewide Survey, as state residents indicated relatively little desire for additional access to facilities related to these activities. However, contrary to town officials’ prediction that playgrounds will lose popularity in the coming years, results from the Statewide Survey indicate a particularly high need for more playgrounds, as well as passive recreation sites such as picnic areas and historic sites. Indeed, over half (51%) of all respondents to the Statewide Survey reported a desire for additional access to playgrounds among members of their household, which is comparable to the percentage who desire additional access to paved multi-use trails (52%) and swimming areas (53%).

**Table 19. Activities Predicted by Officials to Gain or Lose Popularity over the Next 5-10 Years.**

<b>Gain Popularity</b>	<b>Lose Popularity</b>
↑ Walking/Hiking	↓ Organized Youth Sports
↑ Day/Summer Camps	↓ Other (Triathlon, Pickleball)
↑ Beach Activities	↓ Tennis/Golf
↑ Disc Golf	↓ Playgrounds
↑ Cycling	↓ Fitness/Dance Classes



## Residents Rank the Most Important Facilities to Develop

To prioritize the demand for outdoor recreational facilities among Connecticut households, respondents to the Statewide Survey were asked to indicate their opinion as to the top three most important facilities to develop in municipal- and state-owned recreation areas. Figure 59 (on the next page) shows the percentage of respondents who chose each of the 28 recreation facilities as their first, second, and third choices for municipal-owned outdoor recreation areas, while Figure 60 shows the same information for state-owned recreation areas. To assess trends over time, comparison data from the 2005 SCORP report is also included.

Picnic areas and shelters, as well as unpaved and paved multi-use trails were the facilities most frequently noted as top priorities by state citizens in both 2005 and 2017, with 30% of 2017 survey respondents choosing picnic areas/shelters as among the top three most important facilities to develop in both municipal- and state-owned areas. Playgrounds, which were assessed separately in the 2017 Statewide Survey, also showed a high degree of importance, with 24% and 22% of respondents citing playgrounds as a top need in municipal- and state-owned recreation areas, respectively. Facilities such as picnic areas/shelters, paved multi-use trails, and playgrounds are used by many people in the general population and do not require recreational skill to utilize; thus, their popularity among the citizens of Connecticut is unsurprising.

While the rank-order of facilities rated by citizens as most important to develop in municipal- and state-owned areas was generally stable from 2005 to 2017, there are occasions where the degree of importance of a particular facility differs significantly between the two survey measurements. Picnic areas/shelters exhibited one of the largest differences between degree of need in 2005 and degree of need in 2017, which is especially notable in consideration of the fact that playgrounds were included with picnic areas/shelters in the 2005 survey. This was also true for historic sites and areas, which may appeal to a similar demographic as picnic areas, shelters, and playgrounds. Such emphasis on the development of these outdoor recreational facilities has been a consistent theme throughout this report. Swimming pools also showed a significant discrepancy in total proportion of importance between the two measurements. Indeed, the increasing desire for access to swimming pools and water parks has been another consistent theme in this report.

In general, trails (paved, unpaved, multi-use, and single-use) showed little change in degree of importance assigned by survey respondents between 2005 and 2017 for both municipal- and state-owned facilities, which was true for most of the facilities measured. Golf courses, and to a lesser extent fishing/ice fishing areas, ice skating/hockey areas, and sledding areas all showed evidence of decreased importance to Connecticut citizens in 2017. It is unclear whether this decrease reflects lessened interest those recreational activities among the population over time, or a situation in which better-met needs have resulted in less desire for additional development. Nevertheless, these represent facilities that should be a lower priority for recreational development at both a state and local level.

Golf courses, and to a lesser extent fishing/ice fishing areas, ice skating/hockey areas, and sledding areas all showed evidence of decreased importance to Connecticut citizens in 2017. It is unclear whether this decrease reflects lessened interest those recreational activities among the population over time, or a situation in which better-met needs have resulted in less desire for additional development.

### Most Important Facilities to Develop in Municipal-Owned Outdoor Recreation Areas

by percentage of respondents; three choices could be made

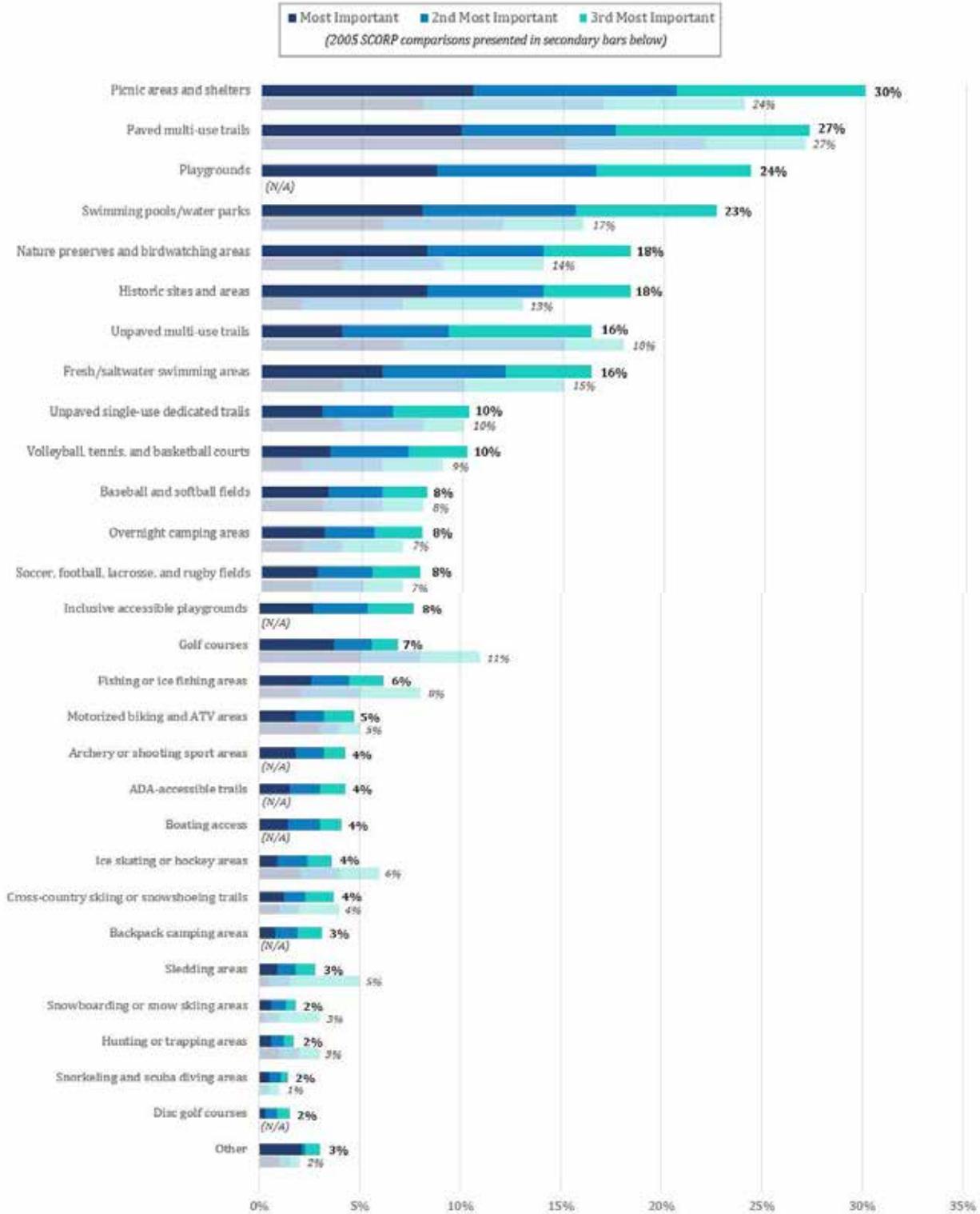


Figure 59. Most Important Facilities to Develop in Municipal-Owned Areas as Rated by Citizens.

### Most Important Facilities to Develop in State-Owned Outdoor Recreation Areas

by percentage of respondents; three choices could be made

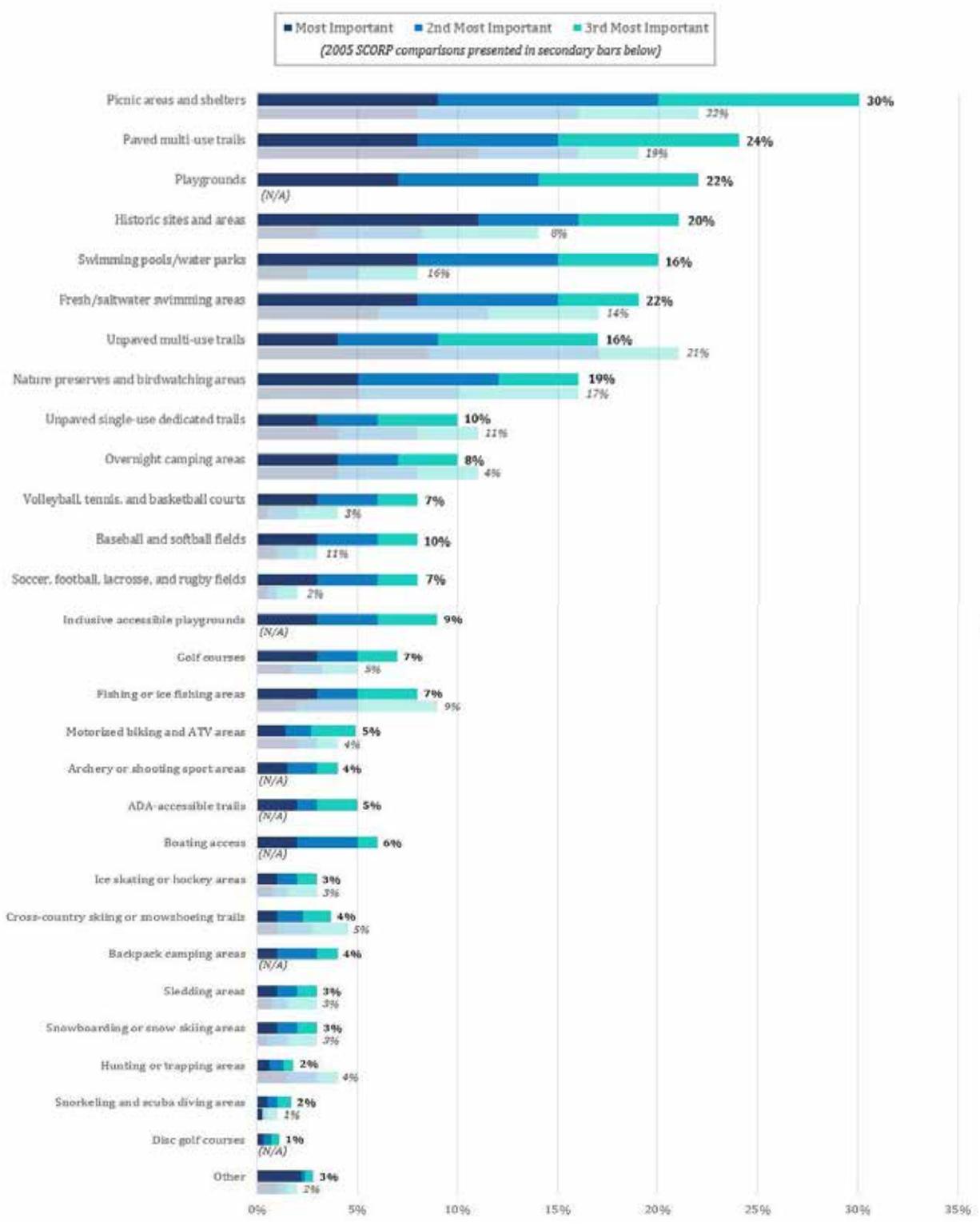


Figure 60. Most Important Facilities to Develop in State-Owned Areas as Rated by Citizens.

## Funding for Outdoor Recreation

As both taxpayers and potential outdoor recreationists, many Connecticut citizens have an interest in how funding is apportioned to various initiatives associated with outdoor recreation at the state and local level. To gauge the relative importance given by state residents to several funding initiatives, respondents to the Statewide Survey were asked to consider the following actions related to outdoor recreation:

- Acquire open space
- Maintain and improve existing outdoor facilities
- Develop new outdoor recreation facilities
- Provide additional recreational programs and activities
- Improve advertising and information regarding existing outdoor facilities and programs

First, respondents were asked to indicate if they felt that the state of Connecticut and/or their local community should increase, maintain, or decrease funding for each of the actions listed. Figure 61 shows the results of this inquiry, along with a comparison to data from the 2005 SCORP report. The opinion breakdown in 2017 suggests that citizens are least supportive of increasing advertising for/information about facilities and acquiring open space. There are comparable levels of support for developing new facilities and offering additional programs and activities, and slightly more support for maintaining and improving existing facilities.

The emphasis on maintaining and enhancing the state's current infrastructure is again apparent; as is the high level of desire for additional recreation facilities and activities among the population. Some respondents were unsure how to allocate funding for outdoor recreation, but few (between 4% and 11%) believed that funding should be decreased for any of the five initiatives. This level of support is encouraging, as it reinforces the importance and utility of the present report.

In comparing the present data to that from 2005, a few trends are apparent. Connecticut residents have generally expressed a stable level of support for the maintenance and improvement of existing recreational facilities. Residents seemed to become more satisfied with the level of funding given to acquiring open space and advertising/information since 2005, as evidenced by increases primarily in the "maintain funding" category. On the other hand, Connecticut residents appeared to become less certain about the amount of funding that should be given to the development of new facilities and programs/activities, as evidenced by apparent increases localized largely to the "not sure" category.

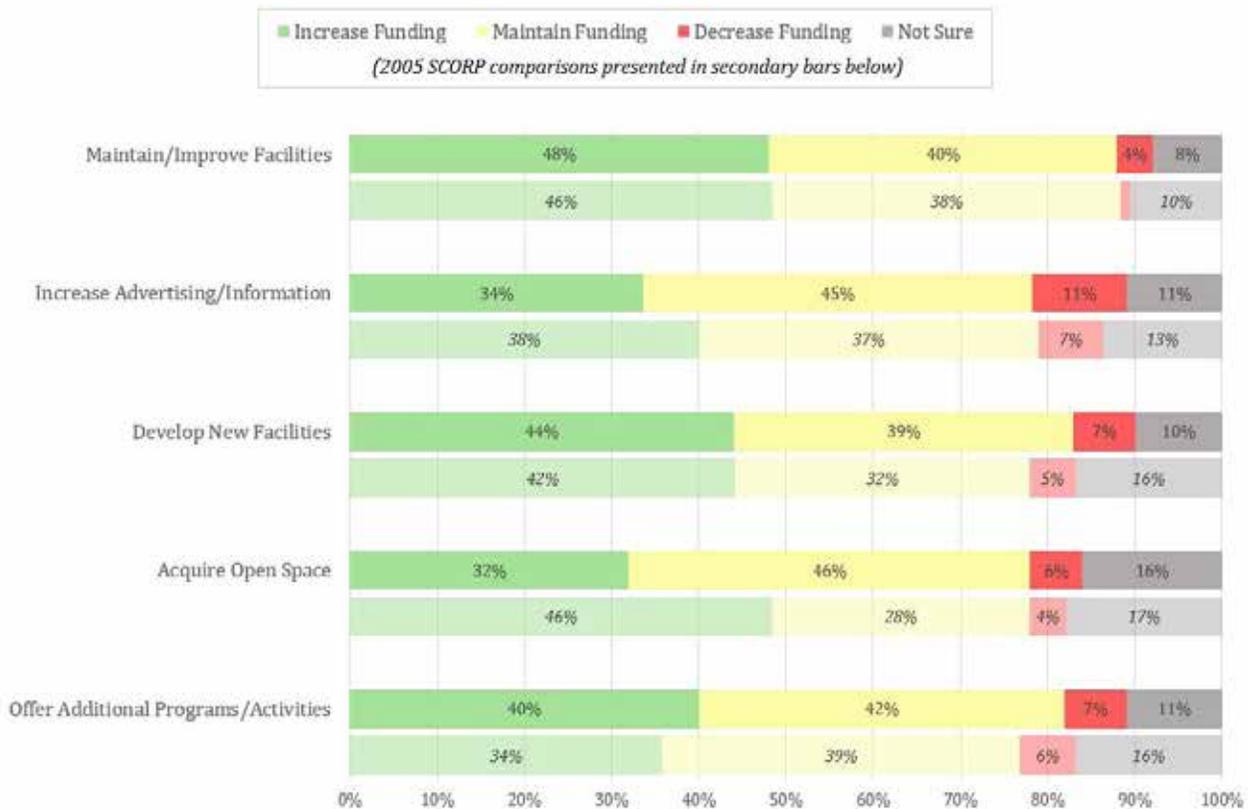
In general, there appears to be slightly less support for outdoor recreation funding in 2017 than there was in 2005, based on the trend towards a smaller proportion of "increase funding" responses and higher proportion of "decrease funding" responses across all options in 2017.

Four land-based activities stand out for their low frequency rates: sledding, camping, downhill skiing or snowboarding, and cross-country skiing or snowshoeing. Of those who reported participating in sledding, two-thirds (67%) reported seldom engagement in the activity, while just over three-fifths (63%) of those engaged in downhill skiing/snowboarding or cross-country skiing/snowshoeing reported the frequency of their participation as "seldom."

PAGE 105

## Citizens' Support for Outdoor Recreation Funding Initiatives

by percentage of respondents



**Figure 61. Citizens' Support for Outdoor Recreation Funding.**

To get a better idea of citizens' priorities regarding funding for outdoor recreation, respondents to the Statewide Survey were asked to rank the top three of five actions that they most supported. Figure 62 displays these results. Consistent with the results discussed hitherto, state residents most support increasing funding for the maintenance and improvement of existing recreational facilities, with 40%, 25%, and 17% of respondents choosing it as the first, second, or third most important funding initiatives related to outdoor recreation, respectively. Respondents to the survey in 2017 indicated comparable levels of support for increased funding of additional programming/activities and the development of new facilities, with 63% and 60% including them in their top three.

Less support was shown for increasing advertising/information and acquiring open space, with 45% and 41% including these actions among their top three, respectively. However, while support for the funding of increased advertising/information appeared to increase from 2005 to 2017, support for the funding of the acquisition of open space seemed to decrease slightly. Whereas the acquisition of open space was the second most-supported funding objective reported by citizens in 2005, it is the action that 2017 respondents to the Statewide Survey least support.

A large percentage of respondents to the Outdoor Enthusiast Survey noted their appreciation for the natural feel (26%) and quiet/remoteness (13%) of outdoor recreation areas, but more than 10% also cited maintenance, management, and staffing as impediments to recreation consistently throughout the survey. Litter was the top issue reported by outdoor enthusiasts in their engagement in recreational activities; and respondents to both the Outdoor Enthusiast and Statewide Surveys repeatedly noted issues related to the maintenance and/or improvement of existing facilities: for example, better trail marking and animal stocking, and the provision of maps, garbage bins, and bathrooms. While citizens of the state might ideally desire additional open land for recreation, it seems to be of greater importance to residents that the spaces they

currently use retain their natural quality and beauty. Finally, there is evidence presented elsewhere in this report that a considerable number of citizens report a lack of knowledge as to the locations and offerings of recreational facilities, but it may be that they do not believe significant funds are required to accomplish such advertising/informational objectives (e.g., establishing a searchable internet database).

### Most Important Funding Initiatives as Rated by Citizens

by percentage of respondents

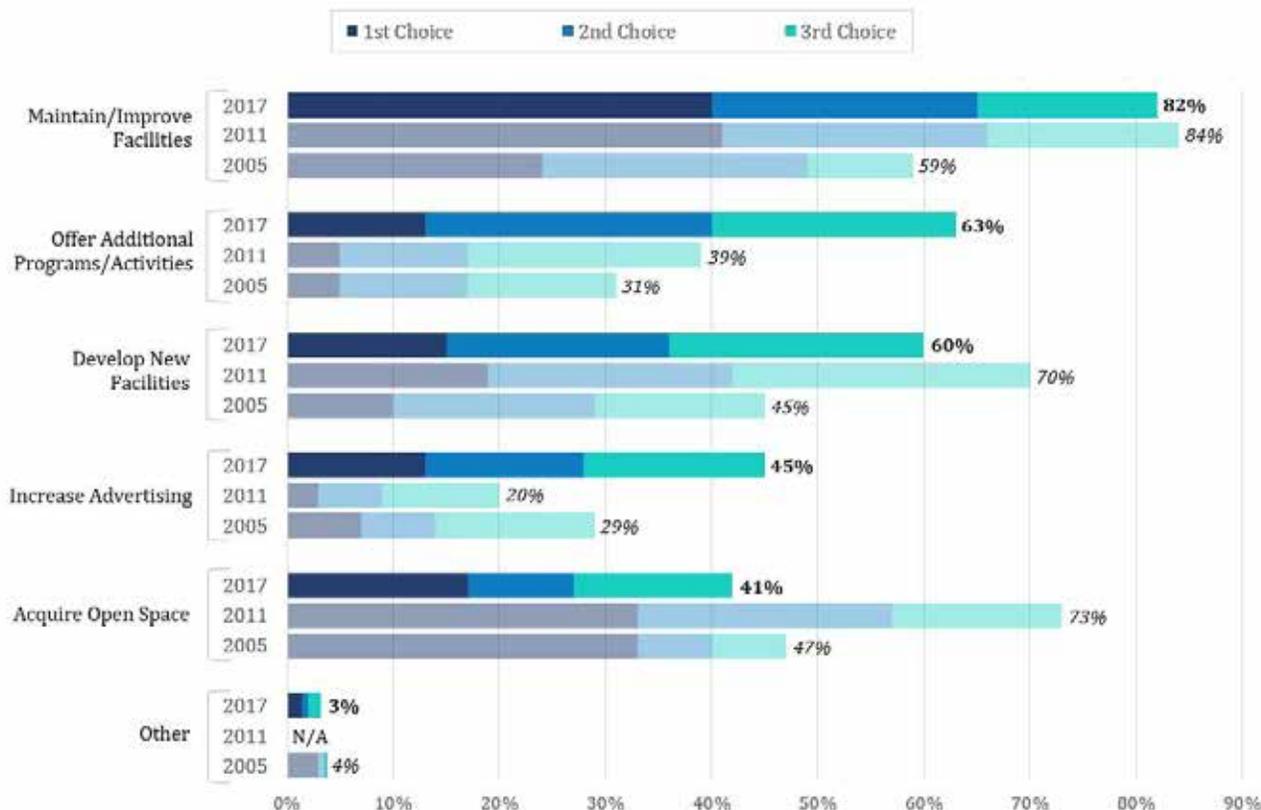


Figure 62. Most Important Funding Initiatives Rated by Citizens.

### Town Officials’ Rankings of Community Needs

Town officials were asked to rate six outdoor recreational needs in their community on a scale of 1-6, with 1 being the least pressing and 6 being the most urgent need. These needs essentially mirror the funding initiatives presented to Statewide Survey respondents, and include the building of new facilities, improvements to or maintenance of existing facilities, increased staffing, and additional programming. The results of this inquiry are presented in Figure 63. Connecticut town officials indicated that their most urgent needs were to improve and maintain existing recreational facilities, with averages ratings of 4.43 and 4.37, respectively. Increased staffing followed in importance with an average rating of 3.92. Maintaining existing trails, offering additional programming, and developing new facilities were rated as somewhat less urgent, with averages of 3.74, 3.71, and 3.69, respectively, though still clearly important concerns for town officials.

Overall, these findings are consistent with those from the Statewide Survey, in which citizens indicated a clear preference for maintaining or improving existing facilities over developing new facilities or programming. Connecticut is already host to a wide variety of outdoor recreational resources that collectively possess significant maintenance needs. In both the Outdoor Enthusiast Survey and two focus groups, avid recreation users identified improvements such as better parking accommodations, more trail marking/signage and connectivity, and provision of amenities such as bathrooms, water sources, and rest stations as some of the more pressing needs of recreational areas.

## Measuring Support for Fee Increases

Later in the Statewide Survey, Connecticut residents were told that improvements to outdoor recreation facilities and activities may increase operating costs. They were then asked about their level of support for implementing or increasing the fees for outdoor recreation facilities, programs, and services. The results of this query are depicted in Figure 64. For state-owned recreation areas, nearly three-quarters of all residents indicated some level of support for an increase in fees to help pay for increased operating expenses. One-quarter of residents (25%) indicated that they were “very supportive” of a fee increase, with almost half (48%) stating that they were “somewhat supportive.” One in five residents (20%) are not supportive of a fee increase, while the remainder (7%) are not sure.

There is slightly less support for increasing fees for the purposes of improving outdoor recreation facilities, programs, and services in study participant’s local community. Nearly seven in ten (68%) indicated some level of support for fee increases. Nearly one-quarter (24%) are very supportive, with slightly more than two in five (44%) being somewhat supportive. One-quarter (25%) of residents are not supportive of fee increases to improve the local community, while the remainder (8%) are not sure.

### Most Important Community Needs as Ranked by Town Officials

by average ratings on a scale of 1 (least pressing) to 6 (most urgent)

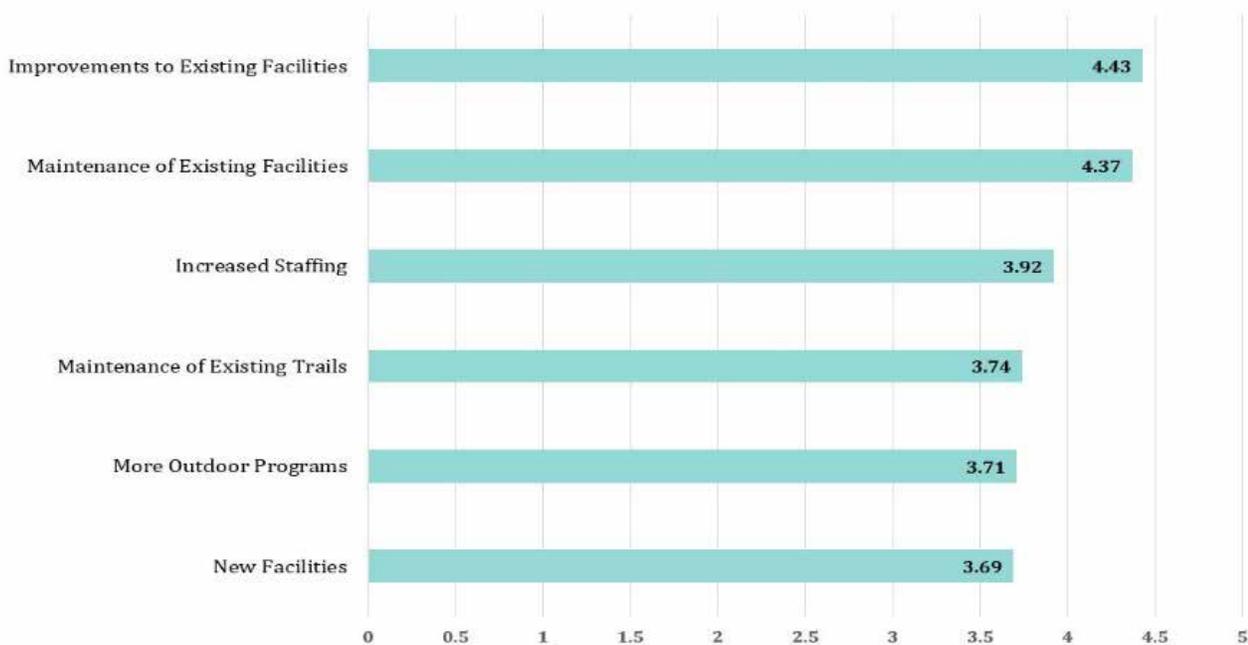


Figure 63. Most Important Community Needs Ranked by Town Officials.



### Citizens Support for Increased Facility Fees

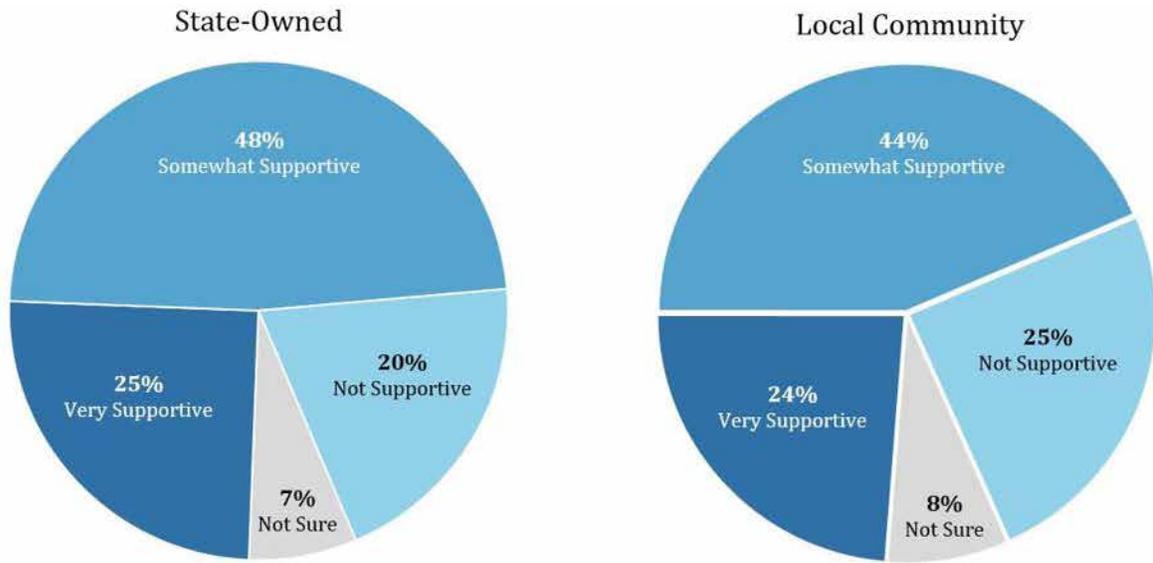
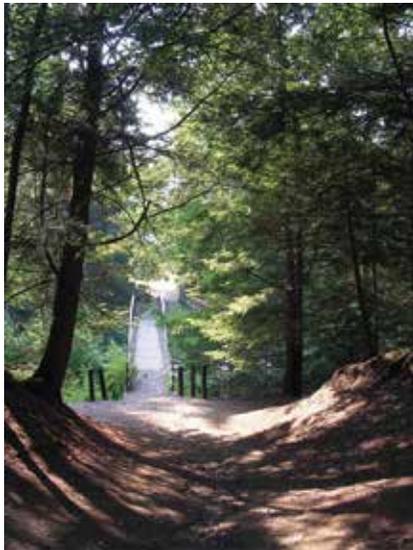


Figure 64. Citizens' Support for Increased Facility Fees.



# SECTION 6: Focus Group Findings

## Outdoor Recreation Enthusiasts

Two groups of avid outdoor enthusiasts, each comprised of five individuals, convened on campuses within the Connecticut State Colleges and Universities (CSCU) system. Individuals were identified through personal contacts at CPPSR, with the results being non-representative beyond those who participated in this portion of the study. During the summer of 2017, one group met at Central Connecticut State University (CCSU), while the other met at Eastern Connecticut State University (ECSU). The enthusiasts participated in a wide range of outdoor recreation activities, including trail running and walking, kayaking, lake and ocean swimming, horseback riding and horse camping, mountain and road biking, cross-country skiing, fishing, snowshoeing, hunting, ATV riding, and canoeing.

Outdoor enthusiasts expressed concern over their inability to practice preferred activities safely and/or legally. This was especially true of horseback riders/campers and ATV riders. One of the two focus groups included three horseback riders, all of whom agreed that they must travel a great distance to find horse-friendly trails. These individuals reported seeking trails that are more secluded, less prone to bike and foot traffic, and that have adequate parking for trailers. The number of recreation areas in Connecticut that meet these criteria is very small, forcing these individuals to recreate out-of-state. These sentiments were consistent with those expressed by horseback riders responding to the Outdoor Enthusiast Survey.

An interesting interplay emerged in this focus group that points to tensions existing between those engaging in different outdoor activities, particularly those utilizing multi-use trails. Horseback riders in the focus group, as well as trail runners and walkers, expressed that motorized dirt bikes and ATVs should not be present on state land. In the view of these enthusiasts, motorized bikes and ATVs “tear up” the ground, making trails more difficult and potentially dangerous to use, and are extremely loud, which can scare both humans and horses. ATV enthusiasts countered that there are few legal places to ride, classifying Connecticut as a “non-friendly” state to ATV riders. ATV riders pointed to Maine as a great place to recreate, indicating that the state has dual-use trails dedicated to snow mobile and ATV riding. This heated conversation concluded with enthusiasts agreeing that DEEP must re-evaluate its policies towards ATV riding on state property, taking into consideration the needs of numerous constituent groups.

There was a strong call for raising awareness about local resources. In particular, focus-group participants wanted access to more information about the location of outdoor areas and facilities in the state. Enthusiasts suspected that there were likely resources that they were not aware of, possibly even in their own hometown. Trail runners spoke about an app called “AllTrails,” which provides directions from a user’s current location to any trail in the app’s database. The app features over 50,000 trail maps, allowing users to follow their progress as they move along the trail. Enthusiasts universally agreed that DEEP should create an app that gives users directions to all outdoor recreation areas, allowing individuals to search by activity (e.g., places to fish, places to kayak). None of the ten enthusiasts were aware of the CT State Parks and Forests Guide app, which seems to have the type of functionality that they are seeking. The fact that the app only has approximately 10,000 downloads indicates a strong need to advertise this service more widely.



Focus group participants were challenged to brainstorm ways in which DEEP could connect with other avid outdoor enthusiasts. Both focus groups mentioned the Run 169 Towns Society, a group of runners who share the goal of completing a road race in each of Connecticut's towns. The group has over 2,100 members and is growing at a very rapid pace. Enthusiasts suggested that DEEP should keep in communication with groups like the Run 169 Towns Society and the Connecticut Chapter of the Appalachian Mountain Club. If a list-serve of these organizations already exists, it should be continually updated to account for emerging groups. DEEP could also consider a digital survey that would allow groups to sign up for agency e-mail blasts. Finally, focus group participants brought up the idea of having access to a calendar of outdoor recreation activities in the state. It was suggested that Connecticut's organizations could upload future activities to this calendar.

Both avid outdoor enthusiast focus groups concluded on a similar note, with participants expressing a love for the natural beauty of the state. A primary challenge the groups saw for DEEP was to effectively promote the fact that Connecticut has such natural beauty available for residents to enjoy. While as self-described outdoor enthusiasts, participants felt that they already knew about accessing this beauty, they expressed concern that fellow residents may be unaware of the natural resources right in front of them.

### Limited Outdoor Recreationists

Two groups of limited recreationists were also established using the same processes described for the avid outdoor enthusiast focus groups above. "Limited recreationists" are defined as those who self-identify as experiencing significant barriers to outdoor recreation. Some of these limited recreationists engaged in infrequent outdoor recreation, such as walking on a rail trail once a month, while others engaged in zero outdoor activities.

Both focus groups opened with a conversation about what the most prominent barriers to recreation were for these individuals. The most widely cited issue was time limitations resulting from the busy life schedules that focus group participants juggle daily. Between work (which for some included multiple jobs) and family/caretaking responsibilities, leisure time often takes a back seat for these individuals. When pressed further on the topic, some participants expressed frustration over having to spend time traveling to a recreation area—time that they did not feel they had. This corresponds to findings from the 2017 Statewide Survey, where "distance from one's residence" was the second-most widely cited barrier to participation (21%). It thus may be the case that many limited recreationists would not be so if they perceived more convenient and easily accessible facilities close to their residence. Naturally, such proximity is more difficult to achieve in urban areas without large areas of open space land; however, establishing a larger number of smaller-scale facilities such as trail loops or parks in these locations may be an effective way to bring outdoor recreation opportunities to those who are currently most deprived.

The top-ranked barrier to participation in the Statewide Survey was fees (23%), which was a lengthy topic of conversation in both focus groups. Two key themes emerged in this regard. First, participants felt that fees were not worth the money given the little time that they had to spend in the outdoor recreation area, which was usually 30 minutes or less. Second, participants expressed an expectation that facility fees would be effectively used to fund amenities at facility locations. Limited recreationists felt that this expectation is largely not being met at present, with security and restroom facilities particularly lacking. Focus group participants expressed the general belief that most outdoor recreation areas in Connecticut charge fees, which may be more perception than reality. Despite all being Connecticut residents, a few individuals expressed dissatisfaction with non-resident admission rates. The \$22 non-resident weekend/holiday parking fee at Hammonasset Beach State Park, for instance, was perceived as evidence of state greed. Focus group participants questioned where this money was going, convinced that the funds were not being reinvested in outdoor recreation areas. Open-ended responses given by several respondents to the Outdoor Enthusiast Survey suggested a perception that in general, out-of-state visitors to facilities are less respectful to the environment and other users than residents, and several individuals expressed frustration at the perception that out-of-state users were contributing to crowding and preventing Connecticut residents from using the facilities to which they believe they should have priority access as taxpayers. This may help explain the notion expressed by focus group participants that the state is not prioritizing the interests of citizens in favor of maximizing profits through such means as non-resident parking rates.

The clear distrust of the state government to act appropriately in the interest of recreation was echoed to a certain extent in comments given by respondents to the Outdoor Enthusiast Survey. In addition to feeling relatively unsupported in their recreational activities by the state government, some individuals even perceived a level of hostility towards certain recreational activities, particularly motorized biking and off-road vehicle use. Addressing the concerns of recreationists who feel marginalized would likely go a long way in promoting more positive relationships between recreationists and government agencies such as DEEP. Increasing the visibility of DEEP and its objectives to the public may also help dispel any negative misconceptions regarding the state's role in outdoor recreation. In fact, several respondents to the Outdoor Enthusiast Survey remarked upon their positive experiences with DEEP staff at the recreational facilities they visited, and a very large number expressed a desire for increased collaboration between DEEP and recreation groups and/or better public outreach from DEEP to citizens.

In one focus group, female study participants shared that they often did not feel safe recreating alone. At the same time, they did not have the desire or perceived ability to commit to regularly meeting friends for this purpose, with most citing conflicting or unpredictable personal schedules as a significant barrier. In addition to increasing surveillance by park rangers, these limited recreationists suggested introducing an emergency contact system in Connecticut's outdoor recreation areas. Two individuals referenced the blue light emergency system found on many of America's college campuses, such as CCSU and ECSU. A feeling of personal vulnerability led some of these women to join gyms in lieu of recreating outdoors.

Both focus groups concluded with participants expressing that they want to know more about outdoor recreation activities in their area. They were excited at the prospect of getting communication from DEEP via social media. Many also shared a willingness to download an outdoor recreation app on their phone, believing that such a resource would help them know where local recreation areas are located. This is encouraging, and again emphasizes the importance of increasing the visibility of DEEP and its services, as well as communication and collaboration with citizens and non-profit organizations.

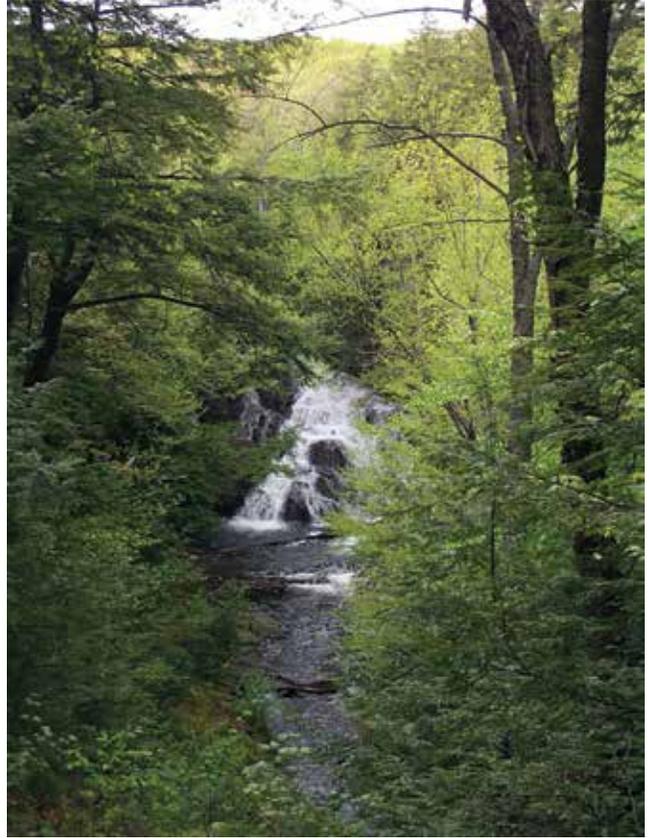
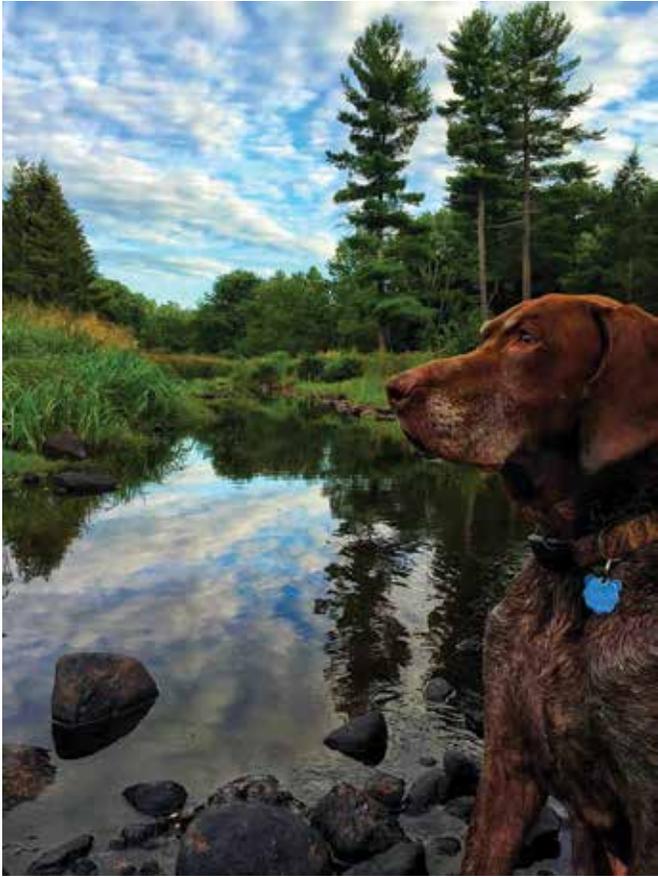
It must be noted that because focus groups rely on small samples (in this case 10 avid outdoor enthusiasts and 10 limited recreationists), there is a greater chance that their results may not be generalizable to the population being measured. That is, one must be cautious in drawing any widespread conclusions from the information gathered, as the views and opinions of both avid and limited recreationists are likely to be so variable among individuals that they cannot all possibly be captured in a sample of this size. Rather than generalizability, the main objective of focus groups is to gain a deeper understanding of the subject at hand by eliciting more detailed information from individuals than can be obtained through a large-scale survey. Indeed, the detailed information gained through the focus groups was vast and varied despite the small sample size, and the findings above represent only general themes among focus group participants and not a common opinion shared by all members of the group.





# APPENDICES





# APPENDICES

- A. Wetlands Management Information
- B. Open Project Selection Process
- C. 2017-2022 SCORP Advisory Committee Membership

## Appendix A: Wetlands Management Information

Within the State's borders there are approximately 450,000 acres of wetlands, 6,000 miles of streams and rivers, over 2,000 lakes and reservoirs, and 600 square miles of estuarine water in Long Island Sound. Managing these precious resources for today and tomorrow is one of DEEP's most critical missions.

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 many 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.

### **Wetland Management Legislation and Implementation**

The Connecticut DEEP acknowledges the importance of wetland management and protection and thereby commits to Floodplain Management and Wetland Protection, Executive Orders 11988 and 11990.

Executive Orders 11988 and 11990 direct the federal agency to avoid, to the extent possible, the long and short term adverse impacts associated with modifying or occupying floodplains and wetlands. They also require federal agencies to avoid direct or indirect support of floodplain or wetland development whenever there is a practical alternative.

For LWCF purposes, the State/project sponsor must comply with these executive orders. If implementing the LWCF project would result in an adverse impact to a federal or state regulated floodplain or wetland, a statement of finding must be included in the EA or EIS documenting the State/local sponsors coordination efforts with responsible state and federal authorities, a description of affected floodplain and wetland resources, alternatives considered to developing in the floodplain and/or wetland, and actions to avoid, minimize and/or mitigate impacts.<sup>1</sup>

---

<sup>1</sup> LWCF State Assistance Program Manual Chapter 4-3

Early in the conceptual development of an LWCF proposal, the State shall encourage LWCF project sponsors to document their planning and analysis process, including all efforts to reach out to the interested and affected public and agencies. These stakeholders should be invited to provide input early in the planning process and before any environmental analysis formally begins so the sponsor can clearly communicate the purpose and need for the project and give them an opportunity to provide any information that could be useful for scoping out the LWCF proposal and considering its potential impact on resources.<sup>2</sup>

### Long Island Sound Blue Plan

According to State statute, the Commissioner of Energy and Environmental Protection shall seek necessary federal approval to incorporate the Long Island Sound Blue Plan as an enforceable policy in the state's coastal management program under the federal Coastal Zone Management Act. The Commissioner of Energy and Environmental Protection shall, within available resources, develop and implement a public outreach and information program to provide information to the public regarding the Long Island Sound Blue Plan.

Based on the resource and use inventory, the actual plan is required to establish the state's goals, siting priorities, and standards for effective stewardship of the Sound's waters; promote science-based management practices that consider existing natural, social, cultural, historic, and economic characteristics of planning areas within the Sound; preserve and protect traditional riparian and water-dependent uses and activities; and promote maximum appropriate public access to the Sound's waters for traditional public trust uses such as boating and fishing. The plan must also reflect a long list of stated values, including avoiding use conflicts, protecting biodiversity and ecosystem health, encouraging bi-state planning with New York, and identifying appropriate locations and performance standards for activities, uses, and facilities regulated under state permit programs, and guiding the siting of such regulated activities.



<sup>2</sup> IBID

## Appendix B: 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 interested 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 the following 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 historic quality considerations
- Capital development or renovation considerations
- Facility acquisition considerations

While the ranking system seeks to objectively incorporate considerations for all merits of a proposed project, 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

CT's OPSP is intended by design 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.

The Long Island Sound Blue Plan must also reflect a long list of stated values, including avoiding use conflicts, protecting biodiversity and ecosystem health, encouraging bi-state planning with New York, and identifying appropriate locations and performance standards for activities, uses, and facilities ....

PAGE 161

## Appendix C: 2017-2022 SCORP Advisory Committee Membership

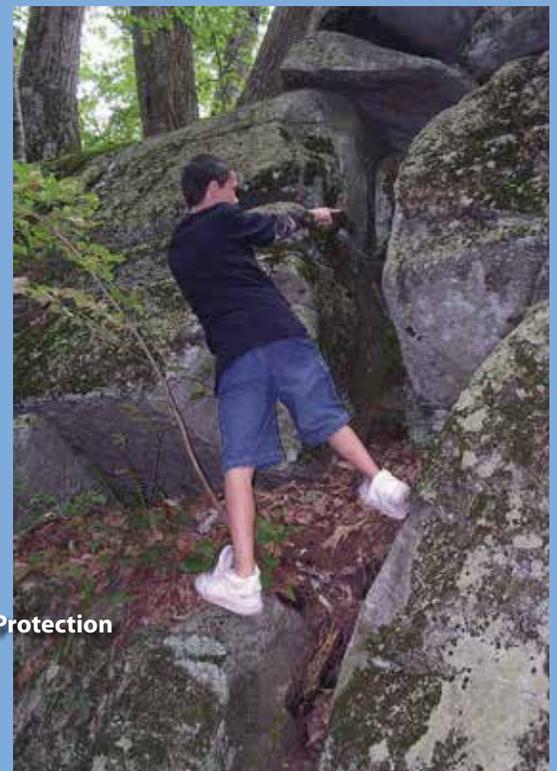
The Connecticut Department of Energy and Environmental Protection wishes to thank the following individuals and the organizations they represent for the valuable input and advice they all provided during the goal-development and strategic planning processes:

Bob Bell	Friends of Connecticut State Parks
Bruce Donald	Connecticut Greenways Council, Chair
Dave Putnam	East Lyme Parks and Recreation Department, Director
Eric Hammerling	Connecticut Forest and Park Association, Executive Director
Randall Fiveash	Connecticut Office of Tourism, Director
Frederick Mastele	Connecticut Horse Council, Inc., President
Dean Rustic	Fisheries Advisory Council, Vice Chair
Duncan Broach	New England Trail Riders Association
Eric Lindquist	Connecticut Office of Policy and Management
Pamela Adams	Friends of Connecticut State Parks, President
Jon Slifka	Governor’s Liaison to the Disability Community
Valerie Stolfi Collins	Connecticut Recreation and Parks Association, Executive Director
Karl Wagener	Council on Environmental Quality, Executive Director
Keith Cagle	Conservation Advisory Council, Chair

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. The editor also wishes to thank the many staff and non-staff contributors of photographs in this plan, including Pamela Aey Adams, C. J. Baker, Mike Beauchene, Patricia Brody, Paul Fusco, Bill Gerrish, Diane Chisnall-Joy, Clement Kamoen, Rob Klee, Jim Murtagh, Tom Naughton, Tom Nicholson, the Recreational Boating and Fishing Foundation, Josh Rimany, Susan Robinson, Wanda Torres, Justin Wiggins, and Victor Xavier.







**SCORP**  
**The Statewide**  
**Comprehensive**  
**Outdoor**  
**Recreation**  
**Plan**  
**2017-2022**

State of Connecticut  
Department of Energy & Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127  
[www.ct.gov/deep](http://www.ct.gov/deep)