



Vermont Statewide Comprehensive Outdoor Recreation Plan (SCORP)

2014-2018



Acknowledgments

The production of this plan was made possible through the cooperation and assistance of many individuals, organizations, and agencies. The State of Vermont thanks and appreciates the efforts of all who participated in this project. The plan is a better document as a result, and we are grateful for all input received. Acknowledgement of individual efforts is not possible due to the large number of participants and organizations. Hopefully, these planning efforts will result in improvements to outdoor recreation in Vermont.

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This document is available upon request in large print, Braille, and audio cassette.

Letter from Vermont Governor Peter Shumlin

PETER SHUMLIN
Governor



State of Vermont
OFFICE OF THE GOVERNOR

Jack Howard
National Park Service
Recreation and Conservation Grants Assistance
200 Chestnut Street
Philadelphia, Pennsylvania 19106

Dear Mr. Howard:

It is with great pleasure that I present to you Vermont's Statewide Comprehensive Outdoor Recreation Plan 2013 (SCORP). The SCORP is the result of a vigorous and extensive public input process, which incorporated a variety of mechanisms soliciting the public's thoughts and attitudes about outdoor recreation in Vermont. These included one-on-one meetings with leaders of a variety of statewide recreation organizations, a webinar, a systematic statewide survey of 1,500 Vermont residents, and solicitation of recreation related information from municipalities, as well as state and federal agencies. A two-year long Vermont Trails Collaborative, involving the Department of Forests, Parks, and Recreation, the Green Mountain National Forest, and the University of Vermont Extension, generated much important trails related information that was critical to the development of this SCORP. Finally, the Vermont Association of Planning and Development Agencies played a key role in publicizing the preparations of the SCORP which generated a significant amount of valuable public input.

The results of this SCORP will help guide the multiple efforts in Vermont to provide its residents and visitors with the highest quality outdoor recreation facilities, opportunities, and experiences possible. We look forward to implementing the strategies outlined in the SCORP, in particular, as we use it as a guide to select the best possible projects to fund through future LWCF funding opportunities.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter Shumlin", with a long horizontal flourish extending to the right.

Peter Shumlin
Governor

Letter from FPR Commissioner



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Agency of Natural Resources

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August 15, 2013

Dear Vermonter:

I am happy to share with you the Vermont Statewide Comprehensive Outdoor Recreation Plan, 2013-2017, also known as our SCORP. This plan was prepared under the direction of the Vermont Department of Forests, Parks & Recreation, with significant work being provided by The Rubenstein School of Environment and Natural Resources at the University of Vermont. It assesses outdoor recreation demand and the supply of outdoor recreation in Vermont in a manner similar to previous SCORP data collection efforts. A statewide survey of Vermont residents, included in the above-referenced work performed by UVM, was used to identify outdoor recreation issues. Finally, an Action Plan (Chapter 5) presents Vermont's vision for outdoor recreation for the ensuing five years.

Each state is required to have a current SCORP in order to be eligible to receive and disburse federal Land & Water Conservation Funds as well as federal Recreational Trail Program grants.

We believe that outdoor recreation in Vermont, like our working landscape of forests and farms, is fundamental to who we are and we enthusiastically promote and pursue the many benefits – ranging from human health and environmental awareness to local economic development – that derive from robust statewide recreation infrastructure, planning, management, and participation.

Recently our department reorganized and reemphasized our approach to administering and managing recreational activity on state lands and our support of external recreation partners on private lands. I encourage all who care about and support outdoor recreation to embrace our outdoor recreation efforts and become actively involved in helping to fully implement this plan.

Sincerely,

Michael C. Snyder
Commissioner



Table of Contents

Acknowledgments.....	2
Letter from Vermont Governor Peter Shumlin.....	3
Letter from FPR Commissioner.....	4
SCORP Executive Summary	6
Acronyms used in this document.....	10
Federal and State Lands that offer outdoor recreation in Vermont	12
Chapter 1: Introduction.....	13
I. Purposes and benefits of the plan.....	19
II. Structure of plan and how to use it.....	20
III. Data collection and public involvement used to inform the plan.....	21
IV. About the Land and Water Conservation Fund.....	24
Chapter 2: Municipal, State, Federal, and NGO Recreation Facilities and Resources.....	28
I. Municipal outdoor recreation facilities/resources.....	28
II. State outdoor recreation facilities/resources	40
III. Federal outdoor recreation resources/facilities	51
IV. Outdoor recreation NGO resources/facilities	54
Chapter 3: Demand for Outdoor Recreation in Vermont.....	71
Chapter 4: Issues and priorities in outdoor recreation in Vermont.....	93
I. Vermonters' satisfaction with outdoor recreation facilities and resources	93
II. Priorities identified by municipalities	95
III. Comparing user satisfaction with municipal rankings of priority.....	96
IV. Outdoor recreation issues and priorities (ANR, user groups, recreation organizations)	
101	
Chapter 5: The Action Plan.....	118
Appendix A: Vermont Wetlands Conservation Strategy: 2012 Update	149
Appendix B: Full survey results from the 2011 Outdoor Recreation Demand Survey	153
Appendix C: Trails-Related Resources: Achievements, Issues & Priorities	206
Appendix D: Publications used in developing this plan	221
Index	226

SCORP Executive Summary

Introduction

Outdoor recreation is important to the lives and livelihoods of all Vermonters in one way or another. Nearly all of the Vermonters who responded to the 2011 Outdoor Recreation Demand Survey participated in some type of outdoor recreation activity, from picnicking to hiking to snowmobiling. While Vermonters' favorite activities are hiking, walking, hunting, fishing, and swimming, residents participate in a wide range of activities. There are 28 different outdoor recreation activities with participation rates greater than 10 percent. In addition to the positive public health outcomes of physically active lifestyles and the quality of life Vermonters associate with natural landscapes, outdoor recreation plays an important role in generating economic activity within the state, drawing in federal funds and attracting tourists from all over the world. The Outdoor Industry Foundation reported that in 2006 the outdoor recreation economy supported 35,000 jobs in Vermont, generated \$187 million in annual state tax revenue, produced \$2.5 billion annually in retail sales and services across Vermont, and accounted for 12 percent of the gross state product.

Planning and investment is required to maintain current outdoor recreation facilities and resources and make new ones possible. To assist with outdoor recreation, land acquisition, development, and planning at the state level, the Land and Water Conservation Fund (LWCF) statewide program offers grants to assist states that can, in turn, pass through grants to municipalities. To qualify for LWCF funds, states must revise the State Comprehensive Outdoor Recreation Plan (SCORP) every five years. Maintaining a current SCORP ensures Vermont's eligibility to receive funding for municipal and state recreation and conservation projects from the LWCF. Since 1965, \$31,669,336 of LWCF funding has been granted to Vermont.

The purpose of the SCORP is to assess the supply, demand, quality, priorities and issues surrounding outdoor recreation in the state, and set forth a plan of action for achieving a desired vision for outdoor recreation. In 2011, three surveys were conducted to determine the supply of outdoor recreation facilities and resources throughout the state and demand for participation in the outdoor recreation activities that depend on those facilities and resources. This was accompanied by the collection of secondary data, as well as direct input from the Vermont Agency of Natural Resources staff, recreation providers, and user groups. Based on this research and public input, the Action Plan was put together to articulate a vision for outdoor recreation in Vermont, and put forth a plan for achieving it. This Executive Summary shares the key findings and recommendations of the plan. For the complete findings, refer to the full document.

Key Findings

Outdoor Recreation Supply

Vermont has close to 850,000 acres of public lands open to recreation, and thousands of miles of trails on public and private lands that serve hikers, mountain bikers, snowmobilers, all-terrain vehicle (ATV) riders, and other trail users. Federal, state, municipal, and non-governmental organization (NGO) recreation providers manage parks, forests, wildlife areas, playing fields, boat launches, and dozens of other types of outdoor recreation facilities and resources. An inventory of these facilities and resources can be found in Chapter 2. Some of the biggest changes in the outdoor resources and facilities available to Vermonters in recent years include:

- Acquisition of 2,964 acres of land by the state in fee and acquisition of easement interest in 9,823 acres of land, from January 1, 2010 through December 31, 2012, is now available for public recreation.
- An increase in mountain bike trails, particularly trails managed by the Vermont Mountain Bike Association and Green Mountain National Forest.
- Investment of over \$10 million for capital improvements in state parks to replace and update aging infrastructure and to add new facilities such as camping cabins, which have become very popular for state park visitors.
- Investment of millions of dollars by municipalities to expand and upgrade municipal recreation facilities including those significant areas affected by flooding in 2011.
- An increase in established ATV trails on private lands.
- New improvements to existing facilities to make them accessible to persons with disabilities.

Outdoor Recreation Demand

Vermonters participate in a wide range of outdoor recreation activities. In 2011, picnicking, swimming in lakes, and walking had the highest participation rates of all the activities included in the survey. The activities that were engaged in the most number of days of the year were walking, jogging/running, and riding ATVs.

Some of the biggest changes in participation include:

- Trail-based recreation: Membership in almost all trail-based organizations included in this plan has increased, and trail-based recreation activities were some of the most popular types of recreation in Vermont.
- Mountain biking: Kingdom Trails membership has increased by 140 percent since 2001, adding almost 2,000 people to its membership in that time period. Mountain bikers engaged in the sport an average of 16 days per year.
- ATVing: The Vermont All-Terrain Vehicles Sportsman's Association's (VASA) membership has almost doubled since 2003, increasing to 2,564 members in 2010. ATV riding has the third highest average annual household participation days of any activity.
- Snowmobiling: Membership in the Vermont Association of Snow Travelers (VAST) has declined over the past 10 years by over 10,000 members, declining to 31,992 members in

2010. Even so, more than 10 percent of Vermonters snowmobile, for an average of almost 16 average annual household participation days.

- Hunting and fishing: The sale of hunting licenses in Vermont has declined over the past 10 years. The declining numbers of hunters in the state has been documented by the US Fish and Wildlife's National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) survey, which found that the number of hunters in Vermont had declined by a third between 2001 and 2006.

Outdoor Recreation Priorities

The top five municipal priorities identified in the 2011 Outdoor Recreation Inventory were:

- Parks and open space
- Bike/pedestrian trails
- Baseball/softball fields
- Hiking trails
- Soccer fields

Vermonters responding to the 2011 Outdoor Recreation Demand Survey thought that priority emphasis should be placed on the following recreation facilities:

- Facilities for people with physical disabilities
- Off-leash dog parks
- OHV/ATV trails and roads
- Marinas
- Fishing piers

Staff from the Agency of Natural Resources, user groups, and recreation providers identified the following priority issues that are affecting outdoor recreation in the state:

- Climate change and Other Air Pollution Effects
- State land acquisition priorities
- Hunting and fishing participation issues
- Angler concerns
- Water quality in Vermont lakes
- Recreational access to private land
- State park infrastructure renovation and updating to meet contemporary needs
- Senior-friendly outdoor recreation facilities/resources
- Youth involvement in outdoor recreation
- Trails issues identified by the Vermont Trail Collaborative
- Regulatory jurisdiction for the Statewide Trail System

- Publicly available trails information

The Action Plan

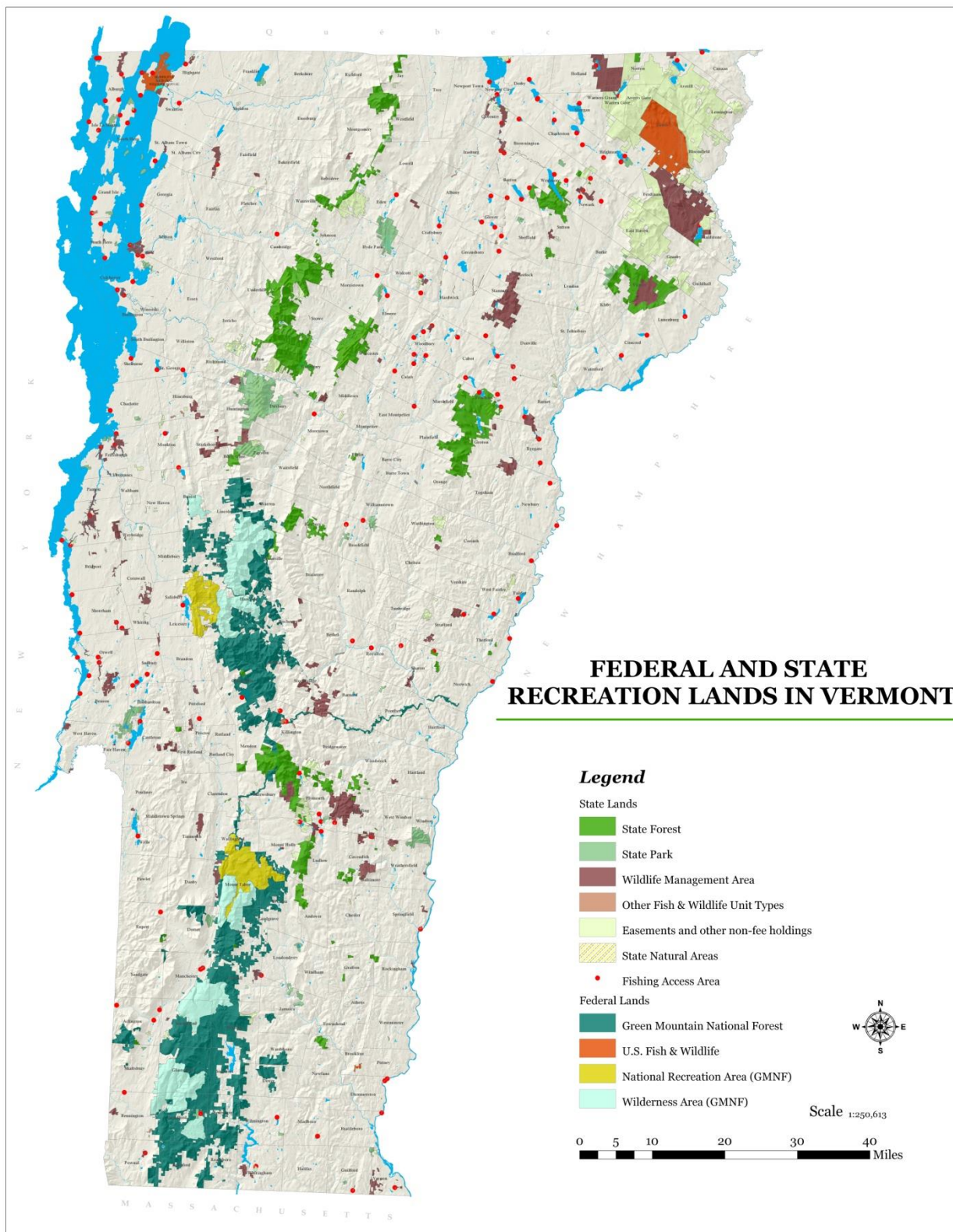
- Types of projects to be completed during SCORP period 2013-2017
- Types of projects to use LWCF funding for
- Types of projects to use other funding for

Acronyms used in this document

AGO	America's Great Outdoors
ANR	Vermont Agency of Natural Resources
AOT	Vermont Agency of Transportation
ATV	All-Terrain Vehicle
CVNHP	Champlain Valley National Heritage Partnership
CTA	Catamount Trail Association
DEC	Vermont Department of Environmental Conservation
F&W	Vermont Department of Fish and Wildlife
FHWAR	National Survey of Fishing, Hunting, and Wildlife-Associated Recreation
FPR	Vermont Department of Forests, Parks, and Recreation
FY	Fiscal Year
GMC	Green Mountain Club
GMNF	Green Mountain National Forest
LCBP	Lake Champlain Basin Program
LCP	Land Conservation Plan
LWCF	Land and Water Conservation Fund
NGO	Non-Governmental Organization
NWR	National Wildlife Refuge
OPSP	Open Project Selection Process
PART	Program Assessment Rating Tool
SCORP	Statewide Comprehensive Outdoor Recreation Plan
STS	Statewide Trail System
RTP	Recreation Trails Program

TY	Tax Year
USDA	United State Department of Agriculture
USFS	United States Forest Service
USFW	United States Fish and Wildlife Service
UVA	Use Value Appraisal
UVM	University of Vermont
VAPDA	Vermont Association of Planning and Development Agencies
VASA	Vermont All-Terrain Vehicle Sportsman's Association
VAST	Vermont Association of Snow Travelers
VHCB	Vermont Housing and Conservation Board
VLT	Vermont Land Trust
VMBA	Vermont Mountain Bike Association
WMA	Wildlife Management Area
VRPA	Vermont Recreation & Parks Association

Federal and State Lands that offer outdoor recreation in Vermont



Chapter 1: Introduction

Outdoor recreation in Vermont

Vermont's landscapes of mountains, forests, rivers, and lakes make it well-suited for some of Vermonters' favorite outdoor recreation activities, including hiking, skiing, hunting, fishing, and swimming. Vermont's federal, state, and municipal recreation providers offer recreation opportunities on close to 850,000 acres of land. Acreage of land designated for recreational uses totals over a million acres in the state when recreational land holdings by NGOs, commercial recreation providers, and colleges and universities are included.

Vermont is a largely rural state. With over 60 percent of the population living in census-designated rural areas, Vermont has the second largest percent rural population in the United States, and more than 98 percent of its land area is designated as rural by the US Census Bureau. Even though over 83 percent of land in the state is in private ownership, there are extensive networks of private lands, and trails passing through private lands, that permit certain recreational uses. Chapter 203 of Title 12 of the Vermont Statutes Annotated was enacted to "encourage owners to make their land and water available to the public for no consideration for recreational uses" by limiting landowner liability (12 VSA §5791). Vermont's constitution gives people the right to hunt and fish on un-posted land, and landowner permissions allow for the connection of snowmobile, ATV, and mountain bike trail systems across private lands throughout the state.

Outdoor recreation plays an important role in the lives of all Vermonters in one way or another. The Council on the Future of Vermont, whose two year public involvement process resulted in the 2009 publication "Imagining Vermont: Values and Vision for the Future," stressed the importance Vermonters find in preserving the natural environment as it is, particularly maintaining the working landscape and its association with outdoor recreation. The Council found that the popularity of outdoor recreation was marked by easy access to public and private lands. They also found that Vermonters valued the scenic beauty of the surrounding landscape.

Vermonters take their outdoor recreation pursuits seriously. According to the 2011 Vermont Outdoor Recreation Demand Survey, two out of five households in Vermont say that outdoor recreation is "very important" to the them, while another third say it is moderately important in their household. Based on 2010 census figures, this means that more than 116,000 households or 284,000 people in Vermont say that outdoor recreation is "very important" in their everyday lives. A little more than one in four households stated that outdoor recreation was either "not at all important" or "somewhat important." Figure 1.1 shows how Vermonters rate importance of outdoor recreation.

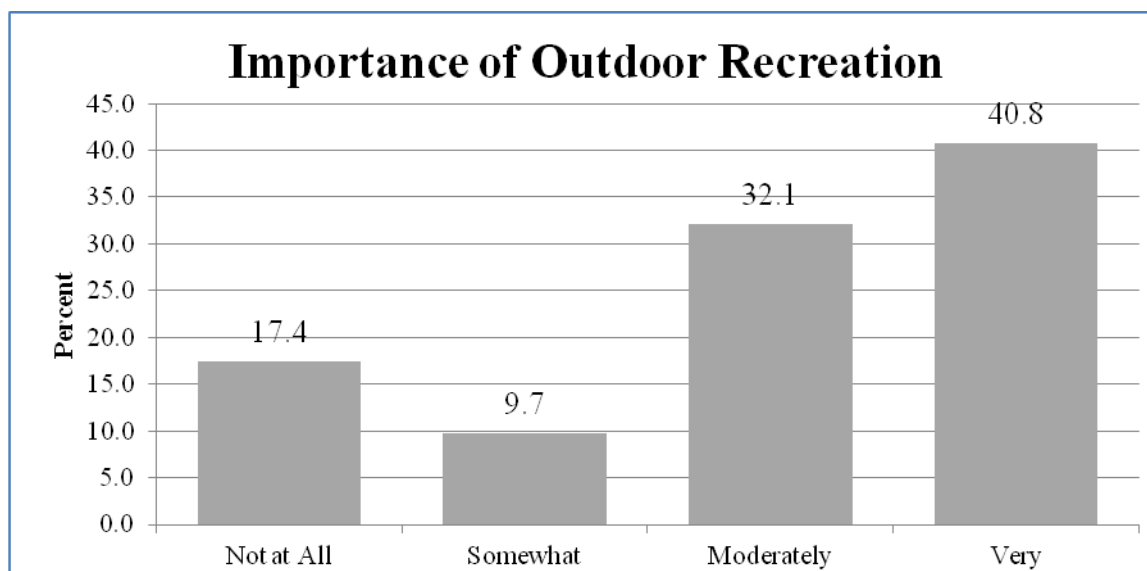


Figure 1.1. Importance of Outdoor Recreation

In the 2011 Outdoor Recreation Demand survey, hiking was the activity favored by the most Vermonters: one in six Vermonters rated hiking as their favorite outdoor recreation activity. Hiking was followed by walking, hunting, and fishing, each of which about 9 percent of residents favored. However, when one combines fishing and fly-fishing together, it puts fishing in second place with 9.9% of the respondents, second only to hiking, and ahead of walking and hunting. The next most favored activities included swimming, bicycling, and camping. Skiing activities (cross country skiing and downhill skiing) combined were mentioned 7.3 percent of the time as a favored activity. Table 1.1 shows the rankings of Vermonters' favorite outdoor recreation activities (activities are included that more than 1 percent of Vermonters listed as their favorite).

Most Vermonters are generally happy with existing recreation facilities in the state. A third of the respondents to the 2011 survey said the outdoor recreation facilities in Vermont were "very good" and another fourth said the facilities in the state were "excellent." Figure 1.2 shows Vermonters' overall quality ratings of outdoor recreation facilities. While these overall ratings are positive feedback on the quality of outdoor recreation facilities/resources in the state, there are specific areas with room for improvement. One of the goals of this document is to identify those areas needing attention.

Table 1.1. Vermonters' favorite outdoor recreation activities

Activity	Percent
Hiking	16.0
Walking	9.1
Hunting	9.0
Fishing	8.8
Swimming	6.7
Bicycling	5.7
Camping	4.0
Snowshoeing	2.9
Snowmobiling	2.8
Skiing (unspecified)*	2.7
XC Skiing	2.6
Kayaking	2.2
Downhill Skiing	2.0
Golf	1.9
Boating	1.9
Running/Jogging	1.9
4-Wheeling	1.9
Snowboarding	1.6
Gardening/Yard Work/Farming	1.4
ATVing	1.2
Mountain Biking	1.1
Fly Fishing	1.1

*Survey respondents who did not specify what type of skiing was their favorite

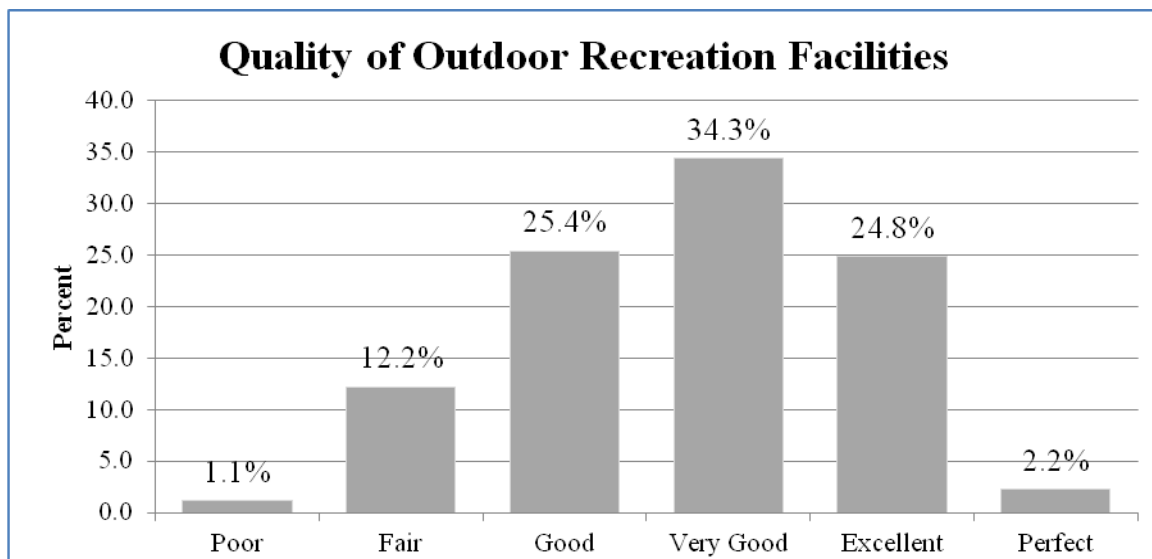


Figure 1.2. Overall quality rating of Outdoor Recreation Facilities in Vermont

For many, Vermont provides outdoor recreation opportunities close to home. With 4,580,000 acres of forested land, covering more than 74 percent of the state's land area, and over 800 lakes, 220 of them larger than 20 acres, there exist countless opportunities for outdoor recreation throughout the state. Home to two national wildlife refuges, one national forest, one national historical park, three nationally-designated trails, 36 state forests, 52 state parks, 82 wildlife management areas and hundreds of town parks, playgrounds, and playing fields, Vermont's land and waterscapes provide a wide range of outdoor recreation spaces.

This was evident in the 2011 Vermont Outdoor Recreation Demand Survey: more than a quarter of respondents were able to participate in their favorite outdoor recreation activity by stepping out the back door of their homes. This means that as many as 74,000 households and approximately 181,000 Vermont residents do not have to travel away from home to participate in their favorite outdoor recreation activity. More than a third of the sample was able to participate in outdoor recreation within 10 miles of their home. Just under a third traveled more than 10 miles from home to participate in their favored outdoor recreation activity. In contrast, the Outdoor Foundation found that in 2011, nationwide, 73 percent of outdoor recreationists had traveled 30 minutes or more to get to their most recent outdoor recreation outing.

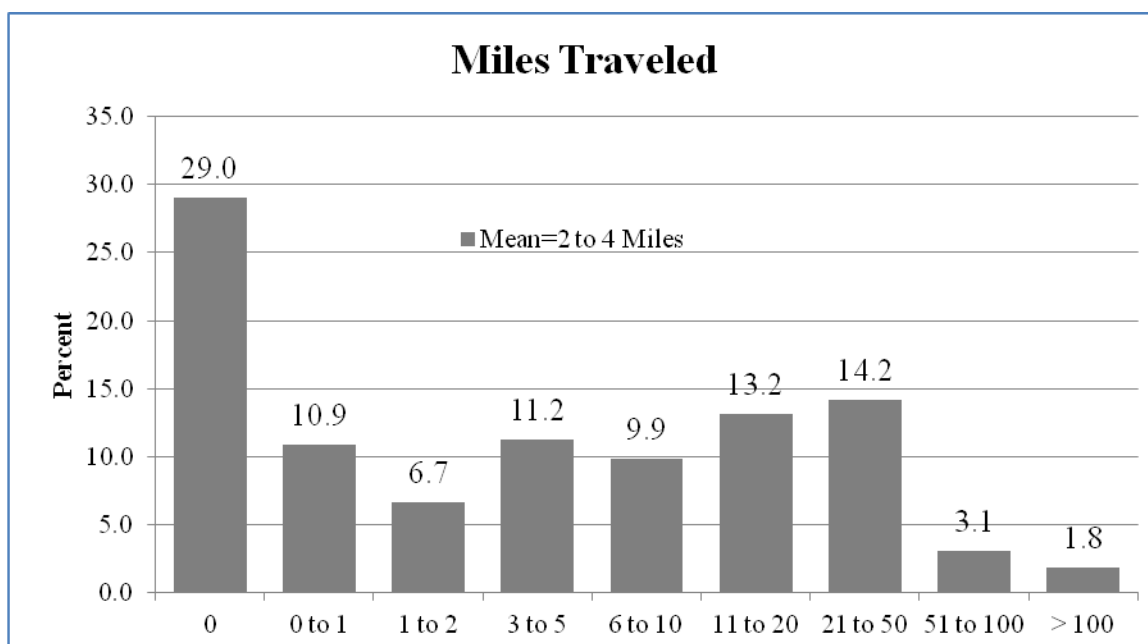


Figure 1.3. Distance traveled to participate in favorite outdoor recreation activity

Vermont has been nationally and internationally recognized for its outdoor recreation opportunities. Some recent accolades include:

- Two Vermont towns (Hardwick and Burlington) were named by *Outside Magazine* in the top 19 outdoor recreation towns in the United States in 2011.

- In 2010, Vermont was winner of the National Coalition for Recreational Trails Annual Achievement Award in recognition of outstanding use of Recreational Trails Program funds. Vermont was the second state in the nation to receive this honor.
- In 2010, Burlington was named as one of the three “Bass Capitals” of the United States by *Outdoor Life* Magazine in its ranking of top towns for hunters and fishermen.
- Vermont was ranked fifth in the world and first in the United States in National Geographic Society's Center for Sustainable Destinations' annual “Survey of Destination Stewardship in 2009.
- Kingdom Trails in East Burke was voted "Best Trail Network in North America" by *Bike Magazine* in 2008.

Economic impacts

Outdoor recreation plays an important role in Vermont's economy. The Outdoor Industry Foundation in 2006 estimated that the outdoor recreation economy supported 35,000 jobs across Vermont, generated \$187 million in annual state tax revenue, produced \$2.5 billion annually in retail sales and services across Vermont, and accounted for 12 percent of the gross state product.

In April 2010, President Obama introduced the “America's Great Outdoors” (AGO) initiative, which presented an agenda for renewed commitment to conservation and recreation in the United States. The AGO Initiative's report, which lays out the implementation of the agenda, stressed that we must “recognize the significant economic benefits produced by protecting and restoring our natural and cultural heritage and by promoting outdoor recreation and land stewardship” (p. 4). In addition to the large, quantifiable impacts at the state level, economic impact studies of particular activities or recreation destinations have been conducted by various colleges, universities, and organizations. Listed below are some of those special studies.

- A UVM study of the Burlington Bikeway and Island Trail Line in 2008 found that tourist users of the paths spent between \$1 million and \$2.5 million, from May to September.
- Ski Vermont reports that each year, the ski/snowboard industry results in about \$750 million in direct spending.
- The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation estimates that state residents and nonresidents spent \$383 million on wildlife recreation in Vermont in 2006: \$190 million in hunting expenditures, \$64 million in fishing expenditures, and \$123 million in wildlife watching expenditures.
- A 2007 study of six regions of the Northern Forest Canoe Trail found that nearly 90,000 visitors created over 280 jobs and over \$13 million in economic impacts, the majority of which were made in the communities along the waterways.
- Johnson State College's study of the impact of snowmobiling on Vermont's economy found that snowmobiling represented an economic impact of \$512 million in 2001,

including indirect factors and an economic multiplier. This was an increase of nearly 316 percent since the previous study in 1995.

- Based on data from 2000-2003, the average expenditures per party, per trip for day visitors to Green Mountain National Forest was \$28, and for overnight visitors was \$174, which was classified as “average” spending for National Forest visitors.
- Total visitor trip spending at the five Army Corps of Engineers lake sites in Vermont was just under \$16 million in 2010, sustaining 187 jobs.
- The 2012 Report Economic Impact of Bicycling and Walking in Vermont found that in 2009, impacts, including infrastructure, programs, events, and businesses, resulted in: 1,418 jobs, \$41 million in labor earnings, \$83 million in output, and \$1.6 million in state budget fiscal impact
- A UVM study found that in 2001, resident and nonresident campers and day-use visitors to Vermont state parks spent an estimated \$55,571,095 in the state on goods and services directly related to their state park activities.
- The Vermont Department of Tourism and Marketing found that visitors to Vermont in 2009 spent \$1.424 billion, \$117.2 million of which was spent directly on recreation.

Public health and quality of life

The popularity of outdoor recreation, along with the land and waters that enable activities, has important implications for public health and quality of life in Vermont. The National Recreation and Park Association’s report, “The Benefits of Physical Activity: The Scientific Evidence” reviewed research that concluded that those who live in close proximity to outdoor recreation resources such as parks and other public open spaces are more likely to engage in physical activity. From playgrounds, to fields for sports, to trails and walking paths, parks play an important role for recreation throughout the life course, and public investment in these resources can contribute to stronger and healthier communities. Some types of resources, such as sidewalks, bike paths, and bike lanes double as resources for outdoor recreation and for transportation, both offering the benefits of active lifestyles. Since the late 1980s, Vermont’s investments in bicycle and pedestrian-friendly infrastructure, coupled with programs that encourage physical activity and alternative transportation, promote healthy habits throughout the population.

Outdoor recreation planning

The America’s Great Outdoors Initiative calls for cross-scale and regional collaboration on projects that address concerted efforts for conservation on the landscape scale. Outdoor recreation planning at the state level takes place through the Statewide Comprehensive Outdoor Recreation Plan, or the SCORP. The SCORP planning process helps to ensure that all levels of

outdoor recreation needs and priorities – from local providers to the federal government – are accounted for in the state, and when possible, are aligned towards common, regional goals. The Vermont Outdoor Recreation Plan assesses priorities and needs in Vermont at various levels of management and then proposes an action plan for addressing those needs. While some recreational needs can be taken care of locally (e.g. constructing a trail through a town forest or building a new town playground), others require more collaborative efforts by various types of landowners and user groups (e.g. patchwork-type conservation to provide travel corridors for wildlife or planning a state-wide trail system).

The AGO initiative calls for states to align their state plans with the national conservation and recreation priorities programs that are envisioned in its report. One of AGO's initiatives, recreational blueways, has already been set in motion in Vermont. The Connecticut River was named as the Nation's first National Blueway in 2012, which connects conservation waters and lands throughout the 7.2 million-acre Connecticut River watershed, which is comprised of the entire eastern side of Vermont, and parts of New Hampshire, Massachusetts and Connecticut. In addition to safeguarding water quality and habitat, the intent of the "Blueway" designation is to promote communities within the watershed as destinations for outdoor recreation activities such as hiking, fishing, wildlife viewing, and boating, helping communities become a hub for job opportunities associated with conservation, education, and resource use. Vermont's Tactical Basin Planning Process is one approach that the Agency of Natural Resources is using to promote the "Blueway" designation for the Connecticut River.

Given its popularity and economic importance in Vermont, planning for outdoor recreation is essential to help protect the resources upon which outdoor recreation depends from overuse, misuse, or neglect. The resources that are of concern to this plan are the health of the natural resources upon which outdoor recreation activities depend, the quality of the facilities and resources which support activities, the people whose livelihoods depend on the outdoor recreation industry, and the people who take advantage of outdoor recreation opportunities in Vermont. The goal of this planning effort is to help maintain Vermont as a great place for people to live and play, and continue the state's reputation as a first-rate destination for outdoor recreationists.

I. Purposes and benefits of the plan

The purpose of this plan is to assess the supply, demand, quality, priorities and issues surrounding outdoor recreation in the state, and set forth a plan of action for achieving a desired vision for outdoor recreation.

The plan serves a number of purposes and provides some important benefits to the state, as follows:

- Guides communities, agencies, and organizations in providing for recreational and natural resource based activities throughout the state;
- Guides legislative financial support, including capital budgets and community matching funds;
- Reinforces decisions regarding land acquisition for public lands;
- Offers input to recreation policy development;
- Promotes better understanding by agencies and organizations of the public's needs and concerns regarding outdoor recreation;
- Encourages opportunities to build constituencies for agency and organizational recreation programs;
- Promotes better understanding and coordination among agencies and interest groups regarding outdoor recreation concerns;
- Encourages recreational partnerships; and
- Maintains Vermont's eligibility to receive funding from the Land and Water Conservation Fund (LWCF). See section D of this introduction for more information on the LWCF.

II. Structure of plan and how to use it

The necessary components of a SCORP include an assessment of the supply of outdoor recreation facilities and resources, the demand for outdoor recreation activities, identification of outdoor recreation issues of statewide importance, and public input. It must include a wetlands component and a trails and greenways plan. As the scope of a statewide recreation plan is large, it is not intended to be read from cover to cover. Instead, the SCORP serves as a reference document of data and information about the current state of outdoor recreation in the state, providing guidance for outdoor recreation in Vermont for the next five years.

The remainder of this first chapter will describe the contents of each of the chapters and appendices included in this document, the processes involved in writing this plan, and information about the Land and Water Conservation Fund's stateside program.

Chapter 2 inventories the outdoor recreation facilities and resources in Vermont managed by towns, state agencies, the federal government, and non-governmental organizations.

Chapter 3 assesses the demand for outdoor recreation activities in the state and compiles visitation data from various recreation sites and attractions throughout the state.

Chapter 4 assesses Vermonters' satisfaction with outdoor recreation resources/facilities, municipalities' priorities for upgraded or new facilities, changing trends in outdoor recreation, and issues that need to be addressed.

Chapter 5 is the Action Plan for the next five years, identifying the desired conditions, strategies, and actions that will result in a desired vision for outdoor recreation in the state. This Chapter also includes the Trails and Greenways Action Plan.

The *Index* provides a quick reference for finding information on particular organizations, activities, and facilities in the document.

Appendix A consists of the Vermont Wetlands Conservation Strategy: 2012 update

Appendix B provides the full survey results from the 2011 Outdoor Recreation Demand Survey

Appendix C provides detailed Achievements, Issues & Priorities for Trails-Related Resources

Appendix D consists of a full list of the publications used in putting together the document

III. Data collection and public involvement used to inform the plan

Researchers at the University of Vermont were contracted to collect data on the supply and demand of outdoor recreation in Vermont. The researchers conducted one mail survey and two web surveys, in addition to collecting information from state and federal agencies, recreation organizations, town plans, and reports published by various groups. The following sections briefly describe these efforts; for more on methodology, refer to Appendix B.

Vermont Outdoor Recreation Demand Survey

The *Vermont Outdoor Recreation Demand Survey* was mailed to a stratified random sample of 2,000 Vermont residents in 2011. Participants were asked about their participation in specific recreation activities during the preceding year, as well as questions about their preferences and satisfaction with outdoor recreation experiences in Vermont

Inventory of Municipal Facilities & Resources

In 2011, a web survey was conducted to inventory the outdoor facilities and resources managed by municipalities in Vermont. Town plans were used to provide estimates of facilities/resources for non-respondent towns. In addition to the inventory, each municipality was asked about their priorities for new outdoor recreation facilities/resources, or repair/upgrade of existing facilities/resources.

Survey of Recreation Organizations

In 2011, a web survey was conducted of select outdoor recreation organizations in Vermont. Questions in the survey included type, number, and size of outdoor recreation facilities/resources

managed by the organization, membership numbers, availability of economic impact data for the organization, and educational programs offered.

Secondary Data Collection

Secondary data was collected from agencies, departments, and organizations that collect information on participation, economic impact, funding and spending, land acquisitions, sales of licenses, leisure employment, attendance in courses, etc.

The following public sector agencies provided data that is found in this document, either directly or through their publications:

Municipal Recreation Departments

Vermont Department of Forests, Parks, and Recreation

Vermont Department of Environmental Conservation

Vermont Department of Fish and Wildlife

Vermont Agency of Transportation

Vermont Department of Taxes

Vermont Department of Labor

Vermont Municipalities

US Fish and Wildlife Service

US Forest Service

Green Mountain National Forest

US Army Corps of Engineers

Major Documents Used (See Appendix D for full list of documents consulted in writing the plan)

Vermont Trail Collaborative Final Report

Outdoor Foundation Outdoor Recreation Participation Report 2011

National Survey of Hunting, Fishing, and Wildlife-related Recreation, 2001 and 2006

Green Mountain National Forest Visitor Use Report, FY 2010

2011 Outdoor Recreation Inventory

2011 Outdoor Recreation Demand Survey

America's Great Outdoors Report, 2012

Town plans

Public Outreach

The SCORP's public outreach component was conducted by the Vermont Department of Forests, Parks and Recreation (FPR) with significant assistance provided by the Vermont Association of Planning and Development Agencies (VAPDA), which consists of 12 regional planning commissions throughout the state. VAPDA helped inform the public about the update of Vermont's SCORP and how the public could get engaged in the process. VAPDA promoted the effort on its website, while the 12 regional planning commissions did the same, in addition to discussing the process at their individual meetings. VAPDA and a few of the regional planning commissions submitted written comments on the draft SCORP to FPR.

The University of Vermont Extension facilitated a statewide webinar designed to engage the public in the process and to solicit public input. Numerous press releases were written to not only encourage participation in the webinar, but to solicit input from the public and to react to the draft SCORP which had been posted on FPR's website.

The University of Vermont Extension also facilitated a two year long (2009-2011) process called the Vermont Trails Collaborative, which involved FPR as well as the Green Mountain National Forest. The purpose of the Collaborative was to identify, discuss and address recreational trail related issues in the Green Mountain National Forest as well as other parts of the State of Vermont. One of the Collaborative's principles was to engage groups and individuals that represent the diversity of views, interests and demographics, to include individuals who are creative or civic leaders that may not belong to a particular interest group and who are leaders in their communities, arts, schools, etc., and to include youth. The Collaborative's structure consisted of a five person Steering Committee, along with three Work Groups: 1) Science Panel, 2) User Compliance, Stewardship and Education Work Group, and 3) a Landscape Management Work Group. The Collaborative met at least five times during its two years of operation, while the work groups met many times and held numerous individual public input sessions. Overall, well more than 500 people participated in the Vermont Trails Collaborative process.

Finally, the Vermont Trails & Greenways Council, created by the Vermont General Assembly, which is an umbrella organization of all recreational trail interests in Vermont, formal and informal, played an instrumental role in engaging its members in participating in the development of the SCORP. During the summer of 2012, FPR engaged an intern to meet with primary contacts for each of the key members of the Vermont Trails & Greenways Council, to make sure that each member organization's interests were adequately and appropriately addressed in the new SCORP. The Vermont Trails & Greenways Council itself contributed written input into the process as well.

IV. About the Land and Water Conservation Fund

The Land and Water Conservation Fund was established by Congress in 1964 to create and improve recreational facilities as well as to protect environmentally sensitive areas for enhanced recreational experiences in the present and the future. The purpose of the fund is “to assist in preserving, developing, and assuring accessibility to...present and future generations...such quality and quantity of outdoor recreation resources as may be available and are necessary and desirable for individual active participation in such recreation and to strengthen the health and vitality of the citizens of the United States...”¹ The LWCF provides a matching grants program that is managed by the National Park Service. Since 1965, more than \$31.5 million LWCF dollars have been spent by Vermont municipalities, the state, and their partners to execute a wide variety of outdoor recreation projects, including land acquisitions, trails, playgrounds, and other recreational facilities and resources. Table 1.2 shows the LWCF projects in Vermont since 1965.

Table 1.2. LWCF Projects in Vermont since 1965

Type of project	LWCF dollars
Municipal projects	\$17,655,917.88
DEC projects	\$ 472,897.08
FPR projects	\$12,817,633.21
F&W projects	\$ 722,887.46
Total 1965-2011	\$31,669,335.63

Maintaining a current SCORP ensures Vermont's eligibility to receive funding from the LWCF. The SCORP identifies the state's recreational needs and sets forth a plan for meeting those needs. In order to remain eligible, states must revise their outdoor recreation plan every five years. This plan, the *Vermont Outdoor Recreation Plan, 2013-2017*, serves as the SCORP for the upcoming five years.

From 1965 until 1995, an annual apportionment of LWCF funds by the National Park Service was provided to states to allocate for acquisition grants of land and/or development of outdoor recreation facilities. Then, from 1995 to 1999, Congress zero-funded the stateside LWCF program (as opposed to funds for federal projects). With great efforts at the community level, the stateside LWCF program was restored by Congress for the year 2000. As a result of the re-establishment of funding, Vermont prepared a new SCORP in 2000, which was derived from pre-existing planning documents that had undergone statewide public participation. The 2000 SCORP was in effect until 2005 when Vermont's 2005-2009 SCORP was produced, incorporating significant public participation directly applicable to this particular plan. As the

¹From the Land and Water Conservation Fund Act of 1965. Pub. L. 88-578, Sept. 3, 1964, 78 Stat. 897 (16 U.S.C §4601-4)

state of Vermont's budget situation began to deteriorate in 2008/9, reductions in force caused the elimination of the LWCF Grants Administrator and the FPR Natural Resources Planner positions. NPS granted Vermont an extension until 2010 to get a new SCORP prepared, but unfortunately that deadline was not met. Vermont then obtained an LWCF planning grant from NPS, to secure the services of the Rubenstein School of Environment and Natural Resources at the University of Vermont, to 1) assess the "demand" for outdoor recreation, 2) evaluate the "supply" of outdoor recreation resources and facilities, and 3) identify outdoor recreation "issues" based upon public participation. In addition, this grant was also beneficial in funding the preparation of the initial draft of the 2013-2017 SCORP.

Applications for LWCF Funding

Applications for LWCF funding are received on an annual basis by FPR. Applications go through an Open Project Selection Process (OPSP). This process includes public notification, review of project applications by a five-member advisory panel, and rating of projects based upon SCORP priorities and other selection criteria. The OPSP assures a fair and equitable evaluation of all applications and distribution of LWCF funds in a nondiscriminatory manner, and makes accessibility to all segments of the public a priority, including minority populations, the elderly, individuals with disabilities, and other underserved populations. The task of the OPSP is to fulfill the highest priority needs identified in the SCORP. By aligning with the priorities in the OPSP's selection criteria, as identified in the SCORP, LWCF projects implement the outdoor recreation plan set forth in the SCORP.

Application materials and guidelines for projects are available by contacting FPR's grants staff, or by downloading directly from the department's web site (www.vtfpr.org/reclwcf/index.cfm).

National Evaluation of the LWCF Program

In 2003 the Office of Management and Budget conducted a performance assessment of the stateside LWCF program using its newly-created Program Assessment Rating Tool (PART). This assessment was part of then-President Bush's Management Agenda to integrate performance information into the budget process and improve program effectiveness and efficiency. The assessment resulted in the development of performance goals and measures for the program, along with an implementation strategy. As LWCF was conceived to be state-driven, the goals and measures are broad and uniform and focus on common LWCF program activities. This results in each state retaining the flexibility to focus on its individual needs.

Evaluation of Vermont's LWCF Program

The need for LWCF funding in Vermont is demonstrated by the difference in grant requests and funds granted. From 2005 to 2011, 57 projects, totaling more than \$5,000,000 were proposed for LWCF funding in Vermont, and \$2,315,283 of LWCF funding was awarded to 47 of those municipal and state projects. Most of those projects exceeded the 50 percent match.

Vermont State Parks still face approximately \$50,000,000 in needed infrastructure improvements, in addition to new facilities that would enhance visitor experiences at the 52 state parks in Vermont. In addition, the Vermont Agency of Natural Resources (ANR) continues to maintain a fairly aggressive land acquisition program, and outdoor recreation opportunities continue to be a high priority when identifying potential parcels of land to purchase. Vermont municipalities also continue to require funding to improve outdoor recreation sites and facilities and invest in new ones, so demand for LWCF grants is likely to continue to grow.

A few examples of recent LWCF-funded projects include:

The “Natural Playground” at Thatcher Brook Elementary School in Waterbury was partially funded with a \$40,000 LWCF grant in 2007. It typifies a new style of playground aimed at encouraging creative play and learning using elements from the natural world. It consists of a wood tree house, an amphitheater with tiers of boulder seats, a "rain garden" filled with plants nurtured by water dripping through a pipe from three logs when it rains, a log-enclosed sandbox, a labyrinth of bricks and gravel, a tunnel, a slide built into a hill, and over in one corner, there's a pile of soil.

The Civilian Conservation Corps-constructed bathhouse at Elmore State Park benefited from a \$441,500 LWCF grant in 2006, enabling FPR to undertake an almost complete restoration of this historically significant structure, which included the replacement of the foundation, flooring, utility services and many of the fixtures, providing universal accessibility along with an overall rehabilitation of the historic features and details.

Figure 1.4 shows LWCF funding by year awarded since 2000. Since the publication of the last SCORP in 2005, LWCF funding has contributed to:

18 playgrounds	2 skate parks
7 parks/recreation fields	1 recreation center
9 athletic field/court projects	1 swimming pool
6 state park infrastructure projects	1 community pavilion
2 trail projects	1 land acquisition

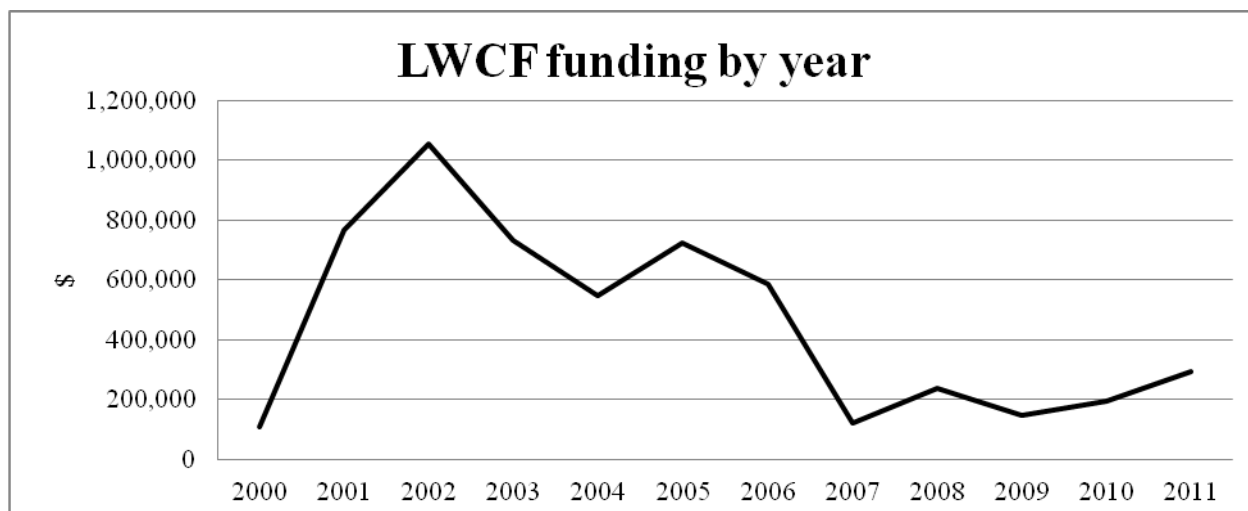


Figure 1.4. LWCF funding to municipal and state projects in Vermont

Since the reinstatement of LWCF stateside funding in 2000, Vermont has made progress in assessing the performance of its LWCF grants program. A comprehensive database now exists to facilitate the tracking of the 13 national, standard performance measures established in conjunction with the PART, including types of projects, acreages, locations, breakdown of new/rehabilitation projects, inspections, and number of projects that exceed the 50 percent local match.

This plan aims to guide outdoor recreation investments in the state from 2013-2017, including the apportionment of LWCF grants. The following chapters present the research that has guided the action plan presented for this time period.

Chapter 2: Municipal, State, Federal, and NGO Recreation Facilities and Resources

One goal of the SCORP planning process is to inventory the outdoor recreation facilities and resources in the state every five years. As Vermont's recreation resources are expanded, developed, and changed as public and private investments are made, it is important to have an accurate account of what exists in Vermont, so that an informed plan can be made about the future improvements, additions, changes, and issues that should take priority in outdoor recreation investments.

The previous inventory of outdoor recreation was completed in 1999 and updated in 2005 for the 2005-2009 SCORP. For this 2013 SCORP, a new inventory was completed, which consisted of:

- A web survey of Vermont municipalities
- A web survey of outdoor recreation organizations
- Secondary data sources: town plans, reports, GIS data, data collected directly from state and federal agencies and recreation organizations

This chapter presents the results of this data collection, and is divided into four sections: municipal facilities/resources, state facilities/resources, federal facilities/resources, and NGO facilities/resources.

I. Municipal outdoor recreation facilities/resources

Municipalities in Vermont provide a wide range of outdoor recreation facilities and resources, from town forests to playing fields to picnic areas. Table 2.1 shows the municipal totals for specific types of recreation resources and facilities, divided by category of facilities and resources: parks/open space, field sports, other organized sports, water-based recreation, trail-related, outdoor sports/activities, and winter sports.

Table 2.1. Inventory of municipal outdoor recreation facilities and resources (by number of facilities if not otherwise specified) (table not exhaustive)

Facilities/Resources	Municipal Total
Park/Open Space	
Parks/open space (acres)	56,799
Picnic areas	261
Skate parks	23

Facilities/Resources	Municipal Total
Fitness courses	16
Horse riding/camping areas	10
Fairgrounds	7
Golf courses	5
Field Sport Facilities/Resources	
Baseball/softball fields	359
Soccer fields	217
Football/lacrosse/rugby fields	38
Other Organized Sports Facilities/Resources	
Playgrounds	236
Outdoor tennis courts	213
Outdoor basketball courts	157
Outdoor volleyball courts	43
Running tracks	15
Water-Based Recreation Facilities/Resources	
Swimming areas/holes, rivers	53
Swimming beaches/lakes	50
Boat ramps/launches	40
Swimming pools/water parks	26
Fishing piers	13
Boat docks	9
Trail-Related Facilities/Resources	
Hiking only trails (miles)	351
Cross country skiing/snowshoeing trails (miles)	281
Bike/pedestrian trails (miles)	211
Snowmobile trails, groomed (miles)	122
Horse/hiking trails (miles)	72
Bike lanes on class 2 roads (miles)	22

Facilities/Resources	Municipal Total
Off-highway vehicle (OHV) trails/roads (miles)	21
Camping Facilities/Resources	
Campgrounds with camper/RV sites (# of sites)	114
Campgrounds with tent sites (# of sites)	93
Other Outdoor Sports/Activities Resources/Facilities	
Hunting lands, public (acres)	6,695
Wildlife viewing areas	1,141
Shooting/archery ranges	1
Winter Sports Facilities/Resources	
Downhill skiing areas (acres)	103.5
Outdoor ice skating rinks	59
Sledding/tubing hills	20
Ice/rock climbing areas	1
“Other” written-in activities (not municipal totals)	
Community gardens	11
Horseshoe pits	4
Dog park	3
Disc golf course	2

Class 4 Roads, Legal Trails, and Unidentified Corridors and State Forest Highways and Management Roads

Another important recreation resource under the jurisdiction of towns in Vermont is Class 4 roads. In 2011, there were 1,662.18 miles of Class 4 Town Highways, up from 1,568.8 miles in 2008. Class 4 Town Highways provide an important opportunity for various types of recreation, including motorized and non-motorized activities. Due to the limited number of designated public motorized trails in the state, these roads are used regularly by dual-sport motorcycles, ATVs (ATVs are only allowed to travel on those Town Highways which are been so designated by the respective Select Board), OHVs, as well as horseback riders, often serving multiple users simultaneously. In some instances, such as for the use of ATVs on Class 4 roads, the town must first approve such use. Trail projects located on Class 4 town highways may be eligible to receive grant funds from the Federal Highway Administration Recreational Trail Program (RTP)

under certain circumstances and conditions which could enhance the recreational trail aspect of these rights-of-way. The Department of Environmental Conservation's Monitoring, Assessment and Planning and Ecosystem Restoration Programs work to identify areas where Class 4 road disrepair is impacting surface water quality, and fix problems with a combination of municipal efforts and VYCC and other youth work crews.

Sometimes these public rights-of-way are "lost" to public use. The loss may be inadvertent, due to neglect or storm damage. A public right-of-way may also be lost through the legal process of discontinuance, causing the public right-of-way to be legally extinguished.

Legal trails are public rights-of-way, but as opposed to highways, the town is not responsible for their construction, maintenance, repair or safety. In 2011, there were 297.42 miles of legal trails in Vermont, up from 171.27 in 2008.

Unidentified corridors, also commonly referred to as "Ancient Roads", are public rights-of-way that are town highways properly laid out by the town pursuant to the process provided by law at the time they were created. They do not appear on the town highway map as of July 1, 2010. They are not legal trails and are not otherwise clearly observable by physical evidence or their use as a highway and have never been legally discontinued. Towns have until July 1, 2015 to add unidentified corridors to the town highway map and reestablish their use as a public right-of-way pursuant to the statutory process set forth in Chapter 3 of Title 19 of the Vermont Statutes Annotated. After July 1, 2015, all unidentified corridors shall be discontinued and the public right-of-way shall cease to exist. Unidentified corridors that are added to the town highway map by July 1, 2015 may be classified as class 1, 2, 3 or 4 highway or a legal trail and thus may be available for recreational uses.

A state forest highway is a road that is used for the long-term management of lands owned by or under the control of FPR. A management road is a road not designated as a state forest highway used for the long term management of lands owned or under the control of the FPR, F&W, or DEC. State forest highways and management roads are not "highways" or "town highways" as defined by Title 19 of the Vermont Statutes Annotated and the public has no common law or statutory right of access or use of such roads. However, many state forest highways and management roads are open for public recreational uses seasonally or year round.

Approximately 240 miles of the 400 mile state forest highway system are open seasonally for public vehicle use and recreational uses, excluding ATV use. The roads provide important access for hunting, fishing, firewood cutting and for some trail access. Another 130 miles are gated, prohibiting vehicular use but are open for pedestrian recreational uses including backcountry skiing, hiking or mountain biking. Similarly, some management roads on lands owned or under the control of F&W and DEC are open for public recreational uses. Please contact the ANR District Office where the state land is located to find out what state forest highways and management roads are open for what public recreational uses.

Outdoor recreation resources/facilities by county

By county, Chittenden County has the most municipal athletic facilities: baseball/softball fields, football/lacrosse/rugby fields, soccer fields, running tracks, outdoor volleyball, basketball, and tennis courts, and playgrounds, while Essex County and Grand Isle County have the fewest. Chittenden County also has the most miles of municipal trails, with the exception of snowmobile trails. Municipalities in Orange County manage the most miles of snowmobile trails. Windham County municipalities manage the most acreage of municipal parks/open space, while Grand Isle County municipalities manage the least acreage.

Windham County's high acreage of parks/open space is due to several large town forests, including Dover's 1,392-acre town forest, Winhall's 700-acre town forest, and Vernon's 465-acre town forest.

Chittenden County has the second highest acreage of parks/open space, due to several large town tracts, including Hinesburg's 800-acre town forest and Essex's 575-acre Indian Brook Conservation Area.

Orange County ranks third in acreage of municipal parks/open space, with several large municipal land holdings, including Fairlee's 1,600-acre town forest, Bradford's 584-acre municipal forest and 443 acres of conserved land on Wright Mountain.

In April of 2013, a 355-acre forest, in Washington County, in the towns of Graniteville and Websterville, which includes a variety of popular trails used for hiking, mountain biking, snowmobiling and cross-country skiing, was protected as the Barre Town Forest, an effort involving the Trust for Public Land and the USDA Forest Service. It should be mentioned here that the Community Forest Program (CFP), administered by the USDA Forest Service, protects forests that are important for people and the places they call home. Community forests provide many benefits such as places to recreate and enjoy nature; they protect habitat, water quality and other environmental benefits, and they can provide economic benefits through timber resources. Community Forests have also long been sites for environmental and cultural education.

Tables 2.2 and 2.3 show select municipal resources and facilities by county.

Because Vermont's counties vary in population (Essex and Grand Isle Counties have fewer than 7,000 people, while Chittenden County has a population of over 150,000 people), comparing the outdoor recreation facilities and resources provided by county only tells part of the story. Larger populations generally demand more resources; while one tennis court may be sufficient for a small town, it may not be enough for the population of larger city. This is why it is necessary to analyze resources on a per capita basis.

Table 2.2. Number of select municipal athletic facilities by county

County	Baseball/ Softball Fields	Football/ Lacrosse/ Rugby Fields	Soccer Fields	Outdoor Volleyball Courts	Outdoor Basketball Courts	Outdoor Tennis Courts	Outdoor ice skating rinks
Addison	16	1	9	2	9	9	3
Bennington	21	5	17	4	14	14	2
Caledonia	11	0	9	0	5	4	1
Chittenden	68	20	51	14	43.5	71	18
Essex	5	0	2	0	4	2	0
Franklin	26	1	15	4	12	9	1
Grand Isle	5	0	3	0	1	0	2
Lamoille	32	3	25	0	4	7	2
Orange	21	1	12	4	9	8	6
Orleans	14	0	5	1	5	9	3
Rutland	43	0	16	3	15	21	4
Washington	30	3	14	5	10	17	4
Windham	20	0	13	2	8	9	3
Windsor	47	4	26	4	17	33	10

Table 2.3. Select municipal park and trail resources by county

County	Parks/open space (acres)	Picnic Areas	Playgrounds	Hiking only (miles)	Bike/ pedestrian trails (miles)	X-C ski/ snowshoe trails (miles)
Addison	2,770.4	7	13	22	14	16
Bennington	2,818.1	14	16	23.6	5	3.3
Caledonia	2,036.9	5	7	8	9	12
Chittenden	6,762.2	35	60	82.6	98.9	59.9
Essex	4,574.0	2	4	0	1	0
Franklin	4,818.8	11	12	11	3	2
Grand Isle	120.5	2	4	2.5	4.5	0
Lamoille	2,745.8	10	8	10	10	20
Orange	6,334.2	13	18	36	22	45
Orleans	2,442.2	86	5	15	1	9
Rutland	3,581.0	15	24	28	16	21
Washington	5,323.5	15	20	57.5	13	44
Windham	6,856.1	12	23	19	8	5
Windsor	5,615.2	34	22	36	19	44

The maps in Figures 2.1 through 2.5 show the county distribution of outdoor recreation facilities and resources per capita for municipalities' top five priority facilities/resources – parks/open space, bike/pedestrian trails, baseball/softball fields, hiking trails, and soccer fields (more information on high priority facilities/resources can be found in Table 4.2). The number inside each county represents the total number of that resource/facility managed by the municipalities within each county. While Chittenden County has the highest overall mileage of municipal trails and municipal fields in each of these categories, when considered in relation to the size of the population the resources serve, the distribution is less concentrated in one county. In this analysis, a county with a smaller population and fewer resources is more comparable to a county with a larger population and a greater number of resources.

Essex County has the most acreage of municipal parks and open space per capita, with about one and a half people per acre of parks and open space. Grand Isle County has the fewest, with about 58 people per acre of parks/open space (Figure 2.1). Orange County has the most miles of municipal bike/pedestrian trails for its population, with about 1,315 people per mile of trail. Addison County has the fewest miles of bike/pedestrian trail for its population, with 36,821 people per mile (Figure 2.2). Lamoille County leads the state in municipal baseball/softball fields, with about 765 people per field. Caledonia County has the fewest baseball/softball fields per capita, with 2,839 people per field (Figure 2.3). Orange County has the most miles of municipal hiking trails for its population, with 804 people per mile of trail. Essex County has only two municipal hiking trails (Figure 2.4). Lamoille County has the most municipal soccer fields for its population, with 979 people per soccer field. Orleans County has the fewest, with about 5,446 people per soccer field (Figure 2.5).

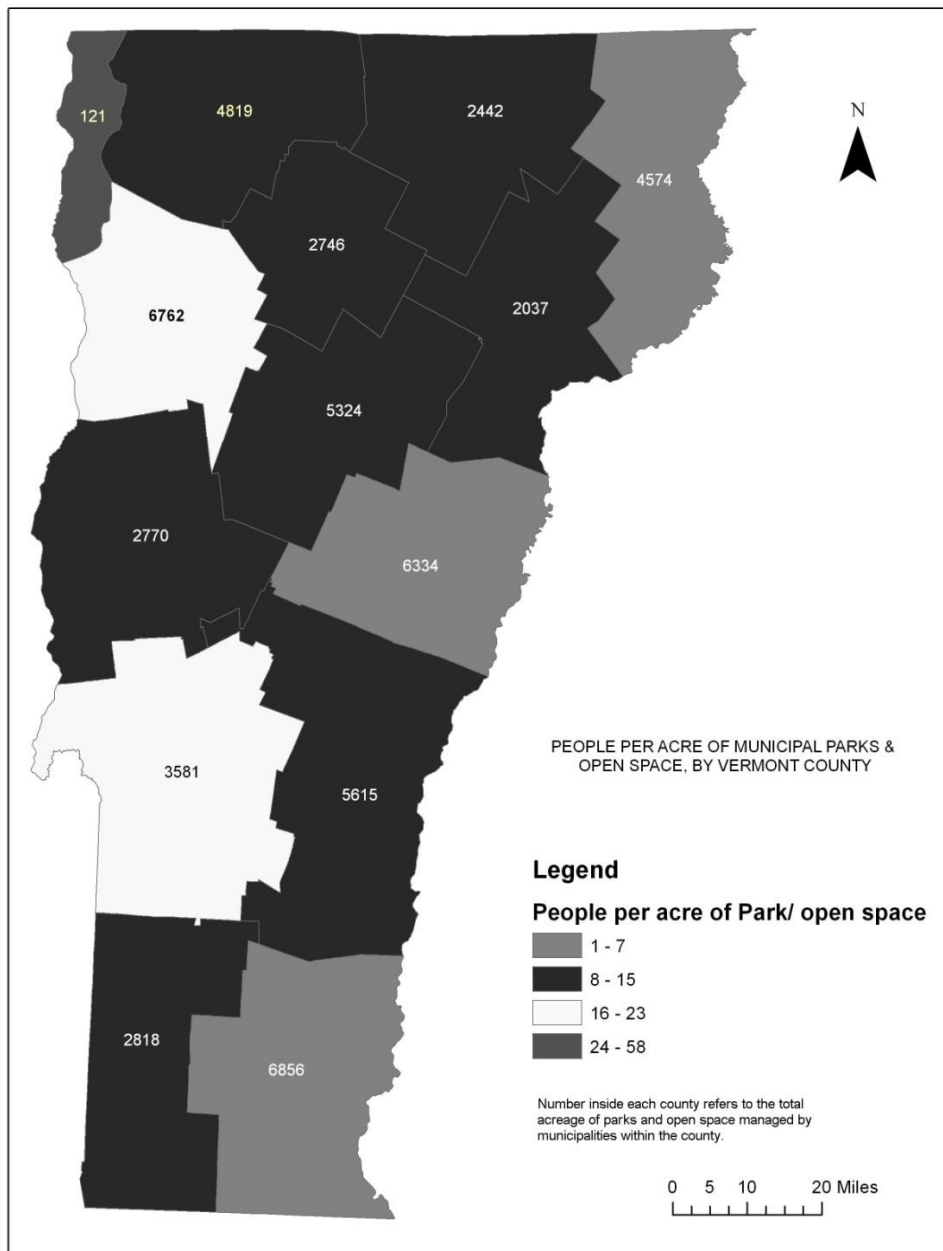


Figure 2.1. County population per acreage of municipal parks/open space

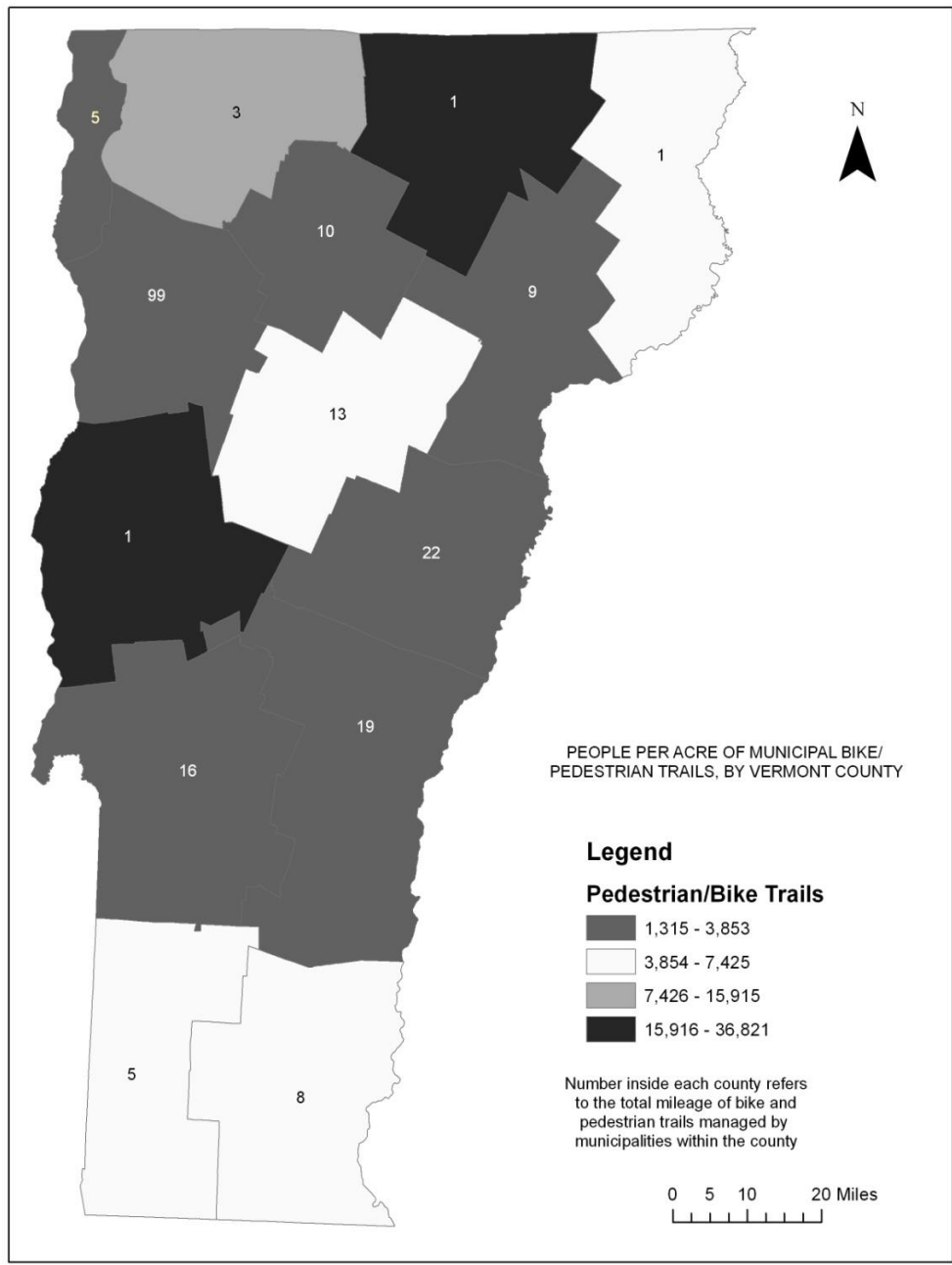


Figure 2.2. County population per miles of municipal bike/pedestrian trails

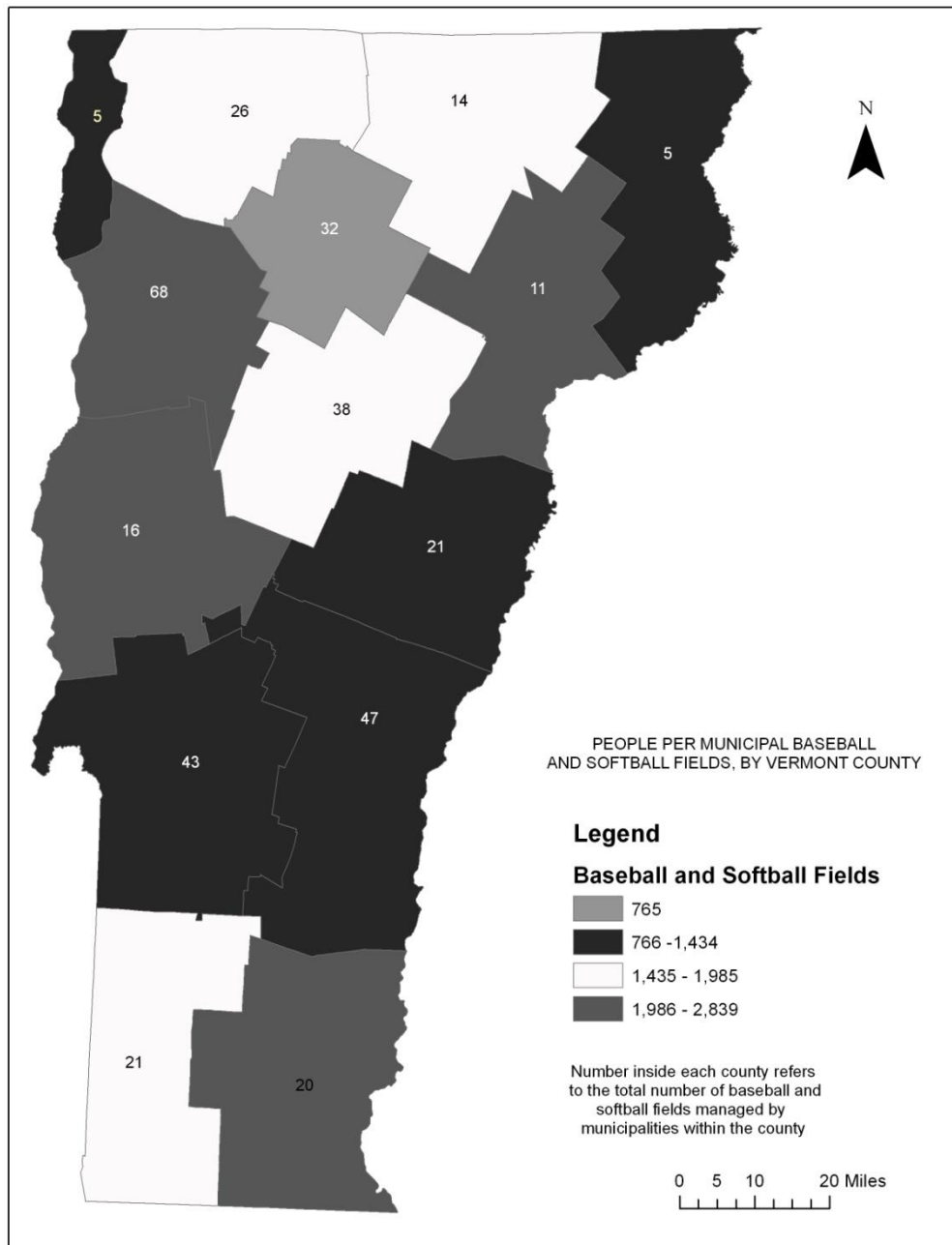


Figure 2.3. County population per municipal baseball/softball fields

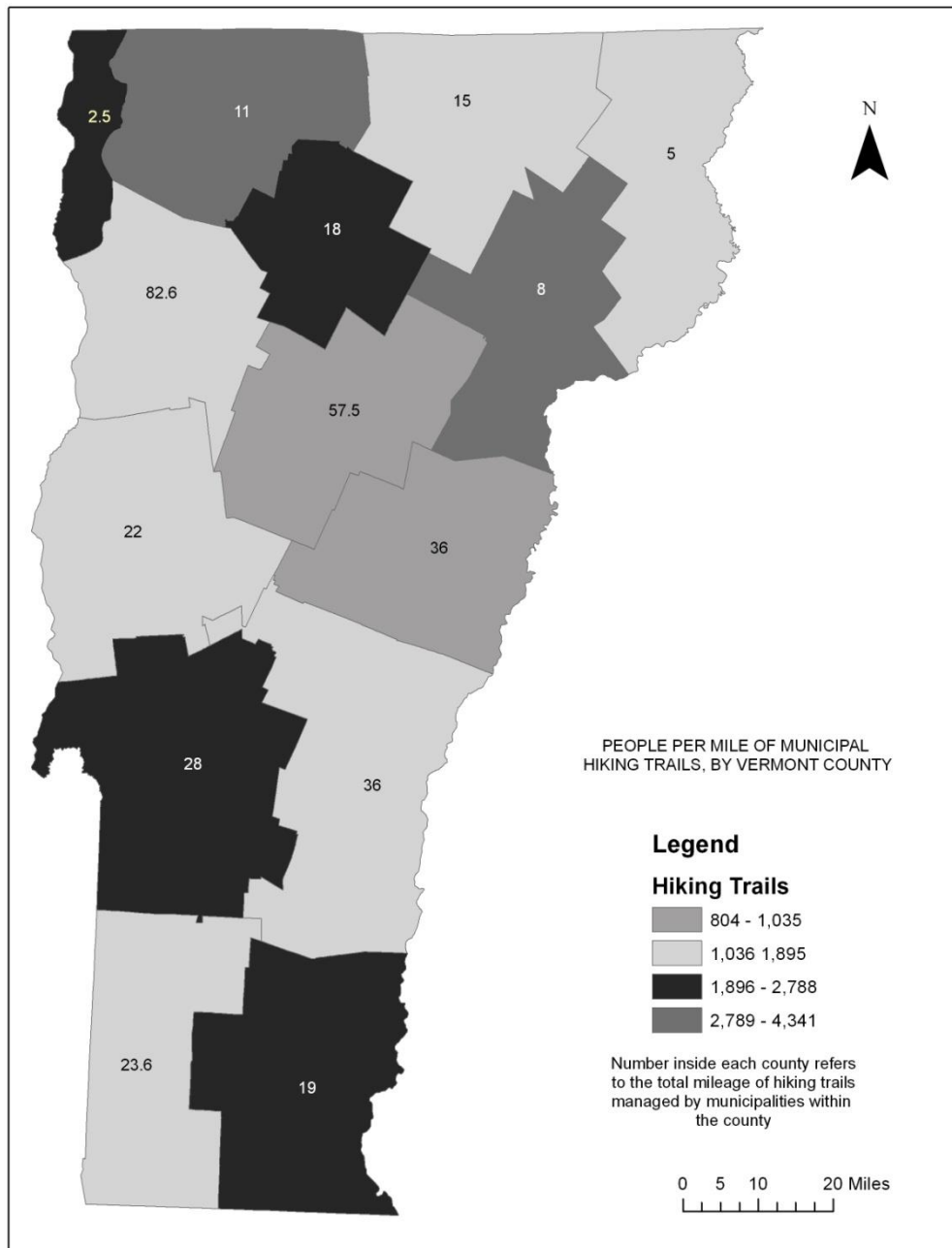


Figure 2.4. County population per mile of municipal hiking trails

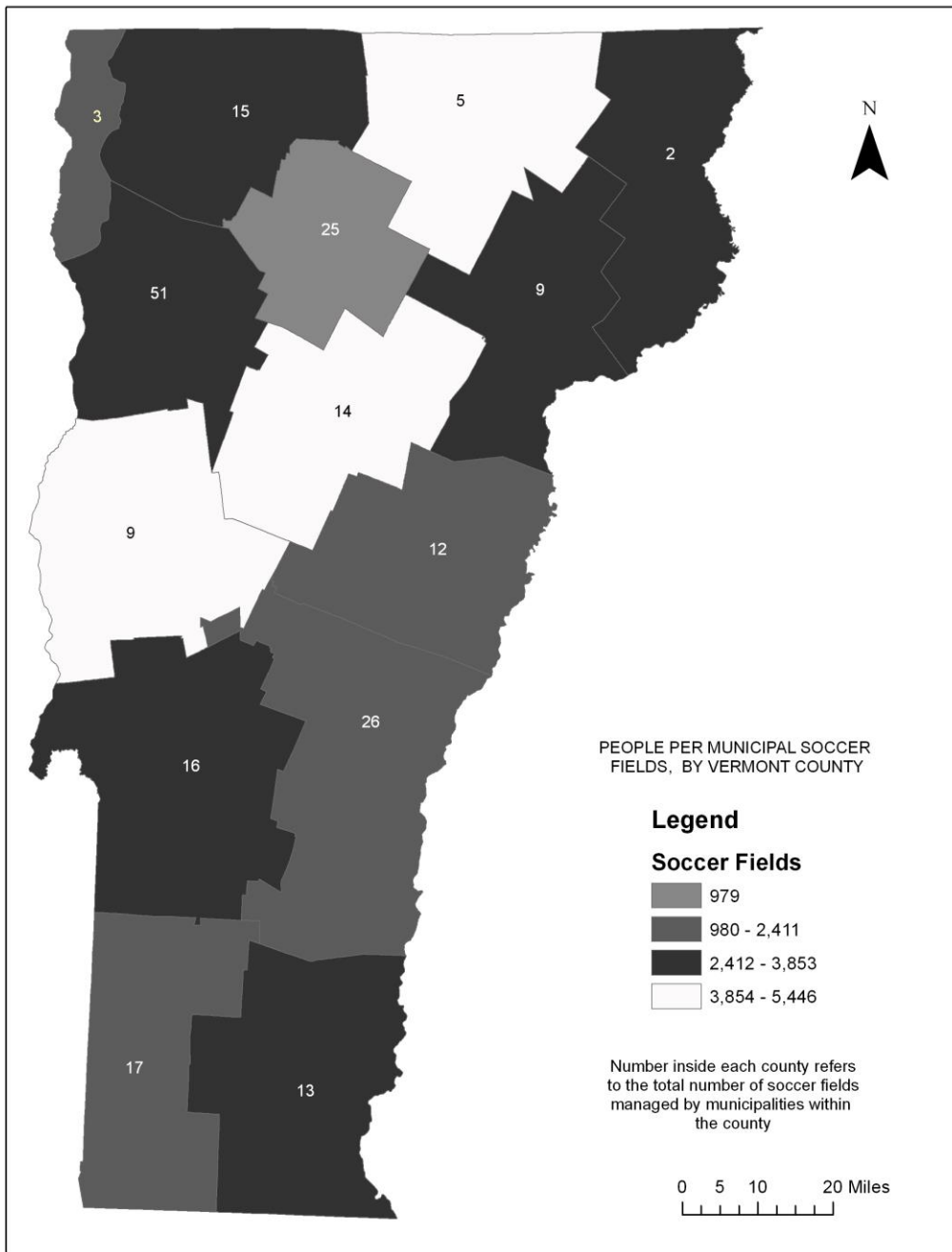


Figure 2.5. County population per municipal soccer fields

II. State outdoor recreation facilities/resources

Section II consists of a summary of the outdoor recreation facilities and resources managed by various state agencies and departments, as well as an overview of some state-administered funding programs that benefit the supply of outdoor recreation opportunities in the state. This section offers an overview of the Agency of Natural Resources (ANR), and the resources and facilities managed by the Departments of Forests, Parks and Recreation (FPR), Environmental Conservation (DEC), and Fish and Wildlife (F&W), as well the Division for Historic Preservation and programs administered by the Agency of Transportation (VTrans).

State land

Over the past century, Vermont has moved in deliberate fashion to preserve and protect its scenic, recreational, and cultural heritage through conserving its important natural areas and working lands. This legacy of land conservation provides a wealth of recreational opportunities to residents and visitors alike and reflects the values and priorities of generations of Vermonters. The State of Vermont has played an important part in this legacy beginning with the acquisition of Vermont's first state forest (L.R. Jones State Forest) in 1909. Since then, these state conservation and recreation lands have increased to over 345,000 acres in over 212 Vermont towns and include state parks, state forests, wildlife management areas, stream bank parcels, fishing access areas, and other miscellaneous sites. Additionally, ANR holds conservation and public access easements on over 140,000 acres of private lands.

Between 2000 and 2011, ANR acquired 23,507 fee acres and 24,983 easement acres. This included the acquisition of 127 parcels by FPR and 87 parcels by F&W. Figure 2.6 shows ANR's land acquisitions by year, from 2000 to 2011. Over the 10 year period, the yearly fee acreage acquired by ANR declined, while there was an upward trend in the yearly easement acres acquired.

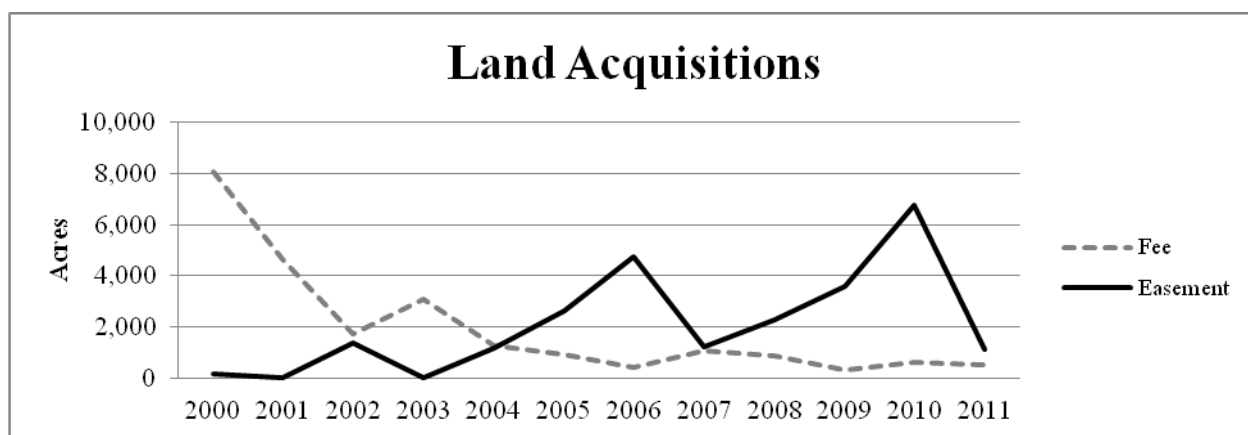


Figure 2.6. ANR land acquisitions

Using the 1999 Land Conservation Plan as guidance, ANR has accomplished a great deal in recent years. ANR has closed on more than 20 Forest Legacy projects involving conservation easements on nearly 20,000 acres of forestland. The Agency has acquired major additions to Mt. Mansfield State Forest, Green River Reservoir State Park, Alburgh Dunes State Park, West Mt. Wildlife Management Area, Long Trail State Forest, Clyde River watershed, and has almost completed the permanent protection of the identified high elevation wildlife corridor located between the north and south units of the Green Mountain National Forest.

One recent land acquisition was the donation of a 69-acre parcel in 2009, adding to Mt. Philo State Park in Charlotte, a well-used state park which attracts hikers, campers, and bird watchers, particularly those who come to see the autumn migrations of raptors. The park began with a gift of 150 acres in 1924. Later land donations, including this most recent one, bring it to its current 236 acres.

Another important acquisition was a 311-acre addition to Jamaica State Park, which came from The Nature Conservancy in 2010 after significant fundraising, including a grant from the Vermont Housing and Conservation Board. The property abuts a portion of Jamaica State Park that includes Hamilton Falls Natural Area and provides the only trail access from the campground along the West River to the falls. The parcel also includes frontage on the West River, town trails, a view point and numerous historical features including a relatively intact lime kiln. Table 2.4 shows the major funding sources for ANR land acquisitions from 2000 to 2011. Funding in these years, including smaller sources not included in this table, totaled \$26,419,833.

Table 2.4. Funding Sources for ANR Land Acquisitions, 2000-2011

Forest Legacy Funds	\$15,117,654
Vermont Housing Conservation Board Fund	\$ 4,536,892
North American Wetlands Conservation Act Funds	\$ 1,160,000
Pittman Robertson Federal Aid in Wildlife Restoration Act	\$ 831,500
Long Trail Appropriation	\$ 649,631
Land and Water Conservation Fund	\$ 407,000
Waterfowl Fund	\$ 199,915
Transportation Equity Act for the 21st Century	\$ 118,340
National Fish & Wildlife Fund	\$ 75,000
Access Area Funds	\$ 54,000
Wallop Breaux Act Funds	\$ 25,000
Trout & Salmon Foundation	\$ 10,000

State programs for land conservation

The Forest Legacy Program, administered through FPR, protects forestland properties from development or conversion to non-forest uses, through federal grants from the USDA Forest

Service. To qualify for the program, forested land must be within a designated Legacy Area that has significant environmental and/or resource values. Landowners can either sell a conservation easement through the Forest Legacy program or sell the property as fee simple title. In addition to ensuring that the lands remain forever protected from development, the program also allows for the acquisition of public recreational rights when a conservation easement is acquired. The policy of the Department of Forests, Parks and Recreation is to seek to obtain public recreational rights with all Forest Legacy funded conservation easements. The federal Forest Legacy program does not require the protection of public recreational rights, but all Forest Legacy acquisitions in Vermont include at least some public recreational rights, although some acquisitions may include certain restrictions regarding public recreational access, such as pedestrian only in certain areas of the property. Between 2002 and 2010, a total of 20,583 acres were conserved through the program. Figure 2.7 shows the number of acres covered through the Forest Legacy Program between 2002 and 2010.

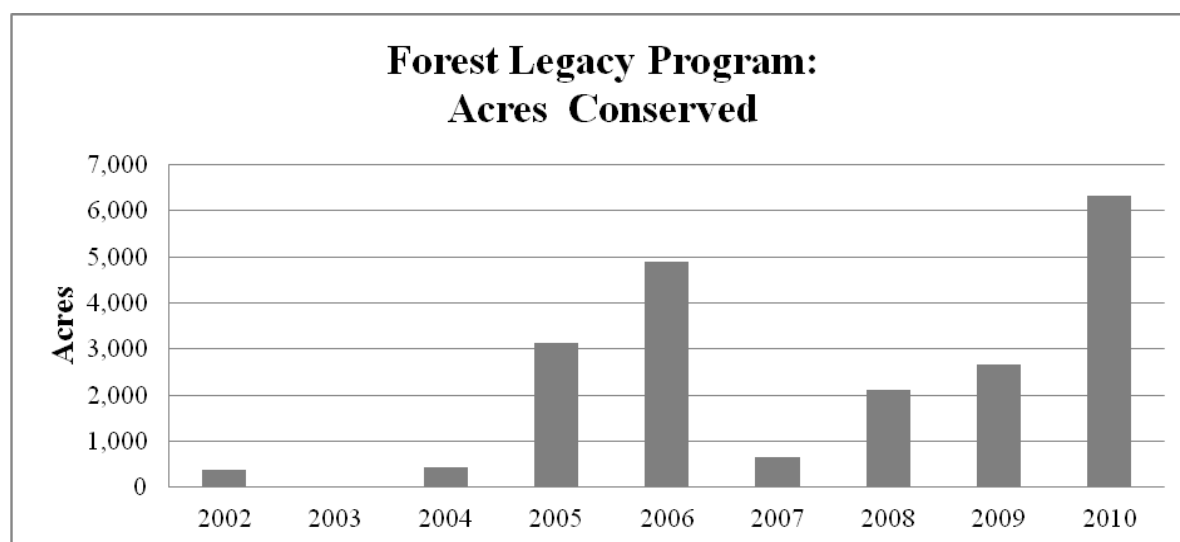


Figure 2.7. Acres conserved through the Forest Legacy Program in Vermont

Vermont's Use Value Appraisal program (UVA) also provides financial incentives to keep land from development pressures. The program allows for taxation of agricultural, forest, and conservation land at its use value, rather than its fair market value. The UVA program allows these lands to remain in their current use under a more affordable taxation rate. From 2002 to 2011, both the number of parcels conserved under UVA and total acreage increased steadily (Figure 2.8). In 2011, 16,724 parcels, comprising over 2.2 million acres, were enrolled under UVA, which constitute over a third of Vermont's land area. The UVA program does not require a landowner to open their land for public recreational uses, but does prohibit a landowner with enrolled forest land from charging a fee for someone to hunt on that land. The conservation and protection of agricultural, forest and conservation lands through UVA may enhance public recreation on abutting or adjacent parcels.

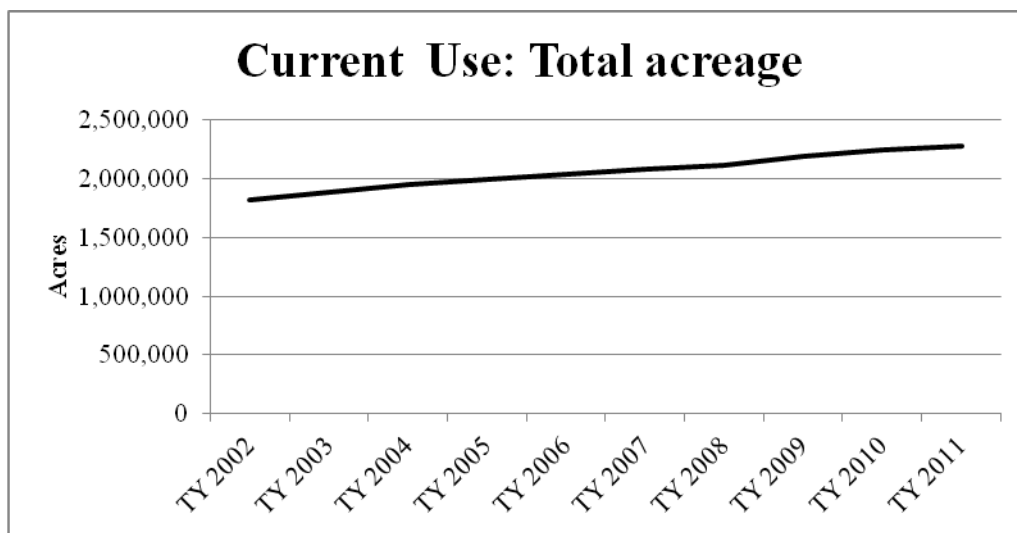


Figure 2.8. Acreage conserved under UVA by tax year

Uses of state lands

The Department of Forests, Parks and Recreation operates 52 state parks on 69,289 acres. Vermont state parks include 249 miles of trails, 38 picnic areas and 30 swimming areas. For overnight camping facilities, FPR manages 38 campgrounds with 2,153 campsites, 605 lean-tos, 47 remote campsites, 41 cabins and 9 cottages. The park system receives over 900,000 visits on an annual basis during the primary operating season. Off season activity is significant and increasing but staff are not present to provide service and monitor activity.

In addition to Vermont's 52 developed State Parks, there are 36 State Forests encompassing over 200,000 acres of land, which provide a wide variety of dispersed outdoor recreation opportunities. Many of Vermont's major trail organizations, such as the Green Mountain Club, Catamount Trail Association, Vermont Association of Snow Travelers and the Vermont Mountain Bike Association, depend heavily on State Forests for their respective trail systems. Many hunters in Vermont also rely heavily upon State Forests as locations to engage in this pursuit.

FPR also administers 34 state natural areas, covering 19,285 acres, many of which are part of state parks and forests. State natural areas, although not necessarily completely undisturbed by humans, retain some aspects of their wild character and may have unique ecological, geological, or scenic features. Natural areas are managed for the preservation of their natural condition, and each area has a management plan which identifies the activities allowed within it. In general uses are allowed that do not degrade the resources, values, and characteristics of the natural area or adjacent state lands.

Many miles of retired rail beds in Vermont also provide opportunities for shared-use trails. Of the more than 700 miles of active rail line in the state, about 300 miles are in state ownership. About 150 miles of these corridors have been converted into multi-use trails by VTrans or ANR. There are two rail trails managed by FPR in Vermont: The Missisquoi Valley Rail Trail, a 26.4 mile trail from Richford to St. Albans, and the Delaware and Hudson Rail Trail, a 19.8 mile trail in two non-contiguous parts, with trailheads in Castleton, Poultney, Pawlet, and Rupert. These are both multiple use trails that are open to non-motorized uses and snowmobiling.

The Vermont Fish and Wildlife Department (F&W) manages 86 Wildlife Management Areas (WMAs) on over 130,150 acres of land. The management of these areas is geared toward the conservation of fish, wildlife, and their habitat, and providing people with opportunities to engage in fishing and wildlife-based outdoor activities. Some WMAs have trails, wildlife viewing areas and platforms, boat ramps, car-top boat launches, and remote or undeveloped campsites (in season), while others have no trails, facilities or structures. In 2011, F&W acquired 481 acres to add to its WMAs. Table 2.5 shows the newest additions to WMAs.

Table 2.5. Additions to State Wildlife Management Areas in 2011

Parcels added	Acres
Steam Mill Brook WMA, Walden	5
South Stream WMA, Pownal	15
Little Otter Creek WMA, Ferrisburgh	27
Atherton Meadows WMA, Whitingham	147.7
Whitney Hospital Creek WMA, Addison	207.8
Athens Dome Wetland Complex, Athens and Grafton	78.8

In addition, F&W maintains 170 developed fishing access areas throughout the state that are either owned or leased by the department. Most fishing access areas have concrete or gravel boat ramps for motorized boats, while the remaining areas provide non-motorized boat or shore fishing access. All access areas are free to use and are open to hunting, trapping, fishing, and boating. The map on page 11 of this document shows the locations of all fishing access areas in the state. Table 2.6 shows the total number of resources and facilities that the state manages or oversees.

State lands may be used by individuals to participate in many recreational activities without any special permission. The ANR Policy “Uses of State Land” sets forth the Agency policy regarding certain uses of state lands and identifies when a special permission, or license or special use permit, is required. However, units of state land have individual Long Range Management Plans that specifically identify the recreational uses allowed within that land unit, as not all recreational uses are allowed on all areas of state land. For example, many activities are permitted in state

Table 2.6. State outdoor recreation resources/facilities

Resource/Facility	State-managed Total
Parks/open space (acres)	346,000
Picnic Areas	38
Horse Riding Areas	2
Swimming Pools/Water Parks	1
Boat Ramps/Launches	166
Boat Docks	31
Swimming Areas/Holes, Rivers	30
Fishing Piers	18
Multi-use Trails	692
Hiking only trails (miles)	249
Cross country skiing/snowshoeing trails (miles)	941
Off-highway Vehicle trails/roads (miles)	0
Snowmobile trails, groomed by VAST (miles)	5,000
Campgrounds	38
Campsites	2200*
Lean-tos	605
Cabins and cottages	50
Hunting lands, public (acres)	346,000
Wildlife viewing areas (acres)	346,000
Downhill skiing areas (acres)	10,000**
Ice/Rock climbing areas	3

*47 of these campsites are remote campsites

** Seven downhill ski areas, partially located on state land

parcs and forests, but not WMAs and vehicles, horses, and pack animals are not allowed in all the places that hikers are allowed. Please refer to the Long Range Management Plan for a specific state land unit or the applicable ANR District office for further information.

Licenses or special use permits (SUPs) are required for uses of state lands that are organized or involve large groups, involve a fee, alter a site and/or its natural resources, or conflict with other uses. For example, licenses are required for agricultural uses, maple sugar operations, utility right of ways, research, commercial recreation users, and electronic communication facilities. Shorter-term, non-recurring special use permits are required for activities that involve minimal alterations to the environment and include no permanent structures. Long-term leases have been granted in the past for downhill skiing operations, electronic communications facilities, and recreational camp leases. Between fiscal years 2006 and 2012, 784 licenses and SUPs were issued for recreation activities. The number of yearly licenses and SUPs issued for recreational uses has remained steady over the last seven years as state lands have continued to be popular locations for guided and group outdoor recreation activities. Figure 2.9 shows the number of licenses and SUPs issued by year.

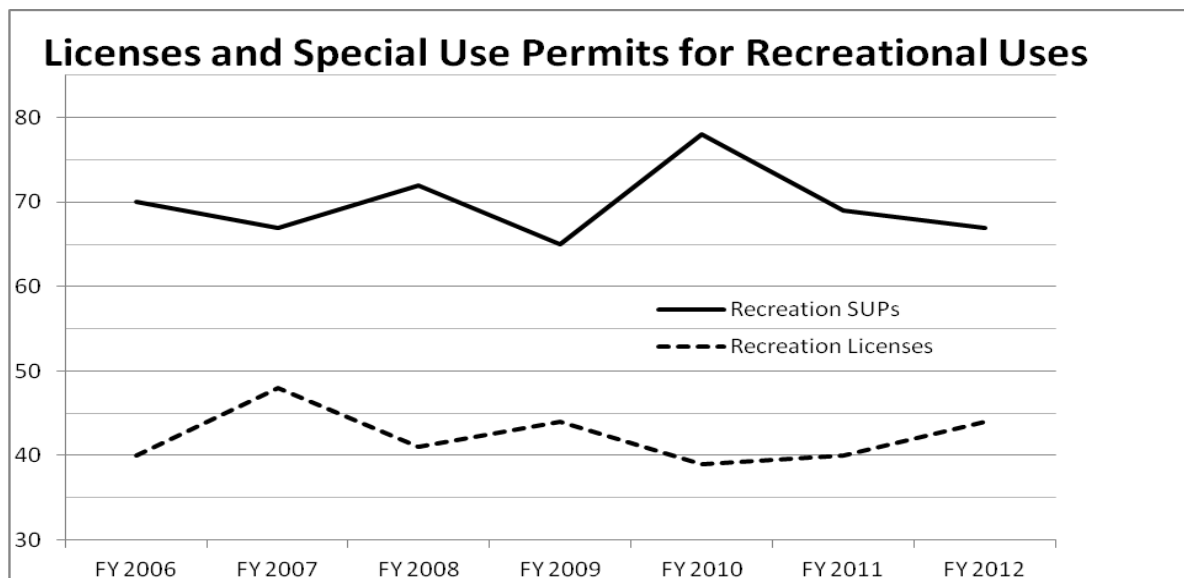


Figure 2.9. Licenses and Special Use Permits issued

The Agency of Natural Resources Land and Facilities Trust Fund (LTF) was established in 2001 by the Legislature, intending to further the management of Agency lands, facilities, and recreational assets, covering a variety of management and administrative activities on state land, which are not covered in operating budgets. The LTF began to dispense funds in Fiscal Year 2006. Between FY 2006 and the close of FY 2010, \$489,585 was dispensed from the trust fund, ending FY 2011 with a balance of \$4,463,047. Figure 2.10 shows the balance and expenditures of the LTF since its inception. Priorities for the LTF in FY 2011 included long-range management planning, the administration of timber sales, and forest road and trail maintenance.

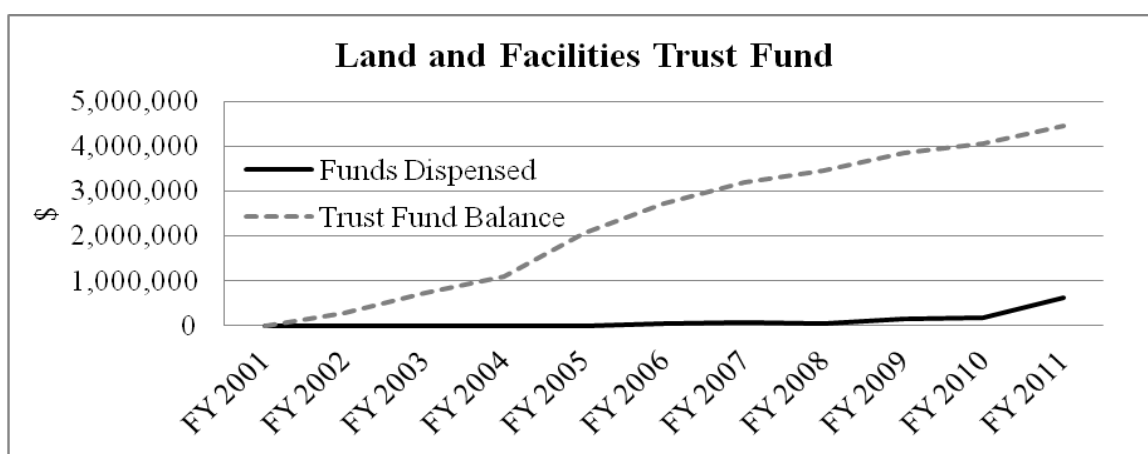


Figure 2.10. Balance and expenditures of the Land and Facilities Trust Fund

From 2007 to 2011, Vermont's Conservation License Plate program generated more than \$833,000, which supports the Nongame Wildlife Fund and the Watershed Grant Fund, which is made available to municipal and regional educational and not-for-profit organizations for

watershed related projects, including monitoring, education, conservation, recreation, and/or historic enhancement.

State Educational Programs

The Agency of Natural Resources also supplies opportunities for outdoor recreation through programs offered by its departments. For example, the “Becoming an Outdoor Family” program, run in partnership with UVM Extension, has introduced families to outdoor activities for the past 15 years. In 2012, more than 160 people attended the program. Seventy-six Vermont youth aged 8-18 competed at the Vermont Jamboree in rifle, shotgun, muzzleloader, archery, and wildlife hunting, with three going to participate in the national competition.

Throughout the summer months, the state parks’ certified interpretive guides offer guided walks and hikes, presentations, and outdoor activities for youth and adults in a number of state parks. Five nature centers offer interpretive displays and programs in Jamaica State Park, Coolidge State Park, Groton State Forest, Button Bay State Park, and Lake Carmi State Park. Attendance at State Park interpretive programs has been steadily growing. In 2012 nearly 25,000 people participated in State Park interpretive programs.

F&W offers hunter, trapper, and bow education courses. All first-time hunters, bow hunters, and trappers must successfully complete the appropriate course before purchasing a license. Figure 2.11 shows attendance in hunter, trapper, and bow education courses since 2002. Starting in 2008, combo hunter and bow hunter courses began to be offered. While attendance in bow, trapper, and combo courses have increased over this time period, attendance in hunter education courses has considerably decreased, from over 4,000 attendees in 2000 to under 3,000 attendees in 2011.

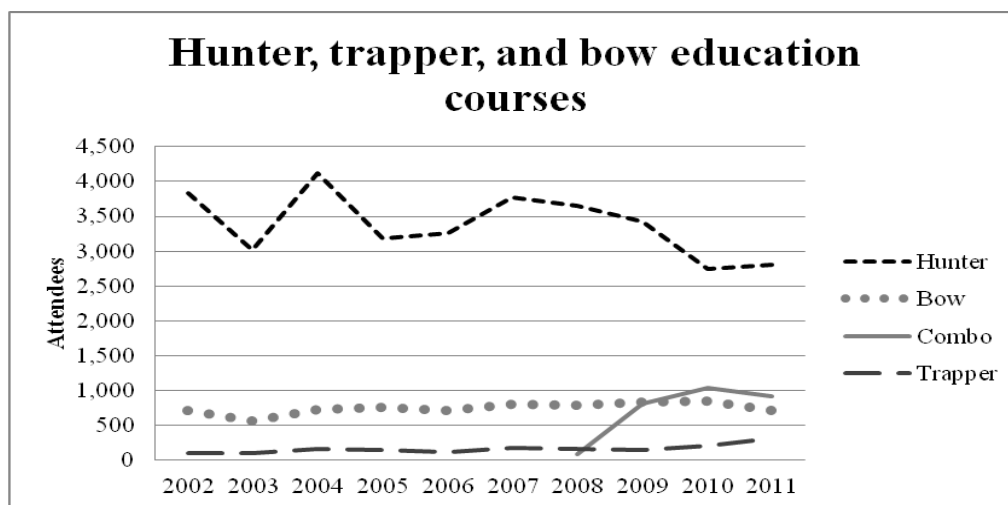


Figure 2.11. Attendance in Hunter, Trapper, and Bow Education courses

F&W also offers “Let’s Go Fishing” courses and Green Mountain Conservation Camps for youth. Green Mountain Conservation Camps are attended by almost a thousand youth campers throughout the summer’s nine one-week sessions in Woodbury and Castleton. Each week, a three-hour session on forestry is taught at the camp. F&W staff also conducts “Project Wild” workshops, which integrates wildlife education into hands-on, inquiry-based activities for formal and non-formal educators. DEC staff conducts “Project Wet” (Water Education for Teachers) workshops, an interdisciplinary water education program for kindergarten through twelfth graders designed to facilitate and promote awareness, appreciation, knowledge and stewardship of Vermont’s water resources. FPR sponsors Project Learning Tree (PLT). PLT is an award-winning interdisciplinary environmental education curriculum for preschool through high school. PLT uses forests as a window on the world to teach students to think, not what to think about environmental issues.

State-Administered Trails Programs

Transportation Alternatives Program

The Transportation Enhancements Program (now Transportation Alternatives Program) was created as a result of the Inter-modal Surface Transportation Efficiency Act of 1991 (ISTEA) which created a new federal-aid program called the Surface Transportation Program (STP). This program mandated that all states set aside a percentage of their STP authorization exclusively for 10 categories of transportation enhancements as a means to integrate transportation facilities into the surrounding communities. ISTEA’s successor legislative acts have continued the Transportation Enhancements Program and expanded the number of program categories to 12.

The goal of ISTEA was the creation of a national inter-modal transportation system that “must be the centerpiece of a national investment commitment to create the new wealth of the nation for the 21st century.” It defines this system as “all forms of transportation in a unified, interconnected manner...” The Enhancement Program reflects a growing recognition that transportation programs, while vital for national mobility and international competitiveness, must also be environmentally sound. This program gives the opportunity to mitigate unintended negative effects of the transportation system with projects focused on safe bicycle and pedestrian facilities, scenic routes, beautification, and other investments that increase opportunities for recreation, alternative transportation, accessibility, and safety.

Vermont’s program provides funding to municipalities, government agencies and non-profits through a competitive grant program. As of October 2012, the Vermont Transportation Enhancements Program was reconfigured to meet the new Federal Transportation Law – Moving Ahead for Progress in the 21st Century (MAP-21). Under the new law, fewer activities will be eligible under the Transportation Alternatives Program. The law requires a state-wide competitive grant program for municipal governments and no longer provides funding to non-profit organizations.

Vermont Recreational Trails Program

The Recreational Trails Program (RTP), administered through FPR in cooperation with the Vermont Agency of Transportation, provides federal and state grant funds for the development and maintenance of trail resources in Vermont. The Vermont RTP comprised of both federal and state funds, predominantly federal funds. Federal funds flow through the US Department of Transportation's Federal Highway Administration's (FHWA) Surface Transportation Bill as a Transportation Alternative program. The Vermont Trails Act of 1994 established the Vermont Recreation Trails Fund. State trails funds are derived from the transfer of state gas taxes paid on non-highway recreation fuel used by off-highway vehicles (i.e. snowmobiles and all-terrain vehicles [ATVs]). RTP provides grants to municipalities and non-profit organizations for the development and maintenance of recreational trails and trail systems. Since 1994, Vermont has received over \$7 million in federal RTP funds and has funded over 1,400 trail projects. Recent RTP projects have included funding for snowmobile trail maintenance and grooming, mountain bike trail construction, a Long Trail reconstruction project, and town forest trail construction and maintenance.

The Moving Ahead for Progress in the 21st Century Act (MAP-21) reauthorized the RTP through federal fiscal years 2013 and 2014 as a set-aside program. However, at the end of each fiscal year, each state's Governor has the choice of opting out of the RTP. Vermont's Governor has not opted out of the RTP for federal fiscal year 2013.

Between 2000 and 2010, more than \$3.7 million of RTP funds have been allocated to trail projects in Vermont State Parks and State Forests, and more than \$3.8 million has been allocated to municipalities and non-profit organizations for community trail projects, resulting in over \$7.5 million federal dollars coming in to Vermont during the 10-year period, and helping leverage close to \$28 million in total project costs. Of the municipal and non-profit projects that took place within a single county, Washington and Chittenden counties had the most projects during this time period (19 and 15, respectively) and the most funding granted through RTP (\$252,250 and \$172,245, respectively). Bennington and Essex Counties each only had one project, and an additional project shared with another county. Figure 2.12 shows RTP funding by year from 2000-2010.

Bicycle and Pedestrian Program

The goal of the Vermont AOT's Bicycle and Pedestrian Program is to provide safe and convenient facilities for those Vermonters who desire alternative transportation opportunities. In 1991 the Vermont legislature first provided funding for the Bicycle and Pedestrian Program (formerly the Transportation Path Program). From 1991 to 1993, the project selection process was administered by FPR under the name of "Transportation Path Program." FPR was responsible for selecting the projects, while implementation of the projects was retained by VTrans. In 1994 the program was expanded to encompass pedestrian facilities, and VTrans

began administering and implementing the program under the name “Bicycle & Pedestrian Program.”

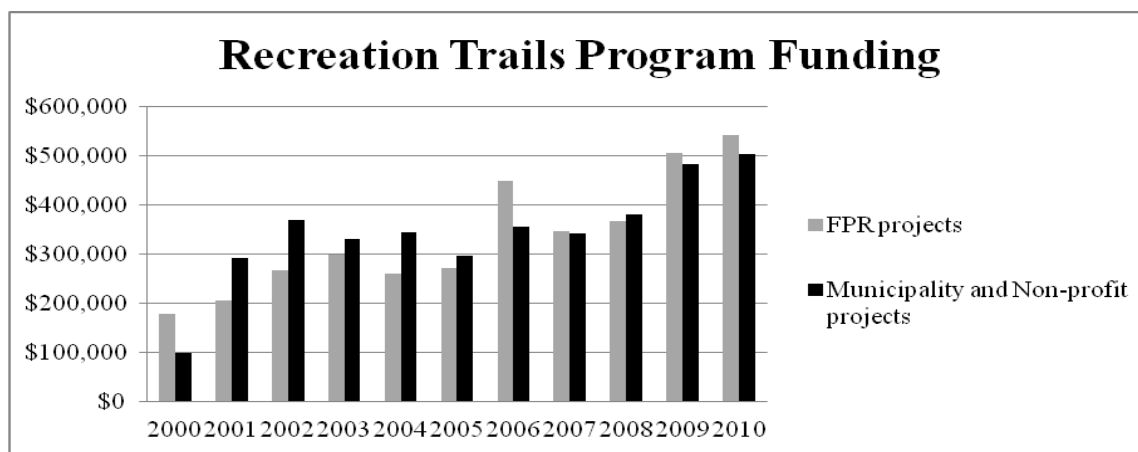


Figure 2.12. Recreation Trails Program Funding in Vermont, 2000-2010

From 2000 to 2010, the Bicycle and Pedestrian Program completed 43 projects, totaling 34.27 miles of trails and paths. The most Bicycle and Pedestrian Program projects have taken place in Chittenden County (12 projects) and Windsor County (7 projects), accounting for almost 60 percent of the program’s funding. The three largest projects included work on the Burlington and Colchester bike paths. Three projects were completed in the Northeast Kingdom, accounting for 9 percent of the program’s funding. Projects took place in every county during this time period, with the exception of Caledonia County. Table 2.7 shows the types of Bicycle and Pedestrian Program projects, mileage, number of projects, and costs from 2000 to 2010. Figure 2.13 shows the cost of completed projects per year for the same time period. In 2012, the Bicycle and Pedestrian Program began to accept new project proposals for the first time since 2005, with an additional \$2 million in federal transportation funding.

Table 2.7. Bicycle and Pedestrian Program Projects, 2000-2010

Type of Project	Miles	Number of projects	Cost
Shared Use Paths	16.20	12	\$17,447,796
Pedestrian Facilities & Sidewalks	12.80	23	\$14,549,242
Rail Trails	4.56	2	\$ 1,679,543
Safe Routes to School Projects	0.56	4	\$ 394,524
On-Road Facilities	0.15	1	\$ 457,096

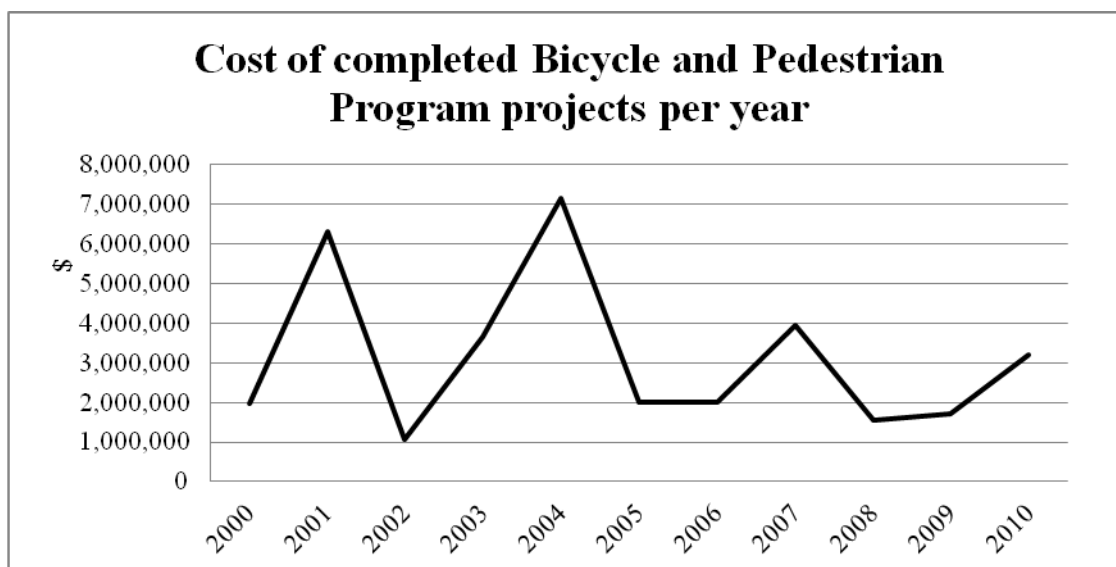


Figure 2.13 Cost of completed Bicycle and Pedestrian Program projects per year, 2000-2010

III. Federal outdoor recreation resources/facilities

Vermont is home to several federally-managed land units that offer opportunities for outdoor recreation, including two wildlife refuges, a national historical park, a national forest, and five Army Corps of Engineers lake sites. The following section summarizes the facilities and resources at these federal recreation areas.

US Fish & Wildlife Service (USFWS)

The USFWS manages two wildlife refuges in Vermont, the Missisquoi National Wildlife Refuge and The Silvio O. Conte National Fish and Wildlife Refuge. The Missisquoi National Wildlife Refuge, located in Northwest corner of Vermont, covers 6,729 acres, including seven miles of hiking trails and cross country ski/snowshoe trails. The Missisquoi NWR is mainly used for hunting, fishing, boating, wildlife observation, photography, environmental education, and interpretation. Eagle Point Wildlife Management Area is a 420-acre parcel on Lake Memphremagog that is part of the Missisquoi NWR, but co-managed with Vermont Fish and Wildlife.

The Silvio O. Conte National Fish and Wildlife Refuge consists of ecologically important lands in the Connecticut River Watershed, in Vermont, New Hampshire, Massachusetts, and Connecticut. The Nulhegan Basin, the refuge's section in Northeastern Vermont, covers 26,000 acres, including 35 miles of snowmobile trails and 70 acres of lakes. A smaller, 278 acre unit of the refuge is in Putney. The refuge's education center is located at the Montshire Museum of

Science, in Norwich. The Conte NWR is mainly used for hunting, fishing, wildlife observation, photography, environmental education, and interpretation.

National Park Service

The National Park Service manages the Marsh-Billings-Rockefeller National Historical Park, whose purpose is to interpret the history and evolution of conservation stewardship in America. The park covers 643 acres, most of which is forested, and which is one of the oldest professionally managed woodlands in America. The park maintains 20 miles of carriage roads that serve as horse/hiking trails in the warmer months and groomed ski/snowshoe trails in the winter.

Nationally designated trails

The Green Mountain National Forest contains three nationally designated trails: The Appalachian National Scenic Trail, Long National Recreation Trail, and the Robert Frost National Recreation Trail. The National Park Service manages the Appalachian National Scenic Trail, which is concurrent with the Long Trail for 100 miles in Vermont. The Long Trail and the Appalachian Trails are maintained by the Green Mountain Club in Vermont, whose responses are included in the recreation organizations section of this chapter. The Robert Frost National Recreation Trail is a short loop trail near Middlebury that commemorates Robert Frost's poetry.

Efforts are currently underway to pursue the possibility of connecting the North Country National Scenic Trail, which currently runs from North Dakota to Crown Point, New York, to the Appalachian National Scenic Trail in Vermont. Public meetings were held in 2012, with the purpose of soliciting public comment on the proposal. The planning process continues.

National Natural Landmarks Program

National Natural Landmarks (NNLs) are sites that contain the best remaining examples of specific biological and/or geological features. There are 12 NNL sites entirely or partially within the state of Vermont, which are owned by private and public landowners, including the Vermont Agency of Natural Resources, The Nature Conservancy, Middlebury College, University of Vermont, municipalities, and other private conservation organizations and individuals. These landmarks in Vermont range in size from 13 acres to 5,300 acres. Some, but not all, NNL sites are open for educational purposes and recreation. The newest addition, Chazy Fossil Reef in Isle La Motte, was designated in 2009. Vermont's NNLs include: Barton River Marsh, Battell Biological Preserve, Camel's Hump, Chazy Fossil Reef, Cornwall Swamp, Fisher-Scott Memorial Pines, Franklin Bog, Gifford Woods, Lake Willoughby Natural Area, Little Otter Creek Marsh, Molly Bog, and Mount Mansfield Natural Area.

USDA Forest Service

The Green Mountain National Forest (GMNF) consists of approximately 400,000 acres of land in Vermont, which is more than 6 percent of the land base in the state and comprises about 50 percent of the public land in the state. The GMNF manages 350 miles of hiking trails, and about 97 miles of mountain bike trails. There has been a marked increase in mountain bike trails in recent years; in 2006, there were only 37 miles of mountain bike trails in GMNF, and the Forest Plan written that year identified growing demand and need for more biking opportunities.

GMNF also maintains 150 tent sites and 55 picnic areas. Three alpine ski areas in GMNF are managed by private companies. The 15,800-acre Moosalamoo National Recreation Area in GMNF, established in 2007, is discussed in further detail in the recreation organizations section of this chapter. Between FYs 2006 and 2009, 4,884 acres were acquired by GMNF, by donation or purchase, including parcels important for black bear habitat, the last phase of the Broad Brook purchase, and additions to the “Green Mountain Escarpment” Management Unit.

There are eight designated wilderness areas within GMNF: Big Branch Wilderness, Breadloaf Wilderness, Bristol Cliffs Wilderness, George D. Aiken Wilderness, Lye Brook Wilderness, Peru Peak Wilderness, Joseph Battell Wilderness and Glastenbury Wilderness. Together, the wilderness areas make up approximately a quarter of the National Forest’s land. The New England Wilderness Protection Act of 2006 established 41,650 acres of GMNF as wilderness, adding acreage to already existing wilderness areas and designating the two newest areas in the forest: the Battell and Glastenbury Wildernesses.

Because the Lye Brook Wilderness Area exceeds 5,000 acres and was established prior to 1977, it is designated as a “Class I Federal Area” under the 1977 Amendments to the Clean Air Act. This Class 1 designation requires an enhanced level of protection of “air quality related values” from adverse effects of air pollution, such as impaired visibility, ozone damage to sensitive plants, and acidification of surface waters from atmospheric deposition.

US Army Corps of Engineers

The US Army Corps of Engineers operates five flood risk management project dams in the Upper Connecticut River Basin in the southeastern part of the state: two in Windham County (Ball Mountain Lake and Townshend Lake), two in Windsor County (North Hartland Dam and North Springfield Lake), and one in Orange County (Union Village Dam). Together the sites provide recreational opportunities on 5,791 acres of land, 539 acres of water, and 23 miles of shoreline. Recreational resources and facilities at these five sites include: 12 recreation areas, 165 camping sites, 64 picnic sites, 5 miles of trails, 4 playgrounds, 4 swimming areas, and 4 boat ramps. In addition, the five sites are open for hunting and fishing, and three of the sites are open for snowmobiling. Unfortunately, as a result of damage caused by Tropical Storm Irene in late August of 2011, the Townshend Lake site was closed to public use.

Table 2.8 shows estimates of totals for all federally managed recreation facilities and resources in Vermont.

Table 2.8. Federal outdoor recreation facilities/resources in Vermont

Resource/Facility	Count
Parks/open space (acres)	439,441
Picnic Areas	119
Boat Ramps/Launches	9
Swimming Beaches/Lakes	5
Hiking only trails (miles)	363
Bike/pedestrian trails (miles)	40
Mountain biking trails	97
Horse/hiking trails (miles)	40
Cross country skiing/snowshoeing trails (miles)	197
Snowmobile trails, groomed by VAST (miles)	510
Campgrounds with tent sites (# of sites)	315
Campgrounds with camper/RV sites	3
Hunting lands, public (acres)	438,791
Wildlife viewing areas (acres)	33,016
Shooting/archery ranges (number)	0
Downhill skiing areas (acres)	2734.5*

* Includes permitted acres on federal land: Bromley (186 acres), Mt Snow (893.86) acres, and Sugarbush (1655 acres)

Federal Educational Programs

Many federal recreation sites offer educational programs. Missisquoi National Wildlife Refuge maintains an outdoor/indoor class room and hosts programs including wildlife and nature walks. Silvio O. Conte National Fish and Wildlife Refuge offers opportunities for environmental education and interpretation at their visitor contact station, and also through their partnership with the Vermont Institute for Natural Science.

Green Mountain National Forest's staff hosts environmental education programs throughout the year, such as educational talks and field trips on issues ranging from non-native invasive species to wildlife to Leave No Trace Practices. Marsh-Billings-Rockefeller National Historical Park offers tours, history programs, and conservation-themed exhibits for visitors.

IV. Outdoor recreation NGO resources/facilities

Section IV reflects but is not limited to the responses of the 37 organizations that completed the 2011 Outdoor Recreation Organization Survey. This is not an exhaustive list of outdoor

recreation organizations in the state. Table 2.9 lists the organizations that responded to the survey.

Table 2.9. Outdoor recreation organization survey respondents

Participating organizations	
Appalachian Trail Conservancy	Rivendell Trails Association
Ascutney Trails	Riverledge Foundation
Catamount Trail Association	Rutland Area Physical Activity Coalition
Cycle Conservation Club of Vermont	Ski Vermont
Cross Vermont Trail Association	The Green Mountain Club Inc.
Friends of the West River Trail	Silvio O. Conte National Fish and Wildlife Refuge
Green Mountain Conservancy	Vermont Association of Snow Travelers
Green Mountain National Forest	Vermont Adaptive Ski and Sports
Green Mountain Plonkers Trials Club	Vermont Fish & Wildlife Department
Hardwick Trails	Vermont Horse Council
Kingdom Trail Association	Vermont Mountain Bike Association
Local Motion	Vermont State Parks
Mad River Path Association	Vermont Traditions Coalition
Middlebury Area Land Trust	Vermont Youth Conservation Corps
Missisquoi National Wildlife Refuge	Vermont Off Highway Vehicle Recreation Association
Moosalamoo Association	Vermont ATV Sportsman's Association
Northern Forest Canoe Trail	Vermont Recreation and Parks Association
NorthWoods Stewardship Center	Windmill Hill Pinnacle Association
Paths Around Lyndonville	Winooski Valley Park District

While responses to the survey were collected for several state and federal agencies in addition to NGOs, the results presented in this section for recreation organizations only include the responses from NGOs; state and federal responses are presented in the preceding section. Table 2.10 shows the findings of the recreation organization survey. Double counting may occur in this table as organizations that jointly manage resources responded to the survey.

Some of the major resources managed by NGOs are land and trail resources. Land resources include over 40,000 acres of parks/open space and thousands of acres of hunting and wildlife viewing lands. NGO trail resources include almost 5,000 miles of snowmobile trails, over 1,000 miles of cross country ski/snowshoe trails, over 700 miles of mountain biking trails, and almost 600 miles of hiking trails.

Table 2.10. NGO outdoor recreation facilities/resources

Resource/Facility	Count
Parks/open space (acres)	44,970
Picnic Areas	5
Golf Courses	71
Fitness Courses	2
Horse Riding Areas	1
Swimming Pools/Water Parks	11
Boat Ramps/Launches	24
Swimming Beaches/Lakes	1
Swimming Areas/Holes, Rivers	5
Hiking only trails (miles)	599
Bike/pedestrian trails (miles)	91
Bike lanes on class 2 roads (miles)	25
Mountain biking trails	755
Horse/hiking trails (miles)	26
Cross country skiing/snowshoeing trails (miles)	1,377
Off-highway Vehicle trails/roads (miles)	765
Snowmobile trails, groomed (miles)	4,753
Campgrounds with tent sites (# of sites)	25
Hunting lands, public (acres)	3,165
Downhill skiing areas (acres)	5,039
Outdoor ice skating rinks	3
Sledding/tubing hills	9

Educational programs offered by recreation organizations

In addition to providing the land and infrastructure for outdoor recreation activities, many outdoor recreation organizations that responded to the survey provide educational programs as well. Of the 29 organizations providing educational programs (78 percent of the total responses), 21 offer environmental educational programs, 8 offer athletics programs, and 7 offer safety programs. Some examples of educational programs for youth and adults offered by organizations are highlighted:

Environmental Education:

The Winooski Valley Parks District offers a wide variety of environmental education programs to visitors, summer campers, and school groups, ranging from tree identification to macroinvertebrate studies to winter tracking programs, many of which meet state education standards.

The NorthWoods Stewardship Center offers environmental education programs to youth and training for members of the NorthWoods Conservation Corps in recreation management and conservation.

The Rivendell Trails Association offers opportunities for place-based education programs within the Rivendell Interstate School District curriculum.

The Middlebury Area Land Trust hosts a hike series focusing on wildlife, land characteristics, trees, and plants, in addition to its summer camp.

The Northern Forest Canoe Trail offers week-long paddling trips for youth living in communities along the Northern Forest Canoe Trail.

The Green Mountain Club Inc. runs courses and trips that teach Leave No Trace, backcountry, and first aid skills.

The Vermont Youth Conservation Corps runs a high school based conservation education program, consisting of hands on conservation, agriculture, and recreation projects.

Athletics:

Vermont Adaptive Ski and Sports provides opportunities for outdoor adventure recreation for individuals with disabilities, ranging from alpine skiing to sailing to tennis.

The Catamount Trail Association offers afterschool youth ski/ecology programming and Nordic ski programming, including tours, instructional clinics for ski techniques.

Kingdom Trails Association hosts the Youth Nordic League in the winter and bike lessons in the summer.

Rutland Area Physical Activity Coalition teaches bicycle safety and hiking education classes, and other physical activity programs.

Vermont Recreation and Parks Associations provides training for full-time and seasonal staff, and volunteers who provide recreation and fitness/athletic programs. VRPA hosts two statewide track and field events for youth ages 7-15 every summer.

Safety:

The Vermont ATV Sportsman's Association offers the VEST program, which is a newly created program designed to give Vermont's youth ATV riders the knowledge needed to safely handle an ATV.

Local Motion offers BikeSmart youth skills trainings, Bike Commuter courses for adults, WalkSmart courses for schoolchildren, and Safe Streets education programs and materials.

The Cycle Conservation Club of Vermont hosts rider education, trail stewardship, and safety training workshops.

Vermont Off - Highway Vehicle Recreation Association hosts seminars and meetings with OHV clubs to promote and discuss responsible motorized use, and publishes newsletters to help educate the motorized community on relevant issues.

Vermont Association of Snow Travelers teaches snowmobile safety educational programs and the responsible riding and awareness program, and hosts trail construction, maintenance and grooming seminars.

Other major and/or new statewide or regional outdoor recreation suppliers

Vermont is fortunate to have several statewide, regional and local outdoor recreation organizations and/or new-to-the-scene players supplying outdoor recreation opportunities in the state, some of whom were not included in survey responses. These organizations own land in fee or hold conservation easements on private land, much of which is open and available for public outdoor recreational use. Those organizations that include outdoor recreation in their primary mission are actively engaged in public outreach and encouraging access. However, some of this land is not adequately signed, therefore the public is not aware of it being open for recreational uses.

Organizations specifically committed to providing outdoor recreation opportunities

Green Mountain Club

The Green Mountain Club (GMC) is responsible for maintaining the Long Trail, in cooperation with FPR, USFS, NPS, the Appalachian Trail Conservancy, and private landowners. Through its

land protection program, the Club has conserved over 25,000 acres of Long Trail lands through 90 land acquisition and conservation easement projects, resulting in the protection of more than 55 miles of the Long Trail System and 16,000 acres of backcountry land. In 2010-2011, GMC acquired several key parcels along the Long Trail, including:

- 177 acres and three easements in Bolton as part of the planned Winooski Valley Long Trail Relocation
- 110 acres of forestland on the north slope of Haystack Mountain, including a 1/3 mile section of the Long Trail.
- 166 acres along the ridgeline north of Jay Peak, including two miles of the Long Trail

The Catamount Trail Association

The Catamount Trail Association (CTA), founded in 1984, is a statewide organization dedicated to managing the 300-mile long Catamount Trail. The nation's longest Nordic ski trail, the Catamount Trail is used for public skiing and snowshoeing and spans the state north to south. The Vermont Legislature appropriated monies twice to the CTA to help pay for the acquisition of trail access easements from willing landowners for the trail where it crosses private property - once in 2001 for \$15,000, then again in 2004 for \$15,000. The CTA continues to acquire trail access easements with the support of public and private grants.

Cross Vermont Trail

Currently 30 of the 90 miles of Cross Vermont Trail, a four-season, multi-use trail, have been completed and are open for use. The trail will eventually bisect Vermont through the Wells River and Winooski River Valleys, connecting Newbury on the Connecticut River with Burlington on Lake Champlain. The trail crosses 17 communities, providing direct on- and off-road links between 10 village centers, 10 state parks and recreation areas, and at least 10 schools. When completed, 50 percent of Vermont's population will be a bike ride away from the state capital. The Cross Vermont Trail Association is a non-profit, member-based, and volunteer-driven organization dedicated to organizing, creating and maintaining this connective trail vein through the state.

Vermont Mountain Bike Association

The Vermont Mountain Bike Association (VMBA) was established in 1997 and is now comprised of 18 active chapters throughout the state. VMBA has coordinated the construction of sustainably built, legal trails in the state, producing a trail network that is the product of thousands of volunteer hours, hundreds of thousands of dollars in grants, and numerous collaborations with organizations and landowners. Mountain bikers, ranging from the occasional rider utilizing flat, wide track to the highly skilled downhill, have become much more common on trails throughout the country: According to the Outdoor Industry Association's 2011 report, cycling and its sub-disciplines grew on average 5 percent each year from 2005 to 2011. Each

year 15 percent of Americans enjoy “off-road” cycling, accounting for 43.3 million participants. Youth are participating at even higher rates: 29 percent of children between the ages of 6 and 17 participate each year and account for 1.04 billion outings.

Vermont Association of Snow Travelers

The Vermont Association of Snow Travelers (VAST) is responsible for the organization of the sport of snowmobiling, including maintaining and grooming trails. One of the oldest snowmobiling organizations in the U.S., VAST is a non-profit, private group that includes over 130 clubs statewide, with over 30,000 members combined. The clubs and their steadfast volunteers are the backbone of the organization.

Vermont All Terrain Sportsman’s Association

The Vermont All Terrain Sportsman’s Association (VASA) is the statewide association of local ATV clubs, authorized by, and in partnership with, the State of Vermont to develop and manage ATV trails in Vermont. VASA is dedicated to developing, promoting and conserving responsible family-based ATV recreation in Vermont, and is providing ATV trail access through leadership, land stewardship, partnerships and collaborations with other user groups and landowners.

VASA, through the local clubs and in collaboration with local, State and Federal land managers is working to develop and manage a state-wide ATV trail system of corridors, links and local trails, for the enjoyment of Vermont's families and guests.

The Vermont Horse Council

The Vermont Horse Council is the statewide organization dedicated to promoting horseback riding in Vermont. The VHC manages and maintains the Northeast Kingdom Equestrian Trails (NEKET). A majority of the trail system is located on public lands but significant segments are on private property. This riding area has long loop rides and designated primitive camping. The trails include almost 100 miles of skid trails and active logging roads through West Mountain Wildlife Management Area, Wenlock Wildlife Management Area, Victory State Forest, Victory Basin Wildlife Management Area, and land owned by Plum Creek Timber Company. Riding is also permitted in Groton State Forest on several multi-use trails.

The Lake Champlain Basin Program and Champlain Valley National Heritage Partnership

The Lake Champlain Basin Program (LCBP), a partnership of government and non-government interests, coordinates and funds efforts which benefit the ecological health and recreation and cultural resources of the Lake Champlain Basin. LCBP has supported the development of many local and regional recreation efforts, particularly through the Champlain Valley National Heritage Partnership (CVNHP), designated in 2006. CVNHP is a congressionally designated National Historic Area, whose purpose is “to recognize the importance of the historical, cultural,

and recreational resources of the Champlain Valley; to preserve, protect, and interpret those resources; to enhance the tourism economy; and to encourage partnerships among state/provincial and local governments and non-profit organizations in New York, Quebec, and Vermont to carry out the purposes of the legislation.” One of CVNHP’s guiding principles is to attract money and resources to support local and regional heritage and recreation projects. Some of the projects CVNHP has been involved in are:

Lake Champlain Birding Trail: The Lake Champlain Birding trail, the first birding trail to cross state lines, is a self-guided highway-based trail that connects 88 birding sites in the Lake Champlain Basin, including sites managed by the state and federal government, as well as non-profits such as the Winooski Valley Parks District and the Nature Conservancy. Way-finding signs guide the 300 mile route, and to date, six interpretive signs have been installed, providing insight into the natural and cultural history of sites. Major funding for the Lake Champlain Birding Trail has been provided by the LCBP.

Lake Champlain Paddlers’ Trail: The Lake Champlain Paddlers’ Trail, started in 1996 by the Lake Champlain Committee, and supported by the LCBP, links access sites and over 600 camp sites for paddlers on islands and along the shorelines of New York, Quebec, and Vermont. LCC helps maintain the network of Trail locations working in collaboration with private landowners, and municipal, state and federal partners. As of 2012, the Lake Champlain Paddlers’ Trail included 39 day-use and overnight locations providing access to over 600 campsites along Vermont and New York shorelines and islands. LCC’s long-term goal is to have Trail locations every eight to ten miles along the lakeshore.

In addition, two interpretive water trails have been developed, one in Shelburne Bay, and another in the Narrows of Lake Champlain.

Lake Champlain Bikeways: Lake Champlain Bikeways consists of a 1,300-mile network of bicycle routes in the Champlain Valley. LCBP has provided financial support and staffing for the coordination and establishment of the network. The routes are described in a series of maps and guidebooks available for different loops, including a 363-mile route around the lake.

Underwater cultural heritage: The Lake Champlain Underwater Historic Preserve was established in 1986 by the states of Vermont and New York to provide public access for divers to nine of the lake’s historic shipwrecks. Divers must be certified and register annually to use the preserve system. The Lake Champlain Maritime Museum in Vergennes plays an important educational and interpretive role in promoting this underwater cultural heritage. Scuba diving also occurs in other lakes throughout the state, including Lake Willoughby, Lake Memphremagog, Sunset Lake, Lake Bomoseen, Lake Dunmore, and Caspian Lake.

Scenic By-ways: The CVNHP contains three scenic byways in Vermont: The Lake Champlain Byway, a 134-mile driving loop that goes through the northwestern part of the state, The Shires of Vermont Byway, a 75-mile stretch from Vermont's southern border to the town of Manchester, and the Stone Valley Byway, a 41-mile stretch between Manchester and Castleton. In addition to providing direction along a planned route, the byways also promote and interpret the recreational, cultural, and historical points of interest along the byway.

Organizations providing outdoor recreation opportunities incidental to their primary mission

Statewide Organizations

The Conservation Fund

The Conservation Fund has protected more than 7 million acres across America including historic battlefields, wild areas and favorite destinations of all kinds. The Fund works with community and government leaders, businesses, landowners, conservation nonprofits and other partners to save the places that matter most. The Conservation Fund played an instrumental role in the largest conservation project ever undertaken in Vermont's history; resulting in the acquisition of 133,000 acres, formerly owned by Champion International, portions of which now make up the 22,000 acre West Mountain Wildlife Management Area and the 26,000 acre Nulhegan Basin Unit of the Silvio O. Conte National Fish & Wildlife Refuge, not to mention 84,000 acres of conserved private forest land with a permanent public recreation access easement..

The Nature Conservancy

The Nature Conservancy's Vermont Chapter has protected 183,000 acres, in more than 440 tracts around the state. It manages 55 natural areas in the state, which conserve some of the best examples of native habitats found in the state. Some, but not all of these natural areas are open to the public. TNC publishes a guide to all of their conserved lands that are open for outdoor recreation.

Trust for Public Land

The Trust for Public Land conserves land for people to enjoy as parks, gardens, and other natural places, ensuring livable communities for generations to come.

Vermont Land Trust

The Vermont Land Trust has conserved more than 1,650 parcels of land on more than 500,000 acres, which is about eight percent of the private, undeveloped land in the state. In addition to

conserving working farms and productive forests, VLT conserves important community recreation spaces. Between 2000 and 2010, the VLT completed 16 conservation projects on 1,982 acres of land that allows for public access. During that time period, it also completed 89 community projects, resulting in 8,407 acres of conserved community lands, including forests, swimming holes, and trails.

Local and Regional Lands Trusts

Land conservation by local and state trusts has increased in Vermont in recent years: in 2010, local and state land trusts in Vermont had conserved 613,971 acres of land, an increase of 169,726 acres since 2000, according to the Land Trust Alliance census.

Local and regional lands trusts in the state include the Greensboro Land Trust, Jericho Underhill Land Trust, Middlebury Area Land Trust, Northern Rivers Land Trust, Passumpsic Land Trust, Putney Mountain Association, Stowe Land Trust, Upper Valley Land Trust, Vermont River Conservancy and the Windmill Pinnacle Association

This is not intended to be a complete list.

Vermont Housing and Conservation Board

The Vermont Housing and Conservation Board (VHCB) was established in 1987, with a mission to create affordable housing, and preserve agricultural land, historic properties, important natural areas and recreational lands. VHCB funds have contributed to the conservation of 250,000 acres of natural areas and recreational lands, conserving lands that provide Vermonters with access to the state's waterways and woodlands into perpetuity. VHCB works with local and statewide nonprofit organizations, as well as town and state agencies. VHCB conservation projects result in conserved lands through VLT, new town recreational lands, and additions to State Parks and Forests.

Scenic Byways

Vermont has six scenic byways outside the Champlain Valley, in addition to the three byways in the CVNHP: The Connecticut River Byway (also a National Byway) , Crossroad of Vermont Byway, Green Mountain Byway, Mad River Byway, Molly Stark Byway, and Scenic Route 100 Byway. (Map is available at <http://www.vermont-byways.us/sites/byways/files/State%20BywayBrochureMap020112.pdf>)

Water Trails

In addition to the Lake Champlain Paddlers' Trail (discussed above), four other water trails play an important recreational role in the state.

The Northern Forest Canoe Trail (NFCT) is a 740 mile water trail connecting Old Forge, NY to Fort Kent, ME. The NFCT was incorporated as a non-profit in 2000 and was opened as an official recreation corridor in 2006. The organization focuses its efforts on trail stewardship, rural economic development, and connecting people with place. The trail is comprised of private, state, and federal lands. The Vermont section of the NFCT contains (as of 2012) 144 miles of recreation trail corridor consisting of water bodies and portage trails, 53 access points, 8 official campsites directly managed by the NFCT, and 15 portages.

A collaborative of over 15 organizations assists with trail planning and development of the *Connecticut River Paddler's Trail*, which spans 240 miles from the rivers' headwaters south to the Massachusetts border, with a series of over 34 campsites and 65 access points along the route. Efforts to develop primitive campsites were first initiated in the early 1990s by the Upper Valley Land Trust. Primitive campsite opportunities have been expanded in recent years, thanks to the efforts of the Northern Forest Canoe Trail, Vermont River Conservancy, TransCanada Hydro Northeast, Vermont Land Trust, Vermont Department of Forests Parks and Recreation, and other organizations.

The Winooski River Paddlers' Trail is an 80-mile trail from Cabot to Lake Champlain on the Colchester/Burlington border. It has been developed by the State of Vermont, Green Mountain Power, and local land trusts, with many of its portage trails having been developed in the 1980s and 90s by Green Mountain Power during Federal Energy Regulatory Commission re-licensing processes. In late 2012, the Friends of the Winooski and the Vermont River Conservancy initiated a program to formally integrate the variety of efforts underway, strategically improve river access, and improve the dissemination of information to visitors.

In addition to those organizations mentioned above, the following entities also exist in Vermont. Established in 1970, the Vermont Paddlers Club (VPC) is now an American Canoe Association affiliated club*. The mission of the VPC is to facilitate the enjoyment of recreational paddle sport. To this end, it organizes a schedule of whitewater and flat water canoe and kayak trips which suit the interests of VPC members, promotes safe and enjoyable paddling through education and other activities (including winter pool sessions), maintains an awareness of river resource and conservation issues, and takes action when appropriate to protect paddling resources. The Champlain Kayak Club was founded in 1992 and has been active on Lake Champlain ever since. The club sponsors weekly Wednesday night paddles, weekend trips and multi-day treks to destinations ranging from our home Lake Champlain to the coast of Maine. The club places a strong emphasis on paddling safety, with regular clinics on topics ranging from basic strokes to assisted and self rescue techniques.

There has been recent interest by a variety of local stakeholders in reviving the *Passumpsic River Paddlers' Trail*. The trail is a series of access points and portage trails from St. Johnsbury east to the Connecticut River. Portage trails are developed and signed, and a Passumpsic River Canoeing and Recreation Guide was developed in 1999.

Vermont Recreation and Parks Association

The Vermont Recreation and Parks Association (VRPA) is a statewide organization that was established in 1948 to provide services and programs for the professionals and volunteers who advocate high quality recreation and park experiences for the people and visitors of Vermont. The association is made up of members in the categories of agency, professional, board/commission, commercial vendor, student, friend, retiree and honorary lifetime member. On-going functions of the VRPA include providing training and technical assistance, hosting quarterly meetings and the annual VT Governor's Conference on Recreation, annually hosting two statewide track and field meets for youth, advocating for relevant legislation at the local, state and national levels, and providing opportunities to acknowledge excellence in the field through an annual awards program and the Theresa S. Brungardt Awards. The VRPA collaborates with a variety of other organizations throughout the state.

Vermont Trails and Greenways Council

The Vermont Trails and Greenways Council (VTGC) is a statewide organization that was established by the Vermont Legislature in 1993 to advise the Vermont Agency of Natural Resources regarding trails and public access for recreation issues. The council is made up of organizations that represent a variety of trail use activities statewide, regionally, and locally. In addition to delivering an annual report to the ANR with recommendations for improving and supporting recreation trails in the State of Vermont, and holding an annual Trail Symposium, ongoing functions of the council include: holding quarterly meetings and networking sessions; maintaining a trails manual for the state; recommending criteria for selecting projects to be funded by the Vermont Recreational Trails Program; and reviewing applications and recommending trails for the Vermont Trail System.

State-wide Motorized Recreation Organizations

The *Vermont Association of Snow Travelers (VAST)* and the Statewide Snowmobile Trail System (SSTS) were established in 1967. In order to ride on the SSTS an individual must have a legally registered snowmobile, join a local snowmobile club (thereby becoming a member of VAST), and purchase a Trail Maintenance Assessment (TMA) or trail pass. Approximately 80 percent of the SSTS crosses private lands while the remaining 20 percent crosses state, federal and municipally owned lands throughout the state and connecting to adjacent states. Volunteers from 129 snowmobile clubs throughout the state work closely with these private, state, federal and municipal landowners to obtain permission to use their lands for snowmobiling between the dates of December 16th and April 15th annually. Funding for the SSTS comes from TMA sales, State of Vermont registrations, fines and penalties issued by law enforcement and portions of the state and federal tax on gasoline. The state gasoline tax is mandated by legislation which states that 40 percent (just under \$150,000) of the monies that flow into the Vermont Recreation Trails Fund gets passed to VAST through FPR.

The *Vermont ATV Sportsman's Association (VASA)* was founded in 1998. The legislature allocated a portion of ATV registration fees and violation penalties to be used for trail construction and maintenance, insurance, and law enforcement. These funds pass through FPR to VASA. VASA encourages use of legal trails through the development of appropriate recreational opportunities for ATV users. VASA has developed and maintained extensive trail systems that include over 750 miles of legal trails throughout the state. Each trail system is maintained by one of 22 local clubs throughout the state. VASA trails are built and maintained with strict standards that address and minimize environmental impact. VASA also holds a \$1 million liability insurance policy.

The *Vermont Off-Highway Vehicle Recreation Association (VORA)* was formed in 2008 in close collaboration with the American Motorcyclist Association (AMA) and the National Off-Highway Vehicle Conservation Council (NOHVCC). The purpose of VORA is to work cooperatively to create and sustain environmentally compatible land-use opportunities for off-highway recreation vehicles, and to promote responsible recreation for all generations. VORA is an association that represents the needs and interests of off-highway motorcycles (OHM), all-terrain vehicles (ATVs) and light duty 4X4s.

The *Cycle Conservation Club of Vermont (CCC of VT)* is the largest OHM club in the state. Its members ride street-legal, registered, inspected and sound tested motorcycles. They are dedicated to creating, enhancing and preserving legal off-road and dual-sport motorcycle opportunities in Vermont. A typical dual sport event consists of a non-competitive route sheeted ride ranging from 100 to 120 miles on Class II, III and Class IV public rights-of-way as well as private property (with landowner permission). Currently the club has over 1,200 miles of route sheeted dual sport rides throughout the state.

The *Green Mountain Plonkers (GMP)* is an observed trials club. Their mission is to promote the sport of Observed Motorcycle Trials in Vermont, raising awareness about this motorcycle riding discipline, improve the overall image of off road motorcycle recreation and to grow the number of riders in the State of Vermont. The club teaches riding skills, safety, responsible use of public and private land, and respect for the environment. They club promotes shared trails and riding areas with other outdoor, environmentally-conscious aware organizations.

The primary mission of the *Vermont Motocross Association (VMA)* is to promote motocross racing in the state for young riders and their families. The VMA considers motocross racing to be a lifelong sport, and thrives to provide a safe and enjoyable atmosphere for friendly competition for riders of all ages and abilities. They are the only motocross association in the state and have been hosting competitive events at their private track in Derby since 1973.

The *Green Mountain Riders (GMR)* was formed in the winter of 2010 to represent the needs and interests of single track, closed loop, off-highway motorcyclists. The primary focus of this organization is to provide and maintain quality, legal, and safe riding areas for all ability levels

of non-competitive off-road motorcyclists including families and children. The organization is dedicated to creating, managing, and preserving responsible and safe off-highway motorcycle riding areas in Vermont.

The *Montshire Trail Riders* has been operating successfully for 28 years and is one of the oldest trail-riding clubs in the state. Recognizing that there were no legal areas to ride on public lands, the Montshire Trail Riders realized there was a need for riding access and through a “riders supporting riders” effort they found they could gather the resources to fill that need. The club hosts Turkey Runs (similar to Dual Sport rides) and Hare Scramble (competitive event on a closed course) events sanctioned through NETRA (New England Trail Riders Association).

The *Killington Sports Car Club* hosts numerous hillclimbs as part of the New England Hillclimb Association’s hillclimb series. Events are held at Burke Mountain (Darling State Park) and Okemo Mountain yearly.

Commercial and Non-Profit Snow-Based Facilities and Resources

In addition to snowmobiling (discussed in the previous section), there are many commercial and non-profit organizations that provide the facilities and resources for the various types of skiing, snowboarding, snowshoeing and mushing, that take advantage of snow cover each winter.

There are currently 18 ski areas throughout the state. Six are located in the northern part of the state, seven in the central area, and five are in the southern section. Winter outdoor activities at these areas include downhill (alpine) skiing, snowboarding, and cross country (Nordic) skiing. Infrastructure improvements and development have been ongoing at Stratton, Okemo, Smugglers Notch, Burke Mountain., and Jay Peak, as well as others. These have focused on improvements to lifts, snowmaking, and resort accommodations and amenities. Most of Vermont’s ski resorts have been expanding their operations to include year-round services such as lift-served mountain biking and sight-seeing, hiking, zip-lining, golf, spas, shopping, fine dining, summer camps, and hosting festivals and conferences. Major four season resort expansion continues at Sugarbush, Okemo, Stowe, Killington and Jay Peak, which will increase outdoor recreational opportunities. The most potentially consequential proposed expansion in terms of recreation s at Burke Mountain, where new ownership could very well attempt to capitalize on the kingdom trails network to enhance four-season activities.

Cross-country ski trails in Vermont are found on three different resource bases – at commercial ski areas, including both alpine and Nordic areas; on public areas; and on shared-use trails. Most Nordic ski areas groom their trails for classical and skate skiing. A few of Vermont’s Nordic ski areas have invested in snowmaking equipment to provide more consistent conditions to skiers throughout the winter. A growing number of areas also have un-groomed trails for a backcountry experience. In addition to town, state, and federally managed trails, VAST snowmobile trails also provide opportunities for cross country skiers. At Willoughby State Forest, approximately six miles of cross-country ski trails are maintained and groomed by the Memphremagog Ski

Touring Foundation. The trails are routinely used for both high school races and New England Nordic Ski Association races.

Snowshoeing opportunities are plentiful during the Vermont winter, including public trails such as VAST snowmobile corridors, the Catamount Trail, hiking trails, and private snowshoe trails offered at some ski areas and lodging destinations.

Dog Sledding and Skijoring

Mushing is a general term for a sport or transport method powered by dogs and implies the use of one or more dogs to pull a sled on snow or a rig on dry land. The vehicles the dogs pulls includes: carting, pulka, bike (bikejoring), scootering, skates, sleds, skies (skijoring), weight pulling and running (cani-cross). The portion of the sport gaining in popularity is the use of one to three dogs for skijoring, bikejoring, scooters and cani-cross, and there are opportunities to compete in these classes.

Mushing can be done during any season provided that it is not so hot the dogs overheat. The term “sled dog” or “husky” is generally used as a generic name for northern breed dog used in Mushing. There are the purebred American Kennel Club-recognized northern breeds including: the Siberian Husky, Samoyed, and Alaskan Malamute; The most common sled dogs used is a cross-bred “Alaskan” husky or Euro-hound, which are considered designer mutts. There are also a few other traditional northern breeds (non AKC) that are used for mushing such as the American and Canadian Eskimo dogs, Inuit dogs, and Chinooks. There are also the non-traditional “sled dogs” that are also AKC breeds such as: Border Collies, German Short Hair Pointers, Irish Setters and even Standard Poodles. In general many breeds are use, as long as they are healthy dog weighing over 35 pounds with a sound back and hips, a desire to pull, and ability to respond to training and verbal commands.

The modern-day beginning of organized racing and mushing in New England is generally considered to be 1924, when the New England Sled Dog Club (NESDC) was started. This club is actually the oldest continually active club in the nation. Vermont first represented for the NESDC was Dustin White. Early racing in Vermont is not well documented, but one of the earliest known race was 1936 in Manchester Vermont. Racing became more prevalent in Vermont during the 1950th. Races in Vermont has come and gone in many towns including: Elmore, Stowe, Eden, Craftsbury, Waitsfield, Berlin, Burk and others. NESDC racing are typically of the sprint category with smaller teams running shorter distances and larger team going further, typically between 2 to 16 miles. Other groups have organized longer races between 15 to 60 miles.

Vermont had an interesting connection to sled dog history when a forgotten *mounted* husky was discovered in the back room of Shelburne Museum. The musher who discovered him, Ed Bleckner, research and discovered this dog to be Togo. Togo belonged to the musher Leonhard Seppala, who is considered the father of the Siberian Husky and brought the Siberian Husky to New England, which he raced and won many of the early races in New England with these dogs. Togo led Seppella team through treacherous arctic conditions on the Bering Sea in 1925 to help relay

Diphtheria anti-serum to Nome Alaska ending a plague that would have wiped out most of that village. Bleckner help return Togo to Alaska, where he can be viewed in the Sled Dog Museum.

Mushing is alive and well in Vermont and found in pockets around the State on trails in State Parks and Forest, National Forest lands and private trails. The Vermont mushers are a blend of recreational teams, racing teams and team for hire to take people out for short jaunts or long excursions. Most mushers are willing to share their knowledge, help people get started in the sport and educate the public on sled dogs and mushing. People need to be warned that once bitten by the bug, it's hard to not get one more dog, and this is not a typical sport but a life style choice. Mushers hold races and fundraisers at locations in Vermont, utilizing cross-country ski trails and snowmobile trails. Vermont mushers have worked to highlight safety concerns that arise when using multi-use trails so as to eliminate potential conflicts between users. Mushers also have worked to gain access and permission to use VAST snowmobile trail sections. Competitive racing opportunities are available in Vermont for most of these activities.

Comparison of outdoor recreation providers in Vermont

While some outdoor recreation facilities and resources are managed by all four management types (municipal, state, federal, NGO), such as parks/open space, hiking trails, hunting lands, and campgrounds with tent sites, this inventory shows that some major recreational resources are managed heavily by one or two management type. Table 2.11 shows the breakdown of facilities/resources in comparison.

Municipalities: Municipalities are the major providers of athletic facilities, fields, courts, and bike paths in the state.

State and federal providers: State and federal outdoor recreation providers provide the majority of public lands in the state. State departments provide the majority of boat ramp/launches and docks, fishing piers, and campsites, while the federal government provides the majority of public lands open to hunting.

NGOs: NGOs in Vermont provide the majority of mountain bike, snowmobile, and OHV trails in the state. VMBA chapters manage 755 miles of mountain bike trails, which includes 40 to 45 miles on state land and 20 miles on federal land. The rest of the miles are on private, municipal, and other conserved lands. VAST manages 4,750 miles of snowmobile trails, 80 percent of which are on private lands, and VASA manages 700 miles of ATV trails on private lands or class 4 town highways.

Table 2.11. Outdoor recreation resource/facilities across management levels

Resource/Facility	Municipal	State	Federal	NGO ²
Parks/open space (acres)	60,678	346,000	439,441	44,970
Picnic Areas	261	38	119	5
Skate Parks	23	0	0	0
Golf Courses	5	0	0	10
Fitness Courses	16	0	0	2
Fairgrounds	7	0	0	0
Horse Riding Areas	10	2	0	1
Swimming Pools/Water Parks	26	1	0	11
Boat Ramps/Launches	40	166	9	24
Boat Docks	9	31	0	0
Swimming Areas ³	103	30	5	5
Fishing Piers	13	18	0	0
Hiking only trails (miles)	351	249	363	599
Bike/pedestrian trails (miles)	211	0*	40	91
Bike lanes on class 2 roads (miles)	22	0	0	25
Mountain biking trails	0	0	97	755
Horse/hiking trails (miles)	72	0*	40	26
Cross country skiing/snowshoeing trails (miles)	281	941	197	1,241
Off-highway Vehicle trails/roads (miles)	21	0	0	765
Snowmobile trails, groomed (miles)	122	0	510	4,753
Campsites ⁴	207	2,200	315	25
Hunting lands, public (acres)	6,695	346,000	438,791	3,165
Shooting/archery ranges (number)	1	0	0	0
Downhill skiing areas (acres)	104	10,000	2734.5 ⁵	5,039
Outdoor ice skating rinks	59	0	0	3
Sledding/tubing hills	20	0	0	9

*State trails total 941 miles, many of which are multi-use trails that allow some combination of activities, including hiking, biking, horseback riding, skiing, and snowshoeing. Information was not available to break down into the categories in this table.

² Totals include only the NGOs that responded to the 2011 survey (see Table 2.9).

³ Includes beaches, swimming holes, and other swimming areas

⁴ Includes tent sites, camper/RV sites, and remote sites

⁵ Includes permitted acres on federal land: Bromley (186 acres), Mt Snow (893.86) acres, and Sugarbush (1655 acres)

Chapter 3: Demand for Outdoor Recreation in Vermont

According to the Outdoor Industry Foundation's 2006 report, Vermonters participated at a higher rate than national averages in bicycling, hunting, paddling, snow-based, trail based, and wildlife-watching activities. Other surveys indicate the same high levels of participation among Vermonters. This of course comes as no surprise given the outdoor recreation based culture of Vermont and the recognition of its contribution to our quality of life and economic vitality.

Vermont is positioned in the tourism industry as a desirable destination for visitors from distant domestic markets and from around the world—especially the United Kingdom and Germany. But the lifeblood of Vermont's recreation industry continues to be the nearby markets of New England, the Mid-Atlantic States and Canada.

Vermont welcomes about 13.7 million visitors per year, and annual visitor spending is approximately \$1.4 billion. Summer is the busiest season in terms of number of visitors (5.1 million); however, visitor spending is the highest during the winter season (\$497 million). The majority of Vermont's visitors are from domestic markets, although Canadians comprise nearly 19 percent of our total visitors.

Vermont is a preferred and frequent destination for many of its out-of-state visitors. These visitors purchase Vermont products in their home communities, not just when they visit. Vermont's regular visitors primarily come from the drive markets (within 300 miles) of the northeastern United States and the Canadian provinces of Quebec and Ontario. The strong Canadian dollar has worked in Vermont's favor and has been a factor that encourages Canadian visitation.

Through it all, Vermont continues to be associated with environmental quality and the "green" values that have been gaining popularity in response to the challenges posted by rising energy costs and climate change. As more visitors seek out and take advantage of outdoor recreational areas, interest and participation in both cycling and hiking by Vermont's visitors continues to grow.

The demand for outdoor recreation in Vermont stems from residents who participate in outdoor recreation activities, and visitors to the state who engage in such activities during their stay. The first part of this chapter summarizes the results of the 2011 Outdoor Recreation Demand Survey, which estimates Vermonters' participation in specific outdoor recreation activities. In the second part of the chapter, we use longitudinal visitation data from recreation providers in the state to determine trends in resident and visitor demand for particular recreation destinations and activities.

2011 Outdoor Recreation Demand Survey

To estimate demand, the proportion of Vermont households that participated in a variety of outdoor recreation activities was calculated. As a lead in to each activity section in the

questionnaire, respondents were asked, “Did you or any member of your household participate in any of these activities in Vermont during the past 12 months?” The proportion of people who had participated was multiplied by the total number of Vermont households reported in the 2010 Census (256,442 households). Next the total number of participants in each activity was estimated by multiplying the number of households by the number of people in each household that participated in the activity. The following section summarizes the findings of the survey; for the full findings and methods, refer to Appendix B.

Breakdown of participation rates by activity

The most popular outdoor recreation activities were outdoor sport activities, which included individual fitness activities and team sports. The least popular activities were motorized sport activities, which included land-based motorized activities. The following section highlights the activities with the highest participation rates, and Table 3.1 shows the complete data on household participation for each activity, the total number of participants, and the percent of Vermonters who reported participating in each activity.

Sport-related activities: Almost three-fourths of the sample participated in some form of outdoor sport activity such as walking, jogging, tennis, golf, baseball, or soccer. Walking was by far the most popular sport-related outdoor recreation activity in Vermont, with two out of five Vermont residents engaging in it.

Picnicking/Sightseeing/Touring: More than two-thirds of the respondents said that someone in their household had participated in picnicking or sightseeing types of activities in the previous 12 months. Over half the population had picnicked outdoors, and two in five Vermonters had taken a sightseeing excursion.

Swimming-related activities: Swimming is one of the most popular outdoor recreation activities in the state. More than two-thirds of the state’s residents participated in a swimming-related activity. Lake swimming was by far the most preferred swimming medium; nearly half of all Vermonters went swimming in lakes.

Winter-related activities: Three out of five households in Vermont participated in snow/winter-related outdoor activities. Sledding was the most popular snow-related outdoor recreation activity among Vermont residents, with more than one third of all Vermonters participating in the activity. Snowshoeing was the next most popular winter-time recreational activity, with a quarter of Vermonters having snowshoed in the previous year.

Trail-related activities: By far, the most popular of the trail-related activities was hiking, with one-third of the state’s residents participating in this activity. This was followed by bicycling, with more than one-fifth of Vermonters participating in bicycling on roads, and recreation paths.

Nature-related activities: Nature-related activities such as bird watching, outdoor photography, collecting edible plants, and geocaching followed with more than half of the sample participating in these activities over the previous 12 months. The most popular activities were wildlife watching (a quarter of the population) and bird watching (just under a quarter of the population).

Boating-related: Two out of five people in Vermont participated in boating-related activities. The preferred type of craft was the canoe, with over one in five people having canoed in the past year.

Fishing-related: More than one-third of the respondents to the survey reported participating in at least one fishing-related activity. The most common fishing activity was freshwater fishing on Vermont lakes and ponds, with about one in seven Vermonters fishing from shore and one in ten fishing from a boat.

Hunting-related: Over a quarter of Vermonters participated in hunting-related activities in the past year. Big game hunting, which for most Vermonters means deer hunting, was the most popular form of hunting in the state, with nearly a seventh of Vermonters having participated in this type of hunting. It needs to be noted here that the responses to the survey related to participating in fishing and hunting are not consistent with hunting and fishing license sales. This is most likely due to the fact that individuals who have hunted and fished most of their lives, but do not currently possess a hunting or fishing license, still consider themselves hunters or anglers and responded in the affirmative to the survey questions pertaining to hunting and fishing.

Motorized-sport activities: A quarter of Vermont's residents participated in motorized sports. All-terrain vehicles were the most popular of the motorized outdoor recreation activities with more than one in ten Vermonters participating in this type of activity.

Other activities: More than a sixth of respondents to the survey offered other outdoor recreation activities that they participated in, which were not included in the questionnaire. The most frequently mentioned activity was gardening, followed by ice skating. A number of people also mentioned other home-based activities such as yard work, chopping wood, land management activities, and farming.

Table 3.1. Participation in Outdoor Recreation Activities

	Percent of Households	Total Participants	Percent Participation
Outdoor Sports Activities	70.2		
Walking	57	264,571	42.3
Jogging/Running	19.7	68,201	10.9
Golf	15.1	64,667	10.3
Baseball, Softball	11.9	57,371	9.2
Soccer	9.9	45,952	7.3
Tennis	8.9	42,680	6.8
Outdoor Basketball	8.4	39,205	6.3
Other Team Sports	7.1	31,499	5
Outdoor Court games	6.5	31,171	5
Skate/Long boarding	2.6	8,468	1.4
Picnicking/Sightseeing/Touring	68.3		
Sightseeing/Driving for Pleasure	45.9	255,424	40.8
Picnicking	45.4	337,632	54
Visiting Cultural/Historic Sites	35.2	211,226	33.8
Swimming-Related Activities	68.1		
Lake Swimming	50.2	293,513	46.9
Outdoor Pool Swimming	27.2	176,473	28.2
River/Swimming Hole	24.5	133,196	21.3
Sunbathing	16.1	69,362	11.1
Scuba/Snorkeling	2.3	12,268	2

	Percent of Households	Total Participants	Percent Participation
Snow-Related Activities	61.2		
Sledding	33.2	213,698	34.2
Snowshoeing	31.2	154,419	24.7
Downhill Skiing	19.9	92,878	14.8
Cross Country Skiing	17.2	74,543	11.9
Snowmobiling	16.5	70,663	11.3
Snowboarding	12	55,669	8.9
Ice Climbing	0.4	1,366	0.2
Nature-Related Activities	55.1		
Bird Watching	29.7	143,949	23
Wildlife Watching	28.7	161,181	25.8
Collecting (forest products)	24.8	117,656	18.8
Outdoor Photography	17.5	64,623	10.3
Wildlife Photography	10.9	45,003	7.2
Nature Study	10.4	52,540	8.4
Tracking	8.4	32,743	5.2
Orienteering, GPS, Geocaching	4.7	18,200	2.9
Non-Motorized Activities	54.7		
Hiking	40.5	212,911	34
Bicycling	29.5	144,492	23.1
Tent Camping – Campground	16.6	104,721	16.7
Mountain Biking	10.7	49,665	7.9
Backpacking	5.6	30,588	4.9

	Percent of Households	Total Participants	Percent Participation
Trail Running	4.7	13,861	2.2
Horseback Riding	3.7	16,700	2.7
Rock Climbing	2	8,104	1.3
Boating-Related Activities	41		
Canoeing	22.8	121,030	19.3
Power Boating	13.2	80,225	12.8
Sea-Kayaking	7.7	40,677	6.5
Water Skiing	6.8	35,225	5.6
Sailing	6.3	28,111	4.5
Whitewater (canoe, kayak)	4.1	20,503	3.3
Personal Watercraft (jetski, etc)	1.2	8,986	1.4
Whitewater Rafting	0.2	702	0.1
Windsurfing	0.2	1,000	0.2
Fishing Activities	36.3		
Pond – Shore	17.6	91,170	14.6
Pond – Boat	14.1	67,616	10.8
Lake Champlain – Shore	11.8	55,981	8.9
Lake Champlain – Boat	10.4	45,606	7.3
Lake Champlain – Ice	6.2	26,711	4.3
Pond – Ice	6.1	25,654	4.1
Fly Fishing	5.1	20,272	3.2
Hunting Activities	28.7		
Big Game (Deer, Moose)	25.6	87,970	14.1

	Percent of Households	Total Participants	Percent Participation
Target Shooting (pistol, rifle)	14.7	59,938	9.6
Upland Bird/Small Game	12.8	45,626	7.3
Skeet/Trap/Sporting Clay	6.7	24,398	3.9
Waterfowl	4.8	14,402	2.3
Trapping	0.2	631	0.1
Motorized Activities	25.8		
ATV (3 and 4 Wheel)	14.6	72,260	11.5
Motorcycles (Sport, Dirt)	8.4	34,897	5.6
RV Camping	7.1	48,250	7.7
OHV (Jeeps, Pick-ups, SUVs)	5.7	26,749	4.4

When comparing these estimates with available baseline data such as hunting and fishing license sales, snowmobile registrations, skier days, etc., the survey's estimates tended to be roughly 10 to 20 percent higher than what might be expected. There are at least two reasons for this. First, outdoor recreation participation was measured at the household level. This method of estimation includes participation by children, which is a factor often missed in participation surveys of adults 16 and over. Childhood (and household) participation is also not accounted for in measures such as snowmobile registrations, OHV/ATV registrations, boat registrations, or fishing license sales. Second, while people were asked to report outdoor recreation participation "during the past 12 months," it was apparent that some respondents ignored this stipulation and reported "typical" participation in activities. For example, while some respondents may have thought of themselves as deer hunters, it is likely that some may not have purchased a 2010 hunting license and may have skipped a year of deer hunting for a variety of reasons.

Outdoor recreation activities with the most participants

The activities with the highest number of participants included picnicking (more than half of Vermonters picnicked), followed by lake swimming (just under half of Vermonters swam in lakes), and walking (two in five Vermonters walked for recreation). Other popular activities included sightseeing/driving for pleasure, sledding, hiking, visiting cultural attractions, outdoor

pool swimming, wildlife watching, and snowshoeing. Table 3.2 shows the 25 most participated-in activities included in the survey, the number of participants, and the percentage of the Vermont population the participants comprise.

Table 3.2. Outdoor recreation activities ranked by total number of Vermont participants

Activity	Total Participants	Percent Participants
Picnicking	337,632	54.0
Lake Swimming	293,513	46.9
Walking	264,571	42.3
Sightseeing/Driving for Pleasure	255,424	40.8
Sledding	213,698	34.2
Hiking	211,911	34.0
Visiting Cultural/Historic Sites	211,226	33.8
Outdoor Pool Swimming	176,473	28.2
Wildlife Watching	161,181	25.8
Snowshoeing	154,419	24.7
Bicycling	144,492	23.1
Bird Watching	143,949	23.0
River/Swimming Hole	133,196	21.3
Canoeing	121,030	19.3
Collecting (forest products)	117,656	18.8
Tent Camping – Campground	104,721	16.7
Downhill Skiing	92,878	14.9
Pond Fishing – Shore	91,170	14.6
Big Game Hunting (Deer, Moose)	87,970	14.1
Power Boating	80,225	12.9
Cross Country Skiing	74,543	11.9
ATV (3 and 4 Wheel)	72,260	11.5
Snowmobiling	70,663	11.3
Sunbathing	69,362	11.1
Jogging/Running	68,201	10.9

Participation rates among outdoor recreation activities differ somewhat from the responses to Vermonters' favorite outdoor recreation activities (Table 3.3). Hiking, walking, snowshoeing, bicycling, and swimming were favored activities and receive high rates of participation among Vermonters. Some "favorite activities," however, such as hunting, fishing, and snowmobiling were ranked considerably lower by number of participants. For example, hunting and fishing were rated the third and fourth "favorite" outdoor recreation activities in Vermont, even though they ranked 19th and 18th, respectively, by number of participants. Snowmobiling was ranked as the ninth "favorite" activity, but ranked 23rd by the number of participants. In comparing these

two tables, we can see that level of participation does not always correspond with “favorite activities.”

Table 3.3. Vermonters’ favorite outdoor recreation activities

Activity	Percent
Hiking	16.0
Walking	9.1
Hunting	9.0
Fishing	8.8
Swimming	6.7
Bicycling	5.7
Camping	4.0
Snowshoeing	2.9
Snowmobiling	2.8
Skiing (unspecified)*	2.7
XC Skiing	2.6
Kayaking	2.2
Downhill Skiing	2.0
Golf	1.9
Boating	1.9
Running/Jogging	1.9
4-Wheeling	1.9
Snowboarding	1.6
Gardening/Yard Work/Farming	1.4
ATVing	1.2
Mountain Biking	1.1
Fly Fishing	1.1

*Survey respondents who did not specify what type of skiing was their favorite

Levels of participation are not consistent throughout the state. Figures 3.1 through 3.5 show the participation distribution by county of the five activities with the most participants (Table 3.2). The highest participation rate for picnicking occurs in Orleans and Chittenden Counties, with about 60 percent of their populations participating in picnicking activities, and at the lowest rate in Grand Isle County, at 14 percent. Lake swimming occurs at the highest rates in Chittenden County (65 percent), and at the lowest rate in Windham County (22 percent). Orleans County has the highest rate of walking for recreation (84 percent), sightseeing (62.9 percent), and sledding (46 percent) and Grand Isle as the lowest rate (30 percent, 24 percent, and 18 percent, respectively).

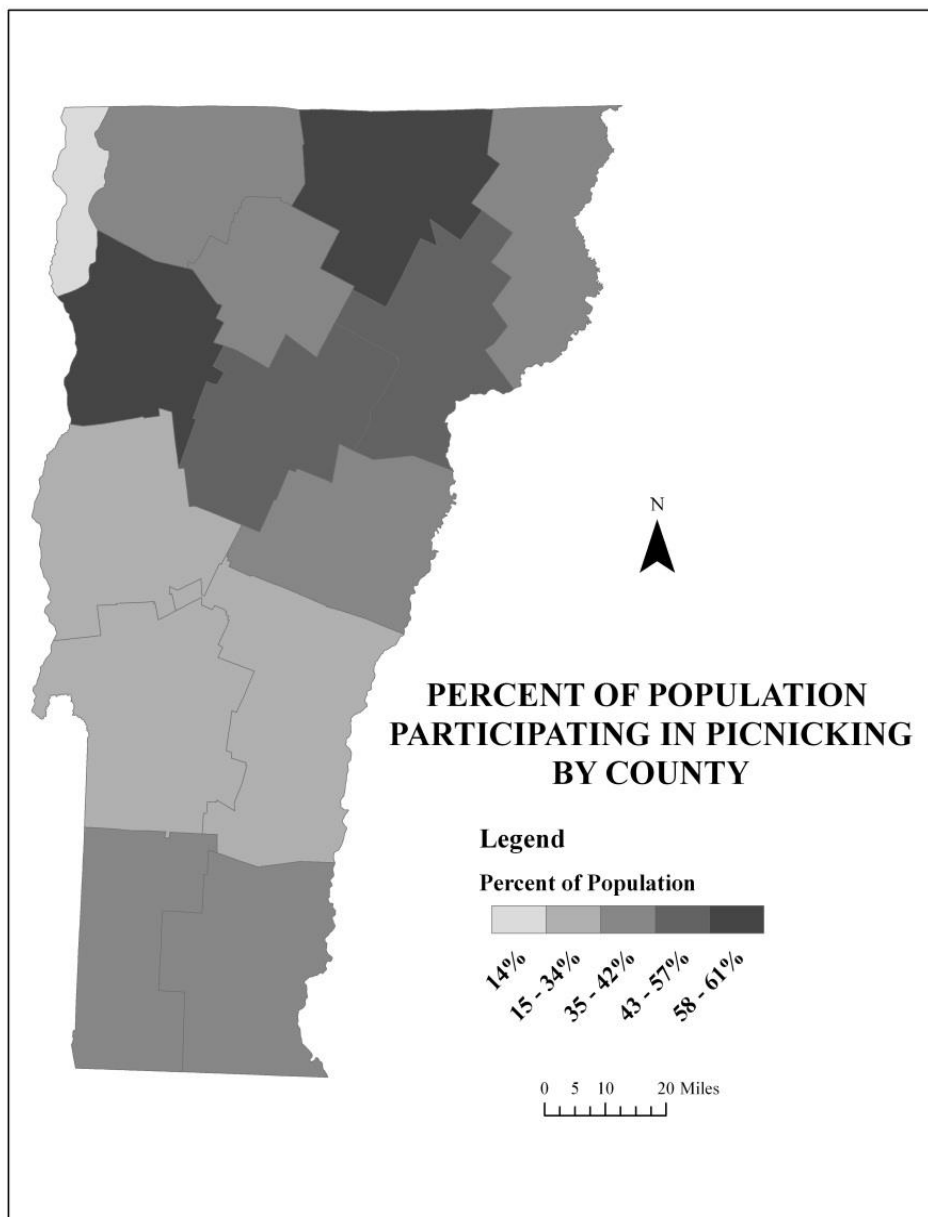


Figure 3.1: Picnicking participation by county

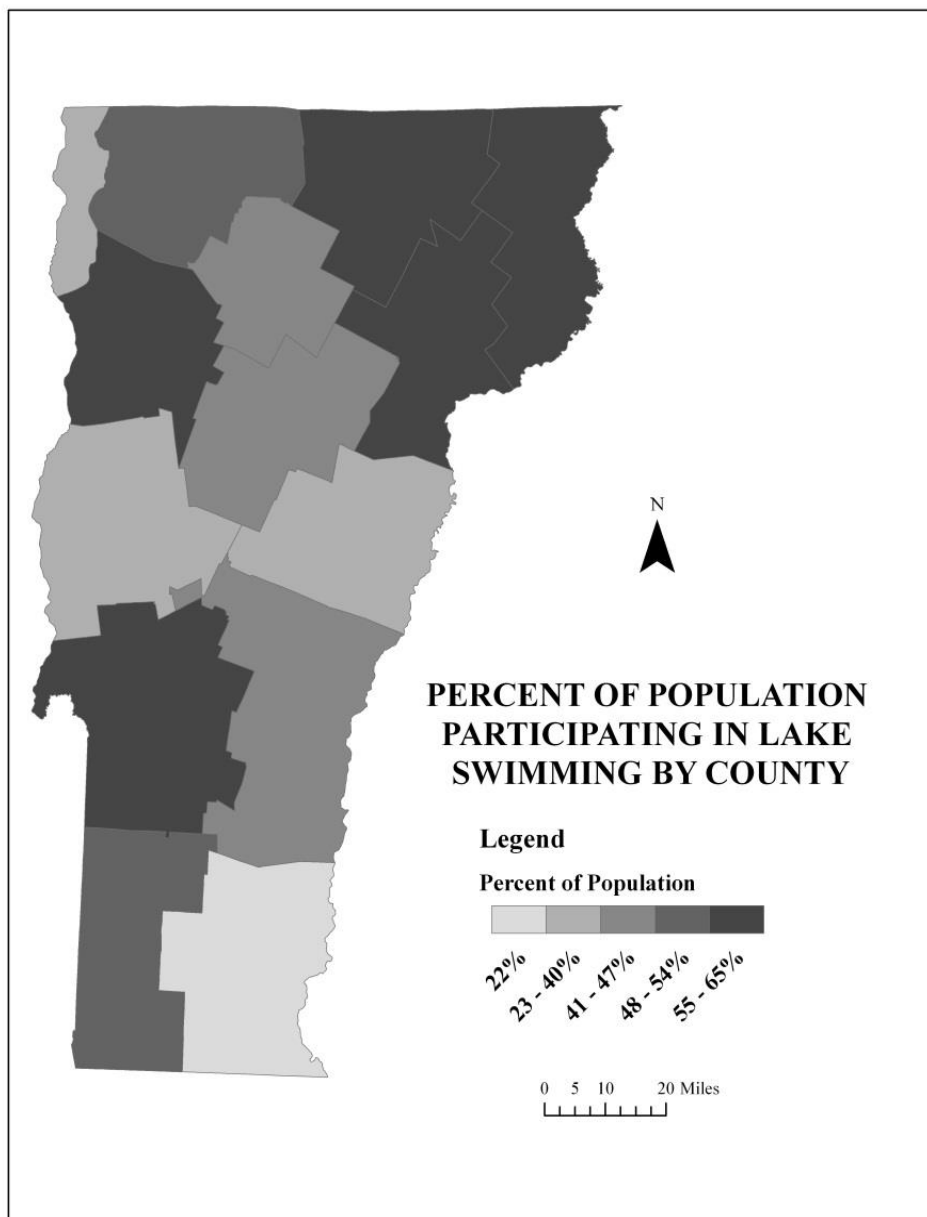


Figure 3.2: Lake swimming participation by county

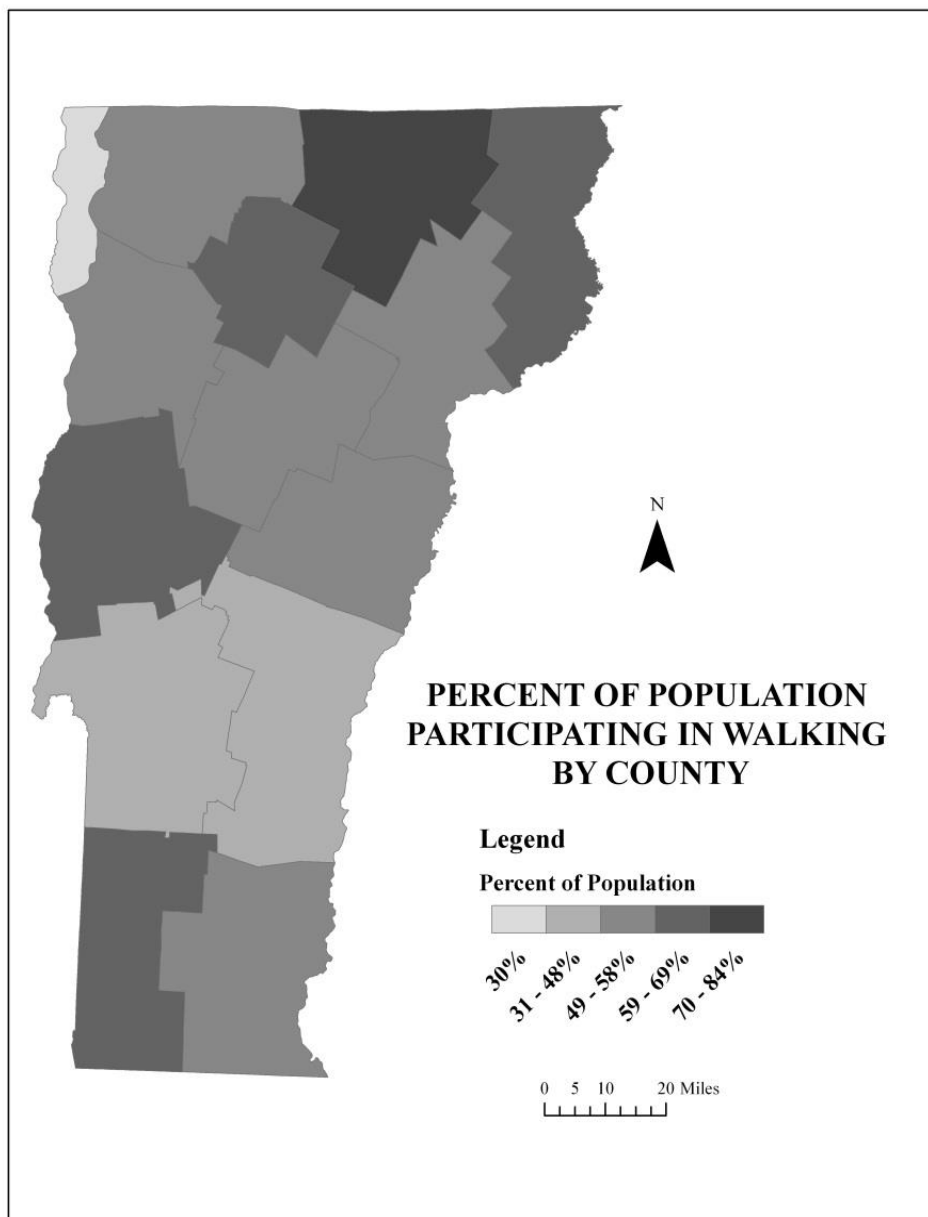


Figure 3.3: Walking participation by county

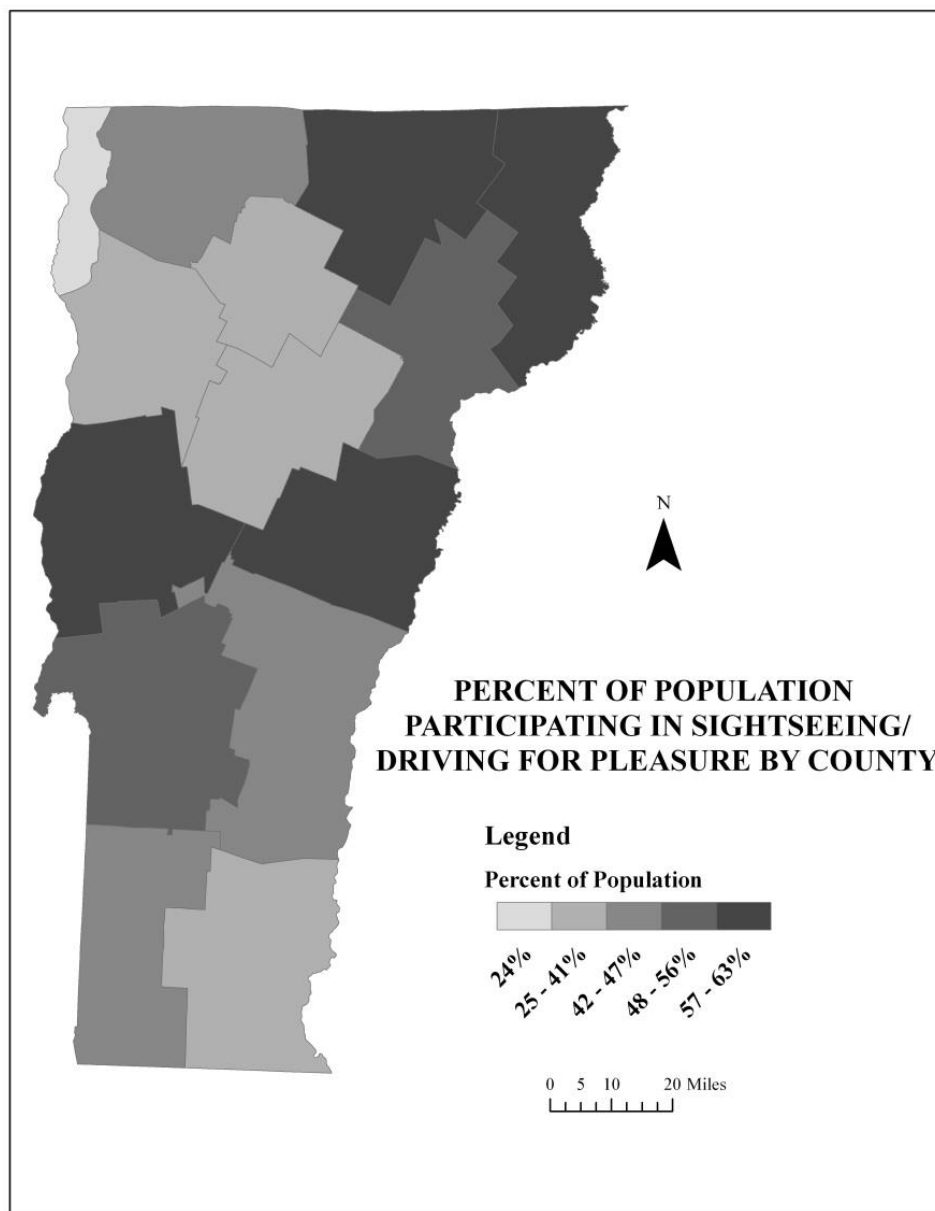


Figure 3.4: Sightseeing/driving for pleasure participation by county

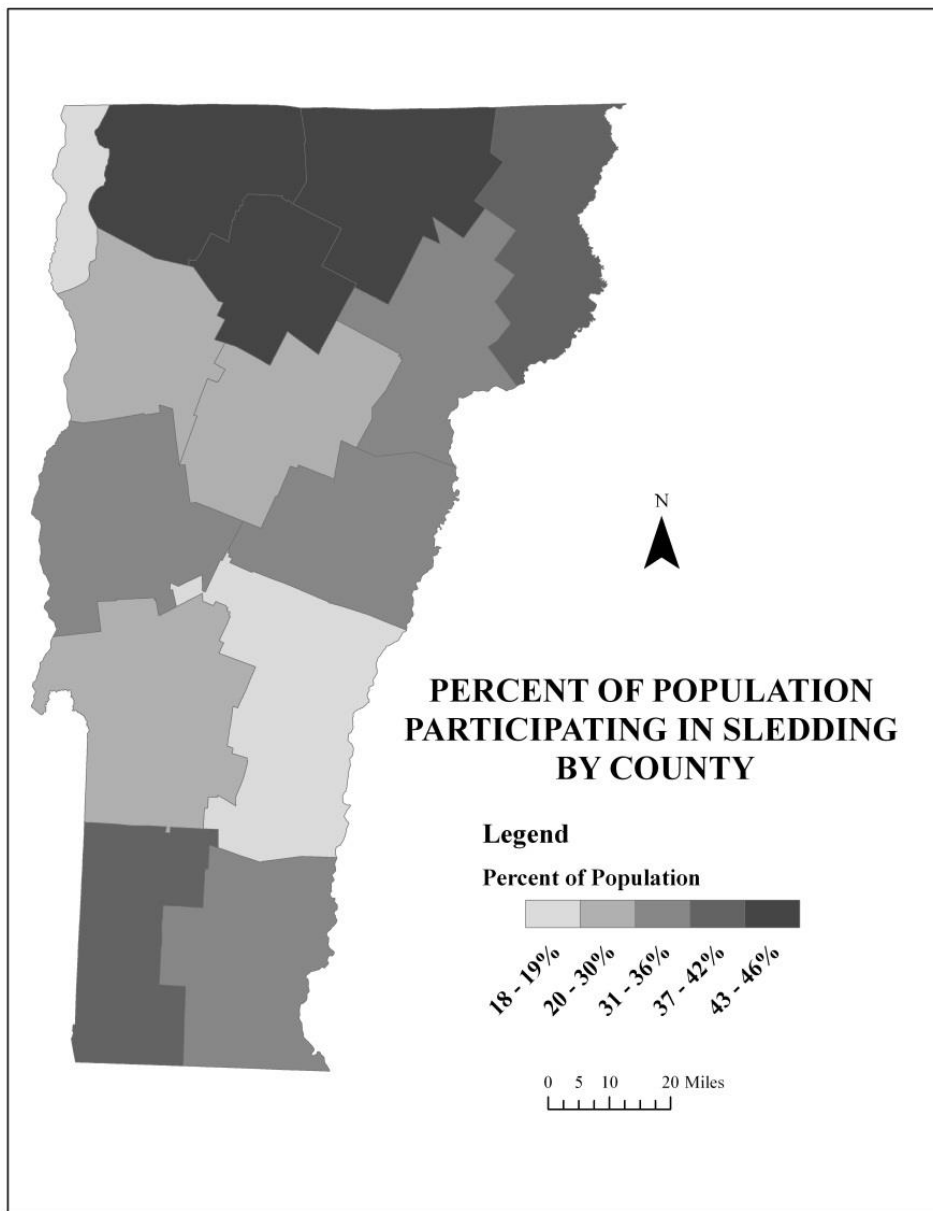


Figure 3.5: Sledding participation by county

Participation days

Walking is by far the activity that Vermonters participated in the most days of the year. No other activity came close to its frequency of participation, with close to 100 annual participation days. Other activities that Vermonters frequently engaged in were fitness-related activities, including jogging and running, bicycling, and trail running.

ATV use was ranked in the top 10 activities by frequency of participation. While there were fewer than 75,000 Vermonters who participated in this activity (see Table 3.2), they did so more frequently throughout the year than participants in most other activities (a mean of more than 27 days per year). The same was true for baseball/softball and soccer participants. While there were relatively fewer people who participated in these activities, baseball/softball participants spent on average 24 days per year, and soccer participants spent more than 23 days per year. Table 3.4 shows the average annual household participation days by activity.

Table 3.4. Outdoor recreation activities ranked by total participant days

Activity	Total VT Households	Average Annual Household Days
Walking	146,171	97.2
Jogging/Running	50,519	60
ATV (3 and 4 Wheel)	37,440	27.3
Baseball, Softball	30,516	24.4
Soccer	25,387	23.5
Bicycling	75,650	22.7
Trail Running	12,052	20.6
Golf	38,772	18.2
Wildlife Watching*	73,598	18.1
Skate/Long boarding	6,667	18
Nature Study*	26,669	17.7
Sunbathing	41,287	17.1
Bird Watching*	76,163	16.7
Snowmobiling	42,312	15.9
Mountain Biking	27,439	15.8
Tennis	22,823	15.5
Outdoor Photography*	44,877	15.4
Horseback Riding	9,388	14.7
Outdoor Pool Swimming	69,752	14.3
Waterfowl Hunting	12,309	14.1
Big Game Hunting (Deer, Moose)	65,649	13.8
Motorcycles (Sport, Dirt)	21,541	13.4
OHV (Jeeps, Pick-ups, SUVs)	14,617	13.3
RV Camping	18,207	12.7
Outdoor Basketball	21,541	12.7

* Mean calculated from participant days of less than 100. Participation estimates may not be reliable.

The estimates from the 2011 Outdoor Recreation Demand Survey represent a combination of actual demand (participation in the previous 12 months) and potential demand (intermittent participation by people who self-identify as activity participants). The proportion of potential demand in these estimates is likely to be conservative. There may be participants who self-identify as participants in an activity, but who also read the instructions correctly and had not participated in the previous 12 months. Nevertheless, the participation estimates are an indicator of both engagement and interest in outdoor recreation activities among Vermont residents.

Since this 2011 survey estimated *household* demand, these estimates include participation across all age groups, unlike other surveys that have focused on individual participation of individuals over the age of 16. The approach, however, doesn't estimate participation by individual age group or by individuals with particular characteristics. Two groups at either end of the age spectrum, youths and senior citizens, as well as individuals with disabilities, have been identified as groups that are sometimes underserved by conventional facilities and resources, because of issues of transportation and access.

Currently, 14.6 percent of Vermonters are over the age of 65, and this number has increased steadily over the last decades. Vermonters under the age of 18 comprise about one fifth of the state's population. Vermonters with disabilities comprise 13.5 percent of the population. These populations often demand recreation facilities with specific characteristics. Issues in the supply and demand for these three groups will be further discussed in Chapter 4.

Visitation Trends

Demand from out-of-state

It is important to note that the demand/participation estimates in Tables 3.1 through 3.4 are for Vermont residents and the activities in which they participate in the state. The demand for outdoor recreation in Vermont is added to by the demand for activities by visitors to the state. According to the Vermont Department of Tourism and Marketing in its "The Vermont Travel and Tourism Industry" fact sheets, Vermont has attracted between 9 and 11 million visits by out-of-staters per year in the past decade. According to a 2000 profile of visitors to Vermont, 22 percent of visitors participate in outdoor recreation activities. Outdoor recreation visitors to the state stay an average of 8 nights per visit, and 37 percent of outdoor recreation visitors participated in two or more outdoor recreation activities. The following participation and visitation numbers include visitation from both in-state and out-of-state users, from outdoor recreation destinations that track the numbers of visitors that use their resource every year.

Visitors to parks, forests and recreation sites

Federal sites

Visitation to Marsh-Billings Rockefeller National Historical Park over the 2000-2011 period (Figure 3.6) ranged from a high of 46,289 visitors in 2000 to a low of 22,484 in 2006. In 2011, there were 29,049 visitors to the park.

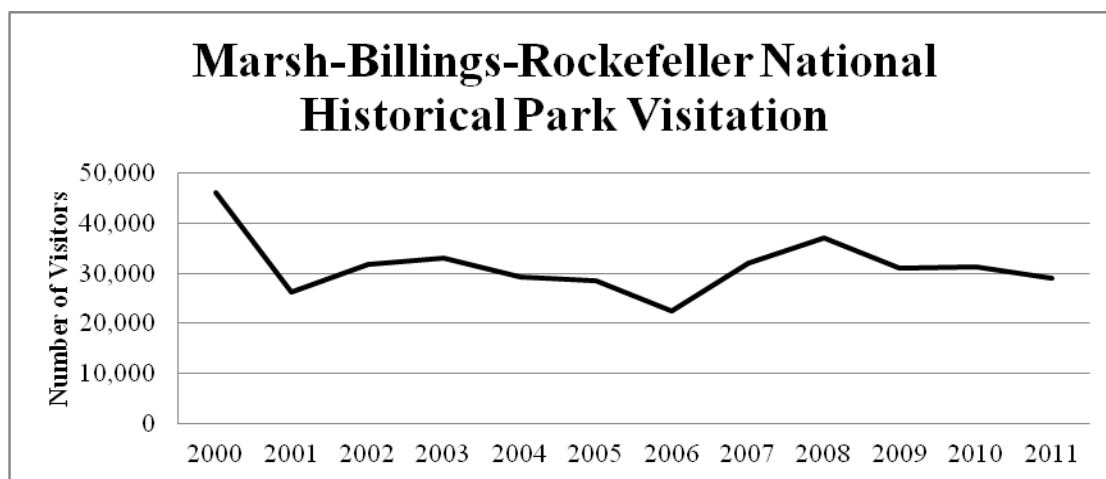


Figure 3.6. Marsh-Billings-Rockefeller National Historical Park visitation, 2000-2011

The majority of visitors to US Army Corps of Engineer recreation sites were sightseers in 2010 (Table 3.5). A smaller percentage of visitors came to the sites to picnic, camp, and swim.

Table 3.5. Recreational Visitors to Army Corps Sites in Vermont in 2010

Total Visitors	537,943
Sightseers	377,754
Picnickers	36,103
Campers	33,230
Swimmers	29,542
Fishermen	12,656
Hunters	6,719
Boaters	1,852

The National Visitor Use Monitoring program estimated 2,413,000 site visits to the Green Mountain National Forest in FY 2010. This is a decrease of over half a million visitors since FY 2005. A site visit is considered the entry of one person into GMNF to participate in recreation

activities for an unspecified period of time that ends when the visitor leaves the forest for the last time on that day.

State sites

Day use of Vermont's state parks showed a downward trend at the beginning of the decade, reaching a low of 302,588 visitors in 2006, but in 2010 reached a 15-year high of 455,680 day users. Campground use exhibited a similar decline from 480,171 users in 2002, down to a low of 341,948 in 2005, followed by a relatively flat period for the past five years with 364,030 users in 2011. Figure 3.7 shows the number of day users in the Vermont State Parks over the last 11 years.

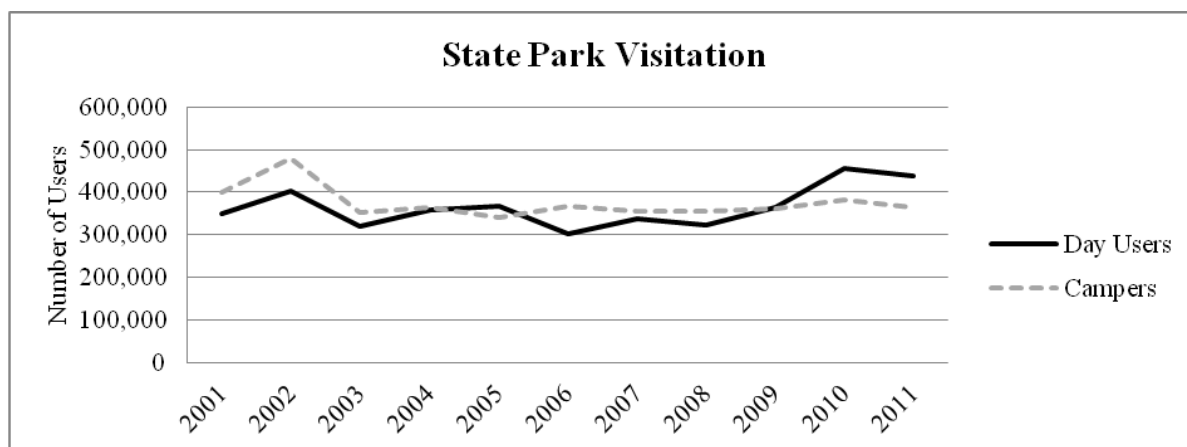


Figure 3.7. State Park Visitation, 2001-2011

In 2010, 79,603 hunting licenses and 128,328 fishing licenses were sold. About 14 percent of the hunting licenses and 32 percent of the fishing license were sold to non-residents. Over the past 10 years, non-resident hunting licenses have ranged from 13 to 16 percent of the licenses sold, and non-resident fishing licenses have ranged from 32 to 35 percent of the licenses sold. Figure 3.8 shows the declining sales of hunting licenses over the last 10 years, from a high of 101,459 in 2000 to a low of 79,603 in 2010, and the fluctuations in the number of fishing licenses sold, between a low of 118,221 (2005) and a high of 130,687 (2009).

According to the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR), hunting by residents and non-residents in Vermont declined by 27,000 people between 2001 and 2006, a decrease by over a quarter of participants. The 2011 FHWAR reports were released in November 2012.

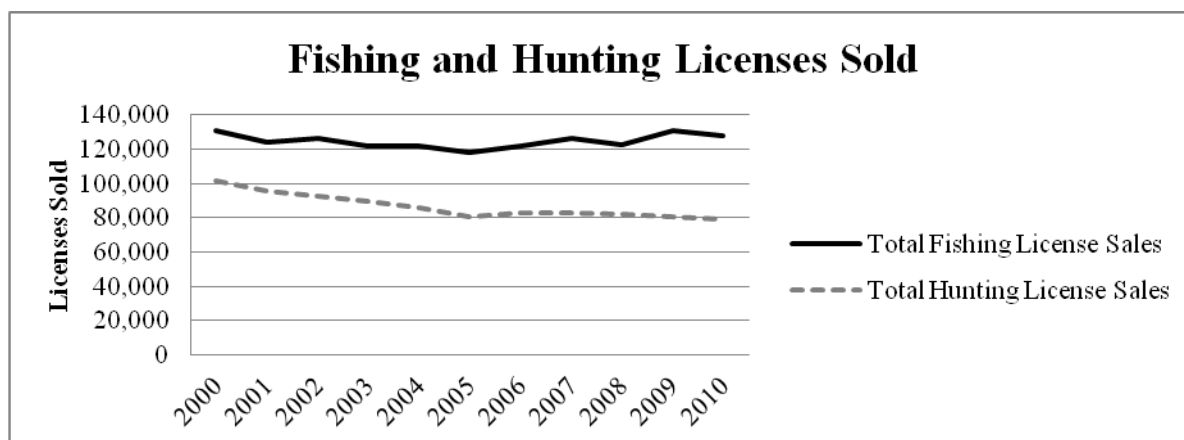


Figure 3.8. Hunting and fishing license sales

Skier visits

Between 2002 and 2012, Vermont averaged 4.2 million skier visits per year. The range of visits (3.8 to 4.4 million) suggests that the sport of skiing, or more specifically, the winter usage of ski area facilities, has been relatively flat during the past decade. Demographic studies have shown some increases in participation by children and the over 45 year old age groups. Snowboarding has helped to maintain participation, and has remained 30 percent of ski area participants for the last several years.

Membership in Recreation Organizations

In the 2011 Survey of Outdoor Recreation Organizations, recreation organizations provided membership data for the past 10 years, which showed considerable growth over the past 10 years. Figure 3.9 shows individual memberships in organizations with less than 1,100 members. Figure 3.10 shows individual memberships in organizations with more than 1,100 members. Figure 3.11 shows membership in VAST, which is on a separate graph because it is by far the largest organization that participated in the survey, with 31,992 members in 2010. Individual membership to all the recreation organizations that provided membership data through the survey increased over the last 10 years, with the exception of VAST, whose numbers declined, and the Vermont Horse Council, whose numbers remained constant. Of the smaller organizations (Figure 3.9), Local Motion's membership grew the most quickly, from 150 members in 2001 to 1,100 in 2010. Of the larger organizations (Figure 3.10), Kingdom Trails grew most quickly, from 1,349 members in 2004 to 3,241 in 2010. Most organizations experienced more modest growth.

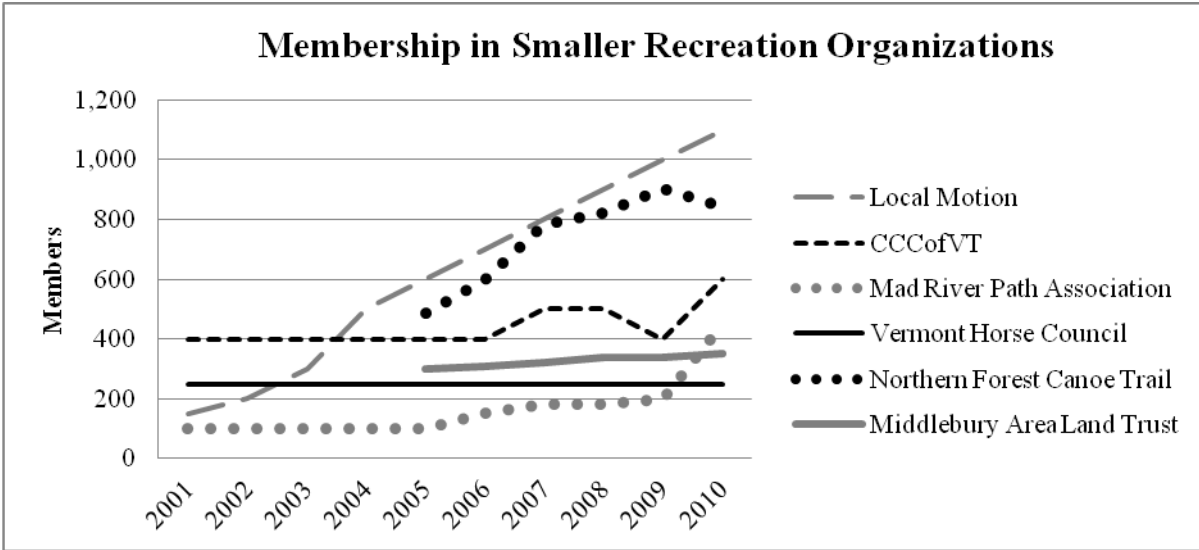


Figure 3.9. Membership in smaller recreation organizations (membership < 1,100), 2001-2010

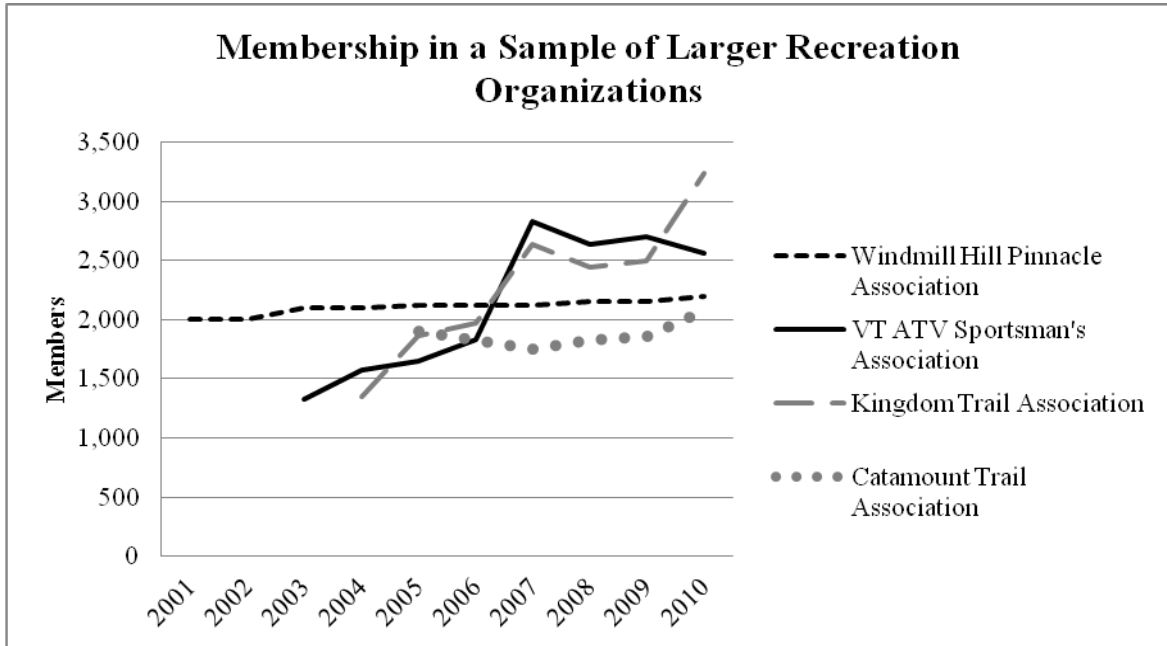


Figure 3.10. Membership in some of the larger recreation organizations (membership >1,100), 2001-2010

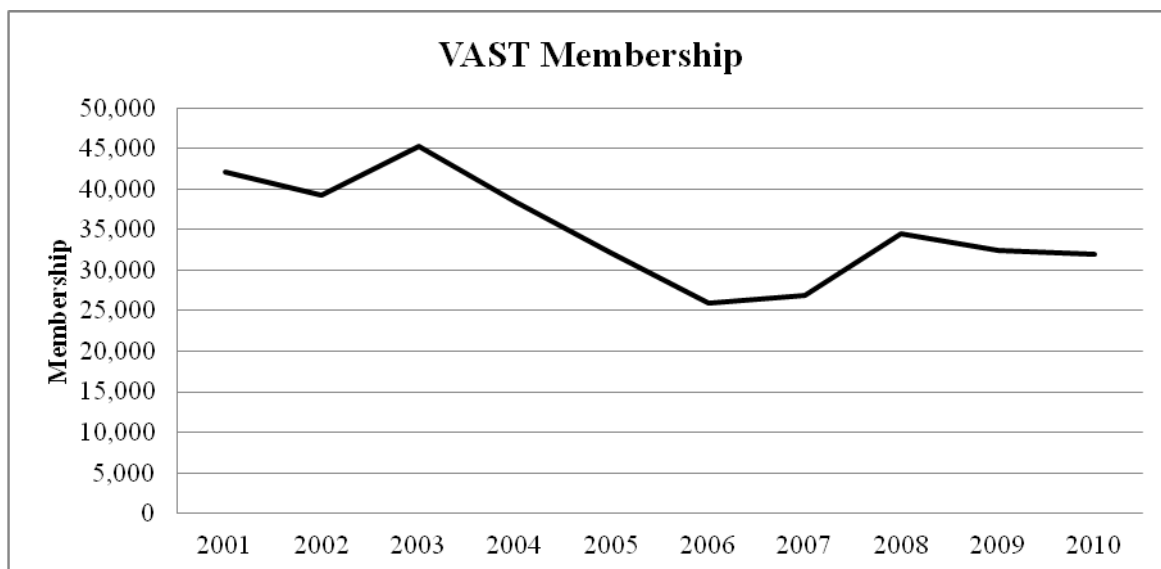


Figure 3.11. Vermont Association of Snow Travelers (VAST) membership, 2001-2010

Conclusion

According to the data presented in this chapter, demand for outdoor recreation in Vermont is highest for road-and trail-based activities (walking, sightseeing/driving for pleasure, hiking, snowshoeing, and bicycling); water-based activities: swimming in lakes, pools, and rivers; and wildlife and bird watching activities. Activities such as picnicking, sledding and visiting cultural/historic sites are also in relatively high demand amongst Vermonters. Other activities, such as riding ATVs and playing soccer and baseball/softball, have relatively lower participation rates, but participants engage in these activities at a relatively high frequency.

Demand for particular types of outdoor recreation seems to be declining in the state by some measures:

- **Hunting and fishing:** The sale of hunting licenses has declined over the past 10 years. The declining numbers of hunters in the state has also been documented by the US Fish and Wildlife's FHWAR survey, which found that the number of hunters in Vermont had declined by a third between 2001 and 2006.
- **Snowmobiling:** Membership in VAST has declined over the past 10 years by over 10,000 members, but still more than one in ten Vermonters snowmobiles, for an average of almost 16 annual household participation days

Demand for other types of outdoor recreation activities seem to be on the rise:

- **Mountain biking:** Kingdom Trails Membership has increased by almost 2,000 people since 2001. Mountain bikers' average participation days are relatively high, with almost

16 annual household participation days per year. GMNF has responded with significant trail construction in recent years.

- **ATV Riding:** VASA membership has increased by over a thousand members since 2003. ATV riding has the third highest average annual household participation days of any activity
- **Trail-based recreation:** Membership in almost all trail-based organizations has increased, and trails-based recreation provides some of the most popular types of recreation in Vermont.

With this increase in recreational pressure on the state's natural resources, additional emphasis needs to be put upon sound conservation and land stewardship practices, as these activities can have negative impacts on the resource if they are not properly managed. The implications of these changing patterns in demand are addressed in the following chapter. Chapter 4 explores the issues that have arisen in providing the resources and facilities for outdoor recreation opportunities, and the priorities for investment.

Chapter 4: Issues and priorities in outdoor recreation in Vermont

This chapter assesses the priorities for investments in outdoor recreation facilities and resources in Vermont, and discusses the most pressing outdoor recreation issues that have been identified.

Outdoor recreation priorities and issues have been assessed in the following ways:

Assessing Vermonters' satisfaction with outdoor recreation facilities and resources through the 2011 Outdoor Recreation Demand Survey

Determining state-wide municipal recreation priorities, through the 2011 Outdoor Recreation Inventory

Comparing user satisfaction with municipal rankings of priority

Determining outdoor recreation issues and priorities through direct input from and reports published by state agencies, recreation organizations, and user-groups

I. Vermonters' satisfaction with outdoor recreation facilities and resources

Overall, Vermonters expressed general satisfaction with the state's outdoor recreation facilities in the 2011 Outdoor Recreation Demand survey. Table 4.1 shows respondent evaluation of 33 different types of outdoor recreation facilities and services in Vermont, in the order of highest mean score to lowest. Respondents were asked only to rate the facilities/resources they used. When asked to evaluate whether a facility met the respondent's outdoor recreation needs, the mean evaluations were greater than 3 (between "yes, somewhat" [a score of 3] and "yes, definitely" [a score of 4]) for 20 of the 33 facilities/resources. Vermonters gave their highest evaluations to hiking trails, ski/snowboarding areas, the Green Mountain National Forest, and Vermont's rivers and streams (mean score of 3.4 or greater). They also gave favorable ratings to cross country ski and snowshoe trails, state parks, wilderness areas, and Vermont lakes and ponds (mean score of 3.3).

The facilities and resources that were less highly evaluated (mean score of less than 2.5) included OHV trails and roads, off-leash dog parks, and facilities for people with disabilities. Other less highly evaluated facilities (mean score between 2.6 and 2.9) included football/lacrosse fields, tennis courts, basketball courts, community gardens, outdoor ice skating rinks, fishing piers, marinas, stocked fishing areas, and hunting and trapping areas.

Of the 33 facilities and resources in the questionnaire, nearly half (16 facilities) were used by more than a third of the respondents, and among those 16 facilities, only one (outdoor swimming

pools) was rated negatively – less than 3.0. Of the 16 most used facilities, others receiving lower ratings (a score of 3.0 or 3.1) were sledding areas, playgrounds, National Wildlife Refuges, State WMAs, and fitness/bicycle paths. Activities that were used by fewer respondents tended to be rated less favorably. Of the 17 facilities that were used by less than a third of respondents, 12 were rated negatively.

Table 4.1. Vermonters' ratings of outdoor recreation facilities/resources

Facility/Resource	Mean Score (4=highest)	% who used
Hiking Trails	3.5	60.9
Ski/Snowboarding Areas	3.4	39.8
National Forests	3.4	56.2
Vermont Rivers & Streams	3.4	65.6
XC Ski/Snowshoe Trails	3.3	39.1
State Parks	3.3	68
Wilderness Areas	3.3	48.5
Vermont Lakes & Ponds	3.3	73.7
Snowmobile Trails	3.2	23.9
Picnic Areas, Shelters	3.2	59.9
Soccer Fields	3.2	21.3
Boating Access (no-motor)	3.2	36.8
Fitness/Bicycle Paths	3.1	49.7
Playgrounds	3.1	42.5
Baseball, Softball Fields	3.1	25.7
Golf Courses	3.1	22.3
State WMAs	3.1	45.2
National Wildlife Refuges	3.1	42.9
Sledding Areas	3.0	37.9
Boating Access (motor)	3.0	29.2
Swimming Pools	2.9	40.5
Stocked Fishing Areas	2.9	26.8
Hunting/Trapping Areas	2.8	28.5
Football, Lacrosse Fields	2.7	11.4
Outdoor Tennis Courts	2.7	25.2
Outdoor Basketball Courts	2.6	24.6
Community Gardens	2.6	30.3
Ice Skating/Hockey Rinks	2.6	29.2
Fishing Piers	2.6	24.7
Marinas	2.6	16.4
OHV/ATV Trails & Roads	2.2	19.0
Off-leash Dog Parks	2.1	23.5
Facilities for people with disabilities	2.1	14.1

II. Priorities identified by municipalities

In the 2011 Outdoor Recreation Inventory, municipalities rated their priorities for new, repaired, or upgraded facilities or resources on a scale of 1 (lowest priority) to 5 (highest priority). Municipalities rated the list of 38 facilities/resources that had been included in the inventory. The priority scale was calculated in three steps. First, for each item we added the higher priority scores (“4” and “5” responses) and then divided by the total number of responses to that item to get a ratio of high priority responses. Second, for each item we divided the number of item responses by the total sample size to get a ratio of response to each item. Finally, for each item we multiplied the ratio of high priority responses by the ratio of total responses, thereby standardizing the distribution and controlling for the number of respondents who responded to each item. Priority scale scores ranged from 0 to 0.302. Table 4.2 shows the ranking of municipal priorities according to this priority scale.

Municipalities’ responses showed that the highest priorities were parks/open areas, which 51 percent rated as a “4” or “5”, bike/pedestrian trails, which 57 percent rated as a “4” or “5”, and baseball/softball fields, which 42 percent rated as “4” or “5”.

The lowest priority facilities/resources were rock/ice climbing areas, which 71 percent rated as “1”, fairgrounds, which 79 percent rated as a “1”, and campgrounds with campers/RV sites, which 78 percent rated as “1”. Table 4.2 shows the ranking of municipal priorities according to this priority scale.

Table 4.2 Municipal priorities for new or repaired/upgraded facilities/resources, listed from highest to lowest priority

Outdoor recreation facility/resource	Priority Scale
Parks/Open Areas	0.302
Bike/Pedestrian Trails	0.288
Baseball/Softball Fields	0.237
Hiking Only Trails	0.23
Soccer Fields	0.201
Playgrounds	0.201
Outdoor Tennis Courts	0.165
Picnic Areas	0.137
X-C Ski/Snowshoeing Trails	0.137
Outdoor Basketball Courts	0.115
Bike Lanes on class 2 roads	0.115
Outdoor Ice Skating Rinks	0.108
Football/Lacrosse/Rugby fields	0.101
Swimming Beaches/Lakes	0.094
Horse/Hiking Trails	0.086
Wildlife Viewing Areas	0.072

Outdoor recreation facility/resource	Priority Scale
Fitness Courses	0.072
Sledding/Tubing Hills	0.072
Swimming Pools/Water Parks	0.072
Skate Parks	0.072
Swimming Areas/Holes, Rivers	0.065
Boat Ramps/Launch Sites	0.058
Snowmobile Trails, Groomed	0.058
Fishing Piers	0.05
Lakes	0.043
Boat Docks	0.043
Hunting Lands, Public	0.029
Running Tracks	0.029
Downhill Ski Areas	0.029
Outdoor Volleyball Courts	0.022
Campgrounds with Tent Sites	0.022
OHV Trails/Roads	0.022
Golf Courses	0.022
Horse Riding Areas	0.014
Shooting/Archery Ranges	0.007
Rock/Ice Climbing Areas	0.007
Fairgrounds	0.007
Camper/RV Campground Sites	0

III. Comparing user satisfaction with municipal rankings of priority

The priorities identified by municipalities were somewhat consistent with the facilities and resources for which Vermonters expressed lower levels of satisfaction. **Outdoor basketball and tennis courts** received low satisfaction ratings and high municipal priority ratings. Almost half of respondents who had used outdoor tennis courts and basketball courts in Vermont said they did not meet their needs. According to the surveys, there are 213 municipal outdoor tennis courts in Vermont, and 42,680 Vermonters, or 6.8 percent of the population, play tennis, for an average of 15.5 annual household participation days. The surveys did not indicate what percent of those tennis players used municipal tennis courts. There are 157 municipal outdoor basketball courts in the state, used by 6.3 percent of Vermonters, for an average of 12.7 annual household participation days. Comments written into the survey revealed dissatisfaction with both the number of tennis and basketball courts, and their lack of maintenance. Municipalities seem to be aware of the level of dissatisfaction that exists, and ranked basketball and tennis courts in the top ten municipal priorities.

Baseball/softball fields, playgrounds, and bike/pedestrian trails were rated as high priority by municipalities, and given mid-range satisfaction scores by residents (about three-quarters of Vermonters' needs were "somewhat" or "definitely" met by these recreation facilities/resources in the state).

Some popular outdoor recreation resources received high satisfaction ratings and high municipal priority ratings, perhaps reflecting the need for municipalities to keep up with the demand for well-used resources. Some examples of these resources include **hiking trails, cross country ski/snowshoe trails, and picnic areas**. Hiking trails were given the highest satisfaction ratings by Vermonters, and were the fourth highest priority for municipalities. Hiking is a popular activity in Vermont: one-third of Vermonters have gone hiking in the past year, and according to a 2000 profile of outdoor recreation visitors to Vermont, 33.5 percent of outdoor recreation visitors to Vermont go hiking. Cross country ski/snowshoe trails were another popular resource that was given high priority by municipalities. Almost 85 percent of users of these trails reported that their needs were "somewhat" or "definitely" met by them. Similarly, picnicking was the activity that the most Vermonters participated in, and picnic areas were judged with relatively high satisfaction (83 percent were "somewhat" or "definitely" satisfied with facilities). Municipalities rated picnic areas and shelters high on their list of priorities for investment.

Municipalities rated **parks/open space** as their highest priority. Vermonters expressed satisfaction with state and federally managed parks and forests, such as State Parks, National Forests, and Wilderness Areas, Wildlife Management Areas, and National Wildlife Refuges, as well as ski/snowboarding areas, sledding areas, and golf courses. All open space areas were rated between "somewhat" and "definitely" meeting users' needs, except for hunting/trapping areas, stocked fishing areas, community gardens, and dog parks, which were rated slightly lower. Recent opinion polls, however, have shown that Vermonters are very interested in preserving open space. A 2008 study by the Center for Rural Studies at UVM found that 80 percent of Vermonters were moderately to very concerned about pressures to convert open space to residential, commercial, or other development. According to the 2011 inventory, municipalities currently manage 56,799 acres of parks/open space in Vermont.

Satisfaction with recreation **facilities for people with disabilities** was the lowest of all the resources/facilities asked about the 2011 Outdoor Recreation Demand Survey. Of the individuals who used these facilities, 70 percent rated them as not meeting their needs "much" or "at all". The Vermont Trail Collaborative Final report (October, 2011) also found that "improved disability access" was a general need for trail connectivity in GMNF and surrounding areas.

The 1990 Americans with Disabilities Act (ADA) specifies that no qualified person with a disability, on the basis of disability, should be excluded from participation in, be denied the benefits of, or be subject to discrimination for any program or activity. According to the 2010 census, there are 83,633 Vermonters with a disability, or 13.5 percent of the population. Vermont Adaptive Ski and Sports, a non-profit organization based out of Killington, empowers and

promotes independence in individuals with disabilities by offering access and instructions to sports and recreational activities at locations throughout the state. Downhill skiing, canoeing, kayaking, sailing, and horseback riding are popular activities through Vermont Adaptive Ski and Sports. According to their annual report, in FY 2010, 2,065 clients were served, more than half of whom participated in skiing programs. In addition, the Northeast Disabled Athletic Association (NDAA) is a Vermont-based, non-profit charitable organization whose mission is to provide recreational and competitive athletic opportunities for people with physical disabilities, and to support disabled athletes in their pursuit of excellence.

Accessibility improvements have been made at Vermont's state parks; there are nine more fully accessible state parks in 2012 than at the time of writing the 2005-2009 SCORP. Currently, 33 of the parks are partially ADA accessible, 12 are fully accessible, and 7 are not accessible. All LWCF projects, in particular, are required to be ADA accessible. Recent improvements have included the Green River Reservoir State Park ADA boat access. While much has been done in recent years to improve the accessibility of outdoor recreation facilities, the low satisfaction rating of recreation facilities for people with disabilities indicates that more needs to be done to address the needs of this user-group. Credit and recognition goes to the Northeast Disabled Athletic Association (NDAA), which is a Vermont-based, non-profit charitable organization whose mission is to provide recreational and competitive athletic opportunities for people with physical disabilities, and to support disabled athletes in their pursuit of excellence.

Off-leash dog parks also scored particularly low in user satisfaction, with 70 percent of users reporting that off-leash dog parks didn't meet their needs "much" or "at all". The 2005-2009 SCORP reported on the establishment of two new off-leash dog parks in Burlington, but also noted that there are many concerns and issues involved in establishing and maintaining dog parks.

Unfortunately, the 2011 Outdoor Recreation Inventory did not ask specifically about dog parks. Further research about the unmet demand for dog parks is advised. Preliminary research suggests that there are over 30 dog parks in the state, including one in Hartford which opened in 2006 and one in Shelburne, which opened in 2011. A new dog park is also being developed at the ANR office complex in Essex Junction.

Swimming in **outdoor swimming pools** ranked eighth in the number of participants in Vermont; 28.2 percent of Vermonters reported that they had swum in outdoor swimming pools in the previous 12 months. Swimming in outdoor pools was ranked highly in frequency of participation, coming in at sixth for the average number of household days (14.3). At the same time, Vermonters reported a relatively low level of satisfaction with the quality of outdoor swimming pools in the state, rating their satisfaction with them an average of 2.9, with 36 percent of users rating pools as not meeting their needs "much" or "at all". The 2011 inventory found that there were 26 municipal swimming pools in Vermont, 1 state managed swimming pool, and 11 swimming pools managed by NGOs. (This NGO number doesn't include outdoor

swimming pools at organizations such as the YMCA and Boys and Girls Clubs. Table 2.9 in Chapter 2 shows the organizations that responded to the survey.) Some Vermonters also have their own private pools, and some portion of the participation numbers can be attributed to that type of usage.

The previous SCORP did not mention the state of public outdoor swimming pool as an issue, but some progress has been made dealing with this issue in recent years. For example, the swimming pool at Button Bay State Park was recently replaced with LWCF funds granted in 2008.

The quantity of legal **ATV trails** and associated access has been a pressing topic in Vermont for over a decade, countered by complaints about illegal riding on private and public lands and subsequent damage to trails and lands. In 2010, a new rule was promulgated pursuant to 23 VSA §3506 to authorize the secretary of ANR to designate as pilot projects up to three ATV connector trails on state ANR lands that would serve only to connect existing ATV trail networks on private lands that could only be connected through areas of state land. The Rule was adopted over the objection of the Legislative Committee on Administrative Rules and became effective on January 19, 2010. The Conservation Law Foundation challenged the validity of the ATV Rule in Washington Superior Court on January 18, 2011. The ATV Rule was repealed by ANR in 2011 and the CLF legal action was dismissed. No connector trails were designated on ANR lands while the rule was in effect. The State has licensed VASA to construct a short ATV connector trail in the Northeast Kingdom and is working with VASA in evaluating two additional ATV connector trail proposals.

According to GMNF's 2006 Forest Plan, the GMNF trail system is closed to motorized vehicles, unless designated open. ATVs are allowed on National Forest System roads and trails that are designated for motorized use. Summer off-road vehicle trails are limited to the minimum length of connecting corridors that link sections of a larger trail system on other lands, and are not allowed to be part of a trail system on National Forest lands. Data on illegal ATV riding and snowmobiling on GMNF lands indicate an overall decreasing trend from FY 2005-2009, according to GMNF's annual report. Figure 4.1, taken from GMNF's FY2009 Annual Report, shows this trend (in FY07, data on snow and land-based vehicles began to be disaggregated). The report speculates that this trend could be the result of decreased presence of law enforcement or better public understanding due to improved education, and the installation of signing, and barrier control efforts such as gates, stiles, and boulders.

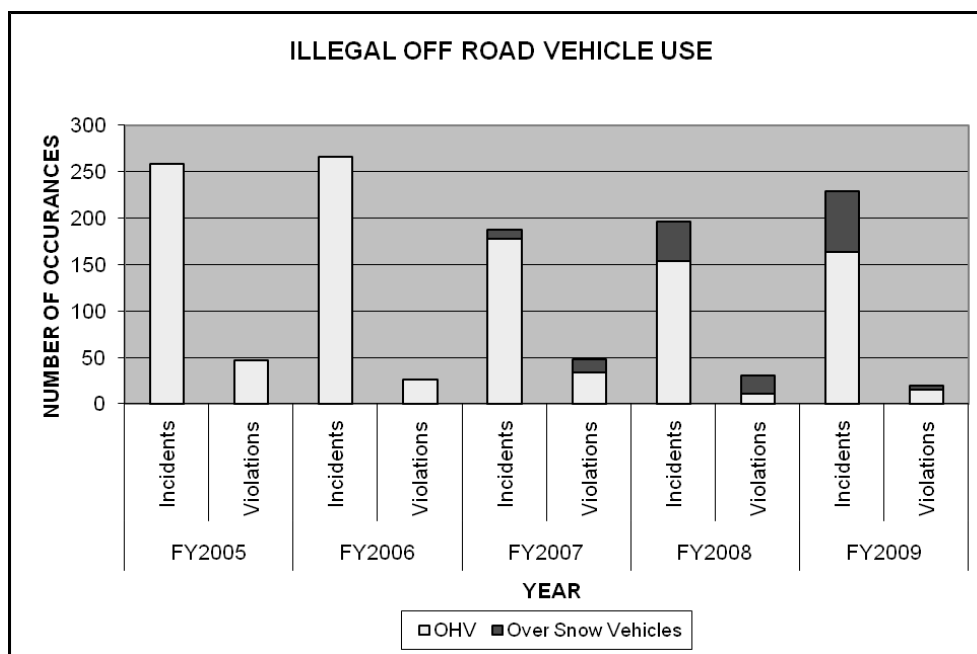


Figure 4.1. Illegal off-road vehicle use in GMNF

The 2011 Outdoor Recreation Inventory found that there were no roads or trails specifically managed for OHVs at the state or federal level in Vermont. Vermont Off-Highway Vehicle Recreation Association and Vermont ATV Sportsman's Association managed most of the trails in the state, with the exception of a few municipal OHV trail/roads. Collectively, VORA and VASA manage 765 miles of ATV trails in the state. One of the major issues surrounding OHV roads/trails is the ability to connect existing trail networks on private lands to other trail networks on private lands to create a longer continuous trail network.

As discussed in Chapter 2, riding ATVs is the most popular motorized outdoor recreation activity in Vermont, but is in the middle of the pack compared to other outdoor recreation activities. Riding ATVs is an activity participated in by a small percentage of Vermonters (about 11.5 percent), but those who do participate in it participate frequently – ATV use was ranked in the top 10 of outdoor recreation activities by frequency of use. Those Vermonters who do participate in some sort of ATV/OHV use, rate their satisfaction with roads and trails as quite low: 2.2 on a scale from 1-4, with 61 percent of users saying that ATV roads/trails in the state do not meet their needs “much” or “at all”.

Since the publication of the last SCORP, the ATV community has organized significantly. VASA membership has grown, full-time staff has been hired, and the organization has worked to build and connect and expand a trail system with private landowner permissions. Currently, anyone seeking to ride an ATV on land other than their own must first obtain permission of the

landowner. ATVs are not allowed on state land unless specifically designated by the Secretary of ANR by rule. In order to ride an ATV on the VASA trails, a person must be a member of VASA-affiliated club and have a Trail Access Decal on their ATV. Similar to VAST, VASA receives an annual grant of 85 percent of all state ATV registration fees and penalties from enforcement to be used to develop and maintain a statewide ATV trail program in Vermont.

IV. Outdoor recreation issues and priorities (ANR, user groups, recreation organizations)

In addition to issues and priorities that were identified through the surveys, information was also collected from recreation providers and their publications. The following issues and priorities have been identified by Agency of Natural Resources staff, user groups, and recreation organizations, including: climate change; land acquisition; state park renovation and rehabilitation to meet contemporary needs; fishing and hunting participation; angler concerns; water quality; recreational access to private land; senior citizen-friendly resources; youth involvement; issues identified by the Vermont Trail Collaborative, Act 250 jurisdiction for the Statewide Trail System; publicly available trails information; and other trails issues. The following sections expand on each of these topics.

Moving Firewood Spreads Insect pests

The Vermont Department of Forests, Parks and Recreation and the Green Mountain National Forest established policies in 2009 prohibiting firewood from entering state and federal campgrounds and recreation areas unless the firewood originated from the local area (50 miles). These restrictions have since been modified for State parks to restrict the importation of any firewood from outside the borders of Vermont.

Invasive insects and diseases are known to “hitchhike” on firewood, moving the pests from infested areas to un-infested areas. In most cases the person moving the wood has no idea that the firewood is infested because the insects or pathogens are hidden under the bark or deep in the wood. During the summer months (coincidentally this happens to be the camping and traveling season), the adult stage of wood-boring insects and the spore producing phase of tree diseases emerge to infect nearby host trees. In as little as two years trees can start to die in large numbers.

“This should be considered a serious threat, as Vermont’s forest and shade trees are unprotected from non-native forest pests,” says Vermont State Forester Steven Sinclair. “We risk the potential of losing large populations of ash, maple and other tree species through the movement of firewood.”

For Vermont State Parks, firewood is not allowed into any campground if it originated from an area more than 50 miles away. Visitors who arrive at a state park with firewood from outside the

50 mile radius are asked to exchange their firewood for an equal amount of park firewood. As with the National Forest campgrounds, campers are allowed to bring in firewood purchased locally to the park and are allowed to bring in kiln-dried, packaged firewood.

Impacts of Climate Change on Recreation in Vermont

The projected rise in annual temperatures, the shortening of the winter season, and an increased unpredictability of precipitation events pose challenges to the health of Vermont's environment and residents, as well as to its economy. At the same time, these changes and challenges may provide opportunities for the expansion of warmer weather activities as colder weather activities become less viable.

Outdoor recreation activities associated with the winter season, which generates over \$1 billion of revenue in the state annually, are likely to experience the most significant changes, with much less reliable snowpack and snowfall conditions anticipated, along with a substantial decrease in the length of the skiing, snowboarding, and snowmobiling seasons. By the end of the century, the number of snow-covered days in the Northeast is expected to decrease to as few as 27 to 40 days. Sports such as snowmobiling, cross-country skiing, snowshoeing, and sledding, which rely on natural snow cover, are the most vulnerable to these changes. The alpine ski industry is able to offset some of the decrease in snowfall by making artificial snow, but this comes at an increased operating cost.

Annual temperatures are expected to increase by as much as 12°F by the end of the century. Rising temperatures threaten to increase the frequency of severe heat waves, which pose challenges to summer recreation in a state widely appreciated for its mild summer temperatures. Improved preparedness, education and warning systems will be essential to control the impact of extreme heat and unpredictable storm events on outdoor recreationists. Increasing temperatures will also encourage the expansion of pest species such as ticks and mosquitoes, which pose new and increasing threats such as West Nile Virus and Lyme disease to human health. Many pest or invasive plant species such as poison ivy and blue-green algae also thrive in warmer temperatures which pose health threats to humans and pets. In addition, some of the literature talks about the potential for trout, salmon, whitefish and ciscos populations possibly declining, while other species are expected to thrive in a warmer aquatic environment and their populations are expected to explode. This includes species like smallmouth bass, walleye, muskellunge, crappie and bluegill.

Although there will be difficulties in adapting to a changing climate, Vermonters must begin thinking and planning creatively to face these difficulties. Vermont's warmer weather outdoor recreation resources will be in higher demand, creating opportunities for expansion. Investments in research and strategic planning will help create a better understanding of how the region will change, how to preserve the state's most vulnerable habitats, and how to create systems and programs that offer assistance to the outdoor recreation providers most negatively impacted by

climate change, to help them adapt to new opportunities. As climate change has effects around the country and world, recreation destinations that are higher in latitude and altitude, such as many in Vermont, may become even more desirable.

In response to the devastating effects Vermont suffered as a result of Tropical Storm Irene in August of 2011, Vermont has spent a considerable amount of effort in addressing flood resiliency. In fact, **RESILIENCE: A Report on the Health of Vermont's Environment** was produced by the Vermont Agency of Natural Resources in 2011 to assess the State's resiliency to flooding and articulate what can be done to strengthen it over time. One tool to make Vermont more resilient to flood damage, is to conserve land in riparian areas, particularly floodplains, floodplain forests, and associated wetlands. Conserving these types of significantly important natural resources not only enhance Vermont's flood resiliency, but also provide enhanced recreational opportunities that these lands can support.

State Land Acquisition Priorities

State land acquisition priorities are outlined in the Vermont Agency of Natural Resources 1999 Land Conservation Plan (LCP). The LCP identifies four broad acquisition priorities for the Agency – Recreational Lands, Ecological Lands, Forested Lands, and Additions to ANR Lands. These broad priorities are further broken down into specific land types (e.g., parcels providing access to public waters; parcels that protect long-distance trails systems; parcels that contain exemplary natural communities; large forested parcels that can be conserved by conservation easement; in-holdings within existing ANR lands, etc.).

Although the LCP is now over 12 years old, it is still relevant and continues to provide meaningful guidance to the Agency's land acquisition program. The basic purposes of state land ownership as outlined within the Plan have served the Agency well for over 20 years and are still appropriate. These purposes include protection of ecological resources and biological diversity; protection of public waters and riparian lands; protection of important scenic resources; provision of public outdoor recreation opportunities; provision of access to public lands and waters; provision of areas for resource-related research, education and demonstration projects; provision of forest products and sustainable forest management; and provision of flood control.

The Fundamental Assumptions and Guiding Principles acknowledge that the primary responsibility for conserving Vermont's landscape rests with private landowners while recognizing the significant role of state-owned conservation lands, the importance of seeking community input and support for state land acquisition projects, the need to consider land management costs and objectives in evaluating proposed acquisition projects, that state land acquisition is but one of many tools that can accomplish land conservation objectives, and the need to incorporate both reactive and proactive elements into ANR's land conservation program.

Since the LCP was developed, a number of important studies or reports have been completed or are on-going that could potentially influence the Agency's land acquisition activities. Vermont's

Wildlife Action Plan identifies “species of conservation interest.” The Lake Champlain Wetland Restoration Plan prioritizes wetlands for restoration. The New England Governor’s Conference’s Committee on Land Conservation’s report identifies priority regional landscapes for protection. President Obama’s “America’s Great Outdoors” initiative identifies national outdoor recreation priorities which may influence how and where federal funding for state land conservation projects is distributed. The Agency is currently developing its BioFinder Project, which will identify priority areas for land conservation. These and other completed, pending, or planned studies or plans should be incorporated into any update or revision to the LCP.

The biggest need for ANR’s LCP is to include an assessment of the potential role of state land acquisition in flood resiliency and adapting to climate change. Additionally, since land conservation is a collective effort in Vermont involving numerous public and private organizations, it will be important to coordinate the Agency’s effort with these groups so that ANR’s land acquisition strategy continues to complement and enhance our partners’ land conservation efforts. Such an update to the LCP would help to more clearly focus specific land conservation types within each of the four broad priorities and would help to ensure limited dollars for state land.

Fishing and Hunting Participation Issues

The 2010 Vermont Angler Survey, conducted by Vermont Fish & Wildlife, found that the average number of days Vermont resident anglers fish declined only slightly between 1999 and 2009 (open water was 24; ice was 11). In the same survey, nonresident mean open water fishing days held steady at nine, while nonresident ice fishing days continued to decline from nine to six. Despite this trend, fishing license sales and participation are holding steady.

Hunting license sales, on the other hand, have been on the decline since the late 1990s. This trend has continued to decline as the populations who have traditionally been interested in these activities, particularly veterans of World War II and Vietnam, have aged out of the population or become physically less active. Additionally, with the rise of electronic media, adults are spending less time in strenuous physical activity and more indoors. Longer commutes and workdays have also resulted in less leisure time.

To turn this trend around, and to encourage more participation in fishing and hunting, both nationally and on the state level, programs such as Let’s Go Fishing, hunter safety education programs, youth hunting weekends, youth hunting licenses with reduced fees and free fishing days have been instituted or promoted much more heavily than in the past. Vermont F&W now certifies 3,000 students per year through hunter education programs, including nearly 1,000 from F&W’s conservation camps.

Hunting license sales provide the primary source of revenue and match dollars for F&W. The net decline of both resident and non-resident hunting license sales between 2006 and 2011 was

approximately 12 percent, despite gains nationally, and is projected to continue. If it does, it will negatively impact wildlife management by the state.

The state has also created opportunities to hunt moose through a lottery system and developed multi-year licenses to prevent participants from lapsing. Vermont's first moose hunting season was held in 1993 in certain areas of the state, and in 2003, the season was extended from four to six days. Moose hunting has been allowed in additional areas of the state incrementally over the years as the moose population has expanded. It remains the most coveted of all hunting permits.

The number of resident turkey hunting licenses sold increased steadily from 2001 to 2011. Resident sales in 2011 of 15,285 exceeded 2001 sales by nearly 27 percent but were still lower than 2010's recent high of 16,876.

F&W recently developed an electronic license sales system, which we will be working to spread throughout its 240 license agents. The ease of this system will help to encourage license purchases in such places as town halls and state parks as well as at home and on mobile devices.

Angler concerns

The 2010 Vermont Angler Survey, conducted by F&W, revealed that the biggest concern to anglers were contaminant levels, which two-thirds of anglers believe is a moderate or severe problem. Two out of five anglers also found conflict with other users to be a problem. Baitfish regulations were also a cause of concern. Fewer anglers found access and crowding to be a problem.

Table 4.3. Vermont Resident Anglers' Opinions on Fishing Issues

Issue	No Problem or Minor Problem	Moderate or Severe Problem
Access	75%	25%
Crowding	65.7%	34.3%
Conflict with Other Uses	58.7%	41.3%
Contaminant Levels	32.9%	67.1%

A high degree of angler concern over contaminant levels in fish is primarily related to mercury, for which Vermont and most other states have issued fish consumption advisories. The Vermont Mercury Education and Reduction Campaign (MERC) provides and updates detailed information on specific fish species and water bodies, and is actively working to reduce local VT mercury releases to the environment. At the national level, the US EPA's recent Mercury and Air Toxics Standards (MATS) will reduce mercury emissions from fossil fuel-burning power plants, which have been an important, but previously unregulated, source of mercury deposition in Vermont.

The Vermont Advisory Committee on Mercury Pollution was formed in 1998 "to advise the general assembly, the executive branch, and the general public on matters relating to the

prevention and cleanup of mercury pollution, and the latest science on remediation of mercury pollution”. For each of the past 6 years, this Advisory Committee has (unsuccessfully) recommended establishment of a (low cost) fish mercury monitoring program for Vermont’s freshwaters. The proposed fish mercury monitoring program would enable the Vermont Fish Contaminant Monitoring Committee (Vermont Departments of Health, Fish and Wildlife and Environmental Conservation) to document the occurrence of and trends in mercury contamination in fresh water fishes in Vermont’s lakes and rivers and relate trends to mercury reduction management actions.

Water quality in Vermont lakes

Invasive Species

Even though 79 percent of Vermont’s lakes are not known to have any invasive species, those that do pose a serious threat to lake recreation and habitat values. Recreation impairments are caused by dense growth of Eurasian watermilfoil in certain lakes. Other invasive species such as waterchestnut, variable-leaf watermilfoil, zebra mussels and rusty crayfish along with many additional species are found in neighboring states. Spread prevention education is a primary focus for the Lakes and Ponds Section, targeting both lake visitors and residents. Many lake associations are actively involved in invasive species spread prevention or control projects. Visitors may encounter friendly “greeters” at public boat accesses, offering to inspect and remove any aquatic species from boats and trailers before launching, although the primary function is educating boaters about how they can prevent the spread of aquatic invasive species. The focus here needs to go beyond just “boaters”, as boaters often implies motorized boats on trailers, but the potential to spread AIS is just as high in other watercraft, such as jet skis, kayaks, canoes, stand-up paddleboats, etc.

Recreational activities that involve moving boats from lake to lake are most likely the primary means of spread, as plant fragments get caught on trailers and motors, or microscopic life stages such as the larva of zebra mussels are transported in motors and wet wells of boats. Boaters should carefully inspect a boat before and after launching and remove visible plant and animals, drain motors and boat wells, and rinse a boat with water (preferably hot) to remove unseen organisms. Surrounding states have species not yet found in Vermont, so spread prevention is critical to avoiding new introductions.

Phosphorus

Phosphorus is the most common form of pollution to Vermont lakes, and most of it enters Vermont lakes as a component of eroded soil. Phosphorus accumulates in lakes, which effectively are accumulators of pollution. As phosphorus concentration increases, it eventually causes algae blooms and increased nuisance plant growth, potentially interfering with recreational uses.

Only four lakes in Vermont are considered “impaired” by phosphorus: Lake Carmi (Franklin), Shelburne Pond (Shelburne), Ticklenaked Pond (Ryegate) and parts of Lake Champlain. All except Shelburne Pond are the subject of state and locally supported phosphorus reduction and watershed management efforts. Other lakes in the state are threatened by increasing phosphorus concentrations, even if conditions do not yet warrant the “impaired” designation.

Most notably, cyanobacteria blooms (blue-green algae) have been in the news recently, mostly in relation to some areas on Lake Champlain. In 2012 there have been cyanobacteria blooms in places in Champlain (or in other lakes) that have not previously experienced them due to two major flooding events in 2011 bringing significantly more phosphorus into the lake. Algae blooms affect recreation especially swimming, and toxic cyanobacteria blooms found in some regions of Champlain threaten human health.

Lake Champlain is the focus of a long-term phosphorus loading reduction plan to improve water quality and reduce the frequency and severity of algae blooms. Clearly phosphorus loading has a major impact on recreational use of the Lake Champlain and other lakes, however it is important to note that the majority of Lake Champlain does not experience problem algae blooms. Approximately half of the state drains into Lake Champlain and any land use can negatively affect water quality if not conducted properly.

Acid Deposition

Air pollution emissions of sulfur and nitrogen compounds are eventually removed from the atmosphere by wet and dry deposition processes, commonly referred to as “acid rain”. Acid rain can leach critical nutrients from, and reduce the productivity of forest soils. Acid-sensitive lakes and streams, in watersheds which lack the buffering capacity to neutralize the incoming acidity, can become critically acidified. When the pH of lakes and streams falls below (more acidic than) 6.5, the vitality and sustainability of aquatic organisms like mayflies, crustaceans and fish (and birds and mammals which feed on these organisms) can be adversely affected. Recreational activities like fishing can become limited to only the most acid-tolerant species, and in some cases can only be sustained by stocking.

In 2003, the Vermont DEC identified 30 “acid-impaired” lakes in Vermont, and calculated “total maximum daily loads” (TMDLs) of sulfur deposition that would be needed for these lakes to regain acceptable alkalinity (buffering) and pH (acidity) levels. DEC also calculated the amounts by which the TMDLs for these lakes were exceeded by current levels of airborne sulfur deposition. TMDLs for seven additional acid-impaired Vermont lakes were identified in 2004, and as of June 2012, two more Vermont lakes and 8 stream segments have been identified as acid-impaired and are in need of TMDL calculations.

While local Vermont emissions contribute, the acidifying deposition of sulfur and nitrogen compounds on acid-sensitive soils and watersheds in Vermont results predominantly from out-of-state emissions. Consequently, the state’s ability to reduce acid deposition to levels below the

TMDLs identified for Vermont's acid-impaired lakes and streams is dependent on regional, national and international (Canadian) emission control programs. Over the past several decades, some progress has occurred as a result of programs like the (cap and trade) acid rain control provisions of the 1990 Clean Air Act Amendments, and comparable programs in Canada. Deposition rates of sulfur and nitrogen compounds in Vermont, and their concentrations in many of our impaired surface waters has improved, but alkalinity and acidity levels have not yet recovered to levels necessary to maintain healthy ecosystems. Additional emission controls, such as those in the US EPA's proposed Cross-State Air Pollution Rule (currently tied up in federal court litigation) are needed to assure that this progress continues to the point that Vermont's acid-impaired lakes show signs of biological recovery.

Regional Haze

The enjoyment of virtually all outdoor recreational activities in Vermont is substantially enhanced by the inherent beauty of our Green Mountain vistas, with occasional views of the White Mountains to the East and Adirondacks to the West. Unfortunately these scenic vistas are often obscured by regional haze caused primarily by air pollutants transported from more polluted upwind regions. When they are not washed from the air as acid rain, the same sulfur and nitrogen pollutants that acidify our rain are present as tiny particles containing sulfate and nitrate compounds. These small sulfate and nitrate particles are major contributors to PM_{2.5} pollution (suspended particles smaller than 2.5 microns), at levels which often approach but do not currently exceed federal health standards. Sulfates and nitrates are especially efficient at scattering visible light and impairing visibility, especially under humid conditions. On the haziest days in Vermont, roughly 75% of the visibility impairment is due to sulfates.

Class I Federal Areas, including Vermont's Lye Brook Wilderness Area are afforded special protection of "air quality related values" - including visibility - under the Clean Air Act, which calls for the eventual elimination of any impairment of visibility in all Class I areas. In 1999, the US EPA issued a Regional Haze Rule which established a measured 5-year baseline visibility period (2000 through 2004), and required a gradual elimination of all manmade pollutant effects on visibility on the haziest 20 % of days in Class I areas by the year 2064. During this time period, the clearest 20% of days are not allowed to deteriorate from their baseline visibility levels. Improvement on the haziest days will require large reductions in sulfur emissions from upwind sources. Maintaining the clearest days will require careful attention to more near-by and local sources, as their relatively small impacts will be most perceptible on clear days.

In 2009, the Vermont submitted a revision to its State (air quality) Implementation Plan (SIP) to reduce regional haze in the Lye Brook Wilderness. Vermont's SIP revision, along with those in other New England and Mid Atlantic States, identified 167 sources (fossil-fuel burning power plants, none of which was in Vermont) that had the highest sulfate impacts at Lye Brook and other Class I areas in the Northeast, and requested that those sources emissions be reduced by at least 90% from their 2002 levels by 2018. To reduce in-state sulfur emissions, Vermont has

adopted phased reductions in the allowable sulfur content of heating oil, which will lower emissions from Industrial, commercial and residential fuel burning by 2018.

Substantial reductions in sulfur emissions have recently occurred in local Vermont and larger upwind sources, and Lye Brook is currently on track to meet the 2064 goal. Because of the “regional” nature of regional haze, emissions controls which reduce sulfate impacts and visibility impairment in the Lye Brook Wilderness will unavoidably result in lower sulfate, improved visibility and enhanced recreation experiences throughout the state. At the same time, these same emissions reductions will also reduce health effects from PM_{2.5} pollution and reduce the acidity of our precipitation. Implementing EPA’s proposed Cross-State Air Pollution Rule and Mercury and Air Toxics Standards will be key to making the required progress in the near term, but substantial future emission reductions from both upwind and local sources will be needed to reach the 2064 visibility goals and to minimize the impacts of acidification on our forest soils and surface waters.

Local Air Pollution from Recreational Activity

Vermont’s air quality is not only affected by air pollution transported from more urban and industrial areas that are located upwind. Areas in Vermont visited frequently by motorized recreational vehicles (ATVs, snowmobiles, motorboats, etc.) can experience localized increases in air pollution that can be harmful to human health and the environment. Exhaust from motorized recreational vehicles is made up of pollutants such as carbon monoxide (*an odorless gas that interferes with the delivery of oxygen to the body’s organs and tissues*), particulate matter (*which leads to haze that reduces visibility and can cause respiratory damage to humans*), hydrocarbons and hazardous air pollutants (*many of which are known or suspected to cause cancer or other serious health problems*), nitrogen oxides (*which contributes to increased ground-level ozone concentrations and can trigger asthma attacks and other respiratory issues*), etc.

Federal emissions standards have been developed for off-road recreational engines and vehicles to promote improvements to engine technologies that reduce harmful air emissions. For example, snowmobiles, ATVs and off-highway motorcycles built in 2006 or after emit considerably lower levels of harmful air pollution than older models. Older two-stroke engines (which burn an oil-gasoline mix) pass up to 1/3 of the fuel out of the engine exhaust entirely unburned. Newer four-stroke engines can have approximately 40% better fuel economy and dramatically lower air pollution emissions (approx.. 85-95% lower for most pollutants). In addition to selecting newer, cleaner engine technologies, users of motorized recreational vehicles can also help reduce harmful pollution emissions by keeping their vehicles properly maintained. Reducing harmful air pollution emissions wherever possible from motorized recreational activities will help protect Vermont’s scenic beauty and preserve the health of all who recreate there.

Swim Hole Safety

Saturated soil and the onset of rain storms in the summer can quickly alter rivers, tributaries and swim holes in Vermont, changing popular spots to escape the heat from safe to hazardous to potentially fatal. As record heat continues to be experienced and high water levels due to major precipitation events, officials urge caution.

Nearly 100 drowning deaths in Vermont between 1985 and 2012 occurred in natural water settings such as lakes and rivers, including six popular swimming holes.

“As an emergency room physician, I understand how devastating and tragic these deaths are, and in most cases they are preventable. The risk of drowning while swimming is always present, but if the water is high and fast these holes are less safe and people should avoid swimming in these conditions,” said Health Commissioner Harry Chen, MD. “Swim holes are one of our most cherished natural resources, but we need to better inform and warn people about the risks involved.”

A dedicated group from the public and private sectors formed and met regularly to develop a culture of safety and to build awareness around the use of swim holes accessed and enjoyed statewide.

The project includes the Vermont River Conservancy, the Burlington Legacy Project, Place Creative Company, the Health Department, the Agency of Natural Resources, including the Departments of Environmental Conservation and Forests, Parks and Recreation, and attorneys Mark Kolter, Brian Dunkiel and Ken Schatz.

The group has been working to identify causes of drowning deaths and determine steps to injury prevention such as posting warning signs, working with landowners and local businesses near drowning hazards, providing online access to river stream flow, with instructions on how to use this information to prevent injuries, developing a public awareness campaign, and enhanced monitoring. Enacting and enforcing existing laws or policies that could improve safety are also under review.

Recreational access to private land

Private lands comprise about 85 percent of lands in Vermont. It has been a long-standing Vermont tradition for private landowners to allow the public access to their land for hunting and fishing, as Vermont’s constitution gives people the right to hunt and fish on unposted land throughout the state. Additionally, Chapter 203 of Title 12 of the Vermont Statutes Annotated provides a limitation on landowner liability to landowners that make their land and water available to the public for no consideration for recreational uses.

Many private landowners do not post their land, thereby allowing such access for hunting, fishing, hiking, biking, snowmobiling, and other activities. Much land is “posted” but it is not

legally registered with the respective Town Clerk. As shown in Figure 4.2, the number of acres of posted property registered with town clerks was relatively constant from 2000 through 2010.

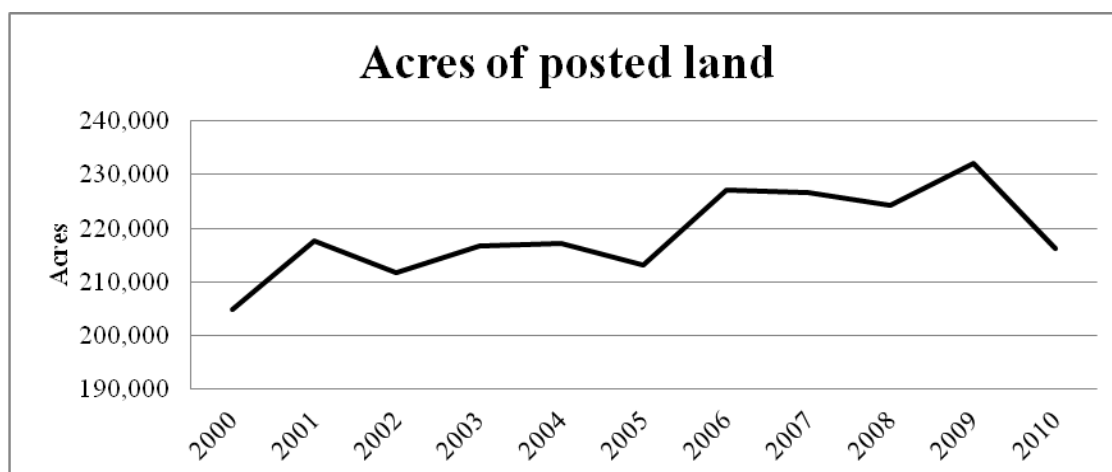


Figure 4.2. Acres of posted land in Vermont, 2000-2010

Recreational user groups encourage their members to be respectful to landowners who allow public access. Many groups provide brochures and/or informational workshops to their members when they join to encourage them to thank landowners and treat their lands with respect. The Vermont Trail Ethic was developed in 2011 by the Vermont Trail Collaborative as a statewide effort to educate trail users on private and public property. The Trail Ethic is a set of 10 guidelines aimed at enhancing trail experiences in Vermont (Figure 4.3). It is designed to unite trail users, trail managers, and property owners in trail stewardship.

State Park Cabin Construction

With the aging population, there has long been a distinct trend in the camping industry toward greater “creature comfort”. This is evidenced at least in part by the burgeoning RV industry and the success of RV resort type camping providers. RV camping occurs in Vermont State Parks even though the on-site utilities and other amenities generally associated with RV camping are not provided. Campers often clearly prefer a “State Park experience” regardless of the type of camping equipment they use. Although there are plans being considered for very limited RV utility hookups in a few parks, the State park system has generally chosen a different model in response to this industry trend. To date, 42 camping cabins have been constructed on existing campsites throughout the system. These small one-room cabins offer basic furnishings and electricity and provide considerably more comfort than the alternatives of tenting or lean-to camping. The cabins are carefully designed to fit with the architecture and landscape of state parks. They are more consistent with the energy efficiency and environmental stewardship values represented by the park system by offering a more comfortable experience without



Figure 4.3. The Vermont Trail Ethic sign

encouraging use of large, fuel inefficient recreational vehicles. They have proven to be very popular. The seasonal occupancy rate of cabins is ranging upwards to 85 percent in a system of campgrounds that averages around 40 percent per campsite. As funding is available, the construction program will continue until there is indication that the demand has been satisfied.

Senior citizen-friendly outdoor recreation facilities/resources

According to the Governor's Commission on Healthy Aging (2010), Vermont's elderly population will increase by 42 percent by 2017. Currently, 14.6 percent of Vermont's population is over the age of 65. The fastest growing segment of Vermont's population is now 85 and older. With a growing segment of the population comes growing demand by that group for outdoor recreation facilities and resources that suit the needs of the group. While the senior citizen population is a diverse group (in age, abilities, and demand for recreation facilities and resources), there are certain outdoor recreation needs that many senior citizens share. Many of

the outdoor recreation facilities made accessible to individuals with disabilities are also made more accessible to mobility-impaired senior citizens.

Some outdoor recreation resources of particular utility to older populations identified by Vermont's Area Councils on Aging include:

- Paved, smooth-surfaced walkways and bike paths
- Benches along paths and in parks
- Hand rails along paths and facilities where necessary
- Plowed paths for winter use
- Picnic shelters and park areas with vehicular access for individuals with mobility issues
- Opportunities for low impact activities such as bocce and croquet
- Adequate bathroom facilities
- Increased handicapped access at the state's fishing access sites

Youth involvement in outdoor recreation

In his remarks that launched the America's Great Outdoors Initiative (AGO) in 2010, President Obama reflected on the idea that "[w]e are losing our connection to the parks, wild places, and open spaces we grew up with and cherish. Children, especially, are spending less time outside running and playing, fishing and hunting, and connecting to the outdoors just down the street or outside of town." Studies have found that children today are spending significantly less time outside than previous generations, and are spending more time engaged in sedentary activities. Awareness of this trend, popularized by Richard Louv's 2005 book, *Last Child in the Woods*, has contributed to detrimental health effects. Studies have shown that exposure to natural environments can contribute to positive mental and physical health outcomes.

The CDC reported in 2009 that 25.8 percent of Vermont youth were overweight or obese, putting them at a higher risk for diabetes, high blood pressure, high cholesterol, asthma, and arthritis. Lifestyle changes mean that youth are less engaged in outdoor recreation activities and more "plugged in" into computer or video game-based activities. The 2011 Vermont High School Youth Risk Behavior Survey found that only a quarter of students engaged in an hour of physical activity each day, and over a third spent three or more hours per school day watching television, playing video games, or using a computer.

The Outdoor Industry Foundation reported that in the United States in 2010, youth participation in outdoor recreation stayed steady, after a declining participation numbers over the previous five years. Based on the screening questions from US Fish & Wildlife's National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, it is estimated that youth participation fishing, hunting, and wildlife watching activities have all declined in Vermont over the last two decades. Figure 4.4 shows this trend among 6- to 15-year old youth.

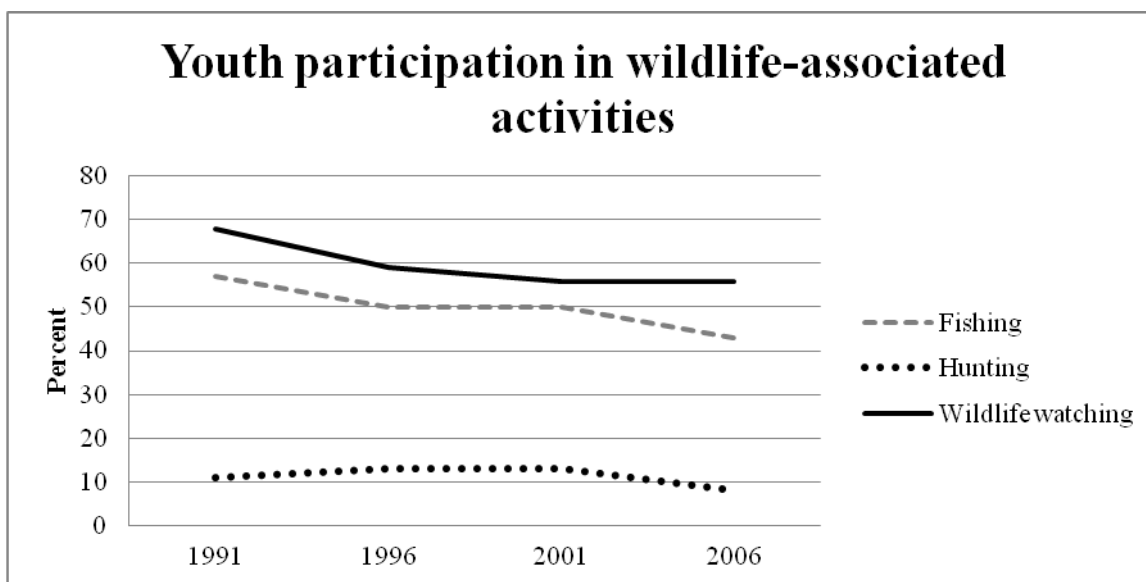


Figure 4.4. Vermont youth participation in wildlife-associated activities⁶

In 2007, then-Governor Douglas launched the “No Child Left Inside” program as part of his Fit and Healthy Kids Initiative, a collaborative effort among various state agencies and Vermont’s outdoor recreation and health organizations. Now in its sixth year, the goals of Vermont’s No Child Left Inside Initiative are to engage communities in outdoor activities that promote and restore good health for us, for the land, and for the air we breathe; encourage outdoor recreational, cultural, environmental, educational, social, and historical opportunities for children and families; and provide information about physical and natural features of parks, forests, wildlife and recreational opportunities. Partner organizations include FPR, GMC, Vermont Recreation & Parks Association, CTA, Vermont Department of Health, Vermont Youth Conservation Corps, Vermont Department of Education, Vermont Outdoor Guide Association, Vermont Outdoor Woman, VMBA, F&W, Vermont Out of School Time Network, Vermont Safe Routes to School Program, and Vermont Bicycle & Pedestrian Coalition.

ANR runs a wide variety of programs geared towards engaging children and families in outdoor recreation activities, such as the Venture Vermont Outdoor Challenge, Junior Ranger Program, and “Becoming an Outdoor Family” weekend program, run in cooperation with UVM Extension, which is in its 15th year. F&W runs several programs for youth, including Let’s Go Fishing, and Green Mountain Conservation Camps, which are attended by almost a thousand youth campers in sessions throughout the summer.

⁶ In 1991, “wildlife watching” was framed as “non-consumptive activities”

In addition, non-profit organizations and municipalities play a big role in offering youth outdoor education activities: of the non-profits surveyed in the 2011 survey of recreation organizations, over half reported offering programs targeted at youth participants, including camps, school programs, afterschool programs, and classes (for more on programs, see Chapter 2).

The efforts of the AGO Initiative's 2010 listening tour made the following recommendations based on input from youth participants: "Make the outdoors relevant to today's young people: make it inviting, exciting, and fun; Ensure that all young people have access to outdoor places that are safe, clean, and close to home; Empower and enable youth to work and volunteer in the outdoors; and Build upon a base of environmental and outdoor education, both formal and informal." A recent report titled "Connect People to the Outdoors in New England," delivered to the National Park Service, US Environmental Protection Agency, and Commission on Land Conservation of the New England Governors' Conference, Inc., proposes regional projects and investments in New England that engage youth, through work and recreation opportunities, in efforts to build and connect land and water trail systems, such as the Northern Forest Canoe Trail, the Champlain Valley National Heritage Partnership, and the Connecticut River Blueway. Engaging youth in efforts such as these is essential to building outdoor recreation systems that are rewarding, sustainable, and contribute to a healthy population.

Issues Pertaining to Back-Country Skiing

The popularity of back-country skiing in Vermont has continued to increase and the opportunities and issues this activity poses are also on the rise. The illegal cutting of a back-country ski trail at Big Jay in 2007 raised this issue to the forefront, while there are numerous examples of unauthorized cutting to accommodate back-country skiing throughout the state. This use is increasing rapidly at developed ski areas, "side-country" areas adjacent to developed ski areas and in true back-country and is an important trends which will need additional attention in the near future.

Issues identified by the Vermont Trail Collaborative

The Vermont Trail Collaborative was established in 2009 to improve management of trails and recreation in Vermont. The Collaborative was comprised of a Steering Committee, Science Panel, Stewardship and Communication Work Group, and Landscape Management Work Group. The three work groups have engaged and collaborated with a diverse set of stakeholders to address issues facing the trail community, while focusing on common values.

The Science Panel was charged with reviewing existing relevant research to determine how current trails and recreation research could inform land management issues in Vermont. The panel identified areas requiring additional research, including a need for research on **trail design and management**, to better understand specific impacts in areas of interest in Vermont; **conflicting recreational uses**, to better understand the perception of a decreased compatibility of recreational trail uses; **user-caused noise**, to better understand the impacts of visitor-caused

noise on recreational experiences; and **the impacts of motorized recreation**, to better understand impacts to air and water quality, vegetation, soil, and wildlife in Vermont.

The Stewardship and Communication Work Group’s goals included developing educational and interpretive information for trail users, encouraging stewardship, and developing best management practices for trail construction and maintenance. The Group held trail-user meetings and conducted a web survey of trail users in Vermont, which was completed by a non-representative sample of 881 respondents. The outcome of this survey pointed toward the creation of a trail safety and education message, to become a “Universal Trail Ethic” in Vermont (see Figure 4.3). According to survey respondents, the most important message to communicate via this trail ethic was to “share/ respect the trail and respect other users, leav[ing] the trail better than you found it.” Other important messages identified by respondents included “LNT [leave no trace] on natural resources, historic structures, and wildlife” and “Respect public and private property.” The Work Group’s research pointed toward a state-wide effort to encourage and promote responsible behavior for trail use. The full report, including results of the survey, can be found on the Vermont Tourism Data Center’s website.

The Landscape Management Work Group identified the priorities for making Vermont’s trail system more sustainable, based on landscape-scale issues. The issues and priorities identified included: improving **trail connectivity and managing trails with multiple landowners**; the need for an improved understanding of the **ecological impact of trails** and how to reduce those impacts; determining existing **supply and demand for trails** and identifying opportunities for multiple compatible trail uses to better meet demand; identifying new major sources of **trail funding and volunteers**; and identifying and addressing **unauthorized and illegal use of trails**.

Publicly available trails information

A priority of FPR has been to improve the quality of and access to public information about the wide variety of recreational opportunities on FPR lands beyond the more visible State Park system. This mostly focuses on the expansive network of recreation trails used extensively for hiking, running, mountain biking, snowshoeing, skiing, and horseback riding on lands across the state. To that end, FPR has begun discussions with Local Motion, a private, non-profit organization that has developed a web based “Trail Finder” program offering public access to trail information from a variety of jurisdictions. Although having started in Chittenden County, Local Motion is actively expanding its services state-wide. FPR is moving toward a partnership that will establish “Trail Finder” as their “official” tool for collecting and disseminating public trail information. All FPR trail location, attribute, and amenity information will be incorporated into “Trail Finder” and the public will be directed there via web links and other communication mechanisms. Department staff will have access to the data base so information can be updated as necessary. This takes advantage of an already developed web based tool, creates a new

sustainable relationship between FPR and a strong partner and avoids difficulties inherent with having information stored in multiple locations.

Other trails issues

Other trail issues identified involve funding and permitting for trails. The Vermont Trails and Greenways Council (VTGC), as well as VRPA, recommends the re-establishment of a Recreation Division within the FPR that could serve to create statewide recreation trail standards and support the development and connectivity of recreation trails across Vermont.

More consistency is needed regarding the jurisdiction of Act 250 on trails in the Vermont Trail System (VTS). The VTGC endorses the exemption of all trails in the Vermont Trail System (VTS) from Act 250 jurisdiction for any trail development, maintenance, and improvements to portions of a statewide trail system below 2,500 feet that are not already under Act 250 jurisdiction. Trails in the VTS are already obligated to have a certain degree of management and maintenance, following state-endorsed best practices which establishes high standards for trails in Vermont. The permitting process for recreation trails can be further refined to create a list of tolerable disturbance thresholds that can occur before permits are required. When permits are required there should be clear guidelines to follow, presented in a clear and concise way.

The VTGC also believes that there should be more incentives for managers of trails to make their trails part of the VTS, and the existing benefits need to be clarified.

A few towns in Vermont in recent years have asserted town rights over unidentified corridors or “ancient roads” and rights-of-way. These corridors may have potential to provide trail-related recreation opportunities. The towns are charged with protecting all the public assets, including town roads. Some of these roads may have been laid out as far back as the 1700s and, though no longer used by the traveling public, were never formally discontinued. However, towns must add unidentified corridors to the town highway map following the process set forth in Title 19 of the Vermont Statutes Annotated before July 15, 2015. Otherwise, all unidentified corridors will be discontinued by statute and the public right-of-way will cease to exist after July 15, 2015.

This chapter’s assessment of outdoor recreation issues and priorities informs the Action Plan in the following chapter, which establishes strategies and actions to address priorities and achieve the desired conditions for outdoor recreation in Vermont.

Chapter 5: The Action Plan

This chapter presents Vermont's vision, goals, strategies, and actions that will guide outdoor recreational opportunities in the state during the next five years. This plan offers ten overarching goals, which are referred to as "Desired Conditions," an alternative phrasing of goal statements. Strategies and actions are proposed for each goal. The desired conditions, strategies, and actions are not presented in any particular order of importance.

Information about trails, roads, and greenways related recreation appears at the end of this chapter as the Vermont Trails and Greenways Plan. Trails related recreation is presented as a separate component because each state is required to have a trails and greenways plan to meet federal funding guidelines.

The recommended actions rely heavily on comments received from public input generated in 2012 as a result of the circulation of a preliminary draft of the SCORP, as well as a Webinar open to all Vermont residents, personal interviews with all of the major recreational providers in the state, information gathered from recreational related segments of the 2010 Vermont Forest Resources Plan (which was also developed using an extensive public outreach effort), the 2-year long Vermont Trails Collaborative which engaged literally hundreds of individuals throughout Vermont and various other public involvement approaches discussed in Chapter 1, Section III of this document, in particular, the 2011 Vermont Recreation Demand Survey, an Inventory of Municipal Facilities & Resources, a Survey of Recreation Organizations, and secondary data collection conducted by UVM's Rubenstein School of Environment and Natural Resources (Parks, Recreation & Tourism) and UVM Extension. Some significant additional valuable guidance was taken from the Outdoor Recreation Participation Report, published in 2010 by the Outdoor Foundation.

Because Vermont's recreation services are provided by such diverse organizations, without central coordination, it was not always possible to identify who should be responsible for implementing each action. This need for statewide recreation coordination is further discussed later in this chapter. Meanwhile, it is strongly encouraged that all outdoor recreation related organizations and agencies refer to this chapter to identify the actions pertinent to each.

As this plan focuses on issues of statewide importance, goals and projects of individual towns and organizations are not specifically included. Some regional projects are presented because these may have significance to a wide number of users throughout the state. In addition, please note that many of the actions could apply to more than one desired condition.

Vision

The following vision for outdoor recreation in Vermont was developed by members of the Recreation Advisory Committee to the Secretary of the Agency of Natural Resources in approximately 2003, and it is still considered highly relevant. The committee was composed of representatives from a wide variety of organizations and perspectives on outdoor recreation in Vermont. The desired conditions resulted from a number of inputs, including the 2005-2009 Vermont Recreation Plan, the 2010 Vermont Forest Resources Plan and comments received from the public as this update of the SCORP was being developed.

*Vermont offers outstanding opportunities for outdoor recreation,
which support the state's economy and the well-being
of its visitors, people, and communities.
Vermont is kept well-connected to nature
through thoughtful, careful use and enjoyment
of its natural and cultural resources.*

Desired Conditions

- A. All persons who wish to participate in appropriate outdoor recreation activities in Vermont have opportunities to do so.
- B. Vermont's natural resources base, including its working rural landscape, which provides the foundation for outdoor recreational pursuits, is conserved, appropriately maintained, properly managed and enhanced.
- C. The quality of Vermont's existing outdoor recreation sites, facilities, programming, and operations remains high and adequately satisfies the demand imposed upon it.
- D. Vermont meets increasing needs for outdoor recreation by making more resources and diverse opportunities and programming available.
- E. Vermont outdoor recreation providers and users develop creative solutions for resolving outdoor recreation challenges and conflicts.

- F. The majority of private landowners in Vermont continue to allow access to their land for public outdoor recreation.
- G. People pursuing outdoor recreation in Vermont value and appreciate nature and the natural resource base and treat private and public resources and other users with respect.
- H. Individuals recreating in Vermont's outdoors experience health benefits while recreating, and residents of Vermont communities, which emphasize outdoor recreation through their development, become healthier.
- I. Information about Vermont's outdoor recreation opportunities is provided in user-friendly ways and directs people to appropriate places.
- J. There is strong administrative support for Vermont's outdoor recreation industry by the State of Vermont.
- K. Outdoor recreation continues to play a major role and make a significantly important contribution to Vermont's tourism industry and thus its economy.
- L. Vermont considers and addresses the impacts which changing climate has had and will continue to have on outdoor recreation in Vermont.

The remainder of this section consists of a summary of many of the concerns and issues that prompt the need to state each desired condition. Some of these concerns and issues are covered in more detail in other chapters and appendices of the plan. This chapter is the primary resource of the plan for all outdoor recreational pursuits, with specific trails & greenways related recreation information contained in the Vermont Trails & Greenways Plan, found at the end of this chapter.

Desired Condition

A. All individuals who desire to participate in appropriate outdoor recreation activities in Vermont have an opportunity to do so.

The demographics of the people of Vermont and visitors to the state continue to change. People from more diverse ethnic groups increasingly choose to live in Vermont. The median age of Vermont and the nation continues to climb. Fifty-eight percent of Vermont adults are overweight or obese. Rates of obesity among adults in Vermont have increased by 60% since 1995. The number of people with disabilities makes up nearly 14% of the Vermont's population of 626,000. Many people with disabilities participate in physical activities.

A small and, for the most part, rural state like Vermont has many challenges to overcome to provide outdoor recreational opportunities for all its citizens and visitors. People with special

needs, such as the elderly, those with disabilities, people living in poverty, and people from other countries, may require additional or different services than those required by the general population. Agencies now struggle to help many people with their basic needs, including meals, housing, assisted living, and transportation for medical treatment. The costs of operating these types of services may leave little, if any, funding to support outdoor recreational opportunities. Another concern is that public transportation doesn't exist in many areas of the state. In addition, the costs of retrofitting outdoor recreation facilities or constructing new ones are enormous.

Forest-based outdoor recreation is a major component of Vermont's economy. Popular winter outdoor sports and other pursuits include downhill and cross-country skiing, snowmobiling, hunting, ice fishing and trapping, dog sledding, ice climbing and snowshoeing. In 2007-2008, Vermont logged over 4.3 million skier visits (Vermont Ski Area Association, 2009), among the highest in the US. Vermont has 35,000 registered snowmobilers in 138 clubs around the state (Vermont Association of Snow Travelers). Summer and fall activities include hiking, camping, hunting and fishing, mountain biking, bird watching and geocaching.

Outdoor recreation continues to grow in popularity in Vermont. Over the past 20 years, there has been a shift in the types of outdoor activities people are participating in, away from pursuits such as hiking, towards more specialized activities. There is an increased demand for all types of trails to meet the wide variety of activities. Public land managers are finding it difficult to maintain recreational trails and structures due to increased and diversified use. Maintaining Vermont's recreational opportunities and infrastructure will continue to be a challenge for the future.

Two out of five households in Vermont (40.8%) said that outdoor recreation is "very important". There is certainly a need for an adequate supply of affordable and accessible outdoor recreational facilities. Anecdotal information provided by recreation professionals, indicates as a major concern, the lack of public transportation and the need for more outdoor recreation facilities to accommodate the disabled. As the need for reconnecting youth to the outdoors and to get them more involved in physical activity is growing, providing these opportunities increases in importance. Never before in history have children been so out of touch with the natural world. For many reasons, children today spend too much time indoors. Richard Louv, who compiled research and wrote "*Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*", directly links the lack of nature in the lives of children, (he calls it nature-deficit) to some of the most disturbing trends, such as the rise of levels in obesity, attention disorders, and depression.

For example, here in Vermont:

- Over 1/3 of school aged children spend three or more hours per school day watching TV, playing video games or playing on the computer for fun.

- Over 1/3 of our school aged children are overweight or obese.
- More than half of adults in Vermont are overweight or obese.
- Sixty percent of Vermont adults do not get the recommended amount of physical activity and 25% are not active at all.

Strategy:

Organizations and agencies at all levels provide outdoor recreational experiences at various degrees of difficulty for people at different developmental levels.

Actions:

Agencies assess existing resources with regard to degree of difficulty in accessing and participating and make modifications so that various levels of challenge are available.

Volunteers and staff are trained to provide special programs and to assist special populations with outdoor recreational activities.

More facilities are built or modified to accommodate disabled individual.

Build partnerships that enhance forest-based recreational opportunities.

Strategy:

Outdoor recreational experiences are made available to special populations in an efficient and cost effective manner.

Actions:

Facilities and programs are located in or near areas of population concentrations.

Organizations and agencies recruit and train volunteers to deliver services.

Strategy:

Costs to special populations for outdoor recreation are minimized.

Actions:

Providers and user groups arrange for vans, carpooling, and accessible public transportation to popular sites and programs.

Providers and user groups offer sliding fee scales and develop funds for people who cannot afford to pay to attend programs.

Low-cost recreation programs are designed specifically for lower income Vermont residents.

Strategy:

Information regarding sites and programs for outdoor recreation that are available for special populations is disseminated.

Actions:

Agencies and organizations network with each other and supply information to each other's constituents.

Program and site information is made available in formats that are easily accessed by people with disabilities.

Strategy:

The outdoor recreation experiences of people with special needs are integrated with those of the community at large.

Actions:

Special needs representatives are included in planning efforts for recreation projects and programs.

Local agencies and organizations offer programs where people with special needs and other participants engage in activities side-by-side.

Desired Condition

B. Vermont's natural resources base, which provides the foundation for outdoor recreational pursuits, is maintained and enhanced.

As previously noted, great strides have been made in maintaining and improving the state's natural resources throughout the recent past. Vermont passed legislation in 2012 which established the Working Landscape Initiative, for the management and investment of \$1 million into agricultural and forestry based businesses. Over 97% of Vermonters value the state's rural working landscape. Approximately 20% of Vermont's land is used for agricultural purposes and 75% is forested. The backbone of Vermont's "working landscape" is the economic viability of the agriculture and forestry based businesses. It is Vermont's working landscape that allows us to be a key economic engine within the northeast metropolitan markets of the regional food system, and it provides the rural landscape upon which much of the state's outdoor recreational pursuits take place.

Conversion of land from forest and agricultural uses poses threats to Vermont's natural resource base, especially in Chittenden County, the most highly developed and rapidly growing area of the state. Many wildlife species depend on farm and forest lands which are not fragmented. Many Vermonters believe that the destruction of wildlife habitat is a problem, and most agree that the loss of wetlands is also a problem.

Development, other land uses, and some recreational uses may have negative impacts on the quality of streams and lakes. Vermont residents are concerned about such impacts on natural resources: most Vermont residents believe that development along lake and pond shores is a problem; and a large majority of Vermonters identify the destruction of fish habitat as a problem; most said the presence of nuisance (invasive) aquatic animals is a problem; and a large majority noted the presence of nuisance (aquatic) plants as a problem.

Certain types or locations of development may impact the scenic beauty of landscapes or result in the loss of historic resources. A 2008 study by the Center for Rural Studies at UVM found that 80% of Vermonters were moderately to very concerned about pressures to convert open space to residential, commercial, or other development.

Another problem that recreation managers need to be increasingly concerned about is the effect of climate change, especially on the natural resource base upon which outdoor recreational experiences depend.

Strategy:

The conversion of forested and agricultural lands to development is minimized.

Actions:

Local, regional, state, and federal agencies in Vermont coordinate growth planning efforts as well as the development of growth management policies to determine the best places for growth to occur.

Regional planning commissions provide assistance to towns and municipalities in developing land use plans that encourage the conservation of forests, aquatic resources, and open space.

Public agencies and nonprofit organizations protect important forested and agricultural lands from development by acquiring conservation easements on them.

Educate the public on the value of keeping forest land forested.

Work with partners to encourage land use planning that maintains a working landscape.

Strategy:

Overuse and misuse of Vermont's natural resources are avoided.

Actions:

Outdoor recreation providers and user groups promote and abide by a good land ethic whereby water quality, site productivity, and native biological diversity are maintained or enhanced and the spread of invasive exotic species is discouraged.

Agencies and organizations monitor recreational activities and their potential impacts on natural resources.

Manufacturers produce recreational equipment that is energy efficient and minimizes noise and air pollution.

Communication occurs between natural resources managers and recreational users when overuse and other impacts on natural resources are anticipated or occurring.

Strategies are in place for modifying recreational uses when impacts on natural resources occur.

Information about minimizing impacts on the natural resources that recreationists use is made available to them.

Promote forest stewardship through educational efforts to all citizens.

Strategy:

Management efforts that improve Vermont's natural resources are encouraged.

Actions:

Existing resources within communities are leveraged to address common goals regarding natural resources and associated recreational opportunities

Efforts to improve water quality by minimizing siltation, undesirable bacteria, phosphorus, and invasive species continue and accelerate.

Shoreland protection programs and activities are encouraged, including adequate building setbacks, protection of riparian buffers, and shoreline stability.

Landowners, agencies, and recreational organizations participate in habitat restoration programs such as retaining large woody debris in streams, releasing apple trees, and restoring river corridors, wetlands, and other habitats.

Property taxes on private lands are in line with the ability of the land to produce income.

Landowners are rewarded for providing recreational experiences for others on their lands.

Natural resource managers learn how to make adjustments in management due to impacts from climate change.

The actions of the Vermont Wetlands Conservation Strategy, as presented in Appendix A, are implemented.

Partnerships are established that enhance forest-based recreational opportunities.

Desired Condition

C. The quality of existing outdoor recreation facilities, programming, staffing, and operations remains high.

Nearly 85% of Vermont residents, when surveyed in 2002, agreed that the outdoor recreation opportunities now offered in the state satisfy their needs, and this perspective continues today. Some of Vermont's outdoor recreational experiences are receiving national and international recognition for their quality. However, there are some indications that Vermont needs to better care for some of its outdoor recreation infrastructure.

Studies of resource needs by each of the state's 12 Regional Planning Commissions in 2003 revealed the need for maintenance of existing facilities as a major issue for towns in every region. A number of these same Regional Planning Commissions reiterated this concern when their input was solicited during this most recent SCORP planning process. State Parks infrastructure needs were assessed in 1998 and were found to be in excess of \$31 million. Since that time, annual capital appropriations, sometimes in the millions of dollars, have been made available by the Vermont General Assembly to address these infrastructure needs and much work has been accomplished as a result. In addition, the Agency of Natural Resources' Lands and Facilities Trust Fund has also played a significant role in addressing this problem. Requests for grant monies from the Land and Water Conservation Fund (LWCF) to repair and improve existing municipal and state facilities routinely exceed available funds. Likewise requests for funds from the state's Aquatic Nuisance Control Grants-in-Aid Program, the Conservation License Plates, and other sources exceed the funds that are available.

Vermonters' opinion of the quality of public recreational resources and services improved between 1992 and 2002. However, the sustainability of outdoor recreation resources is a priority for Vermonters. In the 2002 survey, more than 70% indicated there was inadequate funding for public recreation in the state – a position that still holds true in 2013. Vermonters also indicated their preference to spend available outdoor recreation funds on maintaining existing recreation lands, facilities, and programs. More than four times as many Vermonters indicated that spending money to maintain current facilities was more important than creating new ones. More

than twice as many Vermonters would like to see money spent to maintain existing programs than to create new ones.

The same survey showed that more than 60% of Vermonters believed that safety was an issue when recreating in the outdoors. A greater percentage of women responded that safety was an issue than did men. Through informal surveys for this plan, many recreation providers and users mentioned some problems with safety as well.

Highly visible, safe, and well-operated programs and facilities are among the best ways recreation providers receive support for their operations. If Vermont hopes to keep its image as a great place to recreate outdoors, it must insure that related facilities are kept in good repair and that they are clean and safe.

Strategy:

Outdoor recreation providers and user groups apply a variety of methods to support their operations and programming needs.

Actions:

Organizations and agencies seek additional funds by submitting applications to grant sources for monies dedicated to operations and improved programming.

Public agencies and private businesses work together to ensure that recreational services complement one another and meet community needs.

Recreation user fees are instituted where appropriate and feasible.

Recreation providers and stewards adopt standards for quality of their operations and facilities and assist other providers in meeting and exceeding those standards.

Communities adopt national standards for appropriate conduct for youth sports, including behaviors for coaches and parents.

Inquiries and feedback about outdoor recreation activities that are received by agencies, businesses, and organizations are shared with each other, so that all can adjust their offerings to meet user needs.

Recreation providers ensure that staff and volunteers receive adequate and appropriate training for the tasks they do.

Agencies work more closely with outdoor recreation-related businesses of Vermont rather than seek out-of-state providers.

Businesses, agencies, towns, and organizations seek efficiencies in insurance coverage through group applications.

Strategy:

Outdoor recreation providers and user groups apply a variety of methods to support the maintenance of existing outdoor recreation facilities.

Actions:

Recreation providers seek assistance from volunteers who may assist with maintenance tasks when appropriate.

User groups serve as stewards for existing recreation resources.

Funds are raised to provide mitigation opportunities for damages caused to recreation resources by illegal uses and behaviors.

Additional funding sources are sought for facilities upgrades and maintenance.

When rehabilitating existing structures for handicapped accessibility or making repairs to buildings, recreation providers maintain the historic character of buildings as well as incorporate energy conservation measures.

Strategy:

Outdoor recreation providers and user groups apply a variety of methods to maintain safe facilities, operations, and programs.

Actions:

Strategic plans of organizations and agencies that provide recreation resources highlight the importance of maintaining these resources in safe condition.

Managers conduct research to better understand user safety concerns.

Providers establish life-cycle maintenance schedules for facilities and tie them to their operational budgets and capital improvement plans.

Through background checks and other methods, recreation providers and user groups ensure that staff and volunteers have suitable experience, training, and credentials.

Staff and volunteers receive proper training in safety procedures.

Strategy:

Access to existing water and land resources for outdoor recreation is improved.

Actions:

Agencies and organizations identify and suitably publicize access locations.

Work with private landowners in securing access locations, especially where public resources can be accessed only from private land

Desired Condition

D. Vermont meets increasing needs for outdoor recreation by making more resources and a wider variety of programs available, especially for public lands and facilities.

There are a number of factors that prompt the need for Vermont to continue to expand its outdoor recreation opportunities. The human populations of Vermont and the nation will continue to grow, leading to expected higher numbers of tourists recreating in the state. Shorter vacation trips using motor vehicles are increasing, and Vermont is less than one day's drive away for tens of millions of people. Outdoor recreation is becoming more popular, and new types of recreational activities are being created. Nature-based recreational activities are now recognized as a source of economic and community development.

Studies of resource needs by each of the state's 12 Regional Planning Commissions in 2003 (11 after 2003) revealed the need for more access to all types of outdoor recreational resources as a major issue for many towns in every region. Likewise, respondents to informal surveys and participants at public meetings for this plan identified lack of access to recreational resources as an ongoing and serious problem in the state.

Finally, more demands are being made for recreational uses of the 15% of land in Vermont that is publicly owned. When asked in a 2002 survey to choose between lands, facilities, or programs as their number one priority for spending outdoor recreation funds, 50% of Vermont residents responded that lands were the top priority.

Strategy:

Suitable lands and properties are acquired for the public, new facilities are built, and new programs are created to meet public recreation needs, especially in areas of high demand.

Actions:

Recreation providers and user groups participate in regional recreational needs assessments, including cost-benefit analyses, which are used to set priorities for new recreational facilities, programs, and open spaces.

Outdoor recreation projects reflect state, regional, and local recreation planning processes.

Communities plan for the conservation of outdoor space and natural areas for outdoor recreation in or near areas of population concentration.

Recreation providers offer more access to outdoor recreational sites, where needed and appropriate.

Leaders in every town understand the tax and economic benefits and consequences of conserving land in their town.

Outdoor recreation acquisitions and projects help relieve pressures for use in areas where there are user conflicts or where demand is excessive or anticipated to become so.

Public access and use are secured through acquisition of property and land and rights to use of land.

Partner with Vermont State Parks, Green Mountain National Forest and other organizations to support forest-based recreational opportunities.

Winter access to outdoor recreation sites needs to increase. Make a few Vermont State Parks stay open during the winter, provide adequate parking, as “non-camping” season use is on the rise.

Strategy:

The benefits to the environment and future generations are considered in the development of outdoor areas, facilities, and programs.

Action:

Providers and user groups identify linkages between existing recreational resources to determine where to focus new acquisitions, which may serve multiple functions such as conserving wildlife and preserving historic resources.

Strategy:

Funding and staff are available for expanding recreational facilities and programming.

Actions:

Statewide coordination is provided for volunteer activities, including recruitment and training, organizing friends groups for parks, watersheds, and other recreational resources, obtaining insurance, and publicizing volunteer "job" descriptions in a central database for all levels of agencies and organizations.

Providers find alternative funding sources, including grants and funds from state and federal agencies, that support the development of new facilities and programming efforts.

Strategy:

Traditional recreational offerings are expanded to other venues and to coincide with special events.

Actions:

Providers establish partnerships for providing complementary and expanded recreation programs, services, and resources.

Providers expand program opportunities to include related resources, such as historic and agricultural, which may be of interest to some recreationists.

Unique outdoor recreational pursuits, not undertaken by many, such as “mushing”, need to receive adequate and appropriate attention. The interests and concerns of the participants in these lesser known activities should be fairly considered and their pursuits made part of the mix of all such activities in Vermont.

Desired Condition

E. Vermont outdoor recreation providers and users develop creative solutions for resolving outdoor recreation conflicts.

Through this planning process, some major conflicts of statewide and/or regional significance have been identified by users and suppliers of recreational opportunities. Examples of recreational conflicts include the following three types:

- (1) Conflicts between recreational users;
- (2) Situations where demand for recreation may strain the capacity of natural resources or the recreation infrastructure to provide for such use; and
- (3) Circumstances where other uses besides recreation may negatively impact recreational opportunities.

Interest in a number of outdoor recreation activities has increased dramatically over the past decade. Such increases in participation can result in situations that are difficult to resolve in a short amount of time.

Strategies:

Whenever recreation issues are to be discussed or services changed, all stakeholders should be involved in those discussions so that potential conflicts can be resolved as early in the process as possible.

Vermont should build on the successful resolutions of conflicts that have occurred here and should look for other models to follow when needed.

Protocols should be developed for examining the ecological, economic, and social impacts of recreation proposals.

Participants who engage in recreational activities that use the same resources or locations are encouraged to find ways of sharing, including usage on alternating days or adjustments for time-of-day.

Actions:

Make state-owned fishing access areas accessible for all water based outdoor professionals and users.

Managing agencies and recreational organizations must reach out to users and non-users alike in order to reach recreational based decisions which are acceptable to most.

Desired Condition

F. The majority of private landowners in Vermont continue to allow access to their land for public recreation.

With about 15% of the state being publicly owned, private lands are a critical resource for outdoor recreation in Vermont. When surveyed in 2002, more than 62% of Vermonters responded that the posting of private land against the public interest was a problem.

There are a number of reasons for landowners posting their lands. (1) One is that some landowners come from other states with different customs than Vermont. (2) Another reason is the lack of respect for private property. More than 84% of Vermonters, when surveyed in 2002, thought that the lack of respect for private property by those who use it for recreation was a problem. (3) Yet another concern involves liability of landowners for injuries to recreationists. In 1998 Vermont passed revisions to its landowner liability law which enhanced protection to private landowners who allow non-commercial public recreational access. Vermont landowners can be held liable for an injury to a user of their land only if a landowner was found to have committed willful or wanton misconduct. Despite the passing of this landmark legislation, surveys of residents revealed that more Vermonters were concerned about this issue in 2002 than in 1992.

Strategy:

Barriers to allowing public access on private lands are minimized.

Actions:

Law enforcement improves its effectiveness in apprehending trespassers.

Landowners understand Vermont law(s) that protect them against liability for injuries to recreationists on their property when the landowner did not purposely cause the injuries.

Organizations raise money to help landowners have unsubstantiated liability suits dismissed.

User groups are reliable in making repairs to damage to recreational resources caused by their activities.

Strategy:

Incentives or benefits are offered to landowners who allow public use of their lands for recreation.

Actions:

User groups help landowners manage their property in exchange for allowing recreational uses.

The legislature considers making adjustments to the existing tax structure in support of recreation-related businesses.

User groups and/or the legislature consider making payments to or reducing taxes of landowners on a per acre basis for recreational use of woodland and pastureland.

Strategy:

Landowners understand various options available to them for allowing use of their lands for recreation.

Actions:

Landowners understand access easements and other easements.

Landowners understand how to post their land against certain uses, not all uses.

Landowners understand how to charge fees for use of their lands for recreation, as well as the implications of doing so, if they so choose.

Landowners with recreation-related businesses share their expertise with others, perhaps through a list of technical assistance organizations.

Landowners look for partnerships with other businesses and organizations to increase their viability, e.g. through joint marketing opportunities and better pricing for insurance and products purchased.

Desired Condition

G. Outdoor recreation participants appreciate nature and Vermont's natural resources and treat private and public resources and other users with respect.

Our way of life keeps changing, and the pace continues to increase. Advances in research and technology have led to new ways of communicating and learning and have resulted in radically different transportation and economic systems on a global scale. New recreational equipment and activities are being invented. The human population "explosion" of the past few decades is expected to continue and will affect natural and recreational resources, perhaps even those in Vermont. These developments challenge our ability to manage for change, respect other users, and appreciate the wildness and traditions of Vermont.

The 2002 recreation survey of Vermonters revealed that 89% thought the lack of respect for public recreation facilities was a problem, while more than 84% thought that lack of respect by recreationists for private property was a problem.

New sports equipment allows people to travel faster and farther into remote areas. Inappropriate and illegal use of some equipment is damaging natural resources. Some manufacturers and retailers are not encouraging responsible use of their products.

Youth sports have become more formally organized and competitive. Some problems that have developed as a result of increased competition include lack of unstructured play time for children, overly aggressive parents, untrained league administrators, and win-at-all-cost coaches.

On the other hand, many efforts have been undertaken to help us connect with nature and do a better job of respecting each other, following Vermont traditions, and protecting the natural resource base and recreation infrastructure. Vermont can use some of the following strategies and actions to continue making progress with these efforts.

Strategy:

Youths experience the natural environment and Vermont traditions and engage in fair play.

Actions:

Towns and neighborhoods provide safe playgrounds and natural areas for unstructured exploration and play for young children.

Public school and after-school curricula include outdoor exploration, managing wildlife species, Vermont traditions, and ethical and appropriate behavior.

Special schools and summer camps continue to offer a variety of outdoor experiences including hunting and fishing education, adventure, and competitive sports.

Communities operate youth sports programs that follow the National Standards for Youth Sports and work towards hiring a professional youth sports administrator.

Strategy:

Outdoor recreationists participate legally, ethically, and respectably in their activities.

Actions:

Manufacturers and retailers provide information about legal and appropriate locations for use of their products.

Organizations and providers promote the use of programs such as Tread Lightly, Leave No Trace, and Carry In/Carry Out.

User groups thank and show appreciation for landowners who allow access for recreation.

Providers and user groups encourage members to be sensitive to landowners' concerns.

Educational programs in schools and by agencies and organizations target responsible behavior and knowledge of existing laws and penalties.

Signs placed in strategic locations remind people of appropriate behavior, including illegal dumping and places to avoid due to negative impacts.

Providers ensure that appropriate training is promoted when permits are required for an activity.

Strategy:

Users engage in safe and proper uses of their equipment

Actions:

Manufacturers, retailers, and activity leaders provide information about safe practices for using their equipment.

User groups encourage members to use proper equipment.

Educational programs in schools and by agencies and organizations target correct use of appropriate equipment.

Desired Condition

H. Outdoor recreationists in Vermont experience health benefits and Vermont communities that emphasize outdoor recreation in their development become healthier.

Although nearly all Vermonters participate in some outdoor recreation activity at some point during the year, there is a growing need to emphasize the connections between outdoor recreation and the good health of individuals and communities. In 2003, two-thirds of Vermont students reported exercising aerobically three or more times per week. Yet in the same survey, 35% said they spent three or more hours per school day watching television, playing video games, or using a computer for fun. In 2003, 11% of Vermont students were considered overweight, and 26% in grades 8-12 were above what is considered a healthy weight. A 2001 report by the Surgeon General of the U.S. included treatment and prevention of obesity as a national priority.

The numbers of deaths in the U.S. attributed to poor diet and physical inactivity rose between 1990 and 2000. The Center for Disease Control estimates that nearly two-thirds of deaths of adults over the age of 25 in the U.S. are caused by chronic disease: heart disease and stroke (41%) and cancer (24%).

Vermont's communities don't always consider the impacts of development on the health of their residents. Most Vermont towns still do not have professional staff dedicated to recreation activities. Nor do they have resources to hire someone who is evaluating whether development patterns are promoting more motor vehicle use or decreasing the amount of open space, or who is developing opportunities for residents to get from home to town via open space and their own physical power as opposed to driving. The following strategies and actions may help in this regard.

Strategy:

Better health through recreation is promoted via partnerships between involved agencies and organizations.

Actions:

Youth-oriented organizations, such as the statewide Vermont Coordinated School Health program and Vermont Out of School Time Network (VOOST), and drug use prevention programs incorporate outdoor recreational opportunities for youths.

People are encouraged to participate in fundraising activities involving outdoor recreational activities.

Organizations work together to promote outdoor physical activity as part of other programs.

Businesses promote outdoor recreation for their employees.

Schools provide outdoor recess or physical education activities for their students.

Strategy:

Communities expand their knowledge about the roles of community design and the built environment in facilitating more healthy residents and economic benefits.

Actions:

Regional commissions collaborate with towns and agencies to develop community wellness strategies.

Communities assess whether their policies, zoning, recreational facilities and programs, schools, and transportation system encourage people to be physically active.

Towns promote outdoor recreation networking and opportunities within neighborhoods.

A list of successful programs to be used as models for facilitating healthy communities and residents is circulated to towns.

Desired Condition

I. Information about Vermont's outdoor recreation opportunities is provided in user-friendly ways and directs people to appropriate places.

The quality of Vermont's outdoor recreation resources increasingly is being recognized nationally and internationally. In order to preserve the natural resource base for the long-term, make the best use of recreational facilities, have satisfied users, and maximize economic returns, it's important that people are able to access the recreational experiences they desire. Directing users to the sites where they can have the experience they desire has the added benefits of improving safety and minimizing conflicts with other users.

Vermont has made great progress over the past decade in improving its recreation promotion efforts to out-of-state audiences, coordinating promotion efforts between agencies, and making information available on the World Wide Web. Through surveys, the lack of information regarding the availability of recreation opportunities was reported by Vermont residents as less of a problem in 2002 than in 1992. However, in the 2002 survey, nearly half the respondents still thought this was a problem. Also noteworthy is the fact that, when surveyed in 2002, only 6% of Vermonters got information about recreation opportunities in Vermont from a website, while nearly 25% relied on publications and brochures.

Comments received for this plan from a variety of sources have identified a number of needs in this regard: mechanisms for determining and monitoring the carrying capacity of recreational resources; a system which communicates overuse problems to providers so that management practices can be adjusted, especially at highly popular sites; user-friendly maps on websites that provide locations of Vermont's recreational resources; and maps that offer information specific to

locations, including the type of experience found there and other services available nearby such as lodging, historical resources, entertainment, and events.

Strategy:

Agencies and organizations continue to develop and disseminate accurate and comprehensive information about outdoor recreational opportunities.

Actions:

Vermont develops more linked, user-friendly websites that give potential users helpful information about Vermont's outdoor recreation resources.

Low power FM band radio stations provide more information about outdoor recreational opportunities.

Information for tourists is available at convenient facilities that have adequate parking and user-friendly displays and handouts. Information for tourists is made available utilizing technology through additional means such as QR (Quick Response) Codes to smart phones and audio downloads to cell phones and computer tablets.

Recreation providers map their facilities and resources using Geographic Positioning Satellite (GPS) technology and sell, publish or share the information.

Recreation providers continue to create, update, and distribute brochures about recreational opportunities, especially to Vermonters.

Strategy:

Recreation providers have accurate and up-to-date information about experience types and user trends at Vermont recreation sites.

Actions:

Providers use evaluation systems, such as the Recreation Opportunity Spectrum and the Water Recreation Opportunity Spectrum, to document and evaluate recreational experiences that occur at all of Vermont's recreation locations.

Recreation providers monitor and report site conditions to a central location.

Desired Condition

J. There is strong administrative support for Vermont's outdoor recreation industry.

Vermont's outdoor recreation industry has helped raise awareness for natural resources as well as encouraged both healthy citizens and healthy communities for decades. In addition, this growing

industry is expected to continue contributing millions of dollars to the state's economy every year. However, in the 2002 survey of Vermont residents, more than 70% responded that funding for public recreation was inadequate, and 64% believed that the lack of responsiveness of public agencies to the recreation needs of Vermont was a problem. In addition, if a measurement of Vermonters' participation in outdoor recreation on public lands were to be made, activity days at the local level would be likely to exceed activity days on both the state and federal levels.

Through informal surveys developed for this plan, recreation organizations, professionals, and volunteers have identified some tasks that would result in better management for recreational growth and would prevent the increasing threat of negative impacts on natural resources and infrastructure by recreational use. Concerns included these needs: staff dedicated to managing recreation in the majority of Vermont's towns; more resources for coordinating regional recreation planning efforts; a central source for networking, training, statewide planning coordination, and marketing; articulation of policy and research needs; and documenting the implementation of this plan.

Strategy:

Statewide coordination is provided for centrally-required functions in support of the recreation industry.

Actions:

A budget increase allows the re-instatement of full-time recreation positions within the Vermont Department of Forests, Parks and Recreation. Alternatively, other funding is developed for statewide recreation coordination functions.

Outcomes and measurables for each of the desired conditions of this plan are developed so that implementation of this plan may be tracked and documented on a statewide basis.

Recreation services and systems are coordinated among levels of government and private providers, especially functions that already overlap one another.

This plan's strategies and actions are presented to the legislature, state, and regional and local entities.

Recreational planning efforts between agencies and regional planning commissions are better coordinated.

Information-sharing and funding sources, including recreation-based educational information, have a central source and are presented as a "toolkit" for recreation providers.

Vermont develops a centrally coordinated outdoor recreation website, which provides links to related sites of interest.

Training for recreation-related businesses and organizations regarding liability and other insurance requirements, identifying the carrying capacity of resources, marketing strategies, professional certifications, grant applications, and related subjects of interest to recreation suppliers is provided.

Economic and geographic data to assist users and providers are updated and made available.

Tools (targets and priorities) are developed to measure the effectiveness and efficiency of Vermont's Land and Water Conservation Fund program.

Strategy:

Town and regional planning commissions coordinate efforts to plan for and manage outdoor recreation facilities and opportunities.

Actions:

Towns expand their funding sources for outdoor recreation projects and administrative support.

Regional planning commissions are funded to coordinate recreation planning efforts and improve communications about recreational opportunities between towns.

Centralized copies of inventories and maps of recreational sites and opportunities are kept updated.

Strategy:

Recreation services and systems are coordinated among levels of government and private providers.

Actions:

State and local governments work together to identify and meet the outdoor recreation needs of local communities.

Recreation based waiver forms, used by recreation and sports providers, need to be made legally binding.

License professional outdoor guides in Vermont

The Recreation Advisory Committee (RAC) to the Secretary of the Agency of Natural Resources, consisting of representatives from a wide variety of outdoor recreation providers and activities, is reactivated and meets regularly to oversee implementation of this plan.

Members of the RAC collaborate regarding outdoor recreation opportunities and partnerships and establishing goals and priorities.

Desired Condition

K. Outdoor recreation continues to play a major role and make a significantly important contribution to Vermont's tourism industry and thus its economy.

According to the Outdoor Industry Foundation's 2012 Outdoor Economic Report, the Vermont active outdoor recreation economy supports 35,000 jobs across Vermont, generates \$187 million in annual state tax revenues, produces \$2.5 billion annually in retail sales and services across Vermont, and accounts for 12% of gross state product. Active outdoor recreation creates sustainable long-term economic growth and community development throughout Vermont. Vermont not only attracts those from out-of-state to take part in active outdoor recreation, but also, with exceptional close-to-home recreation, generates economic activity from active Vermonters.

It is well known that many people travel to Vermont to recreate in the outdoors and to take advantage of Vermont's abundant outdoor recreation resources and opportunities. According to the Vermont Department of Tourism & Marketing, in 2011 visitor spending contributed \$274.5 million in tax and fee revenues to the State of Vermont. Visitors made an estimated 13.95 million person trips* to Vermont for leisure, business or personal travel. Direct spending by visitors for goods and services totaled \$1.7 billion. Visitor spending supports an estimated 37,910 jobs for Vermonters (approximately 11.5% of all Vermont jobs). Sectors of the Vermont tourism economy, like retail and dining, are one to two times more dependent on visitor spending than the national average.

Strategy:

Recognize the economic significance of outdoor recreation in Vermont and promote this when advocating for recreational opportunity enhancements throughout the state.

Actions:

Take advantage of the importance which outdoor recreation plays in Vermont's economy and tourism industry, and maximize the value of this benefit when advocating for and seeking funding to support new outdoor recreation sites, facilities and enhancements.

Desired Condition

L. Vermont considers and addresses the impacts which environmental degradation, particularly changing climate, has had and will continue to have on outdoor recreation in Vermont.

The projected rise in annual temperatures, the shortening of the winter season, and an increased unpredictability of precipitation events pose challenges to outdoor recreation in Vermont. At the same time, these changes and challenges may provide opportunities for the expansion of warmer weather recreational activities, as colder weather activities become less viable.

Outdoor recreation activities associated with the winter season, which generate over \$1 billion of revenue in the state annually, are likely to experience the most significant changes, with much less reliable snowpack and snowfall conditions anticipated, along with a substantial decrease in the length of the skiing, snowboarding, and snowmobiling seasons. By the end of the century, the number of snow-covered days in the Northeast is expected to decrease to as few as 27 to 40 days. Sports such as snowmobiling, cross-country skiing, snowshoeing, and sledding, which rely on natural snow cover, are the most vulnerable to these changes. The alpine ski industry is able to offset some of the decrease in snowfall by making artificial snow, but this comes at an increased operating cost.

Annual temperatures are expected to increase by as much as 12°F by the end of the century. Rising temperatures threaten to increase the frequency of severe heat waves, which pose challenges to summer recreation in a state widely appreciated for its mild summer temperatures. Improved preparedness, education and warning systems will be essential to control the impact of extreme heat and unpredictable storm events on outdoor recreationists. Although there will be difficulties in adapting to a changing climate, Vermonters must begin thinking and planning creatively to face these difficulties. Vermont's warmer weather outdoor recreation resources will be in higher demand, creating opportunities for expansion. Investments in research and strategic planning will help create a better understanding of how the region will change, how to preserve the state's most vulnerable habitats, and how to create systems and programs that offer assistance to the outdoor recreation providers most negatively impacted by climate change, to help them adapt to new opportunities. As climate change has effects around the country and world, recreation destinations that are higher in latitude and altitude, such as many in Vermont, may become even more desirable. This issue is going to require appropriate science and research as well as sound stewardship and good communication.

Strategy:

Global climate change and its potential impacts on outdoor recreation, along with other potentially harmful environmental conditions (water pollution, sprawl, transportation, energy, etc) are considered in all proposed outdoor recreational activities and projects. Outdoor recreation pursuits themselves are conducted in ways which are as sustainable and non-polluting as possible.

Actions:

Before any new outdoor recreation project or activity is undertaken, how it could be affected by global climate change must be factored into the planning of the project.

The “carbon footprint” of transporting materials to an outdoor recreation project site (keep material “local”) and how users will get to the completed site, must be incorporated into the initial planning of a project.

Install electric vehicle charging stations at outdoor recreation facilities in Vermont

Discourage and ultimately phase out the use of all 2-cycle engines in recreational boating, ATVs, trail motorcycles, snowmobiles, etc.

September should be officially designated as Vermont’s “River Cleanup Month”.

Vermont Trails and Greenways Plan

Vision, Desired Conditions, and Goals: The Action Plan

This section presents a vision and goals for improving trails-, roads-, and greenways-related recreational opportunities in the state in the next five years.

Vision

Vermont has an interconnected and multi-use statewide trails, roads, shared-use paths, and greenways network which provides a variety of recreational opportunities for residents and visitors to the state. These opportunities offer a wide variety of choices to people of all ages and abilities, in their communities as well as in remote places. Recreational development and use does not damage important ecological and environmental resources. Users respect each other’s interests and work together to resolve conflicts. Recreation providers and users encourage appreciation and stewardship of Vermont’s natural resources and recreation infrastructure.

Desired Conditions

The desired conditions (or goals) shown below provide models to be considered when developing, using, protecting, and managing trails-related resources in Vermont. The reference in these conditions to trails resources not only refers to trails but also to roads, shared-use paths, and greenways.

- Everyone who wishes to participate in appropriate trails-related recreational activities in Vermont has an opportunity to do so.
- Vermont’s natural resources base, which provides the foundation for trails-related outdoor recreational pursuits, is conserved and enhanced.
- The quality of Vermont’s existing trails-related facilities, programming, and operations is high.

- Vermont strives to meet increasing needs for trails-related recreation by making more resources and diverse programming available.
- Vermont outdoor recreation providers and users develop creative solutions for resolving trails-related conflicts.
- The majority of private landowners in Vermont continue to allow access to their land for trails-related recreation.
- Recreation participants of all ages appreciate Vermont's natural resources, act as good stewards of natural resources and trails-related infrastructure, and treat private and public resources and other users with respect.
- Trails-related recreationists in Vermont experience health and well-being benefits, and communities that provide outdoor trails become healthier and receive economic benefit.
- Information about Vermont's trails-related recreational opportunities is provided in user-friendly ways and directs people to appropriate places.
- There is strong administrative support for trails-related recreation in Vermont.
- User groups encourage and sponsor environmental education and stewardship in their programs and messaging.

There are numerous strategies that may be used to implement the vision and desired conditions for trail resources in Vermont. Although entities that will implement this plan are not mentioned specifically in each strategy, they include government at all levels; other providers such as private landowners, businesses, and nonprofit organizations; user groups; and recreationists themselves. These strategies are not presented in any particular order of importance, and note that some strategies could apply to more than one category.

Goals for Protecting Existing Trail Resources

The following goals can help Vermont keep its existing trail resources:

- Landowners who allow public access to their lands should be knowledgeable of the liability protections for and benefits of doing so.
- Landowners understand the advantages they gain by granting access or conservation easements for use by trails recreationists.
- New landowners are provided information about land use traditions in the state.
- Providers and user groups appropriately publicize trails and release maps about trail resources, keeping in mind the sensitivity of trails as well as the concerns of private landowners.
- Landowners understand how "posting land" works in Vermont.
- Cities and towns protect and manage Class 4 roads and their town trails as places for recreation and help to provide vital connections to trail systems and other public lands.
- Trails of local and statewide significance are permanently protected through land acquisition or purchase of rights in land.

- Land acquisition is used as a tool to protect recreational trails.
- Public trails are monitored and managed to prevent overuse; to conserve resources for permissible low impact activities.
- Landowners should be knowledgeable concerning liability issues
- Maintain status of current conditions and assure trail design is appropriate and safe for designated uses.

Goals for Developing Trail Resources

Providers and user groups consider the following goals when developing new trails:

- Respect ecological diversity.
- Coordinate with pertinent town, regional, statewide, and transportation plans.
- Determine the types of trail-related experiences that are being provided and where trails may be sited to ensure a wide variety of experiences throughout the state, using the Recreation Opportunity Spectrum evaluation system.
- Cooperate with each other and form partnerships to gain more funding options and to resolve siting issues and other concerns.
- Minimize impacts to wildlife and habitats, waters, and other natural resources.
- Minimize disturbances to historic and cultural resources when siting trails.
- Consider the needs of people with disabilities, youth, those with low incomes, and people from a variety of ethnic groups, for example.
- Maintain the scenic character of the area through which the trail is located.
- Follow laws and procedures for siting trails in safe locations, using proper materials and signage.
- Promote multi-use networks
- Ensure trail resources have adequate access.
- Design trails for the degree of anticipated use, or greater capacity, by intended user group.
- Assist private landowners with permits and other requirements that may be needed for trails on their lands, (e.g., Act 250 and storm water runoff) or act to confirm situations where trail projects are exempted.
- In situations not subject to Act 250 or stormwater permit jurisdiction, work with the Vermont Department of Environmental Conservation to ensure that trail construction and maintenance activities are carried out to minimize erosion impacts to adjacent surface waters.
- Encourage towns which charge impact fees for development to earmark some of those funds for outdoor recreation projects.
- Modify the requirement that small bicycle and pedestrian improvement projects require a conceptual alignment analysis, providing more flexibility and less expense.

- Recognize and reward cooperating landowners.
- Determine level of trail accessibility for all users and develop trails to the highest level of accessibility that is feasible, using the Universal Trails Assessment Process (UTAP).

Goals for Managing and Maintaining Trail Resources

Providers and user groups employ the following strategies when managing and maintaining trail resources:

- Encourage shared use of trail resources and designate multi-use trails wherever possible, where appropriate, and by considering the interests of all users.
- Ensure the safety of trails through the use of commonly accepted trail design standards, education of users, and by keeping trails in good condition.
- Maintaining trails, including Class 4 roads, in good condition so that impacts to natural resources, including adjacent waters, are minimized.
- Improve, reroute, or rehabilitate overused areas with new, sustainable measures.
- Encourage participation of volunteers in managing and maintaining trails.
- Monitor trail use and condition, determine the carrying capacity of trails, and set up a reporting system for heavily-used and/or popular trail resources.
- Discontinue use of overused areas and/or divert use to other areas.
- Secure additional funds for law enforcement to patrol trails and trailheads.
- Promote the use of environmentally-friendly equipment, materials, and maintenance techniques.
- Recognize and reward cooperating landowners.
- Coordinate trail-related activities with other users and user groups.
- Anticipate conflicts and involve all stakeholders in seeking solutions.
- Maintain scenic character of surrounding areas by discouraging development where vistas from trails are located.
- Publicize trail resources appropriately so that overuse does not occur, damage to fragile natural resources is avoided, and people are appropriately directed to the experience they seek.
- Coordinate with emergency service providers when needed.
- Investigate the implementation of user fees where appropriate and feasible.

Goals for Using Trail Resources

Providers and user groups employ the following strategies when using trail resources:

- Encourage trail users to comply with trail ethic (see page 97)
- Follow laws, safety rules, and use restrictions.
- Stay on legally designated trails, and use only trails appropriate for the activity.

- Encourage and show respect for the land, landowner, facilities, and all other users.
- Members of motorized vehicle user groups have adequate insurance and proper registration, pass safety courses, respect non-motorized trails and users, adopt suitable trail standards, and enforce the rules.

Goals for Providing Support for Trail Resources

The following goals can help enhance support for Vermont's trail resources:

- Promote and develop trails that are part of the Vermont Trails System.
- Statewide coordination is provided for mapping, information dissemination, website services, and training for grant writing and marketing.
- There is adequate law enforcement to deter illegal trail-related behavior.
- User groups have support from and endorsement of the state and other partners when providing information to the public.
- More funding sources are sought and made available to trail providers and user groups for trail protection, development, management, and maintenance.
- User groups receive assistance from the state for mandatory liability insurance for trails.
- Better communication is facilitated between and within agencies and user groups, and mediation services are used when needed to resolve conflicts.
- The benefits of Vermont Trail System designation are clarified, and these trails receive more recognition.
- Awareness is raised regarding trails-related issues, including the public's right to access Class 4 roads; and those which may be appropriate to maintain as recreational trails.
- A permitting system developed specifically for low-impact recreation trails. This permitting system would ideally use a minimum impact threshold with impact occurring under the threshold requiring a notification of work being performed along with verification that work is not occurring in a sensitive area (having historic significance or through an area known to accommodate an endangered species for instance), also, work would need to be completed using a "best-standards for recreation trail construction". There would be a tiered system above the minimum impact threshold with a higher degree of permitting needed for projects that have higher degrees of impact.
- Exploration of other options for secure sources of funding for recreation trails. The federally managed Recreational Trails Program Funding has been reduced in recent years. Vermont has many options to diversify the funding opportunities for statewide recreation trails. Some suggestions include but are not limited to:
 - Lifting the \$370,000 cap on the Vermont Recreation Trails Program Funds
 - Creating "recreation trails" license plate
 - Creating a lottery ticket with proceeds going to support Vermont's Trails and Greenways, similar to the Maine Outdoor Heritage Fund

- Exploration of other options for secure sources of funding for recreational trails. While for many years federal RTP funding has consistently provided Vermont with a source of funds, changes at the federal level place Vermont's Recreational Trails Program at risk.

Appendix A: Vermont Wetlands Conservation Strategy: 2012 Update

The Emergency Wetlands Resources Act of 1986 (P.L.99-645) required that each state include in its Comprehensive Outdoor Recreation Plan guidelines for the acquisition of important wetlands. The *Vermont Wetlands Conservation Strategy* published in 1994 continues to serve as the state's plan for conserving and managing Vermont's wetlands. This appendix to the 2012 plan is the third update to the 1994 strategy document.

Wetlands are identified as one of five natural resource features on the Vermont Conserved Lands Database, which indicates in GIS format the distribution of these features throughout the state. Of the more than 330,000 acres of wetlands in Vermont, most are forested wetlands, with lesser amounts of shrub swamps, emergent marshes and wet meadows. Bogs, fens and vernal pools are special wetland types that cover even fewer acres, but are important in their natural heritage value. Wetlands occur throughout Vermont; marshes and forested swamps are most numerous in the Lake Champlain basin and in the northeastern corner of the state. It has been estimated that one-third of Vermont's wetlands have been drained or filled since European settlement. A majority of wetland loss occurred in agricultural areas of the Lake Champlain basin.

A. Major accomplishments toward conserving wetlands in the state:

- Conservation of priority wetlands: wetlands along Lake Champlain and in the northeast region of Vermont are priority wetlands, especially for waterfowl habitat and water quality protection. As resources allow, the state continues to acquire wetlands in each of the priority areas. Partners include Ducks Unlimited, the Nature Conservancy, the UD Department of Agriculture, and the US Fish and Wildlife Service.
- Wetland Reserve Program: administered by the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS): restoration and conservation of wetlands on agricultural lands through perpetual easements and acquisitions. It should be noted that at the time of the writing of this SCORP, the Farm Bill has not yet been passed, and that the continuation of the Wetlands Reserve Program is on hold pending the outcome of Farm Bill deliberations.
- Ecosystem Restoration Program: as part of the Department of Environmental Conservation, Watershed Management Division, this program started as the Agency of Natural Resources "Clean and Clear" Program focused primarily on the restoration of Lake Champlain through phosphorus reduction efforts. Wetland restoration and conservation through easement or purchase are part of this strategy.
- Identification of wetland restoration sites in the Lake Champlain Basin: a workgroup funded by the Clean and Clear Program identified and mapped hundreds of sites and thousands of acres of land suitable for restoration in the Lake Champlain basin.
- A partnership between Ducks Unlimited, Vermont DEC, the US F&W Service, and the USDA is making good use of the dollars available through the Wetland Reserve Program for developing and implementing restoration and conservation projects. Over 1,000 acres of wetlands have been restored and conserved through this partnership. Using the information from the wetland restoration sites report, projects

were able to be strategically targeted along tributaries to Lake Champlain; especially along the Otter Creek and its tributaries.

B. Legal Protections:

The following legal developments involving wetland protection have occurred since the last update to the Strategy:

The US Army Corps of Engineers issued a new General Permit for Vermont in 2007. This permit was renewed again in 2012, and may be replaced by a New England Regional Permit in 2013. The Corps' permit has lowered the threshold to "non-reporting" projects to 3,000 square feet. Projects along Lake Champlain are all required to apply for a permit; there are no non-reporting projects along Lake Champlain or other international waters.

The Vermont Wetland Rules underwent major revisions in 2010. The most important change of the revisions was to provide legal protection for all of Vermont's "significant" wetlands. Prior to the Rule changes, only wetlands shown on the Vermont Significant Inventory Maps, and wetlands contiguous to the mapped wetlands, were protected under the Rules. Now, unmapped wetlands can be protected under the Rules if they are found to provide significant functions and values, and can be added to the maps.

The wetland classification scheme remains the same:

- Class One wetlands are those wetlands that are "exceptional and irreplaceable in their contribution to Vermont's natural heritage" and deserve the highest level of protection;
- Class Two wetlands are those wetlands that provide a significant level of wetland functions and values. As spelled out in the Rules, these functions include: storage for floodwater and stormwater; surface and ground water protection; fish habitat; wildlife and migratory bird habitat; recreation and economic value; exemplary natural community; rare, threatened and endangered species habitat; open space and aesthetics; and shoreline stabilization and erosion control.
- Class Three wetlands do not provide these functions at a significant level and are not protected under the Rules.

The new Rules allow the Agency of Natural Resources to make Class Two and Class Three determinations, instead of the Natural Resources Board, and other determinations that were under the purview of the Board. Class One determinations must go through the "Rules" procedure of the legislature.

(Since the last update, the Lake Bomoseen Marsh, which had been classified as a Class One wetland, was found on appeal to have not gone through the proper procedure for reclassification, and is now a Class Two wetland.)

As a result of these changes, the Agency can protect vernal pools and can prescribe adequate buffers around Class Two wetlands to protect their functions.

In 2011, the legislature gave rulemaking authority involving wetlands to the Agency. Now the Agency will make determinations regarding Class One wetlands before initiating rulemaking.

The Agency will make recommendations based on a case-by-case basis from petitions or on a list of candidate wetlands proposed by Agency staff. Statewide inventories of many wetland community types have been completed, and exemplary examples of these communities have been identified:

Barnard Fen, Barnard
Barton River Marsh, Coventry
Black River Marsh, Coventry
Chickering Fen, Calais
Clyde River marshes, Charleston and Brighton
Colchester Bog, Colchestery
East Creek, Orwell
Flagg Pond Cedar Swamp, Wheelock
Franklin Bog, Franklin
Lewis Creek wetlands, Ferrisburgh
Little Otter Creek, Ferrisburgh
Maple Grove Swamp, Pownal
Middle Road Swamp, Pownal
Missisquoi Delta wetlands, Swanton
Molly Bog, Morristown
Moose Bog, Ferdinand
Mud Creek wetlands, Alburg
Otter Creek wetlands:
 Brandon Swamp
 Cornwall Swamp
 Leicester Swamp
 Salisbury Swamp
Peacham Bog, Peacham
Pherrins River wetlands complex, Morgan
Pownal Bog, Pownal
Sandbar wetlands, mouth of the Lamoille River
Shelburne Pond wetlands
Stoddard Swamp, Peacham
Vernon Black Gum Swamp, Vernon
Victory Basin wetland complex
Winooski River mouth wetlands:
 Half Moon Cove
 Deerway Island
Yellow Bogs, Nulhegan Basin, Essex County

Wetland Inventories and Significant Wetland Community Types:

Wetlands identified as vernal pools, headwater wetlands, dwarf shrub bogs, fens, alpine peatlands, and red maple-black gum swamps are significant wetlands under the new Rules.

Most of these wetland community types have been inventoried by the Natural Heritage Program and are available on the Agency's Environmental Interest Locator Maps.

C. Statement of Compliance with Section 303 of the Emergency Wetlands Resources Act of 1986:

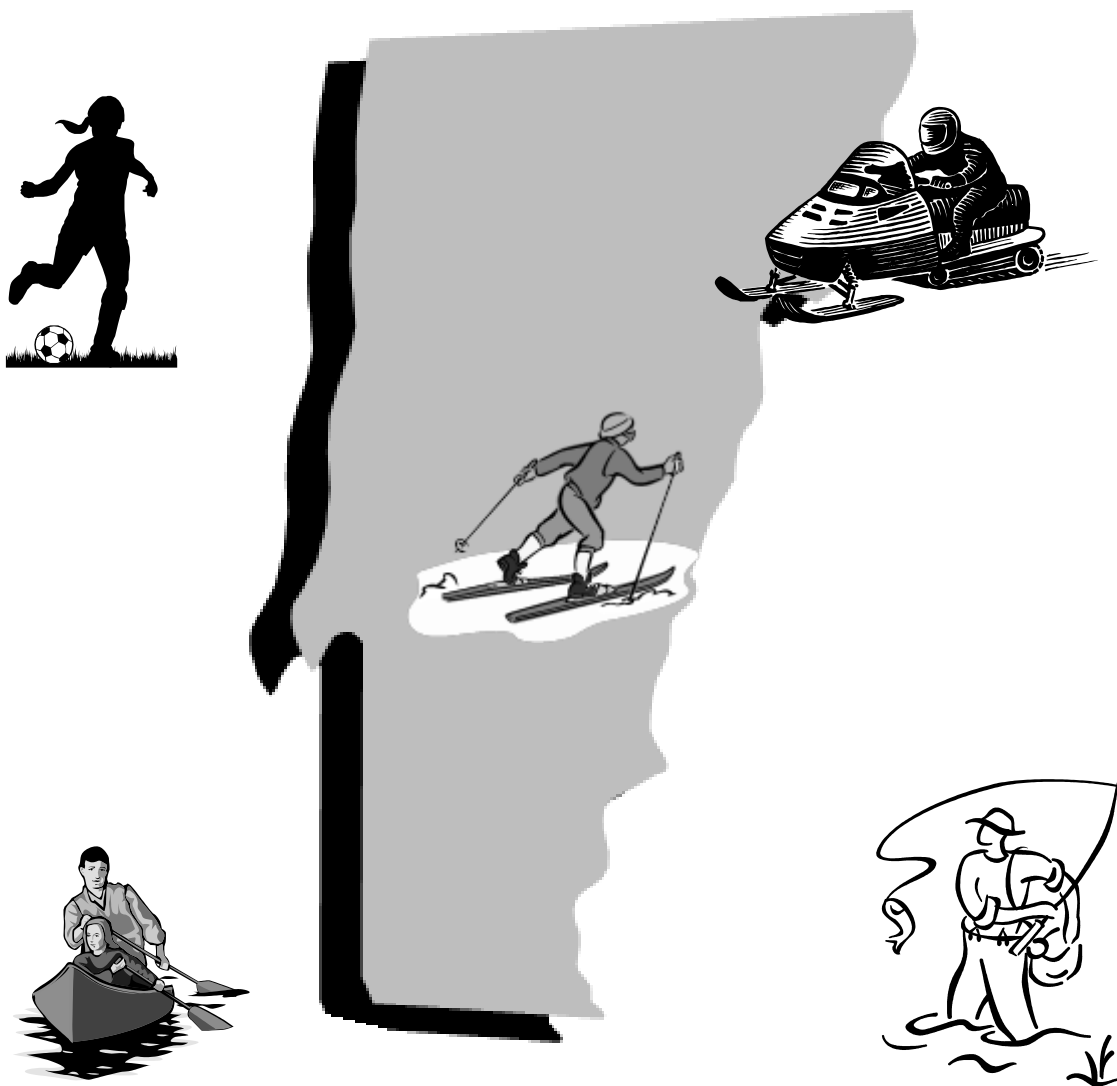
This recreation plan is consistent with the National Wetlands Priority Conservation Plan, prepared by the U.S. Fish and Wildlife Service.

Preparation of this plan involved coordination with the Vermont Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

The Vermont Agency of Natural Resources will continue to make the acquisition of wetlands for fish and wildlife habitat a priority as stated in the *Vermont Wetlands Conservation Strategy*, 1994.

**Appendix B: Full survey results from the 2011 Outdoor Recreation
Demand Survey**

**Final Report - Vermont Outdoor Recreation
Demand Survey 2011**



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METHODS

This research used a mailed survey to a stratified random sample of 2000 Vermont residents. Names for the sample were randomly selected by county of residence and were proportionate to the total population for each county (see Table A below). Names were purchased from Infogroup, a firm that provides mailing lists for marketing research. In stratifying the sample, six of the counties (Caledonia, Essex, Grand Isle, Lamoille, Orange, and Orleans) were oversampled to ensure sample sizes would be large enough to perform valid county level comparisons. Responses in the oversampled counties were then weighted to ensure a representative sample.

Table A. Sample size by county of residence.

County	Sample Size
Addison	104
Bennington	103
Caledonia	100
Chittenden	430
Essex	100
Franklin	136
Grand Isle	100
Lamoille	100
Orange	100
Orleans	100
Rutland	178
Washington	166
Windham	123
Windsor	160
Total	2000

To encourage respondents to participate, we used a 5-contact protocol. First we sent an introductory letter on July 5, 2011 that notified each respondent that they would be receiving a questionnaire in the mail within a few days, explaining the purpose of the study, and asking them to participate. Second, we sent a questionnaire with a cover letter on July 11, 2011. In the cover letter, we elaborated on the purpose of the study, ensured the confidentiality of their responses, and again requested their participation. Third, we sent a follow-up postcard on July 22, 2011 thanking those who had responded and reminding those who had not responded to the questionnaire. Fourth, we sent a second questionnaire and cover letter on August 10, 2011 to non-respondents. The cover letter was more urgent in its request to participate, and the second questionnaire was provided in case the respondent had misplaced the first one. Finally, we began phoning non-respondents on August 23, 2011. Our goal was to speak with or leave a voice message at least once with each person who had not yet responded to the questionnaire. These procedures yielded the following dispositions (see Table B below).

Table B. Response disposition of survey administration.

	Number	Percent
Undeliverable	155	7.8
Temporarily Away	6	0.3
Deceased or Too Elderly	24	1.2
Refused	9	0.5
Returned	853	47.0

The response rate was calculated by removing from the sampling frame respondents with undeliverable addresses, those who were temporarily away, and those who were deceased or too elderly - i.e., $(155+6+24)-2000 = 1815$. Then we divide returned responses by 1815 in the valid sampling frame to get a 47.0% response rate.

To test for sampling bias, we did a non-response follow-up. We phoned a randomly selected subgroup of the non-respondents ($n=87$ or 9.5% of the non-respondents) and asked them a subset of the questions that were included in the original survey. Specifically we asked about their overall interest in outdoor recreation, age, gender, education, employment, and marital status. Table C shows the comparisons between respondents and non-respondents on each of these measures.

Table C. Comparisons between respondents and non-respondents (unweighted data).

	Respondents	Non-respondents	p
Outdoor Rec. Importance (mean)	3.1	2.9	ns
Age (mean)	56.5	60.7	.01
Gender (percent female)	.35	.40	ns
Education (mean)	3.9	3.7	.00
Employment (chi-square)	13.3 (df=4)		.01
Marital Status (chi-square)	15.6 (df=5)		.00

The results showed that there was no difference between respondents and non-respondents in the gender ratio and the overall importance of outdoor recreation in their daily lives. There were differences in the other four measures that we tested. Non-respondents tended to be older and have less education. Non-respondents were more likely to be retired or unemployed, and therefore less likely to be working full time than respondents. Finally, non-respondents were more likely to be divorced and more likely to be widowed than respondents. In sum, the primary driver of these socioeconomic differences was age - non-respondents were an older group more likely to be retired, widowed, and no longer working full time.

To correct for these age differences, and to ensure a sample that is representative of the entire Vermont population we used an iterative weighting process that corrected for sample and population differences in age, residence (by county), income, employment, and marital status. In addition, a common source of sampling bias in recreation participation studies is the risk of

oversampling active participants and undersampling those who do not participate. We therefore weighted on the non-respondent outdoor recreation importance measure.

RESULTS

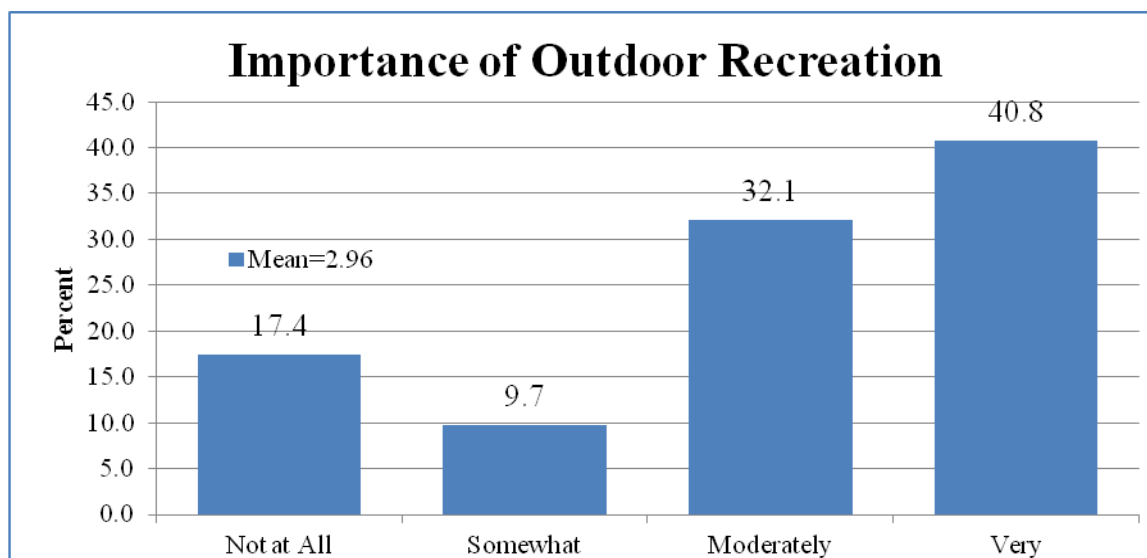


Figure 3 Importance of Outdoor Recreation

A large percentage of Vermonters take their outdoor recreation pursuits seriously. Two out of five households in Vermont (40.8%) say that outdoor recreation is “very important,” while another third (32.1%) say it is moderately important in their household. Based on 2010 census figures, this means that more than 116,000 households or 284,000 people in Vermont say that outdoor recreation is “very important” in their everyday lives. A little more than one in four households stated that outdoor recreation was either “not at all important” (17.4%) or “somewhat important” (9.7%).

Most Vermonters are generally happy with existing recreation facilities in the state. A third of the respondents said the outdoor recreation facilities in Vermont were “very good” (34.3%), and another fourth said the facilities in the state were “excellent” (24.8%).

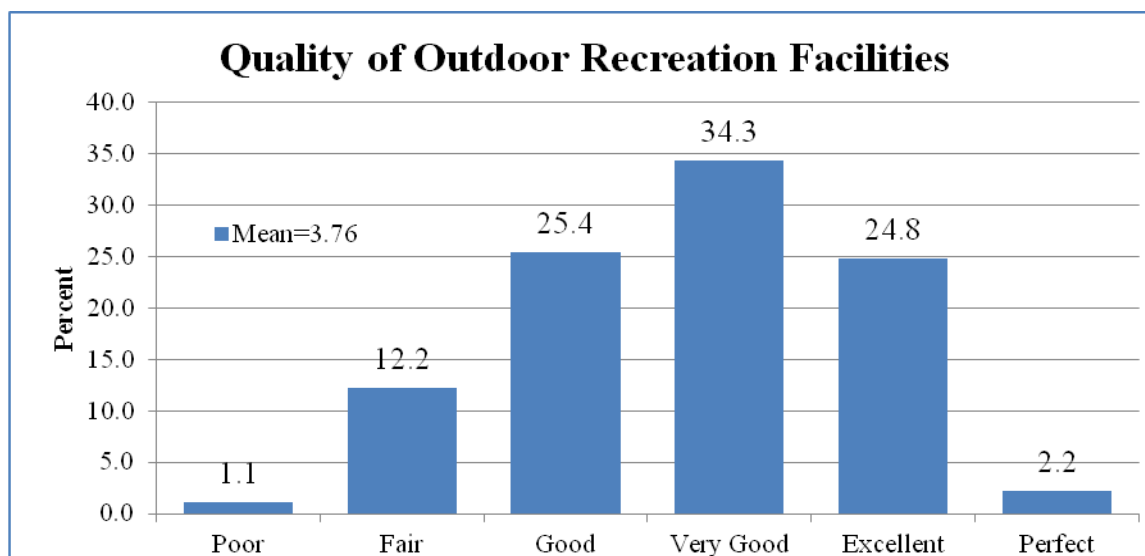


Figure 4 Overall quality rating of Outdoor Recreation Facilities in Vermont

Favorite Outdoor Recreation Activities

Table 1. Favorite outdoor recreation activity.

Activity	Number*	Percent
Hiking	181	16.0
Walking	103	9.1
Hunting	102	9.0
Fishing	100	8.8
Swimming	76	6.7
Bicycling	65	5.7
Camping	45	4.0
Snowshoeing	33	2.9
Snowmobiling	32	2.8
Skiing (not specified)	31	2.7
XC Skiing	29	2.6
Kayaking	25	2.2
Downhill Skiing	23	2.0
Golf	22	1.9
Boating	22	1.9
Running/Jogging	22	1.9
4-Wheeling	21	1.9
Snowboarding	18	1.6
Gardening/Yard Work/Farming	16	1.4
ATV	14	1.2
Mountain Biking	13	1.1
Fly Fishing	12	1.1
Picnicking	9	0.8

Ice Fishing	8	0.7
Lakes/Beaches	8	0.7
Sledding	8	0.7
Horseback Riding	7	0.6
Sightseeing	7	0.6
Water Sports	7	0.6
Ice Skating	6	0.5
Driving	6	0.5
Baseball	5	0.4
Parks	5	0.4
Sailing	5	0.4
Basketball	4	0.4
Tennis	4	0.4
Rock Climbing	4	0.4
Motorcycles	4	0.4
Racing (cars, motocross)	4	0.4
Canoeing	3	0.3
Gold Prospecting	3	0.3
Photography	3	0.3
Backpacking	2	0.2
Shooting	2	0.2
Dog Walking/Training	2	0.2
Water Skiing	2	0.2
Frisbee	2	0.2
Outdoor Trail Rescues	1	0.1
Lacrosse	1	0.1
Bird Watching	1	0.1
Jet Skiing	1	0.1
Wildlife Watching	1	0.1
Skateboarding	1	0.1
Soccer	1	0.1

* - Number exceeds total respondents because many respondents listed more than one favorite activity.

Table 1 shows that hiking and walking were the most favored activities among Vermonters. Hiking was the most frequently favored outdoor recreation activity by a substantial margin. Hiking comprised 16% of all the favorite activities mentioned. This was followed by walking, which accounted for 9.1% of the favorite activities mentioned.

Hunting and fishing were the next most favored activities among Vermonters. Hunting was listed 9.0% of the time while fishing was mentioned 8.8% of the time. When fly fishing is added to fishing, the two activities combined surpassed walking in popularity, comprising 9.9% of the favorite activities mentioned.

The next most favored activities in Vermont included swimming (6.7%), bicycling (5.7%) and camping (4.0%). A variety of winter sports followed these activities in popularity, including snowshoeing (2.9%), snowmobiling (2.8%), skiing (2.7%) and cross country skiing (2.6%). A number of people did not specify what type of skiing they favored (downhill or cross country). If we combine all skiing categories (skiing, cross country skiing, and downhill skiing), then the various types of skiing activities combined were mentioned 7.3% of the time as a favored activity.

Finally, kayaking was listed as a favorite activity 2.2% of the time. The remaining activities were each mentioned less than 2.0% of the time, and can be reviewed in the Table above.

Travel Distance

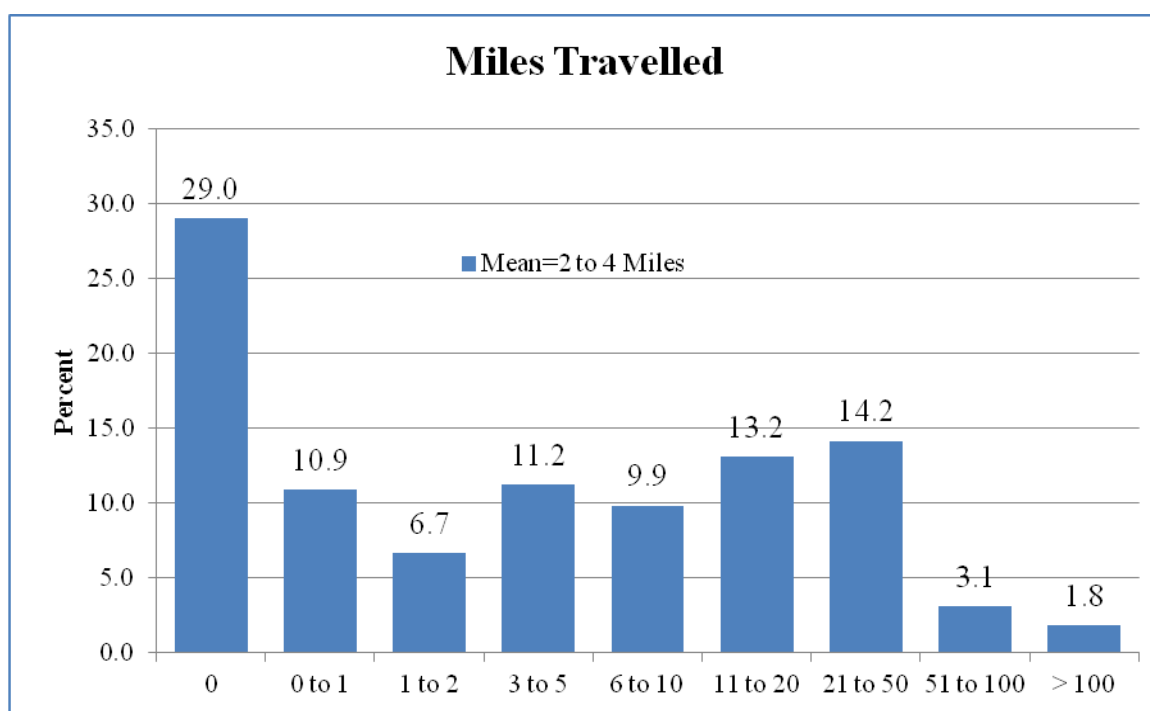


Figure 5 Miles Travelled to Participate in Favorite Outdoor Recreation Activity

Vermont historically has done a good job of providing outdoor recreation opportunities close to home. More than one-fourth of the sample (29.0%) was able to participate in their favorite outdoor recreation activity by stepping out the back door of their home. This means that as many as 74,000 households and approximately 181,000 Vermont residents do not have to travel away from home to participate in their favorite outdoor recreation activity. More than a third of the sample (38.7%) was able to participate in outdoor recreation within 10 miles of their home. Conversely, just under a third (32.3%) travelled more than 10 miles from home to participate in their favored outdoor recreation activity.

Outdoor Recreation Demand

To estimate demand, we first calculated the proportion of Vermont households that participated in a variety of outdoor recreation activities. As a lead in to each activity section in the questionnaire, we asked respondents “Did you or any member of your household participate in any of these activities in Vermont during the past 12 months?” We then multiplied the proportion of people who had participated by the total number of Vermont households reported in the 2010 Census (256,442 households). Next we estimated the total number of participants in each activity by multiplying the number of households by the number of people in each household that participated in the activity.

Actual Demand/Potential Demand. When comparing our estimates with available baseline data such as hunting and fishing license sales, snowmobile registrations, skier days, etc., we found that our estimates tended to be roughly 10% to 20% higher than what might be expected. There are at least two reasons for this. First, we measured outdoor recreation participation at the household level. This method of estimation includes participation by children, which is a factor often missed in participation surveys of adults 16 and over. Childhood (and household) participation is also not accounted for in measures such as snowmobile registrations, OHV/ATV registrations, boat registrations, or fishing license sales. Second, while we asked people to report outdoor recreation participation “during the past 12 months,” it was apparent that some respondents ignored this stipulation and reported on “typical” participation in activities. For example, while some respondents may have thought of themselves as deer hunters, it is likely that some may not have purchased a 2010 hunting license and may have skipped a year of deer hunting for a variety of reasons.

Consequently, our estimates represent a combination of actual demand (participation in the previous 12 months) and potential demand (intermittent participation by people who self-identify as activity participants). The proportion of potential demand in our estimates is likely to be conservative. There may be participants who self-identify as participants in an activity, but who also read the instructions correctly and had not participated in the previous 12 months. Nevertheless, the participation estimates are an indicator of both engagement and interest in outdoor recreation activities among Vermont residents.

Table 2 – Participation in outdoor recreation activity categories

Activity Category	Percent	VT Households
Outdoor sport	70.2	180,022
Picnicking, sightseeing, touring	68.3	175,149
Swimming-related	68.1	174,637
Snow-related	61.2	156,942
Non-motorized	55.7	142,838
Nature-related	54.7	140,273
Boating-related	41.0	105,141
Fishing-related	36.3	93,088
Hunting-related	28.7	73,598
Motorized	25.8	66,162

Table 2 shows the total outdoor recreation participation in general categories of activities during the previous 12 months (see Table 3 through Table 13 below for detailed activity analysis). Almost three fourths of the sample (70.2%) participated in some form of outdoor sports such as walking, jogging, tennis, golf, baseball, or soccer. When extrapolated to the Vermont population, it means that someone from over 180,000 households participates in one of these types of outdoor recreation opportunities traditionally provided by municipal recreation departments.

Table 2 also shows that more than two thirds of the sample participated in picnicking and sightseeing activities (68.3%) and swimming and beach related activities (68.1%). Three out of five households in Vermont participated in snow/winter related outdoor activities (61.2%).

Non-motorized activities such as backpacking, camping, hiking, and bicycling followed in popularity with 55.7% of the sample, while nature-related activities such as bird watching, outdoor photography, collecting edible plants, and geocaching followed with 54.7% of the sample participating in these activities over the previous 12 months.

Finally, boating, fishing, hunting, and motorized (OHV, ATV, motorcycles) activities were less popular among Vermonters. Fewer than half (41.0%) participated in boating activities such as canoeing, kayaking, power boating, or sailing. A little more than a third participated in fishing related activities (36.3%), and just over 1 in 4 Vermonters participated in hunting related activities (28.7%) and motorized sports (25.8%).

Actual and Potential Demand for Outdoor Recreation Activities

Table 3 – Participation in picnicking, sightseeing, and heritage related activities.

	Percent of Households	Total Participants	Percent Participants
Picnicking/Sightseeing/Touring	68.3		
Picnicking	45.4	337,632	54.0
Sightseeing/Driving for Pleasure	45.9	255,424	40.8
Visiting Cultural/Historic Sites	35.2	211,226	33.8

Picnicking, sightseeing, and visiting museums were popular activities among Vermonters. More than two thirds (68.3%) of the respondents said that someone in their household had participated in picnicking or sightseeing types of activities in the previous 12 months. Over half the population (54.0%) had picnicked outdoors, and 2 in 5 Vermonters had taken a sightseeing excursion (40.8%). The questionnaire did not ask about the primary purpose of one's trip, so it is possible that picnicking and sightseeing were combined with other recreational or work related activities. Nevertheless, Vermont's scenic amenities offer ample opportunity for picnicking and sightseeing types of activities. In addition, Vermont's cultural amenities and historic sites attract one third of Vermont's residents (33.8%) each year

Table 4. Participation in fishing related activities.

	Percent of Households	Total Participants	Percent Participants
Fishing Activities	36.3		
Fly Fishing	5.1	20,272	3.2
Lake Champlain – Boat	10.4	45,606	7.3
Lake Champlain – Shore	11.8	55,981	8.9
Lake Champlain – Ice	6.2	26,711	4.3
Pond – Boat	14.1	67,616	10.8
Pond – Shore	17.6	91,170	14.6
Pond – Ice	6.1	25,654	4.1

More than one-third of the respondents to the survey (36.3%) reported participation in at least one of the fishing related activities. The most common fishing activity was freshwater fishing on Vermont lakes and ponds, with 14.6% of the state's population fishing from shore and 10.8% fishing from a boat. Similarly, 8.9% of the state's population fished Lake Champlain from shore, while 7.3% fished on Lake Champlain from a boat. Fly fishing and ice fishing were more specialized activities with just over 4% of the population participating in ice fishing and 3.2% participating in fly fishing. When adding the seven different fishing activities together, the results showed that 159,763 Vermonters are anglers, or 25.5% of the population.

We note that the 36.3% household participation rate is larger than estimates from the 2006 U.S. Fish and Wildlife National Survey on Fishing, Hunting and Wildlife Associated Recreation. They estimate that 14% of the Vermont population participated in fishing in 2005. We also note that the Vermont Department of Fish and Wildlife sold 86,959 resident fishing licenses in 2010, which is 13.9% of the state's population. We attribute this discrepancy to childhood participation - children less than 16 years old are not required to purchase a fishing license. We also attribute this discrepancy to "potential demand." Some people apparently did not read the "in the past 12 months" statement, and so the estimate includes people who fish in Vermont, but who perhaps did not buy a 2010 or 2011 fishing license.

Table 5 – Participation in hunting and gun related activities.

	Percent of Households	Total Participants	Percent Participants
Hunting Activities	28.7		
Big Game (Deer, Moose)	25.6	87,970	14.1
Upland Bird/Small Game	12.8	45,626	7.3
Waterfowl	4.8	14,402	2.3
Trapping	0.2	631	0.1
Target Shooting (pistol, rifle)	14.7	59,938	9.6
Skeet/Trap/Sporting Clay	6.7	24,398	3.9

Big game hunting, which for most Vermonters means deer hunting, was the most popular form of hunting in the state. Nearly 88,000 Vermont residents (14.1%) participated in this type of hunting. About half that many (7.3% or just under 46,000 people) hunted small game and upland birds (pheasant, grouse, etc.). Only a small proportion of the state’s residents hunted waterfowl (2.3% or just over 14,000 people). Most hunters who hunt small game/upland birds and who hunt waterfowl also hunt big game as well. However, less than 1% of the respondents who hunted either small game or waterfowl did not hunt big game. When adding the three hunting groups together, 26.3% of the respondent households had hunted at least one of the three types of game, or a total of 90,375 Vermont hunters (14.4% of the population.)

We note that the State of Vermont sold 68,723 resident hunting licenses (youth and adult) in 2010. So these hunting estimates clearly contain “potential demand” among people who self-identify as hunters, but who apparently did not purchase a hunting license in 2010. We also note that our estimates are lower than those provided by a 2007 Responsive Management study (Duda et al, 2007). They estimated that 18% of Vermont residents had hunted in the previous 12 months, 23% in the previous 5 years, and 41% had hunted at some time in the past.

Finally, fewer than 1000 people participated in trapping in Vermont. Nearly 1 in 10 Vermonters (9.6%) participated in target shooting, while almost 25,000 people (3.9%) participated in skeet, trap, or sporting clay shooting.

The questionnaire also asked if hunters primarily hunted on public or private land. The results showed that 28.0% of big game hunters hunted on public land, 36.5% of the upland game hunters used public land, and 48.8% of the waterfowl hunters used public land for most of their hunting. A small proportion used federal lands (Green Mountain National Forest, Silvio Conte NWR), while most used state wildlife management areas, state forests, and state parks. The most frequently mentioned state public hunting locations were Alburgh Dunes State Park, Steam Mill Brook WMA, Mad Tom Mountain, Woods Pond, Robbins Mountain WMA, Birdseye Mountain, and Lake Memphremagog. Less frequently mentioned sites included Roxbury State Forest, Knapp Pond WMA, Whipple Hollow WMA, Bill Sladyk WMA, Lewis Creek, and Shelburne Pond.

Table 6 – Participation in snow-related outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Snow-Related Activities	61.2		
Snowmobiling	16.5	70,663	11.3
Downhill Skiing	19.9	92,878	14.8
Snowboarding	12.0	55,669	8.9
Cross Country Skiing	17.2	74,543	11.9
Snowshoeing	31.2	154,419	24.7
Sledding	33.2	213,698	34.2
Ice Climbing	0.4	1,366	0.2

The results showed that sledding was the most popular snow-related outdoor recreation activity among Vermont state residents. Sledding is the ultimate family activity with more than one third of all Vermonters (34.2%) participating in this activity. Snowshoeing was the next most popular winter time recreational activity. At least one in four Vermonters have a pair of snowshoes hanging in their garage, and reported using them in the previous year - or over 154,000 state residents.

Sledding and snowshoeing were followed by downhill skiing and cross country skiing. Nearly 93,000 Vermonters participated in downhill skiing (14.8%), while nearly 75,000 residents participated in cross country skiing (11.9). Another 8.9% or 55,235 people participated in snowboarding, although there is likely to be some overlap between snowboarding and downhill skiing.

Finally, 70,663 or 11.3% of the Vermont population participated in snowmobiling. We note that there were 31,194 snowmobile registrations in 2010 with the Vermont Department of Motor Vehicles. Because our data asked respondents to report on household participation, our estimate includes multiple household users of a single snow machine – children, spouses, or other family members. In addition, our estimates likely include a proportion of people who own a snowmobile, but for various reasons may not have registered their machine in the previous year. In addition, some of the survey respondents may have used snowmobiles for ice fishing, work on their farms and forests, transportation to camps, and around their homes. If they are not using the Statewide Snowmobile Trails System, they are not required to register their snowmobiles

Table 7. Participation in boating related outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Boating Related Activities	41.0		
Canoeing	22.8	121,030	19.3
Sea-Kayaking	7.7	40,677	6.5
Whitewater (canoe, kayak)	4.1	20,503	3.3
Whitewater Rafting	0.2	702	0.1
Personal Watercraft (jetski, etc)	1.2	8,986	1.4
Power Boating	13.2	80,225	12.8
Water Skiing	6.8	35,225	5.6
Sailing	6.3	28,111	4.5
Windsurfing	0.2	1,000	0.2

Two out of five people in Vermont participated in boating related outdoor recreation activities. The preferred type of craft was the canoe, with over 121,000, or one in five people participating in this activity (19.3%). This was followed by power boating, with just over 80,000 Vermonters (12.8%) who participated in motor boating activities. Almost half of the motor boaters in the state also participated in water skiing (35,225 people or 5.6% of Vermont residents).

The data showed that 6.5% of Vermont residents kayaked, or 40,667 people. This is likely an underestimate of actual kayak participation, because in the questionnaire, we inadvertently called this activity “sea-kayaking” rather than “lake kayaking” or “flat-water” kayaking.

Less popular boating activities in Vermont included sailing (4.5% of the population), whitewater canoeing/kayaking (3.3%) and whitewater rafting (0.1%), the use of personal watercraft (1.4%), and windsurfing (0.2%).

Table 8. Participation in swimming related outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Swimming Related Activities	68.1		
Lake Swimming	50.2	293,513	46.9
Outdoor Pool Swimming	27.2	176,473	28.2
River/Swimming Hole	24.5	133,196	21.3
Sunbathing	16.1	69,362	11.1
Scuba/Snorkeling	2.3	12,268	2.0

Swimming is one of the most popular outdoor recreation activities in the state, even with the relatively short summer season. More than two-thirds of the state’s residents (68.1%) participated in a swimming related activity. Lake swimming was by far the most preferred swimming medium. Nearly half of all Vermonters - 46.9% or just under 300,000 state residents – engaged in lake swimming. More than one fourth of the state’s residents (28.2% or 176,473 people) swam in outdoor swimming pools, and one in five Vermonters (21.3% or 133,196 people) swam in rivers and local swimming holes. While sunbathing is not exclusively a swimming related activity, over 69,000 Vermonters (11.1%) engaged in sunbathing during the previous year. Finally, a small minority of people in the state (2.0% or 12,268 people) engaged in scuba diving or snorkeling.

Table 9. Participation in nature related outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Nature Related Activities	55.1		
Bird Watching	29.7	143,949	23.0
Wildlife Watching	28.7	161,181	25.8
Wildlife Photography	10.9	45,003	7.2
Nature Study	10.4	52,540	8.4
Outdoor Photography	17.5	64,623	10.3
Tracking	8.4	32,743	5.2
Collecting (forest products)	24.8	117,656	18.8
Orienteering, GPS, Geocaching	4.7	18,200	2.9

Vermont's rural landscape is ideally suited for a variety of nature oriented outdoor recreation activities from wildlife watching to outdoor photography to wildlife tracking. More than half of the state's population participated in one or more of these activities.

The questionnaire did not replicate the wildlife watching questions in the U.S. Fish and Wildlife National Survey on Fishing, Hunting, and Wildlife Associated Recreation, which asks people to report participation only if they travel one or more miles from home. The data in this study therefore includes both people who made specific trips to engage in nature-related activities, as well as people who may have participated more casually out the back door of their homes.

The most popular activities are wildlife watching (25.8% or 161,181 residents) and bird watching (23.0% or 143,949 people). These estimates include a wide variety of activities from specialized birding excursions, trips to Dead Creek for the Snow Goose migration, and visits to moose habitat to more casual activities like bird feeders in the back yard, rabbits in the garden, and deer grazing in the field across the street.

Collecting activities such as mushrooms, fiddlehead ferns, or pick-your-own fruit farms are also popular in Vermont with over 117,000 participants (18.8%) in these types of activities.

The data showed that as many as one fourth out of the 55.1% of Vermonters who participated in nature related outdoor recreation activities engaged in these activities out their back door. One in five people reported that they participated in bird watching 365 days out of the year, and an additional 7.8% reported participating in bird watching more than 100 days during the year. This likely represents the portion of participants who have bird feeders in their yards. Similarly, 18.0% said they participated in wildlife watching 365 days out of the year, while an additional 4.4% participated in wildlife watching more than 100 days during the year. This likely represents the proportion of people who frequently can see rabbits, squirrels, deer, or perhaps coyotes from their homes or places of work.

Three other activities had a similar "backyard" quality to the frequency of participation. Among respondents, 12.0% said they engaged in nature study 365 days out of the year, while another 5.9% participated in this activity more than 100 days a year. Similarly, 7.1% said they took photos of wildlife 365 days a year, while an additional 5.7% participated in wildlife photography more than 100 days a year. Perhaps the motion sensitive cameras that deer hunters use might account for some of the frequency. Finally, 7.7% of the population engaged in wildlife tracking 365 days of the year, while another 2.8% did this more than 100 days per year.

In sum, it is difficult to sort out the people who took a trip where the primary purpose was to spot a particular bird species from the people who daily see birds from the picture window in their living room. Similarly, it's difficult in these data to know the difference between the person who participates in annual bird counts from the person returning home from visiting friends who happened to pull off the road at Dead Creek to watch the snow geese fly by.

Table 10. Participation in non-motorized outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Non-Motorized Activities	54.7		
Tent Camping – Campground	16.6	104,721	16.7
Backpacking	5.6	30,588	4.9
Hiking	40.5	212,911	34.0
Bicycling	29.5	144,492	23.1
Mountain Biking	10.7	49,665	7.9
Horseback Riding	3.7	16,700	2.7
Trail Running	4.7	13,861	2.2
Rock Climbing	2.0	8,104	1.3

All but two of the non-motorized activities that we asked about (tent camping and rock climbing) were trail related outdoor recreation activities. By far, the most popular of the trail related activities was hiking, with one third (34.0%) of the state's residents participating in this activity. This was followed by bicycling, where more than one-fifth (23.1%) of Vermonters participated in bicycling on streets, roads, and recreation paths. By most accounts, mountain biking has grown in popularity in Vermont, and 7.9% of the state's residents participated in this activity, or over 49,000 people. A small proportion of Vermonters participated in backpacking, horseback riding, and rock climbing. Only 4.9% of the state's residents spent time backpacking (just over 30,000 people), 2.7 participated in horseback riding (16,700 people), and 2.2% participated in trail running (nearly 14,000 people).

Tent camping in developed campgrounds such as state parks or private campgrounds was a relatively popular activity among Vermonters. More than 100,000 Vermonters (16.7%) camped with tents in developed campgrounds.

Finally, fewer than 10,000 people in Vermont (1.3% of the state's residents) counted themselves as rock climbers.

Table 11. Participation in motorized outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Motorized Activities	25.8		
RV Camping	7.1	48,250	7.7
OHV (Jeeps, Pick-ups, SUVs)	5.7	26,749	4.4
ATV (3 and 4 Wheel)	14.6	72,260	11.5
Motorcycles (Sport, Dirt)	8.4	34,897	5.6

All terrain vehicles were the most popular of the motorized outdoor recreation activities with more than one in ten Vermonters participating in this type of activity. We note that the frequency of use of ATVs is quite high. While participation by more than 72,000 Vermonters ranked ATV use in the middle of the pack compared with all outdoor recreation activities, ATV use was ranked number 10 among all outdoor recreation activities by frequency of use (see Table 14 and Table 15 below).

RV camping followed next in popularity with 7.7% of the population or more than 48,000 residents spending time in the state's developed campground. Sport and dirt motorcycling followed next in popularity, with 5.6% of the population participating in this activity. Finally, another 4.4% of the state's residents used off highway vehicles other than ATVs, including jeeps, pick-ups, and SUVs, as a means of participating in outdoor recreation.

Table 12. Participation in sport related outdoor recreation activities.

	Percent of Households	Total Participants	Percent Participants
Outdoor Sports Activities	70.2		
Golf	15.1	64,667	10.3
Tennis	8.9	42,680	6.8
Walking	57.0	264,571	42.3
Jogging/Running	19.7	68,201	10.9
Skate/Long boarding	2.6	8,468	1.4
Baseball, Softball	11.9	57,371	9.2
Soccer	9.9	45,952	7.3
Outdoor Basketball	8.4	39,205	6.3
Outdoor Court games	6.5	31,171	5.0
Other Team Sports	7.1	31,499	5.0

Walking was by far the most popular sport related outdoor recreation activity in Vermont. Two out of five Vermont residents (42.3%), or more than 264,000 people participated in this activity. While hiking was a trail-based activity (see Table 10 above), walking included those in the population who walk neighborhoods, streets, and recreation paths around the state. The next most popular sports activity was also a fitness related activity. More than 1 in 10 Vermonters (10.9%) participated in jogging or running, or more than 68,000 Vermont residents.

The remaining activities included individual and team sports activities. Golf was the most popular of the sports activities with 10.3% of the state's residents participating, or 64,000 people. This was followed by baseball/softball (9.2%), soccer (7.3%), tennis (6.8%), basketball (6.3%), outdoor court games like volleyball or badminton (5.0%) and other court games like lacrosse or field hockey (5.0%). Finally, a small number of Vermonters participated in skateboarding or longboarding (1.4%).

Table 13. Additional outdoor recreation activities volunteered by participants.

Other Activities	Percent	Number
Other	17.1	
Gardening		29
Ice Skating		13
Land/Wood Management		6
Cutting Wood		6
Dog Training		4
Archery		3
Fruit Picking		3
Mowing Grass		3
Pond Hockey		3
Rollerblading		3
Farming		3
Bocce		2
Guided Walks		2
Lawn games		2
Gold Panning		2
Visiting Playgrounds		2
Maple Sugaring		2
Disc Golf		1
Horse Cart Driving		1
Horseshoes		1
Landscape Painting		1
Metal detecting		1
Music Festivals		1
Outdoor Yoga		1
Rowing		1
Roller Skating		1
Tire Throwing		1
Tree Climbing		1
Visiting Cemeteries		1
Water Tubing		1
Paddle Boarding		1
Street Hockey		1
Paintball		1

A number of people in the sample (17.1%) offered other outdoor recreation activities that they participated in, which were not included in the questionnaire. The most frequently mentioned activity was gardening followed by ice skating. A number of people also mentioned other home-based activities such as yard work (lawn mowing), chopping wood, land management activities, and farming.

Table 14. Outdoor recreation activities ranked by total number of Vermont participants.

Activity	Total Participants	Percent Participants
Picnicking	337,632	54.0
Lake Swimming	293,513	46.9
Walking	264,571	42.3
Sightseeing/Driving for Pleasure	255,424	40.8
Sledding	213,698	34.2
Hiking	211,911	34.0
Visiting Cultural/Historic Sites	211,226	33.8
Outdoor Pool Swimming	176,473	28.2
Wildlife Watching	161,181	25.8
Snowshoeing	154,419	24.7
Bicycling	144,492	23.1
Bird Watching	143,949	23.0
River/Swimming Hole	133,196	21.3
Canoeing	121,030	19.3
Collecting (forest products)	117,656	18.8
Tent Camping – Campground	104,721	16.7
Downhill Skiing	92,878	14.9
Pond Fishing – Shore	91,170	14.6
Big Game Hunting (Deer, Moose)	87,970	14.1
Power Boating	80,225	12.9
Cross Country Skiing	74,543	11.9
ATV (3 and 4 Wheel)	72,260	11.5
Snowmobiling	70,663	11.3
Sunbathing	69,362	11.1
Jogging/Running	68,201	10.9
Pond Fishing – Boat	67,616	10.8
Golf	64,667	10.3
Outdoor Photography	64,623	10.3
Target Shooting (pistol, rifle)	59,938	9.6
Baseball, Softball	57,371	9.2
Lake Champlain Fishing – Shore	55,981	8.9
Snowboarding	55,699	8.9
Nature Study	52,540	8.4
Mountain Biking	49,665	7.9
RV Camping	48,250	7.7
Soccer	45,952	7.3
Upland Bird/Small Game Hunting	45,626	7.3
Lake Champlain Fishing – Boat	45,606	7.3
Wildlife Photography	45,003	7.2
Tennis	42,680	6.8
Kayaking	40,672	6.5
Outdoor Basketball	39,205	6.3

Water Skiing	35,225	5.6
Motorcycles (Sport, Dirt)	34,897	5.6
Tracking	32,743	5.2
Outdoor Court games	31,171	5.0
Backpacking	30,588	4.9
Sailing	28,111	4.5
OHV (Jeeps, Pick-ups, SUVs)	26,749	4.3
Lake Champlain Fishing – Ice	26,711	4.3
Pond Fishing – Ice	25,654	4.1
Skeet/Trap/Sporting Clay	24,398	3.9
Whitewater (canoe, kayak)	20,503	3.3
Fly Fishing	20,272	3.2
Orienteering, GPS, Geocaching	18,200	2.9
Horseback Riding	16,700	2.7
Waterfowl Hunting	14,402	2.3
Trail Running	13,861	2.2
Scuba/Snorkeling	12,268	2.0
Personal Watercraft (jetski, etc)	8,986	1.4
Skate/Long boarding	8,468	1.4
Rock Climbing	8,104	1.3
Ice Climbing	1,366	0.2
Windsurfing	1,000	0.2
Whitewater Rafting	702	0.1
Trapping	631	0.1

Table 14 reports each activity included in the survey rank ordered by the total number of people who participated in each activity. The activities with the greatest participation (top 10) included picnicking, lake swimming, walking, sightseeing/driving for pleasure, sledding, hiking, visiting cultural attractions, outdoor pool swimming, wildlife watching, and snowshoeing.

This table differs a bit from the list of favorite activities in Vermont (see Table 1 above). Hiking and walking were in the top 10 favorite activities among the state's residents, as was swimming and snowshoeing. However, also included in the favorite list were hunting, fishing, camping, bicycling, and skiing. In other words, when comparing Table 1 with Table 14, participation is not the best measure of popularity.

The outdoor recreation activities with the least amount of participation included waterfowl hunting, trail running, scuba diving/snorkeling, jet skis, skateboarding/longboarding, rock climbing, ice climbing, windsurfing, whitewater rafting, and trapping.

Participation Days

We elected not to estimate total participation days in outdoor recreation activities for two reasons. First, we found that people's recall of participation was probably not very good, and that many respondents simply rounded to the nearest 5 or 10. This is a problem in self-reported

behavior known as digit bias that generally produces exaggerated estimates. Second, we asked respondents to report on household behavior, and we have no way to distinguish between more frequent and less frequent participants within a given household. So any participation day estimates we could produce from these data would likely be too high. The data do however, allow us to rank order participation frequency (Table 15).

Table 15. Outdoor recreation activities ranked by total participant days.

Activity	Total Vermont Households	Average Annual Household Days
Walking	146,171	97.2
Jogging/Running	50,519	60.0
Bicycling	75,650	22.7
Lake Swimming	128,773	9.8
Sightseeing/Driving for Pleasure	117,706	10.7
Outdoor Pool Swimming	69,752	14.3
Wildlife Watching*	73,598	18.1
Hiking	103,859	10.6
Picnicking	116,424	6.1
ATV (3 and 4 Wheel)	37,440	27.3
Sledding	85,138	8.3
Bird Watching*	76,163	16.7
Baseball, Softball	30,516	24.4
Snowshoeing	80,009	8.7
Big Game Hunting (Deer, Moose)	65,649	13.8
Sunbathing	41,287	17.1
Collecting (forest products, fruit farms)	63,597	10.1
Golf	38,772	18.2
Snowmobiling	42,312	15.9
River/Swimming Hole	62,828	9.2
Downhill Skiing	51,031	12.0
Soccer	25,387	23.5
Outdoor Photography*	44,877	15.4
Mountain Biking	27,439	15.8
Pond Fishing – Shore	45,133	8.0
Cross Country Skiing	44,108	9.8
Nature Study*	26,669	17.7
Target Shooting (pistol, rifle)	37,696	11.1
Tennis	22,823	15.5
Power Boating	33,850	7.8
Canoeing	58,468	5.1
RV Camping	18,207	12.7
Visiting Cultural/Historic Sites	90,267	2.9
Tent Camping – Campground	42,569	5.3

Pond Fishing – Boat	36,158	8.2
Outdoor Basketball	21,541	12.7
Lake Champlain Fishing – Shore	30,260	8.6
Motorcycles (Sport, Dirt)	21,541	13.4
Snowboarding	30,773	8.3
Upland Bird/Small Game Hunting	32,824	9.3
Wildlife Photography*	73,598	9.9
Tracking*	21,541	10.5
OHV (Jeeps, Pick-ups, SUVs)	14,617	13.3
Lake Champlain Fishing – Boat	26,669	7.2
Kayaking	19,764	7.4
Trail Running	12,052	20.6
Backpacking	14,360	9.2
Water Skiing	17,438	7.8
Horseback Riding	9,388	14.7
Outdoor Court games	16,668	7.2
Lake Champlain Fishing – Ice	15,899	7.9
Waterfowl Hunting	12,309	14.1
Pond Fishing – Ice	15,642	7.9
Orienteering, GPS, Geocaching	12,052	9.6
Fly Fishing	13,078	7.7
Skeet/Trap/Sporting Clay	17,181	6.3
Skate/Long boarding	6,667	18.0
Sailing	16,155	5.2
Whitewater (canoe, kayak)	10,514	7.0
Personal Watercraft (jetski, etc)	3,077	10.1
Scuba/Snorkeling	5,898	7.3
Rock Climbing	5,128	5.1
Ice Climbing	948	**
Windsurfing	512	**
Whitewater Rafting	435	**
Trapping	384	**

* - Mean calculated from participant days of less than 100. Participation estimates may not be reliable.

** - Small sample sizes. Not reliable.

Table 15 shows the outdoor recreation activities in Vermont ranked by frequency of participation. The Table shows that walking was far and away the activity that Vermonters participated in the most. No other activity came close to this frequency of participation. The next activities that Vermonters frequently engaged in were fitness related activities, including jogging and running, bicycling, swimming, and hiking. Driving for pleasure and picnicking were also popular activities among Vermonters.

Wildlife watching and bird watching were both popular activities. However, we don't have a foolproof way to separate the back yard bird and wildlife enthusiasts from the people who made trips away from home specifically to engage in these activities.

ATV use was ranked in the top 10 activities by frequency of participation. While there were fewer than 75,000 Vermonters who participated in this activity, they did so more frequently throughout the year than participants in most other activities (a mean of more than 27 days per year). The same was true for baseball/softball and soccer participants. While there were relatively fewer people who participated in these activities, baseball/softball participants spent on average 24 days per year, and soccer participants spent more than 23 days per year.

Other popular activities included sledding, snowshoeing, deer hunting, sunbathing, collecting forest products, golf, snowmobiling, swimming hole swimming, and downhill skiing.

While approximately one third of the state's residents visited a historic or cultural attraction, participation frequency was quite low at only 3 days (average) per year. Similarly more than one in 5 Vermonters participates in canoeing (22.8%), but do so for only 5 days per year on average.

Conversely, a small percentage of Vermont residents participated in trail running. Yet those who did participated on average more than 20 days per year. Similarly, there were only a few waterfowl hunters in the state, yet they spent on average 2 weeks a year in their hunting pursuits. Finally, there were fewer than 10,000 skateboarders/longboarders in the state, yet they participated on average at least 18 days per year.

Meets My Needs? (Percent)						
Facilities/Services	No, not at all	No, not much	Yes, somewhat	Yes Definitely	Mean	% who used
Hiking Trails	3.8	5.3	31.9	59.0	3.5	60.9
XC Ski/Snowshoe Trails	5.3	9.8	30.5	54.4	3.3	39.1
Fitness/Bicycle Paths	9.5	15.9	34.6	40.0	3.1	49.7
Snowmobile Trails	12.1	9.0	27.2	51.8	3.2	23.9
OHV/ATV trails & roads	35.5	25.5	21.1	17.8	2.2	19.0
Picnic Areas, Shelters	1.8	15.3	46.3	36.5	3.2	59.9
Playgrounds	5.5	19.7	35.6	39.1	3.1	42.5
Baseball, Softball Fields	10.8	13.9	30.4	44.9	3.1	25.7
Soccer Fields	12.0	6.3	32.5	49.1	3.2	21.3
Football, Lacrosse Fields	23.5	17.8	23.9	34.9	2.7	11.4
Outdoor Tennis Courts	10.0	38.0	23.7	28.3	2.7	25.2
Outdoor Basketball Courts	13.1	33.9	28.9	24.1	2.6	24.6
Golf Courses	15.6	7.1	29.0	48.3	3.1	22.3
Swimming Pools	11.7	24.5	30.7	33.2	2.9	40.5
Off-leash Dog Parks	37.9	32.3	16.6	13.1	2.1	23.5
Community Gardens	12.7	38.5	30.3	18.5	2.6	30.3
Ski/Snowboarding Areas	8.0	1.5	28.9	61.6	3.4	39.8
Sledding Areas	9.5	18.5	34.6	37.3	3.0	37.9
Ice Skating/Hockey	19.0	26.5	29.1	25.4	2.6	29.2
Boating Access (motor)	14.6	8.2	36.8	40.4	3.0	29.2
Boating Access (no-motor)	9.5	7.7	36.4	46.4	3.2	36.8
Fishing Piers	24.0	19.6	31.3	25.1	2.6	24.7
Marinas	26.6	10.2	40.7	22.5	2.6	16.4
Stocked Fishing Areas	18.7	8.8	39.2	33.2	2.9	26.8
Hunting/Trapping Areas	16.0	20.8	30.8	32.4	2.8	28.5
State WMAs	9.3	10.2	38.4	42.1	3.1	45.2
National Forests	5.4	6.8	34.3	53.5	3.4	56.2
State Parks	3.1	13.7	32.6	50.5	3.3	68.0
Wilderness Areas	7.9	4.9	37.4	49.7	3.3	48.5
National Wildlife Refuges	9.2	10.2	40.2	40.4	3.1	42.9
Vermont Lakes & Ponds	5.1	10.6	33.7	50.5	3.3	73.7
Vermont Rivers & Streams	6.3	5.7	32.9	55.1	3.4	65.6
Facilities for Disabled	36.9	32.7	11.4	18.9	2.1	14.1

Table 16. Respondent evaluation of outdoor recreation facilities and services in Vermont. Other facilities mentioned: Horse trails, Mountain biking trails, Road for cycling, Shooting ranges, Rest areas, Miniature golf, Amount of wildlife, Yoga, Handicapped fishing access.

Table 16 shows respondent evaluation of 33 different types of outdoor recreation facilities and services in Vermont. Overall, Vermonters expressed general satisfaction with the state’s outdoor recreation facilities. When asked to evaluate whether a facility meets the respondent’s outdoor recreation needs, the mean evaluations were greater than 3 (between “yes, somewhat” and “yes, definitely”) for 20 of the 33 facilities. Vermonters gave their highest evaluations to hiking trails, ski/snowboarding areas, the Green Mountain National Forest, and Vermont’s rivers and streams (mean score of 3.4 or greater). They also gave favorable ratings to cross country ski and snowshoe trails, state parks, wilderness areas, and Vermont lakes and ponds (mean score of 3.3).

The facilities and services that were less highly evaluated (mean score of less than 2.5) included OHV trails and roads, off-leash dog parks, and facilities for the disabled. Other less highly evaluated facilities (mean score between 2.6 and 2.9) included football/lacrosse fields, tennis courts, basketball courts, community gardens, outdoor ice skating rinks, fishing piers, marinas, stocked fishing areas, and hunting and trapping areas.

Of the 33 facilities and services in the questionnaire, nearly half (16 facilities) were used by more than a third of the respondents. Among these 16 facilities, only one (outdoor swimming pools) was rated negatively – less than 3.0.

Socioeconomic Profile

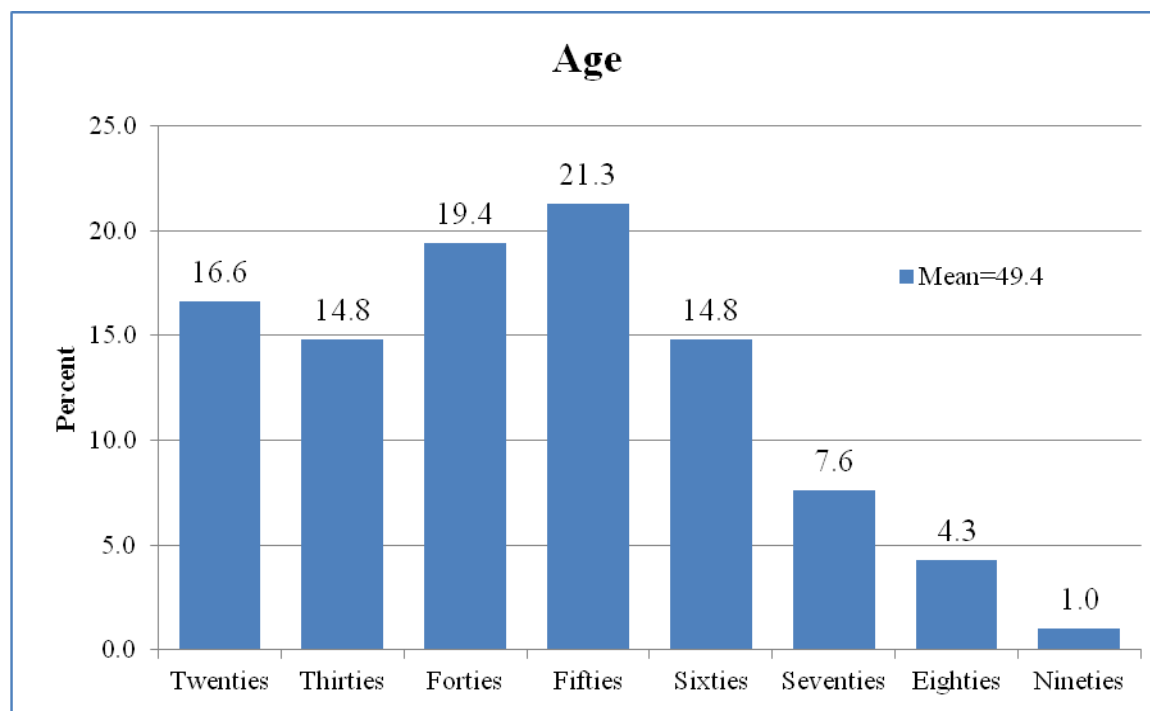


Figure 6. Age structure of questionnaire respondents.

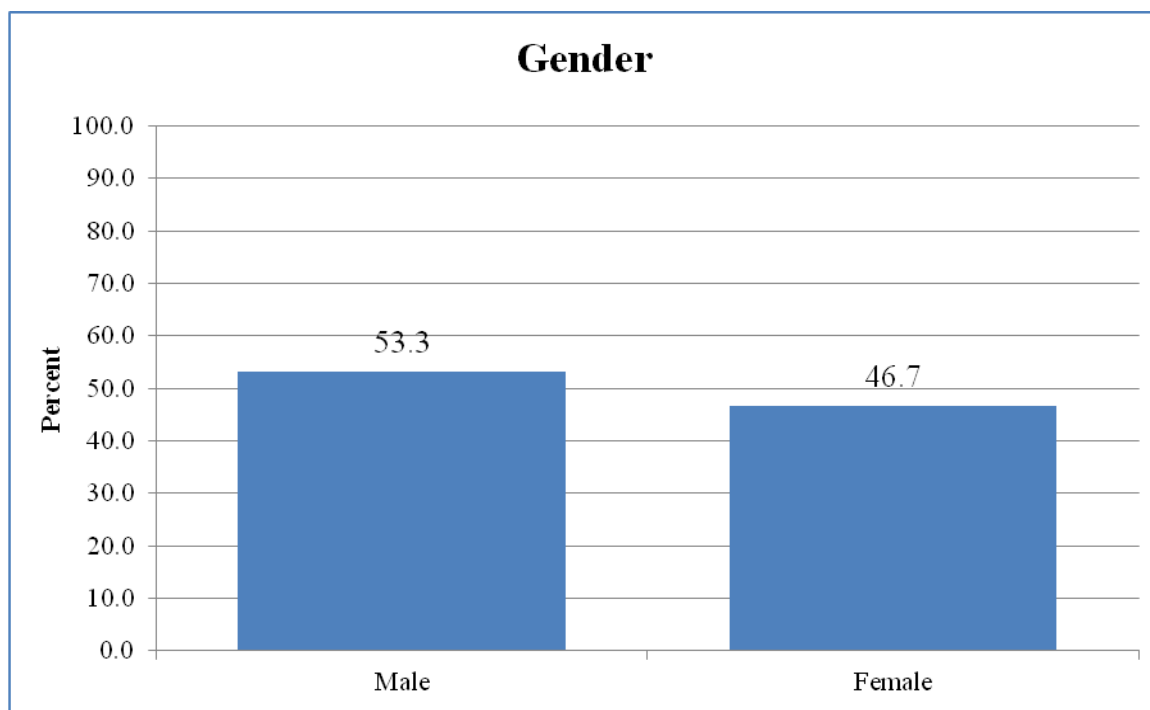


Figure 7. Gender ratio of questionnaire respondents.

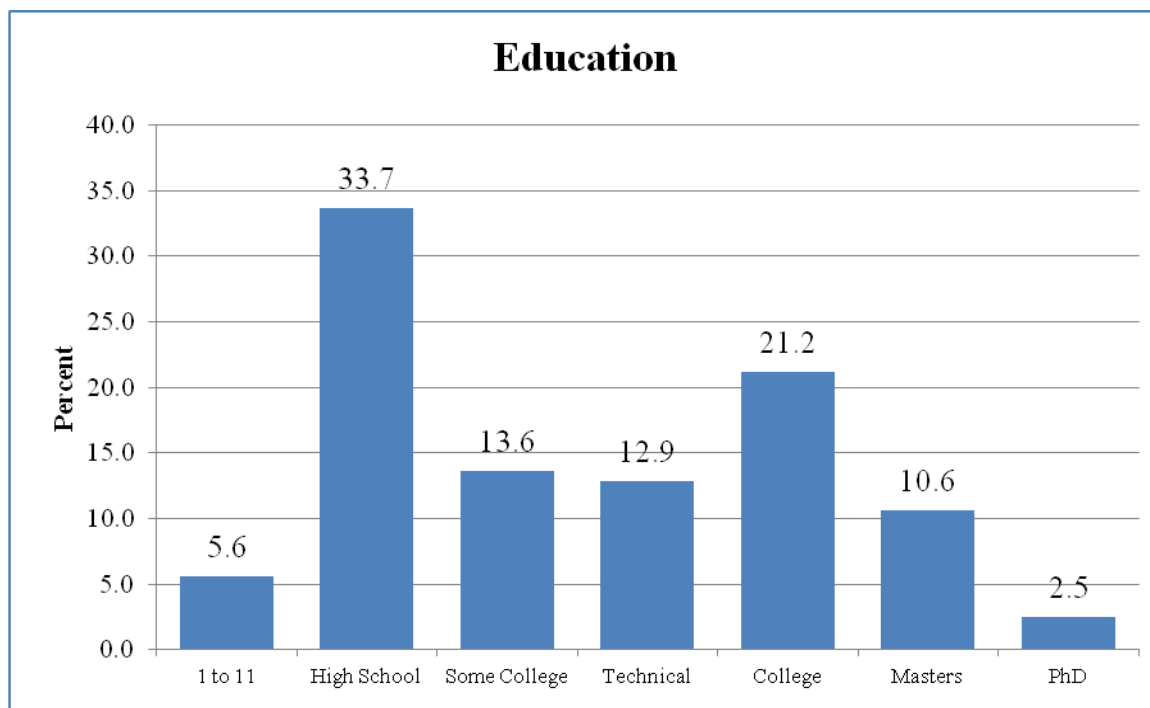


Figure 8. The highest level of education achieved.

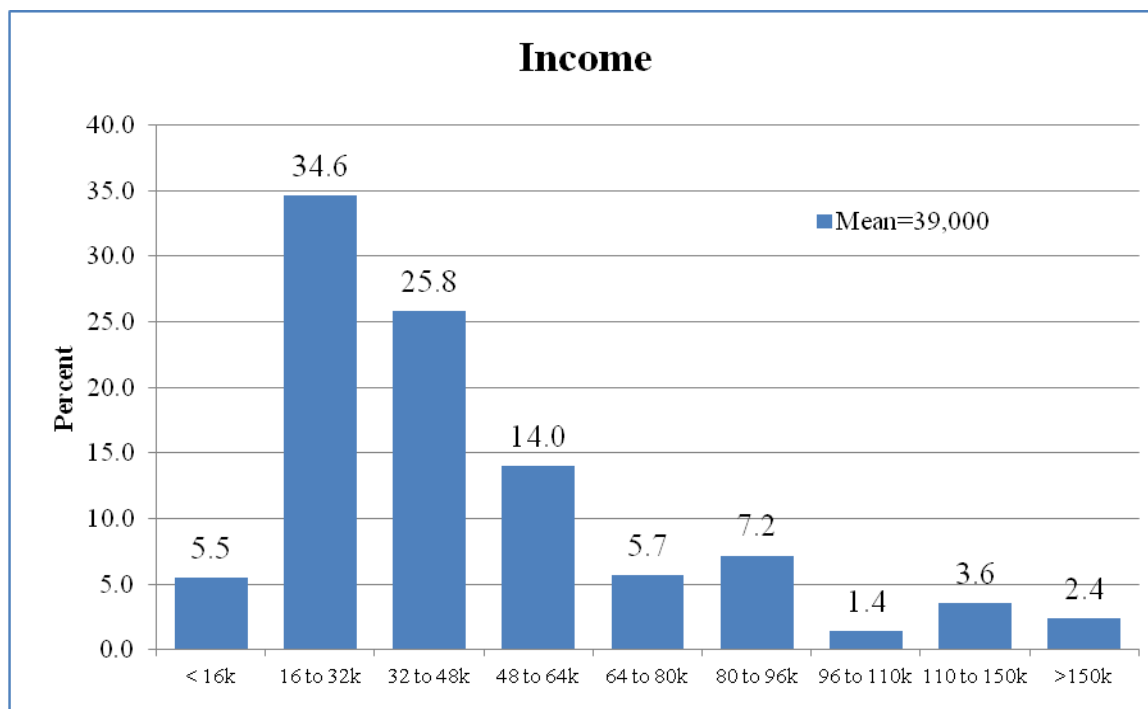


Figure 9. Annual household income.

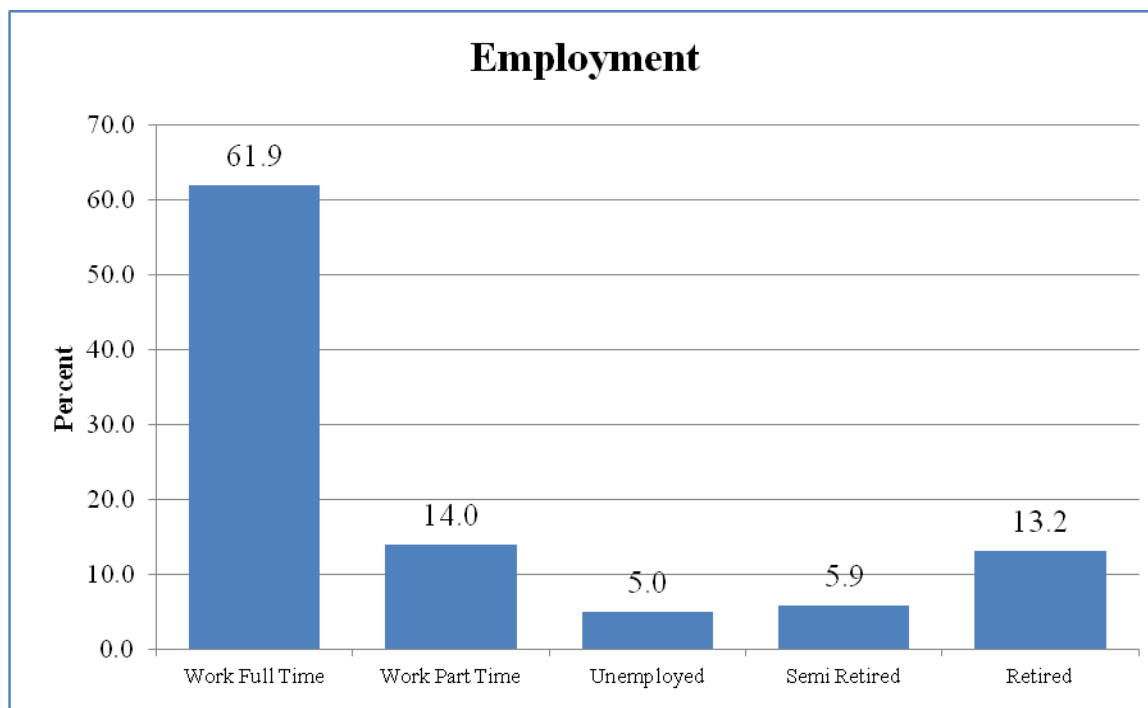


Figure 10. Employment status of questionnaire respondents.

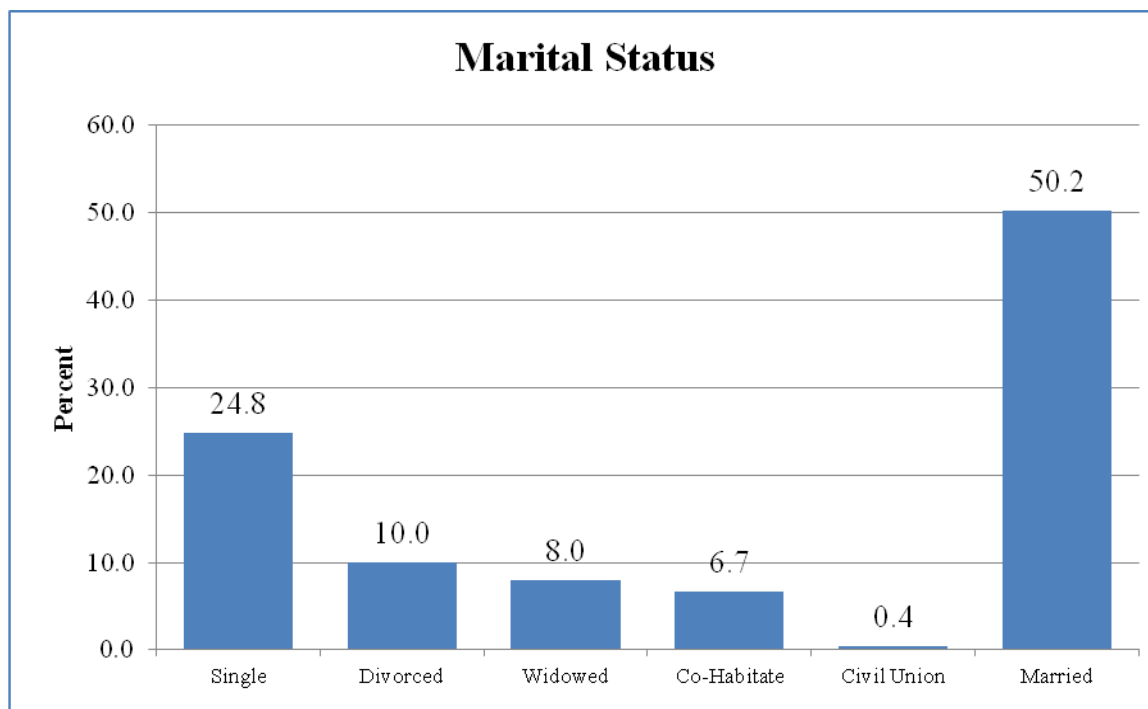


Figure 11. Marital status of questionnaire respondents.

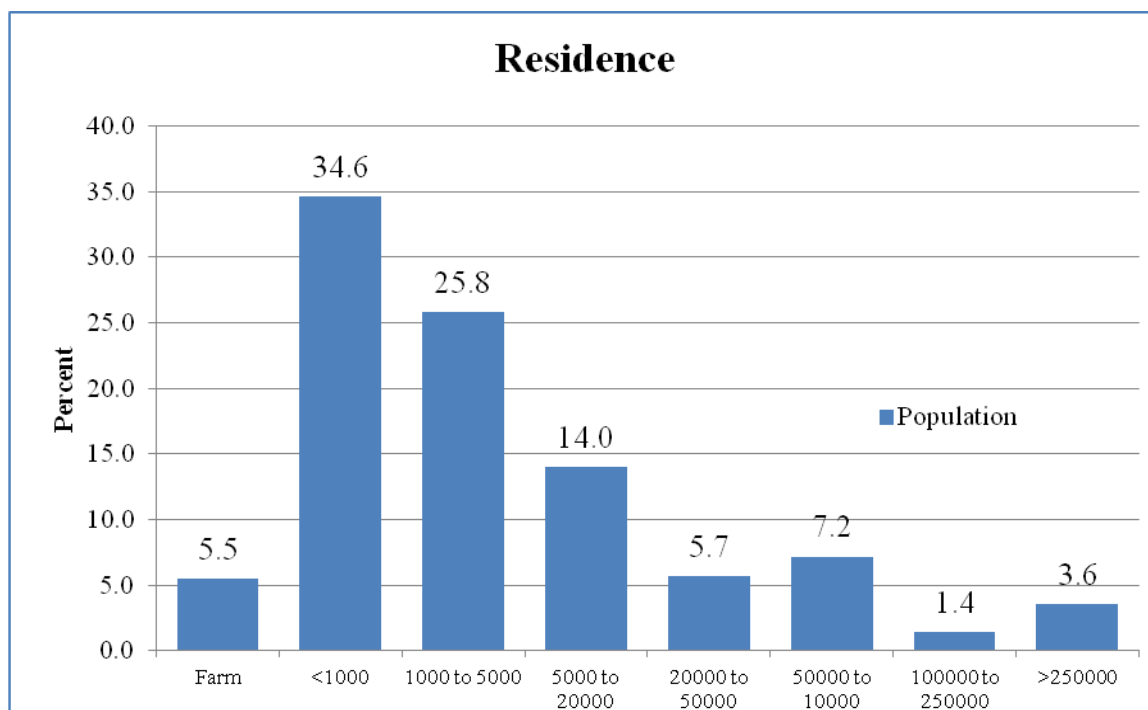


Figure 12. Size of town/city where respondents currently live.

The sample was weighted by age, income, employment, marital status, and county of residents. So by and large, the socioeconomic profile of the sample reflects the socioeconomic characteristics of the state. The average age was 49 years old and the gender ratio was close to 50%. One third of the sample had a high school degree, while another third had a college degree or graduate degree. The average annual household income was approximately \$39,000. Nearly two thirds of the sample worked full time, with 5% unemployed and 13% retired. Half the sample was married, one fourth was single, and another 18% was either divorced or widowed.

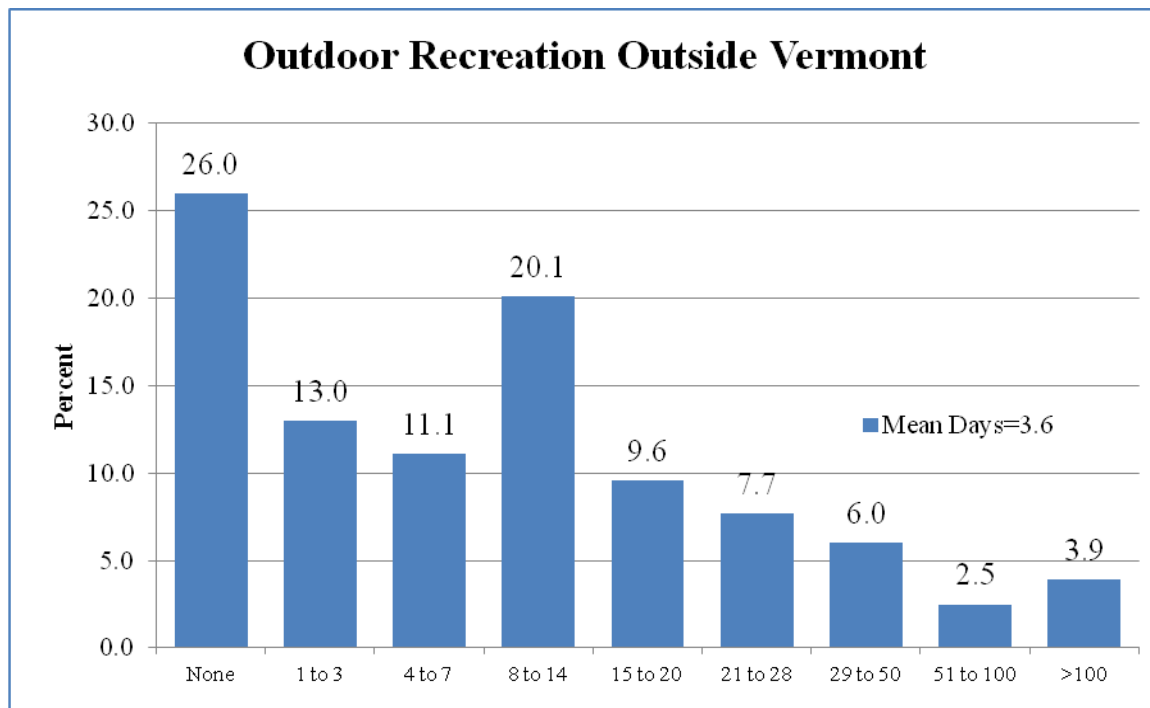


Figure 13. Number of days participating in outdoor recreation activities outside of Vermont.

The questionnaire also asked respondents to report the number of days they participate in outdoor recreation at some location outside of the state of Vermont. Figure 11 shows that more than one fourth of the sample (26%) participated in outdoor recreation in their home state only. An additional fourth of the sample (24.1%) spent a week or less outside the state engaged in outdoor recreation activities, while another 20.1% spent 8 to 14 days outside of the state. Finally, roughly 30% of the respondents spent more than two weeks participating in outdoor recreation activities outside the state.

Participation by Region of the State

In the Tables that follow, we compared the percent of population in each of the 14 Vermont counties by each of the 67 outdoor recreation activities to get a sense of the geographic distribution of activity participation around the state. The cells of the tables below are color

coded. RED means that the proportion of county participation was at least one standard deviation below the state mean. In other words, county residents participated less in the given activity than the rest of the state. WHITE means that the ratio of county participation was within one standard deviation of the state mean. BLUE means that county participation was at least one standard deviation above the state mean, so that people in these counties were more likely to participate in the activity than people in the rest of the state. (GREY meant that the number of participants was too small in a given activity to generate reliable comparisons.)

The first step was to add the number of red, white, and blue cells for each county to get a comparative sense of county residents' participation in outdoor recreation. When we assign a -1 to each red cell, a 0 to each white cell, and a 1 to each blue cell, we generate the following participation ranking by county.

Table 17. Participation rank ordered from most active to least active:

Caledonia
Orleans
Lamoille
Addison
Essex
Rutland
Washington
Franklin
Orange
Chittenden
Bennington
Windsor
Grand Isle
Windham

This table shows that residents of the Northeast Kingdom were most likely to engage in outdoor recreation activities than residents of the rest of the state. Conversely, residents in the southern part of the state (Bennington, Windham, Windsor) counties, along with Grand Isle residents were less likely to participate in outdoor recreation activities than people in the rest of the state.

We note that Chittenden County residents ranked in the bottom five of outdoor recreation participation. This ranking does not reflect absolute numbers of residents who participate in outdoor recreation activities. If it did, Chittenden County would likely be ranked at the top. Instead, these rankings represent the proportion of the population in each county that participates in outdoor recreation activities.

When looking at specific patterns in the Tables below we can make the following generalizations about County level participation. In the southern part of the state, residents in Bennington County were more likely to participate in motorized recreational activities such as OHV and ATV use, while they were less likely to participate in non-motorized trail related activities and

most boating related outdoor recreation activities. Windham County residents were less likely to participate in hunting and fishing, boating related activities, and non-motorized activities. They were somewhat more likely to participate in nature related activities.

Moving north in the state, Rutland County residents were less likely to participate in nature related activities and most boating related activities (power-boating was the exception), and somewhat more likely to participate in fishing and winter activities (although not downhill skiing). Windsor county residents were less likely to participate in hunting and swimming related activities, and more likely to participate in nature related activities along with hiking, bicycling, and mountain biking.

Across the middle of the state, Addison County residents were generally more likely to participate in fishing, hunting, and some nature related activities, and less likely to participate in some winter related activities (downhill skiing was the exception), and some boating related activities. Washington County residents showed mixed patterns across the activities but were somewhat less likely to participate in fishing and some boating related activities. Orange County residents likewise showed mixed patterns across the activities, but were somewhat less likely to participate in boating related activities.

In the Northeast Kingdom, the ratio of Caledonia County residents generally exceeded participation on most activities except for a few boating related activities and a few nature related activities. Essex County residents were more likely to participate in hunting and other nature related activities, and less likely to participate in most boating activities and most outdoor sports activities. Participation among Orleans County residents was mixed across the activities, but they were somewhat more likely to participate in nature related activities and non-motorized activities.

Moving to the Northwest side of the state, residents of Lamoille County were less likely to participate in picnicking and sightseeing activities, while they were more likely to participate in nature related activities and non-motorized activities. It was hard to generalize participation among Franklin County residents, but they were more likely to participate in Lake Champlain fishing, and somewhat less likely to participate in non-motorized activities. Grand Isle County residents were more likely to participate in hunting, Lake Champlain fishing, and nature related activities. They were less likely to participate in picnicking and sightseeing, most winter activities, motorized and non-motorized activities, and outdoor sports. Beyond hunting, Lake Champlain fishing and nature related activities, Grand Isle County resident participation was generally lower in most of the other activities measured. Finally, Chittenden County residents were less likely to participate in hunting, nature related activities, and motorized activities. With the exception of a few isolated other activities, participation in most other outdoor recreation activities by Chittenden County residents fell near the state mean.

Picnicking/Sightseeing	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Picnicking	40.5	37.5	31.7	34.3	27.1	54.7	41.9	56.5	35.7	61.1	36.5	41.2	14.3	59.3
Sightseeing/Driving	44.4	33.2	56.1	47.3	59.9	39.1	61.1	53.7	62.8	62.9	37.4	44.9	24.3	41.0
Cultural/Historic Sites	34.4	42.4	34.3	20.7	51.6	34.9	30.6	45.8	57.6	51.7	23.2	35.2	14.4	31.3

Fishing Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Fly Fishing	7.5	1.5	4.5	5.3	6.7	6.2	2.7	10.5	6.8	8.9	4.8	6.7	1.3	3.5
Champlain – Boat	12.0	1.3	14.6	8.3	18.1	11.3	7.9	11.1	0.0	3.9	0.0	28.7	29.8	7.3
Champlain – Shore	12.3	0.0	13.1	2.1	17.1	3.6	1.8	9.8	0.0	5.5	1.1	27.0	71.7	19.1
Champlain – Ice	1.8	0.7	10.0	0.0	4.6	0.5	0.0	9.8	0.0	3.1	0.0	16.9	25.9	10.0
Pond – Boat	25.4	9.7	15.8	15.7	15.7	8.9	18.4	19.8	40.7	23.0	14.0	15.2	2.4	8.8
Pond – Shore	13.5	11.5	26.3	16.8	18.5	17.8	22.3	39.7	39.1	22.1	24.9	17.1	4.0	8.1
Pond – Ice	3.9	7.8	7.8	1.5	15.1	2.3	18.5	12.0	5.7	18.4	4.5	1.3	6.0	1.7

Hunting Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Big Game (Deer, etc.)	34.1	32.0	29.6	18.1	25.1	28.9	21.6	24.6	51.4	28.3	24.0	37.0	63.1	13.3
Upland Bird/Game	9.3	3.9	19.0	5.5	19.7	14.8	17.5	11.2	40.9	16.9	9.1	12.5	52.5	10.3
Waterfowl	2.1	2.0	3.6	1.6	13.4	13.2	.0	10.8	20.9	.6	.0	.3	53.8	2.1
Trapping	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	.6	0.0	0.0
Target Shooting	27.8	15.1	25.7	6.9	16.1	13.0	24.9	13.6	23.7	9.4	5.6	14.6	57.2	8.4
Skeet/Trap	3.5	2.0	4.3	1.0	16.2	12.5	7.6	12.8	9.3	10.6	8.0	1.8	54.2	3.9

Winter Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Snowmobiling	15.1	20.8	19.8	35.9	17.2	17.8	18.7	14.8	12.6	16.4	15.5	19.2	51.1	4.4
Downhill Skiing	3.6	4.7	14.5	25.6	27.0	17.4	13.2	24.4	6.1	17.3	25.8	30.5	8.7	27.0
Snowboarding	2.6	11.7	17.1	3.6	8.0	8.8	17.8	26.1	1.8	13.0	9.6	6.2	1.7	16.0
Cross Country Skiing	15.8	8.8	23.4	12.6	13.2	17.2	19.4	28.9	8.3	26.6	45.2	4.2	8.0	14.9
Snowshoeing	18.2	28.2	40.8	25.7	21.3	36.2	37.2	34.0	70.6	49.0	41.4	24.4	14.3	26.6
Sledding	38.5	33.4	29.3	19.3	32.9	28.3	33.3	35.7	41.5	46.1	44.6	45.8	18.4	29.9
Ice Climbing	0.0	0.0	0.0	0.0	0.8	1.1	0.0	0.0	0.7	1.2	0.0	0.0	0.0	0.7

Boating Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Canoeing	23.8	23.3	19.8	23.1	24.9	34.9	24.1	12.3	49.4	35.1	35.9	20.3	11.1	15.1
Flat Water Kayaking	1.7	1.4	2.1	9.4	3.7	2.8	14.5	19.9	3.6	12.9	13.1	8.4	8.4	9.4
Whitewater canoe/kay	10.2	1.5	6.7	4.4	1.2	3.4	1.2	13.0	1.4	6.4	5.3	4.2	0.0	1.5
Whitewater Rafting	0.0	0.0	0.4	0.0	0.7	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	.2
Jetski	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.1	1.5	2.9	0.9	2.6	1.2	2.9
Power Boating	4.2	6.1	23.8	21.7	12.4	5.8	1.7	13.6	7.7	13.6	20.9	14.6	23.5	14.3
Water Skiing	1.8	4.7	4.3	3.8	23.0	2.5	4.2	12.0	2.9	6.4	13.7	13.7	8.6	4.3
Sailing	0.0	2.3	0.0	4.7	16.4	18.4	1.3	0.6	0.0	1.8	3.2	5.4	5.0	10.1
Windsurfing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.9

Swimming Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Lake Swimming	54.1	21.8	57.1	43.3	39.9	46.5	40.0	56.7	57.2	57.2	44.9	50.6	32.7	65.1
Outdoor Pool Swim	23.8	28.8	20.6	19.0	27.9	21.9	19.8	32.3	18.2	32.9	30.8	46.8	11.2	26.7
River/Swimming Hole	36.6	30.3	20.2	22.9	36.0	28.8	21.1	35.3	10.0	13.6	27.0	9.7	4.7	24.4
Sunbathing	27.2	20.4	26.1	3.8	6.4	21.4	12.1	6.5	30.2	22.9	17.7	9.5	5.2	15.4
Scuba/Snorkeling	0.0	0.0	0.8	2.9	5.1	1.7	5.6	7.9	1.5	0.0	0.0	0.0	11.1	3.0

Nature Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Bird Watching	44.0	31.6	16.1	31.0	31.2	20.3	54.6	19.2	34.7	49.0	41.8	33.6	27.6	23.3
Wildlife Watching	31.5	21.3	23.4	40.7	29.2	22.1	42.1	25.0	41.7	35.6	35.9	41.7	28.7	21.8
Wildlife Photography	14.3	6.1	7.4	13.8	18.1	12.6	10.0	7.5	58.3	19.6	13.6	12.1	18.4	5.7
Nature Study	.0	13.8	5.6	14.7	13.4	22.7	26.5	10.8	17.4	18.2	16.3	1.9	6.3	2.4
Outdoor Photography	3.0	18.7	13.3	15.4	31.3	10.1	20.8	20.4	33.0	42.5	36.1	15.5	19.8	11.5
Tracking	6.3	12.5	3.2	15.0	5.1	6.1	7.6	6.4	10.5	3.3	10.0	8.7	15.8	9.8
Collecting	21.6	35.0	22.1	21.4	19.1	16.4	24.8	16.4	48.6	50.6	27.6	26.2	54.6	20.3
Orienteering, GPS	11.0	8.5	7.2	2.6	11.1	2.5	1.4	1.0	7.7	1.4	4.7	2.4	8.6	4.0

Non-Motorized	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Tent-Campground	11.8	12.0	7.4	12.3	32.5	22.1	5.3	36.3	24.3	33.4	15.7	15.1	1.7	13.9
Backpacking	3.1	3.0	4.5	1.5	7.7	10.7	1.2	7.7	0.7	11.0	15.0	2.2	1.7	5.4
Hiking	33.0	33.1	42.6	57.9	48.3	36.2	36.6	38.4	29.8	61.5	49.2	30.7	14.1	39.9
Bicycling	28.4	16.3	20.2	37.8	19.3	27.9	27.8	31.4	26.3	35.1	35.8	31.1	16.7	37.0
Mountain Biking	2.1	2.6	19.6	17.0	7.1	13.5	16.2	6.3	21.6	4.7	28.3	12.3	4.3	6.4
Horseback Riding	4.7	1.5	4.5	5.2	2.3	1.9	0.6	2.0	4.9	8.4	1.9	0.5	9.0	5.9
Trail Running	5.8	1.3	0.0	4.1	2.9	8.0	2.7	1.6	0.0	5.6	11.2	9.1	0.7	5.5
Rock Climbing	0.0	0.0	1.4	0.0	0.0	1.7	0.8	5.8	0.7	10.2	3.3	0.0	0.0	2.9

Motorized Activities	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
RV Camping	12.3	1.7	12.0	12.0	7.7	10.4	8.1	12.5	6.2	3.6	6.3	2.7	2.9	4.5
OHV	22.7	6.2	6.1	1.9	4.2	7.6	3.2	15.2	22.2	.4	2.3	3.8	2.5	2.1
ATV (3 and 4 Wheel)	20.0	11.4	16.0	34.2	19.1	5.7	15.1	14.1	42.1	17.9	10.1	29.9	10.9	4.0
Motorcycles	1.7	0.9	8.7	5.0	4.2	25.3	13.4	17.7	8.6	13.5	15.2	4.0	3.0	3.4

Outdoor Sports	Bennington	Windham	Rutland	Windsor	Addison	Washington	Orange	Caledonia	Essex	Orleans	Lamoille	Franklin	Grand Isle	Chittenden
Golf	10.3	3.3	30.4	26.1	22.6	10.2	9.2	13.5	9.8	12.9	7.3	14.8	14.7	16.4
Tennis	5.1	6.2	17.2	14.9	6.2	3.4	13.8	12.0	.0	1.7	13.5	2.7	0.0	10.6
Walking	68.3	54.4	41.9	47.6	63.6	55.0	56.1	55.9	63.0	83.5	69.4	56.0	29.5	58.0
Jogging/Running	13.0	20.3	10.4	11.7	20.8	17.4	20.8	23.5	23.8	14.0	21.3	28.0	6.6	24.9
Skate/Long boarding	0.0	5.1	0.7	4.9	0.0	2.2	1.2	9.7	0.0	0.8	4.5	0.0	0.6	2.6
Baseball, Softball	8.5	1.3	10.5	10.8	8.5	15.3	5.4	28.2	7.4	18.3	17.5	25.0	7.7	7.3
Soccer	13.2	8.2	3.8	7.5	9.5	9.5	3.9	15.4	4.9	16.9	10.6	19.5	3.1	8.4
Outdoor Basketball	15.8	8.3	11.3	2.3	12.4	4.1	6.5	15.7	2.2	18.3	4.8	1.6	6.0	8.8
Outdoor Court games	0.0	13.1	7.0	2.9	1.2	3.6	12.6	11.8	0.0	4.7	14.7	7.9	11.2	3.6
Other Team Sports	10.2	7.5	4.4	1.8	7.7	3.4	3.9	10.6	1.7	12.0	20.9	10.5	.6	5.4

Vermont Outdoor Recreation Survey 2011 – Respondents' Comments

Vermont offers a lot of outdoor areas for recreation. Unfortunately, I have chronic pain and cannot walk very much—whereas I used to do that a lot. I enjoy that there is a small park near my home, where I can sit, walk a little, and enjoy the good weather. Many of my family, not living with me, are quite active outdoors with snow sports and other things that this beautiful state provides.

Too many dams on our rivers, no migratory routes for the fish.

I own a farm with substantial and various acreage, so I really don't use public facilities.

More nature viewing places in Burlington. We need a place to swim in downtown Burlington.

I am in a life care facility. At 91, I have limited mobility—walker or cane. A daughter and her husband do a great deal of outdoor activity—she does biking, canoeing, kayaking, bird watching, sketching and painting nature. He does all those and he also teaches snowboarding to children at Smugglers, lots of hiking. They both camp, canoe and swim. Two grandchildren here in Vermont are avid skiers, hike, have even rock climbed, parachute jumped. Son in law often hikes Camel's Hump and a few years ago hiked the entire Appalachian Trail in his 60's. My husband and I tent camped with our young children for over 20 years, but usually on Cape Cod, RI, or MA, as we then lived in MA, though I am a native Vermonter (Proctor) and a UVM grad.

Page 7, Other – Dirt bike, 4-wheeler trails
Vermont loses revenue here.

We have a dairy farm and there isn't much time for recreating off the farm as our full time work equals 365 days a year, 2 times per day. And summertime is the busiest time, i.e., crops, etc. Sorry for the delay but it's really our busiest time of the year!

As I am 85 and use a walker, the parks I have been to are hard to get to—the ones I have been to aren't handicap accessible—so most of my answers are negative—and I haven't participated in outdoor sports for a long time.

I find the US Forest Service to be very difficult to work with when it comes to using Natl Forest Land for recreation.

Please send me a copy of the results to me at [EMAIL ADDRESS]

Private land ownership with public access through easements or incentives should be encouraged.

The maintenance of traditional uses on public lands (hunting, fishing, trapping) should be encouraged.

As additional recreational facilities are developed around the state they should fit the character of the local region they are found within. Modest infrastructure should be encouraged in most cases.

We need to spend a little more effort on winter activities (ice fishing). We don't advertise it and there is not much attempt to let people know what kind of fishing we have in Vermont for winter activity to create a winter income for Vermont or private companies. Bottom line is we could do a lot better.

We need more trout stocked in the Southern part of this state—Saxton River, Williams River, Black River. More Fish!

The deer herd is terrible – stop shooting does and shoot more turkeys!

Confidential to whom? Why is this info relevant? If this is a random survey then there should be no need for this info.

More facilities for recreational biking and walking. People need to be encouraged to exercise in a manageable way—short walks that they can eventually lengthen.

Thank you, I feel fortunate to live here.

I enjoy road cycling, would love to see road surface improvements in Northern VT. Route 104 from Fairfax to Cambridge is a good example. It is an embarrassment to the citizens of the State.

In the past I have done lots of biking, running, kayaking, downhill skiing, cross country skiing, snowshoeing, and lake swimming in VT. However, family tragedies and age have slowed a lot of that down. I anticipate doing more again in the future.

PLEASE open trails for horses—we have a wonderful network through our forest but...we can't use them. Horses now outnumber cows here—I live within a mile of a beautiful trail network but am not allowed on it. When on the roads people in cars do many stupid things when I'm riding-forgetting that horses have the right of way here. I even one idiot try to crowd me off the road!

To whom this may concern:

I ordered this writing paper back in 1977. Now, I am 81, semi-retired in the business of antiques. Outdoor recreation is no part in my life.

As a younger person I skied, skated, played golf, ice-fished on Lake Champlain, played baseball at recess at my ONE-ROOM schoolhouse [NAME OF SCHOOL] etc.

Today (this past year) as reference to your questionnaire I actively supply booths/rooms of Merchandise to two antique centers: One in [TOWN NAME]; the other in [TOWN NAME].

I appreciate your PROJECT: People come to Vermont for outdoor sport ALSO come to ANTIQUE SHOPS—and BUY.

I think you picked the wrong person for this survey. I have foot problems so am not able to hike anymore. I will say that 30-40 years ago I did a lot of hiking, snowshoeing, and fishing all over the area I live in, but much to my dismay I'm not able to do these activities now. I do feel VT has some wonderful parks, hiking trails, rivers and streams even though I don't use them now I did at one time.

State needs better control of snowmobile trails, I live next to a rail trail which is nice most of the time and AWFUL in winter. Trail is used throughout the town beyond trail system up sidewalks through lawns and private property. Engines can be heard throughout the night and into morning 2am 3am 4am etc. This happens at least 4 times a week. VAST does an awful job maintaining the trail system in winter months and is NOT monitoring trail system.

Would like to see more camping areas open to residents of Vermont. Most campgrounds are booked solid for the season. Should limit how long campers can stay, 30 days is better than a camper taking a site for the entire season.

I fish out of state because State in Central Vermont (Rutland County) does a horrible job with its fishing program.

I feel if you're from Vermont you're overlooked, we tend to cater to the tourism business.

South Burlington + Burlington bike/rec path are the best way to stay fit and get outdoors every day.

We travel to the ocean to find great beaches. The sand at Boulder Beach at Lake Groton is the best we've found in Central Vermont, but why can't Wrightsville Dam be nicer? The sand there is like muddy kitty litter.

Better beaches please!

Lake Champlain is too crowded/far.

“Share the road” has not worked. We need to make cycling safe in Vermont.

On Meets my Needs – What part does the state meet my needs – hunting & trapping licenses are too expensive!!

ATV riding is town not state, what trails for ATV's do the state support? NH, ME, hell even Mass. supports ATV riding!

You need to ask more specific questions—what ponds? What hiking areas? What hunting areas? Groton State Forest is my favorite! Owls Head, Osmore Pond, Kettle Pond, Big Deer Mtn, Little Deer, Silver Ledge! I grew up here!

You also need to find out who is a native Vermonter vs Implant or a flatlander!! Also you need to keep in mind all the state's intentions. Million dollar bike paths vs having to pay \$10 to fish Osmore Pond. Why should I have to pay for a pond I grew up on so some implant or flatlander can ride his bike in Burlington for free??? And tell the governor to give Seyon Trout Range back to its people!!! (Kill what you eat and keep what you need to survive!)

Lots of outdoor recreation opportunities of very high quality (& with additional interesting things to look at and experience) at state historic sites. They have a lot of land in significant places. More to offer than visiting a museum/historic site, as covered in one of the questions. Need to think more broadly about outdoor recreation. Also many people do outdoor recreation & activities on their own property/don't necessarily need to go to a public place for it.

What little time we take to do outdoor activities is not due to lack of availability in our area. Keep up the good work. Thank you.

Certainly appreciate all this state has to offer. Made our living with and in the recreation business, wonderful life outdoors!

I used to take much advantage of outdoor recreation possibilities – snowshoeing, hiking, XC skiing, bird watching. But I am now 74 and osteoarthritis in my feet has caused me to give up those activities. I do a lot of biking now. In general, facilities for my present and past activities in VT have been excellent.

Walking recreation trails should not be used by snowmobilers. There is a major safety issue here especially when snowmobilers refuse to slow down and take up all of the trails. This is especially dangerous for children!

I used to hike and walk a lot. However I have had Parkinson's the last 15 years and cannot much outdoors.

The [NAME OF SCHOOL] Recreation Field is in back of my house. I use the running track for my walks.

Page 3

I support VAST and approve of VAST collaborations to open up year round trails such as Lamoille, even though I do not snowmobile.

Both parents ski XC 1 or 2 times every weekend, and squeeze in a few midweek. Both kids (ages 13 & 16) race on school Nordic team.

Page 4

I don't go out in pursuit of these [bird watching, wildlife photography, outdoor photography, tracking]; but have an experiences out and do these opportunistically. Nature here makes outdoor recreation more interesting and exciting. Yes, I carry binoculars on occasion.

Comments Page

Vermont has 3 types of bicycling: mountain biking, road biking and dirt road biking. I believe dirt roads are a unique asset to VT's outdoor recreation, particularly for biking and walking. We should never pave these roads in my opinion. Info on back road bike touring routs is helpful. I've seen some of these published.

I'd like to see more rail trails, and more VAST trails open for year round bicycling and walking.

I disagree with Gov. Douglas' decision to open up more state lands to ATVs. This should be a legislative decision.

I think Outdoor recreation marketing and funding should collaborate with health department to develop and market outdoor recreation facilities to enhance physical activity and combat obesity.

Vtrans dollars disproportionally ignore bike and pedestrian projects. We need more bike and walking infrastructure

Although I do not hunt or fish, I support these activities as healthy recreation and game management.

Vermont's natural features, forests, mountains, refuges and open farmlands are a huge asset – part of the character of the state and part of our quality of life. We need to maintain these assets, and be very careful about development.

Thank you for this study. I hope your work is successful.

A covered area for handicapped individuals for fishing access (i.e. wheelchair access) would be nice (like at Crown Point, NY.)

I've long been aware that VT has the nicest and best cared for State Parks in New England and have enjoyed many, many family outings over the past 47 years. I'm 70 years old now and my girls have moved away and I'm just not able to use VT's wonderful facilities as I used to.

As a volunteer for [ORGANIZATION] I think the canoe/picnic facility at Stoughton Pond in Perkinsville is very good.

I would like to see more public tennis courts and biking lanes on state highways.

In addition to farm land, the outdoor recreation opportunities/wilderness make VT where I want to be.

[NAME OF ORGANIZATION] in Vermont I am affiliated with. We have different outdoor activities all year around. My name is [NAME]. I have been there for over 29 years with [NAME]. I am very happy about the questions. Thank you.

I love camping at Lake Carmi in Franklin. Also there needs to be more public land for hunting.

I know making bike paths is expensive, but a bike path along RT 7 in Colchester would make bike travel/recreation much more attractive for people, like me, who are frightened to bike using the narrow space allotted to bikes on RT 7.

We need more biking/running paths. It would be very beneficial to have commuter bike lanes in and around Burlington. The Burlington bike path is great for recreation, but it does not serve a lot of commuters. Living in [NAME OF TOWN], we have slim pickings for safe bike riding and running routes. It's a shame that our great state does not have safe bike routes for commuters. My husband and I would definitely ride our bikes to work if there were a safe way to get there. Right now our only option is Route 15. Thank you!

I would like to see a bike path network for Central Vermont. On road + off road like VAST for biking. Bike Depots or local stores that cater to bikers as well. Increase summer tourism to areas that don't have ski tourism.

VT needs: Waterparks (outdoor & indoor), zoo, better bike paths (connecting to Shelburne, Essex, etc)

There is no place to hunt anymore. State land is a mob of people and they steal your tree stands. You need to let people bait for big game again. This gives the average guy a little chance. Every place that is not state land is posted.

Also including local farming activities that I have always enjoyed. Though economics have forced many farmers out of business, as one younger farmer said years ago, back when farming was fun!

Facilities/trails are all regulated to death. Seems better now, but too late for us older, real Vermonters. We used to use fields and meadows for all kinds of recreation. Now most are owned by flatlanders and we are accused of being trespassers! Old Vermonters are no longer able to own land as we don't have enough money!

All these things are geared to new Vermonters & tourists. As a taxpayer we have had the privilege of paying for many of these activities, but to use them we must pay seemingly exorbitant fees! Some states don't charge taxpayers but VT does!

You failed to mention local and state fairs and field days. We enjoy these activities—tractor pulling, cattle showing, horse showing, demolition derbies, horse + ox pulling. These, too, are in danger of being spoiled by money that is thrown around by tourists and new Vermonters.

Participation by my grandchildren and many younger friends is limited more each year as we don't have the money. Many "antique" shows and museum exhibits are very interesting but geared to tourists and seldom to real people. Many other activities are enjoyable. The Tunbridge Fair, Addison County Fair and Field Days, Rutland State Fair (becoming city-fied), Champlain Valley Exposition (a city fair not worth attending).

I wasn't going to reply to this survey as my views seem more like sour grapes but I have lived in Vermont since my birth in 1941 and have seen many things change, mostly at the expense of real Vermonters. I still own nearly 200 acres of farmland and welcome people to hunt, hike, snowmobile, ATV, etc. But most land around us is now posted—No Trespassing, No Fishing, No Nothing—because someone else now owns the land, and they want everyone to know it. If I've said anything logical, feel free to call me. We've had 10 children and now have 24 grandchildren. You wanted my input and now you have it.

During my life I have participated in most of the activities listed herein, however I am no longer physically able to do so. My children and grandchildren do participate in a lot of the activities that are listed.

I am now a senior citizen and this past year has not been good to me health-wise. So I am not probably of much help. I would like to see more programs in my area. I know the Mississquoi Wildlife Refuge does some things and we have the Rail Trail.

Need electricity at more state park camping areas for disabled!

I am legally blind so I have no way to get to anything or for any type of outing.

This looks so 1950's. Survey Monkey option would be good. Better cover might look a little less irrelevant.

In the town of [TOWN NAME], now that the beach house has been updated, there is a growing connection between local products, local people, and the reciprocal support of the previously mentioned goods and services with the state park in [TOWN NAME]. This supports both the town and the state park. The state park and its guests are more frequently commenting that they feel very “at home” in [TOWN NAME]. Most locals live here in [TOWN NAME] because we love the outdoors, and sharing that feeling with park guests is rewarding.

Bicyclists using highways need to pay and be registered and also obey road rules.

I am not certain that this is the place to mention this but since you asked me to fill out a survey... Rail trails. It would seem that Vermont has a lack luster approach to developing those resources. That seems most unfortunate considering the natural beauty and the fact that I travel frequently to use other trails in the Northeast.

Visitor's Centers. As a state that seemingly relies so heavily on tourism, I doubt that tearing down visitor's centers on the interstate is that great an idea. One would have thought that if Vermont can't afford to operate them, then they might have considered privatization? I am ok with a sub-contracted coffee shop and hopefully a friendly face AND a clean bathroom. The state could even have generated some revenue. I can only imagine the feeling of some poor tourist who gets on our interstate and finds out it's about a million miles to the next rest area. Also, since we barely put any informational signs out there anyway...where the heck do I find a gas station? Etc...it doesn't sound very service oriented to me. ☺

We live within walking distance of a very small state park [STATE PARK NAME] that gets used a whole lot during the off-season for hiking, dog walking, skiing, snowshoeing, but during the summer when the park is open very few residents use it because the park access fee is so much. There are only about 2 miles of trails and at \$5 per person this is completely out of scale for what there is to do. [STATE PARK NAME] should be free for day access year round. I have intended to hunt for the past couple of years, but I haven't been able to meet the schedule of the hunter education classes being taught. I hope to be able to do it this year.

More access to skateboard facilities in Caledonia County. Better bike paths in Caledonia County towns.

We are very lucky in our area of Vermont, specifically [TOWN NAME]. There are few paved roads and many multiple use trails that are used by hikers, bikers, and horses in the summer and snowmobilers, snowshoers, and x-country skiers in the winter. With the exception of a few trails I believe it is important that the trails remain multiple use and that the users respect each other with courteous awareness.

To me what's most beautiful about Vermont is the farmland & rural areas. The wilderness areas are not as interesting to me though I do occasionally hike up a mountain. I especially love the rail trails for biking and have biked on several around the state. I would love to see the rail bed from St Johnsbury up through Hardwick to St Albans or wherever it goes developed. Wherever a town has developed a really nice bike trail like Stowe or Burlington it gets a lot of use and is a real draw for tourism. The lower key ones are great too like the one that goes through Enosburg, or through Groton State Forest.

We'd like to see more wheel-chair accessible paths/trails outside of Burlington and Stowe (brother in a wheelchair).

National Forest lands should be open to ATV's as they are in other states i.e. New Mexico. Boating accesses for fishing could be improved. Better access for canoeing, etc.

VT could do a better job of identifying/locating/publicizing river canoe/kayak opportunities. The lack of outdoor ice skating is a surprise. Is it a matter of liability (esp. measuring the safety of the ice)?

I would like to see more ATV Trails in Vermont. New Hampshire has excellent trails and many people I know go there because Vermont has not statewide system.

My husband does not fish Lake Champlain because it is so contaminated, as are so many others—it is very sad!

We have a great bike path in Burlington, but for non-residents, we have to pay to access it.

I am handicapped now with arthritis but have lived and been a great outdoor person until this happened—always in our great state of Vermont. I still see the areas I used to use and how they have changed. I've swam in most Central VT ponds, walked many central VT woodlots, logging roads + scenic areas. Have used VAST trails in Central VT until the past year and it was great, being out in the wilderness where no roads were located. I used to hunt for deer every season and sighted in rifle prior to that. Our boat access areas are really great, used to have a rowboat and small motorboat. My grandchildren and children were all in sports and enjoy going to those outside sports to see them. I still enjoy touring VT, the whole state. I am a native Vermonter and love everything about our outdoors and always have. Hate to see 4wheelers ruining our woods—not all of them seem to care. Outdoor picnic areas are a plus.

Semi-retired. Have 2nd and 3rd home in Florida and Lake George, NY. Majority of outdoor activities are in either Florida (golf, swimming, fishing, hiking) or NY (boating, golf, swimming, hiking, fishing).

For many years, I've traveled to Maine to go fly fishing. I believe that the state of Maine has a much [better] grasp on how their waters should be managed. As a fly fisherman, I would like to see many more fly fishing only sections of trout rivers and streams and ponds, as well as restrictions on fish lengths – such as releasing all fish between 12 & 14 inches. Maine waters have many length restrictions as well as no kill areas also. At the West Branch of the Penobscot River, the minimum length for taking a salmon was 26". If VT designated more areas as fly fishing only, etc., we would draw more out of states here, and enjoy better fishing also.

We live [NEAR] Lake Memphremagog, but we drive to Crystal Lake because we feel our lake (in walking distance) is too dirty for our children to swim in. How can we get it clean?

Vermont is a great place to recreate but the property tax and income tax is driving us & others to move to other states. We spend too much on social programs for persons that do not seem to add to our state. We need to think more of the tax payers and not people not paying.

This survey goes less than halfway in determining how well Vermont meets outdoor rec needs. It would be more helpful to learn how well VT stacks up against competition. I'm taking part in significantly more recreation out of state than in. Do I have a "need" to take part in that recreation? No, I choose to because I have disposable income enough to choose where I spend it and I choose to spend more out of state than in. You'd be wise to figure out why.

The state, in the past 35 years, has ruined fly fishing in Vermont—an opinion shared by virtually all fly fisherman I talk to, including out of state who have travelled here to fish. Short-sighted stocking, as opposed to habitat restoration with natural reproduction (as out west!) has made our river fly fishing tedious at best. It seems that all the folks want to do, according to our policies, is follow the stocking truck to the river, and then fill up to a dozen brook trout for bragging rights. Short-sighted policy!

Important feature...not only for personal benefit but for the economy as well...should there be more promotion of our assets??!! Due to gas prices many of my friends are staying closer to home—enjoying the local scenery.

I am 90 years old and I used to fish and hunt deer and birds, now my heart is not good. I still do some brook fishing. Vermont is a good place to fish and hunt. Thank you.

I would like to see more local lakes and ponds made accessible to handicapped. There are very few that we have in our area. I have to travel to do fishing and we have to go to Burlington to find a dog park for the dogs.

Many boat access points, but some pads in poor condition and no dock/float to tie to while getting/parking trailer. Very difficult for solo launch.
No questions about importance of no powerboats/noise on lakes & ponds. How about "Idle only" day! No power is better!

There is a LOT of competitive and recreational shooting and we need more and better ranges. Look at www.vtsrpa.org or google the sites of Barre Fish & Game, Caledonia Forest & Stream, or Burlington Rifle & Pistol Club and look at the calendars of events. Lack of ranges causes careless shooting in makeshift ranges and turns honest folks into outlaws. Same thing with ATV's. There are a huge number of them in VT. They need to be channeled into a trail system maintained by clubs, like snowmobiles are. Shumlin made a big mistake not allowing them to use a small bit of state land. The public has been misled on this. New Hampshire has a great trail system and it brings big money to stores and campgrounds. Registered, inspected dirt bikes (like mine) should be allowed on the system. Shumlin thinks mountain bikes are the "future of recreation in VT." Well their narrow tires do more damage than wider ATV and dirt bike tires because they penetrate more into the soil. Also, they cut trails in virgin areas. ATV's allow the old and disabled to get out.

I would love to see the State (Barnard) Parks stay open longer in the fall. I also wish the cost of renting the picnic pavilion was not so high. \$150 plus an entrance fee for each person is prohibitive for some people. Some of the parks in Massachusetts are \$40-50 and a minimum amount of people for capacity.

Haven't lived in Vermont long enough to utilize many of the facilities listed. Someday I will, once I figure out where the heck they are located. LOL. Being a transplant from a large metropolis from the Midwest, where the grid pattern in urban planning is the norm, trying to locate the exact address/location of the type of facilities listed in this survey is daunting. In short, I can't use a facility if I can't find it. Most directions listed for certain facilities are vague, for transplants like myself, who require specific directions, not just squiggly lines connecting point A to point B, and measuring distance in "minutes" and not in "miles." Pardon the rambling. I work in the wee hours of the morning, as I pen this narrative. Currently, I am staring out into the woods, and see a lone beaver staring out at a fallen tree branch. I can't help but wonder what's going through its mind as it saunters into the woods. Wildlife watching...damn cool. Better than watching a bum take a dump next to a garbage can in a city alley and using a Burger King whopper wrapper as toilet paper (true story BTW). Thank you for the opportunity taking this survey.

I would like to be able to use state lands to ATV on—have ATV in VT like NH has! Nice ones!

I am not from VT, lived here for only 3 years but I would love to do all of the outdoor activities once I have transportation.

Not enough lakes to swim without an enormous cost.

In VT with our small towns it would seem to me to be helpful for our local school and recreation boards and state recreation boards to work in concert so we can maximize facilities for outdoor activities at reasonable costs and avoiding duplication.

There are no state run ATV trails in Vermont. The state of VT takes our money for registration, and don't give us anywhere to ride in the Bennington County area.

Lived in Vermont most of my life. Live on 100 acres of land in [TOWN NAME]. Played sports all my life. Never married, no kids, still lots of family in all sorts of recreational activities. Coached soccer and basketball, currently playing men's league baseball. No place like Vermont.

For cycling the roads in Vermont are an absolute DISASTER.

Used to participate in outdoor recreation activities all the time in younger years and with our children. Our son and his young family participate weekly and frequent the ECHO Center.

I spend most of my recreational time in NH where their river/stream regulations for prospecting are based on scientific reasoning & facts. Vermont laws are based strictly on non-scientific reactions with no studies.

I think questions about biking conditions on roadways could be delineated a bit more. Yes there are roads, but VT isn't necessarily as bike-friendly as it could be.

We live 8 miles away from a public beach in [TOWN NAME], NH which is perfect for children. Therefore by virtue of geography, NH offers more outdoor recreation opportunities for us.

p.7, re: Hiking Trails

Need \$ to replace washed out bridges, etc.

Comment page:

- 1) Several hiking trails have been damaged by storms the past several years. \$ investment needs to be made to restore these assets
- 2) Camping areas. See #1 above.

I believe Vermont has a good lot of recreation facilities if a person has good health and goes out and uses them (also not 75 years old.) You begin to lose interest in getting up out of the living room chair at that age. Ha. Ha. (I'm not overweight – 170 lbs.)

I used to pitch horseshoes years ago in VT, NH, ME, & MA. I still like to pitch but, not often now. I also deer hunted for more than 60 years.

No my recreation mostly is trying to pay for taxes, insurance, fuel for home and gas for autos. I lead about the dullest life of anybody you could have sent this survey to. Sorry I couldn't help more.

I like to do maple sugaring in the spring. I tap about 30 to 40 taps. I didn't do it this last season, but I have done it for years in the past. (I missed doing it!). Maybe next year.

I think it is a shame that 15 of us have to go to Canada to go ATV riding. We go for a week and travel 600 to 700 miles on ATV's and spend \$2000-3000 for the week for food and gas and lodging not to mention the cost of the ATV's. This is money that could stay in Vermont if we had more trails to ride. The rail trail from Swanton to St Johnsbury would be a great place to ride with places to stay overnight and meals. Think of the money that the state takes from snowmobiling, it could be 4 times or more from ATV's with the same trails.

While I do not take advantage of outdoor recreation very often, it's very important for my grandchildren when they visit.

We have a dairy farm, and we allow hunters, snowmobilers, hikers, ice skaters, etc. all to share some of the things we take for granted. We are constantly reminded by others that visit our place just how special this state of ours is.

Great hiking trails

Great lakes & streams

Great photo opportunities

Great snowshoeing

When my dad was alive, he thought hunting was great

Would like hiking trails like the Netherlands and Belgium.

Most outdoor activity occurs on our own property, with the exception of golf. We garden, cross-country ski, and snowshoe on our own land.

I think all of the outdoor venues are excellent but would happy to see more and support. Hoping for work to start on bike path in my town. There are no more honest + giving people than Vermonters.

My family and I have moved to [NAME OF STATE]!!! So this is my last one!!! I feel and have felt that access to hunting, camping and fishing areas are shrinking, and I hope that active pursuits continue to acquire more open land to foster the stewards of tomorrow in VT. I will be back to visit occasionally and hope to see my usual spots still available and hope some new ones will be made!

You might prefer not to use this data. I have Parkinson's Disease. My poor balance and motor control prevent me from driving and walking outdoors. Every activity marked "NO participation" is for the same reason, my disability; and not because of the activity, its location, or facilities.

My problem is not a lack of outdoor recreation meeting my needs. When they cure Parkinson's, I have plenty of places to hike and X-country ski, near my home in [TOWN NAME].

I like being outside at home mowing or sitting by the fire, relaxing, listening to the Red Sox!!

Vermont has a lot to offer for skiing and hiking (mostly private facilities?). Public campgrounds are good. Public land for hunting is available with limited game. Municipal fields and parks are lacking.

As a retired forester I am finding it to be extremely difficult to take part in physical activity—back trouble, leg trouble, etc!

We live in Burlington. We bike everywhere we can for travel and for fun—2 adults, 1 2-year old. Burlington is SO well set up for this. The bike path and parks in town (Oakledge, North Beach, Leddy) are fantastic. We use the Intervale a lot for walking and fun with the kid. We feel lucky and privileged to live so close to such great hiking and skiing. I find VT hiking trails very well maintained and organized. We don't own a TV, we don't bring our computers out during the day, and our kid is being raised to say "Let's go outside," and has never uttered the words "Let's watch TV!" Being here in BTV makes that easy. I am not from here (not even from the US) but I will never leave. The outdoor opportunities are a BIG part of this decision.

In general, Vermont has the potential to be the nation's premier outdoor state. With a little more coordination, management, and advocacy, good could go to great!

- 1) Improve access to rivers & streams for tubing, kayaks
 - 2) Map out existing informal (local knowledge) access to old roads (now trails) and rivers/streams
 - 3) Develop a standards of conduct and skills for people who would like to use the state's facilities – (honor system would go a long way).
 - 4) Offer more guided field activities at colleges & universities to develop decent skills, knowledge, awareness. Reward with certificates and letters...
- Thanks for the opportunity.

I feel that Vermont has great outdoor programs. I love it here.

My mother, [NAME], died last week at age 97. I am filling out the form in her stead. Public access, often club-maintained, dog training areas exist in CT, PA, NY, IA, etc. I'd love to have some around here ([TOWN NAME] or Northern VT generally). The Lake Champlain Retriever Club (and others) would be supportive, I'm sure.

Except in the most inclement of weather I spend 1-2 hours/day walking/hiking. Sometimes x-country skiing, often kayaking—swimming on every possible day. Would bike more if there was less traffic, pollution. Would camp (tent/car) more if there were more quiet and inexpensive places to do so. Vermont's landscape is a mixture of farmland and woodland—its treasure. While it allows for “developed” recreational opportunities, its very presence, if not at one's doorstep, a short drive away, is an astounding opportunity and invitation to outdoors “being.” (Perhaps meditation should be added to the list of activities—I definitely do!).

To the extent that the state and municipalities can preserve/reclaim the landscape, we who live here and those who visit will be re-created, no matter the activity.

I feel it is very important to limit where motorized vehicles, including boats, can be used as their presence totally destroys the peace, the quiet, the lovely air that is an integral experience of being “outdoors” in Vermont.

In short, to be re-created in this state one needn't be doing something. Being in the midst of a naturally beautiful and varied landscape, which needs to be preserved at every doorstep possible, does the trick.

You're doing a very good job! Keep it up!

You ask of only my household, i.e. me and my wife (both retired).

We have not included our grandchildren who participate with us but are of another household.

We do find the 4-wheelers and snowmobiles somewhat intrusive – less so now – as e age we are less likely to get in their way! We curtail our activities.

Thanks for doing this. I look forward to seeing the results of the survey. I found some of the questions difficult to answer. Am I “choosing” to “walk” when I walk the dog? Is that what you mean when you are choosing an outdoor activity? I guess that I could “choose” to fence in my yard and just let the dog “run in the yard” and not choose to walk...Is it an “obligation” of ownership or real recreation...? I can’t tell you how many Vermonters I know that would include gardening as a recreational activity. How does harvesting vegetables differ from harvesting meat. When it is “work” and when “recreation?” Is raking leaves less of an outdoor activity than viewing leaves through a bus window? Good luck!

2010-2011 has been an unusual time for me because I’ve needed a hip replacement! This brochure arrived just a few days before my appointment at [NAME OF HOSPITAL]. Tomorrow I shall have a new hip and will begin again to enjoy the out-of-doors! So I have filled this out for my family. My children and grandchildren ski and bicycle constantly and even race competitively. I hope this helps you establish new goals.

The scarce financial resources of this state should be used to improve our roads and bridges. The future budgets for outdoor recreation should be increased. Likewise, more than enough land in this state has been conserved/preserved. State lands should be opened for more logging which in turn would make for better wildlife habitat. I am also not an ATV or snowmobiler, but I do believe the state could do more to help them in allowing for more trails.

Our family of five enjoyed camping when the children lived at home. My husband and son enjoyed fishing, in streams and lakes. The facilities we used were always clean and in good condition. I am alone now and miss the camping experience.

Better ATV trails across state lands to connect to VASA trail system.

Motorized Activities:

These are far too destructive to the environment.

Rec. Activities Outside Vermont:

Gardens in Montreal and Zoo.

Comment Page:

I wish I had more time for them. I’d also love to see more gardens and museums, with outdoor components. We also very much miss having nearby zoos and winter activity areas that are really family friendly. (Areas for children to warm up, easier trails). We love the swimming – there are wonderful beaches with facilities. We haven’t been as successful finding swimming holes, although we’d love to.

 I mostly appreciate the wilderness areas that are off limits to motorized vehicles and boats.

 Rural areas do not have bicycle/walking paths.
 There are very few and none nearby to access good river swimming.
 Small towns do not have much in the way of public recreational facilities, i.e. basketball, tennis, ice skating, etc.

 You have mailed this survey to a snowbird! My spouse and I are residents of the state of [STATE] after living in Vermont for >30 years. We own a comp on Lake Champlain where we spend our summers. I leave it to your judgment whether to include our survey data as representative of a full time, year round Vermont population.

 I wish that there were some nice long flat biking areas in Central Vermont. I love the hiking opportunities in Vermont!

 I think that our state park are in really poor condition and need to be looked at and made more inviting and attractive. To me most of them are dumps and stuck in the 70s.
 The other thing that really should be looked at is more ATV trails and snowmobile trails. It's sad that we have such a beautiful state and there are no ATV trails to enjoy it by. I think it's time to start making ATV trails throughout the state, just like New Hampshire.
 Since I took the time to do your survey I would really like to see my two items listed above seriously looked into and made known, I'm not the only one in agreement with them, many others have said the same. Thank you.

 Last question (#8) most relevant for me: My girlfriend lives in NH (Across the CT River). The state needs to do all it can to promote non-motorized use of state lands. No ATVs except a handful of places. Keeping people attuned to the land (on foot) is/should be priority #1. Let other states promote ATV use, not Vermont!

 I love Vermont!
 I'd like a cleaner Lake Champlain
 I'd like better online access to information about lake water quality that is more everyday person friendly
 Better online info for parks in general.
 Thanks!

 I recently relocated to Vermont. I would like to receive information on where to go. More advertising!

Page 1, Touring Activities:

Less now because of gas prices.

Page 3, Boating Activities:

No more power boating. Gas too much.

Page 6, Other outdoor activities:

We would travel more – i.e., climb Camel's Hump – but the cost of living in Vermont is too high... gas, taxes, food, etc. We sold our boat. Now we do things close to home.

I am an avid back-woods telemark skier who has been playing in the Vermont woods for 25 yrs. I strongly believe that Vermont is missing the opportunity to offer the back-woods fresh powder experience safely (within reason) to its citizens and to people who would travel to this area for such amazing conditions. As my survey response indicates, I tend to play a lot on the west side of Mount Mansfield. With very little impact upon its wild beauty, the state could reap local financial profits and promote phenomenally healthy exercise for people of many ages. Such local profits could be from possible day or season passes, or increased use of local businesses, as well as job creation. This idea could even involve the dynamic of practical training/teaching of forestry students/recreational business students at state colleges by using students in the process of establishing/maintaining these proposed areas. In 25 yrs, the use of these backwoods areas has exploded from just a few weekend users to completely filled parking areas on any weekday of fresh fallen snow, and these areas are filled every weekend. Snow-shoe users, snowboarders, A-T and telemark skiers would love to have more of this experience. I believe there is a way to do this without negatively impacting local residents or negatively impacting upon the wild and undeveloped aspect of Vermont's mountain forests.

Another area in which I believe the state of Vermont is missing an opportunity is in the realm of bike touring. The lack of space on our roads for bicyclists and the incredibly poor condition of many roads discourage many from using this viable and extremely healthy form of transportation. Creating better bike paths and bike lanes along commuting arteries would readily promote several seasons of inexpensive and healthy alternatives to automobiles. Once established, such lanes or paths require almost no maintenance. They would also attract tourists for whom bicycling is an avid dynamic activity. Vermont's back roads are very beautiful and challenging with their ups/downs and curves, but are also currently dangerous for any bicyclist to share with traffic.

Thank you for trying to do research for our state to maybe try and promote more and better use of our natural resources without destroying the beauty which attracts so many of us to this area and lifestyle. My email address is [EMAIL ADDRESS]. Cheers!

Very happy to live on 10 acres of woodland, next door to a 120 acre sugar bush, both of which I work. Biggest recreation lack for me was closing of Mt Ascutney Ski area, which is [NUMBER] miles and [NUMBER] minutes away and where I have skied free since I turned 70. Also a favorite for my four grown kids and their spouses and 11 grandkids.

I love Vermont and everything it offers.

I hope this was some help. I am an old Vermonter and very proud of it. We have a beautiful state. Please keep our State Parks for the grandchildren! Don't let the flatlanders change our state and make it like where they left.

I wish there was some way everyone would pick up after themselves, and leave their spot good or better than what they found it. Don't mess up Mother Nature Wonderland with bottles and trash. Keep it in your cars or campers.

There are some places that you can just leave to nature and not fix them up, just let nature do its own things on earth. "Enjoy what the Good Lord has given us Vermonters."

Page 4, Swimming section

I am 78 years old so many things I used to do I no longer can.

Comment Page:

In my younger days, I was able to participate in many outdoor activities. My age does not allow me to do s but I enjoy watching my children and grandchildren who are very active participants. Vermont is a great place to live and grow old!

Page 7, Off-leash dog parks Q:

We need many more of these parks.

I realized 1) we're boring, 2) we work too much, 3) we're not utilizing the state's opportunities.

When I was younger, I hunted, fished, and snowmobiled. Due to health, I can no longer do these things.

Page 5, Motorized activities:

I think these should be curtailed – too damaging to Vermont & private property.

Page 5, Motorized Activities, ATV Q:

No place to ride them!

If there were brochures of everything (activities) available in all areas of Vermont, that would be very helpful.

This is a "second home" residence. Our extended families (children & grandchildren) uses it about 90 days per year.

 We spend many days hunting, fishing, hiking, wildlife watching, and indeed have purchased/built a camp near (TOWN NAME). The remoteness and quietude found there is rare in Vermont except in the NE Kingdom and Breadloaf or other National Forest areas. These opportunities are rarer every day and need to be valued (experienced) while still protecting their essence for the future. The work of the Heritage Program and TNC is invaluable. I am a hunter with an appreciation for the “real” wild experience.

 The one thing that sticks in my mind while I am out walking in [TOWN NAME] is what a mess and waste of trees “maple, cherry, oak, and oak that gets blown down and creates a future fire hazard and what a waste to our national land. Forever wild does nothing to help the wildlife or people that hunt, fish, or hike in these woods. I have watched the animals where the state has done limited logging prosper over the years, but the fed so no logging or managing of our forest in their control. I think it’s a crime for and against all who use it. I am not a logger, but a retired carpenter who has hunted and fished a lot of these acres over the years and hope that someday the policy will be looked at for what it is.

 We think there could be more advertising of the locations of trails, biking routes, tennis courts, and canoe (whitewater/river) facilities. There needs to be more:

- Playground equipment
- Outdoor exercise for adults in parks
- Better maintained outdoor basketball & tennis courts
- Badminton & volleyball courts

Thank you!

-
1. Hunting in VT for big game is poor.
 2. Fishing in VT is below average.
 3. Snomobiling in VT is far too expensive for most and is over-regulated.
 4. ATV use is becoming more regulated and expensive.
 5. VT should allow registration and road access to ATVs similar to Montana. I would provide affordable transportation to Vermonters and would also serve as an outdoor recreation opportunity for families and tourists to explore our many back roads.
 6. Ski resorts should be mandated to provide affordable skiing to Vermonters. Skiing in Vermont has become reserved for rich tourists.
 7. If I am required to share the road with bicycles, they should be required to register their bike!!! (And insure and inspect it!!)
 8. Public archery and rifle ranges should be common place.

 It would be nice to have more bike lanes connecting Charlotte to Burlington. This would make biking safer and promote non-motorized commuting to Burlington.

My wife and I are looking for other (more) places to walk/hike, we just recently found Grout Pond in Stratton, it was great. We will return whenever we can (possibly once a week). Where do we find out more places, close by, and further, and what activities these places have available?

Also, I used to hunt, but am not sure where I can go here in Vermont, any suggestions? The closer to home the better for me, it's a time issue.

Moving back to [STATE] soon, will miss the VT outdoors but looking forward to shorter winters and more sun!

OHV/ATV trails – Meets your needs? Question
Don't want or need these.

Please do not allow all-terrain vehicles on to state or federal lands in Vermont. ATV use leads to trail degradation, littering, and vandalism.

My wife and I moved from the Midwest 23 years ago thinking we would try living in this beautiful area we had vacationed in years prior to our move. We figured we would only be here for a few years before moving back, however the lifestyle and recreation opportunities have exceeded any expectations to the extent we are still here and loving it!

We can't afford to do much with the cost of gasoline. This has put a hardship on many people across the state. The cost of many things in Vermont is way high priced for many many people here in the state. Taxes are another thing that is too high. This also puts a hard time on people. We do not do much outdoor fun. Gardening is it.

We need the states to open up land to the 4-wheelers. I'm sure if you check, there are just as many 4-wheelers registered with the state as snow-machines. Shame on the state. They have ample land we could use. We should get something out of our tax dollars. Thank God for New Hampshire. They are the smart ones.

It will be interesting to see the results of this survey/research and to learn about how, if any, influence [it will have on] the state's outlook on outdoor recreation.

Sadly, our town is lacking a (working) rec. department.

Appendix C: Trails-Related Resources: Achievements, Issues & Priorities

The following document discusses, in detail, challenges facing Vermont's trails-related activities, outlining achievements, issues, and priorities for trail resources in Vermont, identified by those who participate in them and/or supply opportunities to engage in them. A more general discussion of participation in trails-based activities and an inventory of trails is included in Chapters 2 and 3.

Winter Trails-Based Activities:

Downhill (Alpine) Skiing, Snowboarding and Ski Areas

Achievements:

Since 1995 the Vermont Department of Forests, Parks and Recreation completed several land exchanges or transactions with ski areas that lease land from the department. These transactions provided for a net increase in state-owned conserved lands while improving the economic viability of the ski areas.

- At Killington, the ski area obtained additional land while approximately 2,900 acres of critical wildlife habitat were added to Coolidge State Forest, including the Parker's Gore tract.
- At Okemo, the ski area expanded while several hundred acres of critical wildlife habitat were added to both Okemo State Forest and Tiny Pond Wildlife Management Area.
- In the Stowe Mt. Resort transaction, approximately 1,100 scenic acres were added to Mt. Mansfield State Forest, including a new campground at Smuggler's Notch in exchange for land to expand the resort.

Partnerships with environmental agencies, including the Vermont Agency of Natural Resources, and various organizations have resulted in the development of innovative energy and water conservation, recycling, and public transportation plans and techniques. These include the development of *Guidelines and Best Management Practices* used for trail construction at high elevations. These were the first to be developed in the nation.

In 1996, the Vermont Ski Areas Association cooperated with the Vermont Agency of Natural Resources in developing minimum flow standards for streams used for snowmaking. These allow ski operations to maintain sufficient water in streams to protect aquatic habitat and organisms. By 2004, five ski area snowmaking systems met these standards.

Many ski school programs have improved and expanded to include telemark skiing clinics.

Statewide industry standards and practices for workers and skiers have been implemented. These include innovative and comprehensive safety programs such as the Lift and Tramway apprenticeship program. In addition, an extensive skier-rider safety and publicity program was promoted.

Ski areas provide community support through programs designed for school children, seniors, and Vermonters with disabilities. Ski areas have been longtime supporters of scholarship programs and charitable foundations such as Make a Wish and the Special Olympics. In addition, nearly 11,000 free passes and another 4,000 deeply discounted passes are given to school kids annually.

The seven ski areas on state land annually generate over \$2 million in lease payments to the state, funding over 50% of the state's parks budget.

Issues:

“Weatherproofing” resorts with up-to-date snowmaking capabilities is a constant need.

State permitting processes are sometimes redundant, which increases costs.

Workers compensation and energy costs are much higher in Vermont than other states with similar resorts.

Rising insurance rates have a big effect on operating costs.

It is important to keep Vermont ski resorts competitive in the marketplace by providing a wider array of vacation amenities as demanded by the public.

Ski areas whose snowmaking operations fail to meet minimum flow standards for streams need to comply.

Long-term vegetation management of glades

Snowmobiling

Achievements:

Vermont's SSTS maintained by VAST has been repeatedly recognized nationally as one of the top trail systems in North America. This goal has been accomplished through continuous monitoring and improvement of a number of objectives including; addressing environmental issues, maintaining updated grooming equipment, securing avenues for permanent trail locations and keeping volunteerism alive within the organization.

VAST clubs work closely with the various arms of the Vermont Agency of Natural Resources on numerous trail construction projects to ensure that environmental standards are consistently met.

Manufacturers are producing 4-cycle engines with considerably reduced noise and pollution. More riders are purchasing these machines due to their improved fuel economy.

VAST's Safety Education and Responsible Riding Committee has continued delivering informative safety messages to its members and volunteers at meetings, events, in the media, and on the trail.

VAST has continued to work with the International Association of Snowmobile Administrators (IASA) and volunteers from the 129 clubs across the state to create and implement trail signing guidelines that focus on simplistic and consistent signing along the SSTS.

VAST annually injects hundreds of thousands of dollars into Grant in Aid Programs to help clubs to complete trail construction and de-brushing projects, install trail signage and acquire newer grooming equipment.

VAST has continued to work with other recreational user groups to enable and promote multiple use trails whenever possible.

VAST has created the Vermont Snow Trails Conservancy/Charitable Trust in their continuing efforts to work with landowners and obtain permanent easements to ensure continuity of the SSTS for future generations.

VAST has been recognized as a national model due to its grassroots, volunteer-based operations with 129 local clubs throughout the state and more than 8,000 + landowners.

Local VAST clubs continue to donate thousands of dollars in cash and volunteer time to a variety of charities and local fire and rescue squads. Recipients of these donations include the Cystic Fibrosis Foundation, the Donna Crandall Foundation, Make-A-Wish Foundation, National Alzheimer's Foundation, along with numerous local charities as well.

Issues:

Membership: Trying to maintain the current level of membership while obtaining new members to a manageable level is an ongoing battle. The VAST membership has decreased from 45,000 in 2003 to 23,000 in 2012. Registrations have also fallen off during this time period.

Cost: Price competition with other snow-belt states, especially those that border us, is an issue that faces VAST each year. VAST has continued its efforts to keep the overall cost of snowmobiling in line with these other states, but it has not proven to be an easy task. The cost to maintain the SSTS continues to rise on an annual basis and a result so does the cost of a TMA. This in turn can have negative effects on the membership. In addition to the cost of the TMA, the cost of snowmobiles, parts, accessories and insurance continues to rise as well causing some riders to pursue other less costly winter activities.

Trail Sustainability: Trail sustainability continues to be a struggle that most recreational user groups face. VAST is no exception to this. Urbanization is one major reason that access to land is lost. This typically results in costly trail relocations and often times trail closures that sever the continuity of the SSTS and increase the overall cost to maintain it.

Volunteer Retention: The average age of the volunteer continues to creep higher with the passing of each season. Getting youth involved in the sport has proven to be a challenge. The effort involved in maintaining the SSTS is slowly being placed on the shoulders of fewer and older volunteers with no one standing in the shadows to pick up where they leave off.

Climate: The lack of the two important elements, cold temperatures and consistent snowfall have decreased membership and funding, especially during the 2011/2012 season. If this trend continues it is likely that membership and funding will decrease further.

Priorities:

One of the main priorities for the future will be taking the necessary steps to ensure that Vermont remains one of the premier snowmobile destinations in the northeast. In order to do this VAST will need to move into the 21st century by offering online TMA sales, an interactive trip planner, GPS tracking units in groomers, real time grooming updates from these tracking units as well as other modern day conveniences that members would want and/or demand if they were to come and ride in Vermont.

Once VAST has implemented these changes it will need to market itself better than it ever has by showing that Vermont has a lot to offer on the trail as well as after the ride is over. VAST needs to retain its current members, attract some past members, and entice new ones to join until a manageable level is reached. As membership increases so will the amount of funding available for the SSTS. In turn the cost to maintain the SSTS will be spread out over a larger membership base, keeping the cost down for each individual member. VAST is working closely with a public relations and marketing firm to create and implement a detailed plan that will enable VAST to accomplish these goals and move the organization forward.

A second priority for VAST will be the task of updating the economic impact study that was last completed in 2001. New data is needed that accurately reflects the current financial impact that snowmobiling has on local economies. Armed with accurate data that shows the significant impact snowmobiling has on the Vermont economy VAST will be better equipped in our efforts to acquire additional funding mechanisms for maintenance along the SSTS.

A third priority requiring constant attention is trail sustainability. In an effort to address this issue VAST has created the Snow Trails Conservancy/Charitable Trust. The trusts purpose is to work with willing landowners to obtain permanent trail easements to ensure the continuity of the SSTS. VAST has obtained three important easements and is currently working on others. The

trust will need to continue its efforts and obtain more easements to prevent costly trail relocations and closures.

The creation of landowner incentives is another priority that will require some effort if VAST is going to address trail sustainability. The landowner appreciation committee continues to work diligently to create incentives for landowners who open their lands for snowmobiling. Many of the local clubs currently provide landowners with donations including gift certificates to area businesses, invitations to landowner appreciation dinners and barbeques, jugs of maple syrup, hams and even donations to area food shelves in the name of the clubs landowners. Work needs to continue in this area as landowners need to be consistently recognized and appreciated.

A fourth priority that VAST will work on for years to come is volunteer retention. As lives become busier with each passing year the number of volunteers is on a downward slide. A few years ago VAST created a discounted volunteer TMA in an effort to show the volunteers how much they are appreciated. Another priority that will help to alleviate this issue is getting more youth involvement in snowmobiling. Other snow-belt states have youth programs that seem to be working well for them and one of the keys to success will be borrowing ideas from these successful programs and implementing them here in Vermont.

Each of these issues will require a great deal of thought, time and effort if VAST is going to remain successful in the coming years and position ourselves as the premier snowmobile destination in the northeast. VAST has been resilient over the past 45 years by adapting to change. By addressing the current issues and setting realistic goals we intend to remain strong and vibrant for years to come.

Cross country skiing

Achievements:

The number of backcountry and Nordic events being offered throughout the state continues to increase, including races, marathons, fundraisers, and tours.

The Craftsbury Cross-Country Ski Marathon has become so popular that it is now limited to 1000 participants.

The ski equipment industry continues to improve the quality and usability of Nordic skiing equipment, allowing Nordic skiers the opportunity to more easily access a greater diversity of Nordic and backcountry terrain.

Membership in the Catamount Trail Association continues to increase, with a total membership of 2000 as of 2012.

The CTA continues to make progress in protecting sections of the Catamount Trail. Over 80 miles of the 180 miles of the trail located on private land have now are protected via trail

easements and the CTA has a trail protection program focused on conserving the remaining miles.

The CTA now offers a youth program run by AmeriCorps volunteers that provides the cross-country skiing experience to youth who normally lack the opportunity.

The CTA now benefits from the efforts of over 300 volunteers each year.

The Catamount Trail Association published the 9th edition of its guidebook in 2008, and the entirety of the information it contains can also be found at no cost on their website, including maps.

Issues:

Need to consider managing the use of popular backcountry skiing areas/locations.

Need to manage the demand for backcountry skiing locations by providing/creating new backcountry skiing locations.

An increasing number of Nordic centers are investing in snow-making equipment in an effort to ensure quality snow for their clientele. The onset of climate change may soon require an even greater need for snowmaking.

As backcountry skiing becomes more popular, the number of incidents of skiers becoming lost or injured in the backcountry has increased.

Priorities:

Greater public access is needed. As backcountry skiing grows, so must the access to backcountry skiing areas including the development of associated parking areas and facilities.

Landowner liability continues to be an issue of concern for Nordic trails and trail users. Statutes that protect landowners from litigation must remain intact and in effect.

The CTA continues to require funds for the conservation of sections of the Catamount Trail, whether from state, federal, or private donors.

Trails Related to Towns and Roadways and Occurring Primarily in Developed Areas:

Cross Vermont trail

Issues:

Competing against other transportation projects for funding.

Securing rights-of-way from private landowners.

Environmental review and acquiring permits.

Rail Trails

Issues:

Need for coordination between VTrans and ANR, in the form of a task force, to create a long-term strategy for rail trail management and maintenance.

Need for assistance to organizations who manage these trails in finding funding options.

Bicycling

Achievements:

Vermont's own bike/ped program, which is contained within the VTrans budget and which had been closed since 2004, reopened and is expected to accept municipal applications in 2012.

"Bike/ped" was announced by the Shumlin administration as one of four areas of emphasis within VTrans.

The passing of a bike parking bill requires the state to report on current bike racks (number, location, type, accessibility) at state buildings and the plans the state has for repair and installation of bike racks over the next three years.

71% of Vermonters who took Senator Doyle's Town Meeting survey responded "yes" when asked: "Should VT legislature encourage bicycling and walking?"

Lobbying led by AARP resulted in the passage of the Complete Streets law in VT which requires that the needs of bicyclists, pedestrians, and disabled citizens be taken into account when streets are reconstructed and when new streets are built.

The new Champlain Bridge, complete with 5' shoulders and 5' sidewalks on each side, opened in November.

The bike/ped community was consulted regarding which state road shoulders were most in need of sweeping and repair. The feedback was organized and forwarded to VTrans for use as a guide to which shoulders should take priority.

A record high 581 bicyclists participated in the 4th Annual Tour de Farms, an event that celebrates family farms, bicycling, and the beauty of VT's rural landscape through the

collaborative efforts of the VBPC, Rural Vermont, and ACORN.

Bike shop and B&B owners, leaders of advocacy groups and bike clubs, staff from Chambers of Commerce and Regional Planning Commissions, representatives from VTrans and the Department of Marketing and Tourism, and other enthusiasts gathered at the 3rd Annual Bike/Ped Business Forum held in October.

Walking

Achievements:

StoryWalk®, the project that builds literacy and physical fitness outdoors, has spread to 36 states and two other countries. The Kellogg-Hubbard Library and the VBPC have collaborated to develop the StoryWalk® Project.

In 2010, for Arbor Day, the Vermont Department of Forests, Parks & Recreation initiated a StoryWalk® featuring the Lorax. Since then, this has been offered more than 50 times, reaching more than 1,000 participants and continues to be offered frequently.

Running

Achievements:

The KeyBank Vermont City Marathon was selected as a "Top Destination Marathon" in a 2012 article on Outside Magazine's website, OutsideOnline, a proud achievement in its 24th year putting on the event.

Forming the largest USA Triathlon National Championship event in the sport's history, more than 3,500 of the nation's top amateur triathletes were in action at the 2012 USA Triathlon Age Group National Championships in Burlington.

Trails-Based Activities in Forested and Back-Country Areas:

Mountain Biking

Achievements:

Secured written permissions linking adjoining private and public land managers/owners in the Perry Hill trail network, Waterbury.

Developed the "Ride Center" in the Stowe area which links public and private land managers/owners.

Secured grant to continue work in Blue Berry Lake for beginner/intermediate trails.

Rebuilt the Leicester Hollow Trail after flooding damage in 2008.

Augmented trails in the Moosalamoo National Recreation Area.

Obtained a grant and private donation to complete work in Little River State Park.

Partnered with VYCC on numerous projects.

Matched outside funding to enhance the trails in the Mad River Valley.

A study conducted on the Kingdom Trails Association indicated the trail resources in the area contribute over \$5 million to the local economy annually.

Chapters remain active and passionate about riding as seen through numerous events each year and through the expansion of trails sustainably-constructed by countless volunteers and enjoyed by thousands of residents and visitors.

VMBA has hosted five successful annual Vermont Mountain Bike Festivals and plans to continue the event each year.

2012 VMBA Administrative Accomplishments:

- Overhauled the strategic plan 2012-2015
- Secured operations funding through 2014
- Developed an umbrella 501 (C) 3 status and steeply discounted insurance for chapters.
- Developed the “Preferred Trail Builders” program in collaboration with VYCC.
- Refined operations relative to membership, partnership and sponsorship.
- VMBA has become a 1% For the Planet partner and is developing a partnership with the Google+ to utilize their new platform.
- Updated social media presences via web site and Facebook.

Issues:

More access to state lands for trail expansion is strongly desired by chapters, particularly as the State seeks increases in mountain biking tourism.

Developing beginner trails in State Parks holds tremendous potential for VMBA and the state.

Empirically defining VMBA’s value relative to the social and economic impacts of mountain biking will require financial assistance.

State jurisdiction relative to Act 250 would ease the access challenges for chapters. VMBA should enjoy similar access to trail development as other statewide nonprofit associations; particularly given mountain biking is a quiet, human-powered, healthy and family-friendly activity.

To date, VMBA has not constructed any accessible trails. This will be addressed, but will require funding and design expertise.

Priorities & Opportunities:

Continue to steward relationships with private, municipal, state, and federal land managers to maintain and gain access for trail expansion.

Partner with Vermont State Parks, which will significantly augment trail networks. These trails would be beginner and intermediate networks promoting active families to incorporate overnights in our state parks and bike rentals/repairs at one of the many bike shops throughout the state.

Create a Border-to-Border trail system for bike-packing, a trail similar to the Catamount Trail. This trail system may well serve Vermont, providing yet another marquee outdoor experience.

Obtain and implement opportunities associated with trails designated as “Statewide Trail System” and operate under a state jurisdiction regarding Act 250.

Continue partnering with the Vermont Youth Conservation Corps and collaborate on grants and trail projects.

Partner with Vermont companies to fund a “VMBA Trails Grant” in collaboration with VMBA on chapters’ behalf to assist with funding.

VMBA will need to continue to strengthen its organizational structure & capacity, and build stronger connections with its various chapters

Mountain biking has every required element to do for Vermont summers what skiing has done for Vermont winters.

Horseback Riding

Achievements:

The Vermont Horse Council, in collaboration with the Vermont Farm Bureau, has formed an exploratory commodity committee that will work to inform state policy development and laws.

The Vermont Horse Council will release public safety messages on local television stations to promote public awareness of horseback riding safety.

Issues:

The Vermont Horse Council would like to see more effort made to make Vermont a more inviting horseback riding destination. Further development of public lands for horseback riding,

and the creation of horse-specific facilities are the most effective methods for luring horseback riders to Vermont.

The Vermont Horse Council is concerned that state government efforts simultaneously encourage and discourage/restrict horseback riding on public lands.

Priorities:

The Vermont Horse Council seeks to promote opportunities for shared-use or multi-use trails, and in this effort encourages horseback riders to ride responsibly and to remove horse waste from trails to minimize conflict with other trail users.

Vermont horseback riders would like to see an expansion of public horse trails within the state, as well as the expansion and improvement of facilities and camping for horseback riders on public land.

The Vermont Horse Council wants to see the Northeast Kingdom Equestrian Trails (NEKET) expanded to include some shorter trail options.

Off-Road Recreation including All Terrain Vehicles (ATVs) and Off-Highway Recreational Vehicles (OHVs)

All-Terrain Vehicles (ATVs) and VASA

Achievements:

VASA is proud to report that every issue listed in the previous Trails and Greenways Plan/ Statewide Comprehensive Outdoor Recreation Plan has been addressed, with progress made in every area, including signage and maintenance procedures that decrease environmental damage, better coordination regarding development of the entire trail system and productive relationships with landowners and towns to provide more efficient connector trails, and increased awareness and education.

VASA staff and volunteers actively participate with other trail user groups in an effort to share resources with VASA currently working closely with the Vermont Trails & Greenways Council.

Issues:

Navigating around state lands has made the goal of a completely interconnected trail system difficult to achieve. Although progress is being made on this topic, with the development of a licensing project, a more defined and clear method of procedure could provide VASA with a streamlined process to develop further connector trails throughout the state.

Funding equality should be addressed regarding RTP funds. RTP funds are a major source of revenue for all forms of recreation in Vermont, and VASA would like to address the division of

the motorized portion of the funds. With a more equal portion of the motorized funds, VASA could proceed on many projects, both trail and educational.

VASA has worked hard to increase awareness of ATV laws and safety in Vermont and has excellent working relationships with law enforcement agencies throughout the state. Increased site-specific law enforcement patrols will lead to a decrease in renegade riders.

Increased sharing of trails and resources will benefit all trail user groups. Trails recreation in Vermont is currently very segregated. VASA puts full effort into sharing trails and resources with any and all user groups.

VORA

Achievements:

Recently VORA implemented a statewide trail maintenance and education program for their member clubs. Through a series of grants VORA has purchased an enclosed trailer, hand tools and educational materials that are loaned to their member clubs for trail maintenance and education. The clubs display the trailer at their events statewide and promote positive land stewardship, sharing our resources responsibly, and the Tread Lightly ethic. VORA has represented OHV interests in the Vermont Trail Collaborative and with the Vermont Trails and Greenways Council.

Issues:

Currently VORA is working to promote the preservation and maintenance of our Class IV public rights of way for current and future recreational opportunities throughout the state of Vermont. Our Class IV rights of way are public lands. Many towns in Vermont have Class IV rights of way and they provide important recreational benefits to a wide range of recreational users. They are used for hunting, fishing, skiing, hiking, snowshoeing, wildlife viewing, and mountain biking as well as the motorized sports. They truly are Vermont's multi-use recreational facilities. The intent with using RTP funds for these public rights of way is for maintenance of the existing trail tread. Most towns do not have the financial resources to maintain these rights of way and if left unmaintained, they become unusable. Typically, with lack of maintenance the drainage ditches fill in, the trail tread becomes the main watercourse, erosion occurs and they become both unsafe and impassable. In this situation RTP funds are intended to be used to restore the trail tread, reduce sedimentation by installing water bars and culverts, re-establish the drainage ditches, install erosion control measures such as silt fence and seeding with the ultimate goal of improving safe access by hardening the trail tread and improving water quality. No new easements are required and no new construction is needed to simply maintain these existing public recreational resources. Currently VORA is working with the VT Forests Parks and Recreation to coordinate the use of RTP funding for our Class IV public rights of way.

Off Highway Motorcycles (OHMs)

Achievements:

The Vermont OHM community has made significant strides in recent years to educate riders on positive land stewardship, sharing our resources responsibly and reducing inappropriate use. Through organization and education today's OHM riders are much better informed on land management issues, sound reduction and are helping to educate the non-motorized community about the positive and responsible aspects of this sport.

Issues:

Despite documented demand for trail creation on public lands, dual sport riders still continue to seek both recognition of the demand and a stated objective to satisfy the demand for legal trails access.

Despite OHM riders having spent years making gains for their user group, they have yet to receive recognition and access, seeming unable to escape negative stereotypes.

Due to there currently being no effort to specifically recognize the number of dual sport motorcycles registered in Vermont, the ability to substantiate the size and demand of the user group is limited.

OHMs still remain without legal access to trails on public lands. The lack of legally accessible trails limits the ability of OHM groups to attract riders, and to organize and sustain a fee-based funding source based upon this accessibility.

Without access to trails, the user group frequently travels to nearby states that provide riders access to trails on public lands. This exodus weakens the membership of Vermont OHM clubs, strains the resources of Vermont OHM riders, and represents significant economic impact that is being lost to neighboring states.

With the anticipated onset of climate change, and milder winters expected, summer season motorized recreation can afford Vermont new recreation visits to offset the decline in number of snowmobile registrations, riders, and visits.

Priorities:

The Cycle Conservation Club is motivated by the need to provide families and their young riders' legal, safe off-road locations where they can learn the sport prior to the age where they can legally ride on roadways.

The CCC is committed to reducing illegal or poor behavior within their user group. This includes eliminating trespass, fostering respect for other trail users, reducing noise pollution, teaching

safety, stewardship and proper trail building. Dual sport riders strongly believe that trespassing can be reduced most effectively by providing legal trails for use.

Hiking and Backpacking

Achievements:

For the past fifteen years, GMC's Stewardship Program partnered with the Green Mountain National Forest and the State of Vermont to rebuild, renovate and/or replace half of the 70-site overnight camping infrastructure of the Long Trail.

Over the last 10 years, some GMC staff members have received training in "Leave No Trace" principles, and its caretakers have spread this message to hikers.

In 2000 GMC began a group-use initiative to raise awareness about group size and rules to follow while on the Long Trail System.

GMC's Northeast Kingdom Section volunteers and field staff are working in partnership with the Northwoods Stewardship Center to develop hiking trails between Island Pond and Avery's Gore on working forest lands managed by Plum Creek Timber Co. Inc. under the guidance of Forests Parks and Recreation.

GMC is working with the U.S. Park Service, Vermont Department of Forest, Parks & Recreation, and the U.S. Forest Service to amend legislation that will allow the eastern terminus of the North Country Trail to become Maine Junction, the location at which the Appalachian Trail splits from the Long Trail. The North Country Trail is a national scenic trail and currently extends from N. Dakota to the Crown Point Bridge on New York's shore of Lake Champlain.

Issues:

Improved access is needed to trails, including parking areas and their maintenance.

Protection of public access to trails.

Damage to trails from overuse and illegal motorized use.

Protection of viewsheds.

Protection of trail corridors from development.

Minimizing ridgeline development.

Increased funding for maintenance of trails and the education of trail users.

Increased use of trails in winter has resulted in human waste management problems in some areas.

The growing popularity of hiking with dogs has resulted in dog waste management problems and conflicts with other users along many trails.

Work with ski resorts to increase public hiking opportunities for visitors during off season.

Streamline permit process for trail development and improvement.

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Index

- Agency of Natural Resources, 5, 7, 9, 25, 39, 46, 51, 64, 100, 102, 148, 149, 151, 205, 206, 220, 223
- All-Terrain Vehicles, 7, 215
- Americans with Disabilities Act, 96
- Appalachian Trail, 54, 57, 218
- Army Corps of Engineers, 17, 21, 50, 52, 149, 222
- Backpacking, 74, 218
- Baseball/Softball, 94
- Bicycle and Pedestrian Program, 48, 49, 50
- Bicycling, 14, 17, 74, 77, 78, 84, 211
- Bike lanes, 28, 55, 69
- Bird Watching, 74, 77, 84
- Boat Docks, 44, 69, 95
- Boat Ramps/Launches, 44, 53, 55, 69
- Canoeing, 63, 75, 77
- Champlain Valley National Heritage Partnership, 9, 59, 114, 220
- Climate Change, 101
- Collecting (forest products), 74, 77
- Community gardens, 29
- Cross Country Skiing, 74, 77
- Cross country skiing/snowshoeing trails, 28, 44, 53, 55, 69
- Cultural/Historic Sites, 73, 77
- Disc golf, 29
- Dog park, 29
- Downhill Skiing, 14, 74, 77, 78
- Educational programs, 56
- Fairgrounds, 28, 69, 95
- Fishing, 7, 9, 14, 16, 21, 28, 44, 47, 69, 72, 75, 77, 78, 87, 93, 95, 103, 104, 112, 113, 222
- Fitness Courses, 55, 69, 95
- Football, 28, 32, 93, 94
- Forest Legacy Program, 40, 41
- Forests, 9, 21, 24, 25, 39, 42, 48, 62, 64, 93, 96, 113, 115, 116, 205, 216, 218, 220, 222, 223
- Golf, 14, 28, 55, 69, 73, 78, 84, 93, 95
- Green Mountain National Forest, 6, 9, 17, 21, 40, 51, 52, 53, 54, 86, 92, 218, 220, 221, 222
- Hiking, 7, 13, 14, 28, 32, 44, 53, 55, 69, 74, 77, 78, 93, 94, 96, 218
- Horse Riding Areas, 44, 55, 69, 95
- Horseback Riding, 75, 84, 214
- Horseshoe pits, 29
- Hunting, 7, 9, 14, 16, 21, 29, 44, 53, 55, 69, 72, 75, 77, 78, 84, 87, 88, 90, 93, 95, 103, 112, 222
- Ice Climbing, 74, 95
- Ice/Rock climbing areas, 44
- Jogging/Running, 73, 77, 84
- Kayaking, 14, 75, 78
- Lacrosse, 32, 93, 94
- Lake Swimming, 73, 77
- Land Acquisitions, 40
- Land and Facilities Trust Fund, 45
- Land and Water Conservation Fund, 5, 9, 19, 23, 40, 221
- Licenses and Special Use Permits, 44, 45
- Long Trail, 40, 48, 51, 57, 58, 218
- Maps, 149, 151
- Membership, 6, 7, 88, 89, 90, 91, 207, 209
- Motorcycles (Sport, Dirt), 76, 84
- Mountain Biking, 14, 74, 78, 84, 212
- National Blueway, 18
- National Parks Service, 221
- National Wildlife Refuges, 50, 93, 96
- Nature Conservancy, 40, 51, 60, 61, 148
- Nature Study, 74, 84
- Off-highway Vehicle trails/roads, 44, 55, 69
- Open Project Selection Process, 9, 24
- Orienteering, GPS, Geocaching, 74
- Outdoor Basketball, 32, 73, 84, 93, 94
- Outdoor Court games, 73
- Outdoor ice skating rinks, 29, 32, 55, 69
- Outdoor Photography, 74, 84
- Outdoor Pool Swimming, 73, 77, 84
- Outdoor Tennis Courts, 32, 93, 94
- Outdoor Volleyball Courts, 32, 95
- Parks/open space, 27, 44, 53, 55, 69
- Personal Watercraft, 75
- Picnic Areas, 32, 44, 53, 55, 69, 93, 94
- Picnicking, 71, 73, 77
- Playgrounds, 28, 32, 93, 94

- Power Boating, 75, 77
 Recreation Trails Program, 9, 49, 146
 River/Swimming Hole, 73, 77
 Rock Climbing, 75
 Rugby, 32, 94
 Running Tracks, 95
 Sailing, 75
 Scenic Byways, 62
 Scuba/Snorkeling, 73
 Shooting/archery ranges, 29, 53, 69
 Sightseeing/Driving for Pleasure, 73, 77
 Skate Parks, 69, 95
 Skate/Long boarding, 73, 84
 Skeet/Trap/Sporting Clay, 76
 Sledding, 29, 55, 69, 71, 74, 77, 93, 95
 Snowboarding, 14, 74, 78, 88, 93, 205
 Snowmobile trails, 28, 44, 53, 55, 69
 Snowmobiling, 7, 14, 74, 77, 78, 84, 90, 206, 222
 Snowshoeing, 14, 67, 71, 74, 77, 78, 94
 Soccer, 7, 28, 32, 73, 84, 93, 94
 Soccer Fields, 32, 93, 94
 State Parks, 25, 42, 48, 54, 62, 87, 93, 96, 97, 110, 213, 214, 220
 Sunbathing, 73, 77, 84
 Swimming Areas/Holes, Rivers, 44, 55, 95
 Swimming Beaches/Lakes, 53, 55, 94
 Swimming Pools/Water Parks, 44, 55, 69, 95
 Tennis, 32, 73, 84, 93, 94
 Tracking, 74
 Trail Running, 75, 84
 Trapping, 76, 93
 University of Vermont, 10, 20, 22, 51, 222
 US Fish and Wildlife Service, 21, 148
 US Forest Service, 21
 Use Value Appraisal, 10, 41
 Vermont Adaptive Ski and Sports, 54, 56
 Vermont All-Terrain Vehicle Sportsman's Association, 10
 Vermont Association of Planning and Development Agencies, 10, 22
 Vermont Association of Snow Travelers, 7, 10, 54, 57, 64, 90
 Vermont Department of Fish and Wildlife, 9, 103, 104, 151, 223
 Vermont Department of Forests, Parks and Recreation, 24, 48, 64, 205
 Vermont Land Trust, 10, 61
 Walking, 14, 17, 71, 73, 77, 78, 84, 212, 221
 Water Skiing, 75
 Whitewater, 75
 Wildlife Management Areas, 43, 96
 Wildlife Photography, 74
 Wildlife viewing areas, 29, 44, 53
 Wildlife Watching, 74, 77, 84
 Windsurfing, 75
 Youth, 8, 54, 56, 59, 112, 113, 214