

2018



*South Dakota
Statewide Comprehensive
Outdoor Recreation Plan*

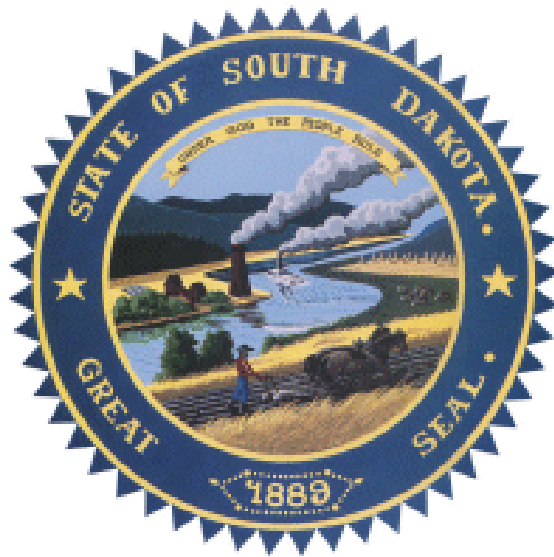


Prepared By
Department of Game, Fish and Parks
Division of Parks and Recreation

South Dakota

Statewide Comprehensive Outdoor Recreation Plan

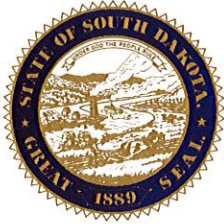
2018



Dennis Daugaard
Governor

Kelly Hepler
Secretary
Department of Game, Fish and Parks

Katie Ceroll
Director
Division of Parks and Recreation



STATE OF SOUTH DAKOTA
DENNIS DAUGAARD, GOVERNOR

December 28, 2017

Cameron Sholly, Regional Director
National Park Service
Midwest Regional Office
601 Riverfront Drive
Omaha, NE 68102

Dear Mr. Sholly,

I am pleased to present the 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP) for South Dakota. As a vital part of our South Dakota heritage, outdoor recreation is not only a tradition for many South Dakotans, but also the life blood in the economic health of many of our communities.

As the state's primary provider of sustainable outdoor recreation opportunities, the Department of Game, Fish and Parks has prepared this plan on behalf of the municipalities, counties, state departments, federal agencies, non-profits, private businesses, and other providers of outdoor recreation in South Dakota. Providing quality outdoor recreation opportunities across the broad and diverse landscape of our state is a challenge which takes collaboration and tenacity. I am proud of the many partnerships and public/private relationships that form the backbone of our many outdoor experiences here in South Dakota.

The public involvement component of this SCORP provides the guidance to focus our outdoor recreation strategies over the next five years. Participating citizens endorsed the importance of protecting our state's open space and fish and wildlife habitat, as well as the need to maintain our existing park and recreation areas. After a year of drought, this input not only ratified the need for habitat by hunters, anglers, and other outdoor recreationalists and the desire for improved access to outdoor recreation opportunities, but also confirmed the diligence of South Dakotans in preserving what we have for future generations.

I look forward to the next five years as our health organizations and outdoor recreation providers work side by side to address the physical and mental needs of our population, while continuing the great outdoor legacy of South Dakota.

Sincerely,

Dennis Daugaard

Acknowledgements

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South Dakota Game, Fish and Parks

Al Nedved	Assistant Director, Division of Parks and Recreation
Nancy Hoines	Division Staff Specialist, Division of Parks and Recreation
Randy Kittle	Land and Water Conservation Fund Program Coordinator, Division of Parks and Recreation
Dr. Cynthia Longmire	Human Dimensions Specialist, Division of Administration
Nikholai O'Hara	GIS Specialist, Division of Wildlife
Tim Olson	Wetlands Habitat Biologist, Division of Wildlife

South Dakota State University (SDSU) Department of Health and Nutritional Sciences

Hung-Ling (Stella) Liu, Ph.D.	Assistant Professor, Sport and Recreation Management
Paige E. O'Farrell	Undergraduate Research Assistant, Sport and Recreation Management
Jason Mehlhaf	Master's Candidate, Sport and Recreation Studies

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Thank you, also, to the South Dakota Park and Recreation Association, the South Dakota Municipal League and the South Dakota Association of County Commissioners for their assistance in distributing the provider survey, and to the many cities, counties and other community organizations who both completed the provider survey and assisted in distributing the public survey to their residents.

2018 SOUTH DAKOTA STATE COMPREHENSIVE OUTDOOR RECREATION PLAN

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Introduction

WHAT IS THE SOUTH DAKOTA STATE COMPREHENSIVE OUTDOOR RECREATION PLAN?

The 2018-2022 South Dakota Statewide Comprehensive Outdoor Recreation Plan (SCORP) serves as an update to the 2013 SCORP and examines how to best meet the needs of our citizens to provide quality, accessible outdoor recreational facilities in our state. The SCORP reviews the most recent trends, data, opinions and collaborations. In collaboration with the state's numerous outdoor recreation providers, the State of South Dakota chooses to move forward, using sound decision-making in determining the direction of the state's outdoor recreation opportunities.

Although this plan takes the form of a single document, the plan is actually a process that began in 1964. It was in this year that Congress passed the Land and Water Conservation Fund (LWCF) Act. The Division of Parks and Recreation within the Department of Game, Fish and Parks is the state agency authorized to represent and act for the State in dealing with the Secretary of Interior for the purposes of LWCF in South Dakota. This act paved the way for a grants program that utilizes revenues from offshore oil and gas leases to provide matching funds to states and local communities for projects relating to outdoor recreation. Since 1964, South Dakota has utilized over 40 million dollars from the program to acquire and build parks and recreation areas across the state, with projects completed in every South Dakota county. Generations of South Dakotans have used and benefited from a variety of LWCF projects including playgrounds, ball fields, tennis courts, swimming pools, picnic areas and other park and outdoor recreation facilities.

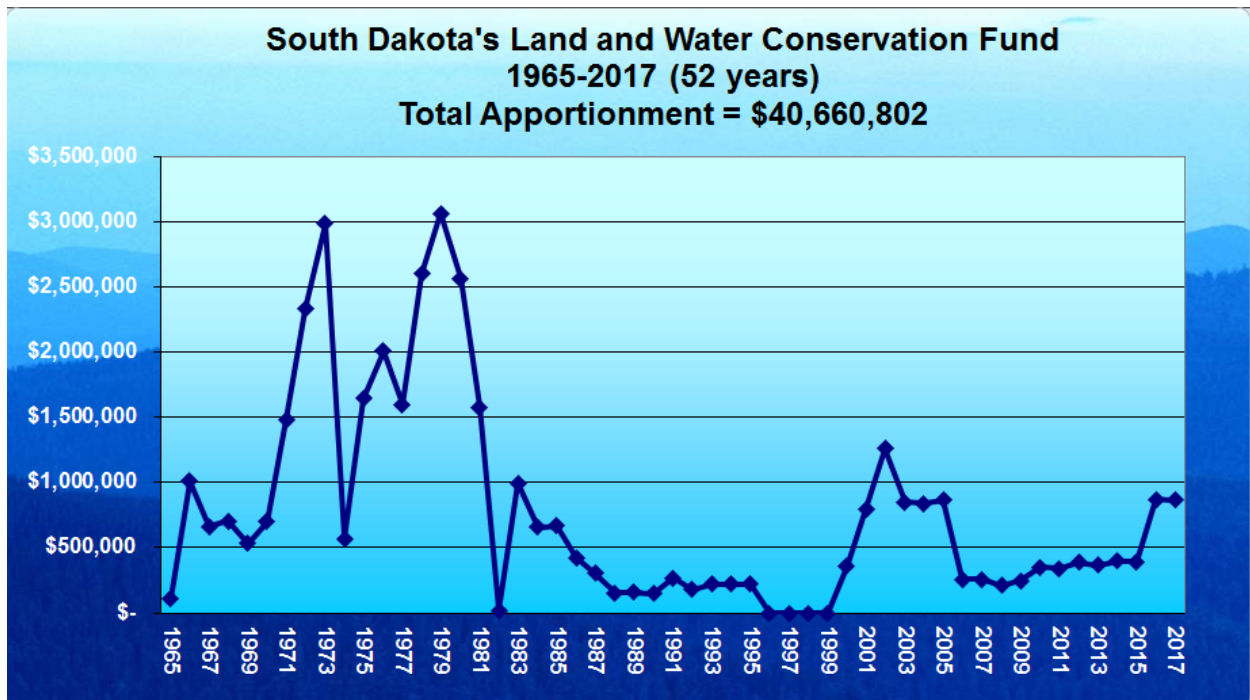
As a requirement of the program, each state is charged with developing a plan that evaluates the demand for and the supply of outdoor recreation resources in the state. The State of South Dakota has prepared a SCORP each year in 1965, 1967, 1971, 1975, 1987, 1992, 2002, 2008 and 2013. Each plan has taken an in-depth look at outdoor recreation in the state and made recommendations for meeting the demand for that particular period. It is important to remember, although the SCORP is prepared by South Dakota Game, Fish and Parks, this document evaluates outdoor recreation across the state, including state, federal, municipal, county and other providers of outdoor recreation. The public respondents to the survey may recreate in state parks and recreation areas, but likely also enjoy outdoor recreation in city parks, national park and recreation areas and at privately owned facilities. This SCORP will be a tool to help guide future park and recreation projects regardless of who manages or owns the property. Many projects have been built utilizing the resources outlined in the SCORP in the past, and many more will come to light in the future.

Perhaps the most important product of the SCORP is the opportunity it offers to evaluate the ever-changing climate of outdoor recreation in South Dakota. Industry, economics, resources, attitudes and values can change significantly over the course of a few years. Keeping a pulse on outdoor recreation is the key to the effective use of our resources.

WHAT IS THE HISTORY BEHIND THE LAND AND WATER CONSERVATION FUND?

The Land and Water Conservation Fund has a long and productive history of making outdoor recreational opportunities possible throughout the state and in cities big and small. Parks and projects funded through LWCF have the unique reality of being dedicated to public recreation in perpetuity. However, the program has reached a critical crossroads, due largely to erratic funding cycles. Figure i-1 shows South Dakota’s state-share apportionment from 1965-2017. In the 1970s and 1980s, LWCF built the foundation of many outdoor recreational programs and facilities in South Dakota.

Figure i - 1



Over 66 percent of South Dakota’s total apportionment came in the first 18 years of the program (1965-1983). Many of the projects built under the program during this time frame have reached or are approaching their normal useful life. Playgrounds built during these periods are no longer considered adequate to meet modern safety standards. Swimming pools are aging and deteriorating under the extremes of South Dakota weather. Hard-surfaced play courts are cracked and in need of renovation. These examples and others represent the ongoing issues public recreation providers face in prioritizing budgets and maintaining existing facilities.

In 2017, South Dakota received \$864,573 for its statewide apportionment. To put this figure into perspective:

- Construction or renovation of one outdoor swimming pool under today’s standards will easily exceed one, if not two, million dollars.
- Construction of a new comfort station, including shower and restroom facilities, in 2016 averaged \$250,000.

Due largely to the instability of funding combined with the effects of inflation, LWCF's role in any comprehensive strategy to address the current and future needs related to outdoor recreation remains uncertain. This SCORP will address the key issues facing outdoor recreation in South Dakota and strategies that include, but do not necessarily depend on, the Land and Water Conservation Fund to implement.

WHY IS OUTDOOR RECREATION IMPORTANT?

This fairly easy question generates a wide array of answers, varying greatly on one's perspective. In short, the many benefits of outdoor recreation often mean different things to different people. Respondents to the 2017 Outdoor Recreation Survey prioritized the benefits of parks and recreation as: 1) preserving open space and the environment, 2) making their community a more desirable place to live, 3) improving physical health and fitness, and 4) improving mental health and reducing stress. On the other hand, providers of parks and recreation opportunities clearly prioritized the benefits of parks and recreation services as 1) making the community more desirable, 2) helping attract new residents and businesses, 3) enhancing a sense of community, and 4) improving physical health.

Although parks provide for the preservation of open space and make a community more desirable, the health and mental wellness aspects of outdoor recreation continue to become more important. Outdoor recreational facilities are continually providing much needed services to help combat health problems associated with obesity and inactive lifestyles. Studies are also showing that participation in outdoor recreation can improve the way we think, reason and socialize. In addition, recreating outdoors provides the opportunity to explore and relax in places of solitude and reflection, much needed in our hectic day to day lives. Many park and recreation facilities also offer opportunities and programs for interpretation and education, focusing on history, nature, conservation, outdoor recreation and other topics that not only educate participants, but also helps them develop mentally and physically.

Outdoor recreation is no stranger to South Dakota residents and visitors who benefit from the shared memories of camping, hunting, fishing, boating, hiking and other activities in our state and national park and recreation areas. Likewise, generations of South Dakotans grew up spending summers and building friendships at the local pool, passing hours at the community playground and playing baseball, tennis or football through an organized league or in a pick-up game after school. On the other end of life's spectrum, South Dakota's aging population continues to recreate outdoors in a variety of ways, including all the opportunities above, as well as pounding the pavement - walking trails, sidewalks and even streets - as they stay fit and active in small towns across the state. And last but not least, the phenomenal pheasant hunting, rewarding fishing on the Missouri and her reservoirs, majestic elk, thundering buffalo and some of the best snowmobile trails in the country have also given private guides and providers of outdoor recreation the opportunity to help visitors from around the world in creating great South Dakota outdoor recreation memories.

All of these reasons and more contribute to the demand and needs for accessible and well maintained parks and outdoor recreation facilities and services across the state.

HOW WAS THE PUBLIC INVOLVED IN THE SCORP?

As stated previously, the overarching purpose of the SCORP is to determine how to best meet the needs of the citizens of South Dakota, as well as visitors, in the area of providing quality, accessible outdoor recreational facilities in our state. In order to accomplish this purpose, we need to know who those citizens are and what their needs are in order to provide for and meet those needs. Therefore, involving the public in the development of the SCORP was a vital part of the process.

In order to gather the necessary data, South Dakota Game, Fish and Parks (GFP) collaborated with the South Dakota State University (SDSU) Department of Health and Nutritional Sciences, Sport and Recreation Management Program. Two key survey components were used to gather data at the state or local level, while a variety of existing resources were used for comparative data on the national level.

2017 South Dakota Outdoor Recreation Survey

As stated in the 2018 South Dakota SCORP Outdoor Recreation Public Survey Report, the first goal of the project was to investigate the public perspective of outdoor recreation demand and current availability. This was accomplished by assessing South Dakota residents' behavioral patterns in outdoor recreation, and investigating residents' motivation for, and potential barriers to, outdoor recreation in the state. This was completed through the distribution and analysis of the 2017 South Dakota Outdoor Recreation Survey. This survey, available in the SCORP Appendix, included five sections including: 1) past year participation in outdoor recreation, 2) research participants' motivation and constraints in outdoor recreation, 3) perceived outdoor recreation needs in South Dakota, 4) personal perspective about outdoor recreation, and (5) demographics.

The first section of the general public survey was used to assess South Dakota residents' behavioral patterns in outdoor recreation, such as preferred locations, participation in consumptive and non-consumptive recreational activities, and general perception of outdoor recreation opportunities in the state.

It was followed by a series of questions associated with research participants' motivation for, and potential barriers to, outdoor recreation in South Dakota. By using a common definition, motivation was defined as a reason(s) an individual has for participating in outdoor recreation activities from both personal and social aspects. Motivations dictate why people take part in a certain activity. People are motivated either intrinsically or extrinsically. Intrinsic motivation means a person enjoys an activity for internal reasons such as simply finding the activity enjoyable. On the other hand, extrinsic motivation means a person participates in an activity for external reasons, such as rewards or punishments.

Constraints are barriers to participating in outdoor recreation. According to Jackson, Crawford, & Godbey (1993), people experience three types of constraints: intrapersonal, interpersonal, and structural. Intrapersonal constraints deal with an individual's internal attitude towards a specific activity. Interpersonal constraints involve other people and their attitudes towards an activity. Lastly, structural constraints involve aspects such as time, money and location that prevent participation in an activity.

In order to access the state's needs and priorities for outdoor recreation, the personal perspective section focused on the public's perception of outdoor recreation facilities, amenities and areas, and the importance of potential benefits of outdoor recreation in South Dakota.

The *2017 South Dakota Outdoor Recreation Survey* was distributed to the public in a variety of ways, including but not limited to the following:

- Distributed via email to over 330,000 GFP 'clients', including the State Park Update list (primarily state park entrance license holders and campers), as well as deer, small game and waterfowl hunters, trappers and anglers
- Announced on social media by GFP and others
- Posted by GFP park and wildlife managers in parks and wildlife areas and offices
- Distributed by SDSU through a variety of email lists and postings
- Posted and distributed by municipalities and counties in their offices and through their distribution points
- Distributed by the South Dakota Park and Recreation Association

The public survey was available on line from August 7, 2017 through September 22, 2017. Identical paper-based surveys were also available. According to the QuestionPro database, a SDSU paid online survey platform, there were approximately 6,900 people who viewed the 2017 SCORP public online survey. Among these people, 3,955 started the survey and 2,295 completed the survey.

2017 South Dakota Outdoor Recreation Survey: Providers

The second key element in preparation for SCORP required an understanding of the outdoor recreation supply in South Dakota. The 2018 South Dakota SCORP Outdoor Recreation Providers Survey Report assessed the outdoor recreation supply in South Dakota from various providers in the state as well as identified current trends and challenges.

A statewide survey of South Dakota outdoor recreation providers was conducted to understand their general operation and current challenges in the field. General operation information included providers' outdoor recreation, providers' organizational information, and responsibilities, such as type of organization/agency, target service population, budget, staff, program, facilities, partnership etc. Also surveyed were their perceived current challenges in providing outdoor recreation in South Dakota, including population change (i.e. aging, diversity, minority, residential area), financial shortfall, natural and environmental condition, social and cultural barriers for being outdoors, and quality of staff. In addition, providers were asked to complete an inventory survey which detailed facilities and areas for outdoor recreation.

The *2017 South Dakota Outdoor Recreation Survey: Providers* was also distributed to providers in a variety of ways, including but not limited to the following:

- Distributed via email, where possible, to all South Dakota Municipal League members including the 310 municipal governments across the state. An article and link to the survey were also included in the League magazine
- Distributed via email, where possible, to all 66 counties in South Dakota through the South Dakota Association of County Commissioners
- Emailed to all South Dakota Park and Recreation Association (SDPRA) members, presented at the SDPRA annual meeting and distributed in the meeting packets

- Emailed or mailed to each of the nine recognized tribes in South Dakota
- Emailed to National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, US Army Corps of Engineers and other federal land owners and managers in South Dakota

The provider survey was available on line from August 7, 2017 through October 31, 2017. Identical paper-based surveys were also available. According to the QuestionPro database, there were approximately 100 individuals who viewed the 2017 SCORP Survey for Outdoor Recreation Providers online. As for online platform, 76 started the survey but only 64 completed the survey. Additionally, fourteen surveys were sent through emails and three were returned in mail. There were 82 research participants (cities, towns, or counties) utilized in the report.

In addition to the survey, seventy cities/towns/organizations finished their inventory survey, of which 39 responded online and 31 sent an email or paper-based survey to the principle investigator.

WHAT INFORMATION DOES THE SCORP INCLUDE?

The 2018 SCORP includes the following:

- An Overview of South Dakota and its people
- The Challenges and Opportunities for outdoor recreation in South Dakota
- A Strategy Plan that will guide how the state will utilize its share of LWCF apportionment
- An updated Wetlands component
- An Appendix including the main body of the 2018 South Dakota SCORP Outdoor Recreation Public Survey Report and 2018 South Dakota SCORP Outdoor Recreation Providers Survey Report

The preparation of this plan was financed entirely through the South Dakota Division of Parks and Recreation with planning grant assistance from the Land and Water Conservation Fund.



South Dakota Department of Tourism

Chapter 1:

South Dakota Overview

South Dakota became the 40th state in 1889 but, undoubtedly, outdoor recreation was part of life on the prairie long before statehood. Our history books are full of the stories of children and their games and adventures in the great outdoors. Our museums and cultural centers house artifacts of the same. Stories of competitions in timber and mining camps abound. As time passed, slides and tire swings that dropped gleefully screaming children into the state's lakes and rivers were prolific and families spent their Sundays relaxing at lakeside pavilions and beaches. Back in the day, every small town had a baseball team in summer and, likely, an outdoor skating pond in winter. Tents, little pull behinds and pop-ups filled our parks. Today, our communities and parks abound with soccer fields, outdoor swimming pools, camping pads filled with motor homes, paddle boards on the lakes and geocaching.

Ironically, many of the activities we now consider outdoor recreation, were nothing more than real life in the early days of our state. Hunting and fishing for food, canoeing and hiking as forms of transportation, and living in tents and cabins were the way things were – and definitely not perceived as outdoor recreation.

Although, outdoor recreation has changed extensively in form over the years, most of the driving forces behind it remain the same. The outdoors offer a perfect setting for exercise, relaxation, learning, self-reflection and socialization. As one travels across the state, it is apparent why South Dakota is often referred to as the “land of infinite variety.” However, this adage can apply to the people as well as the landscape. This chapter will give a brief overview of both.

THE PEOPLE OF SOUTH DAKOTA

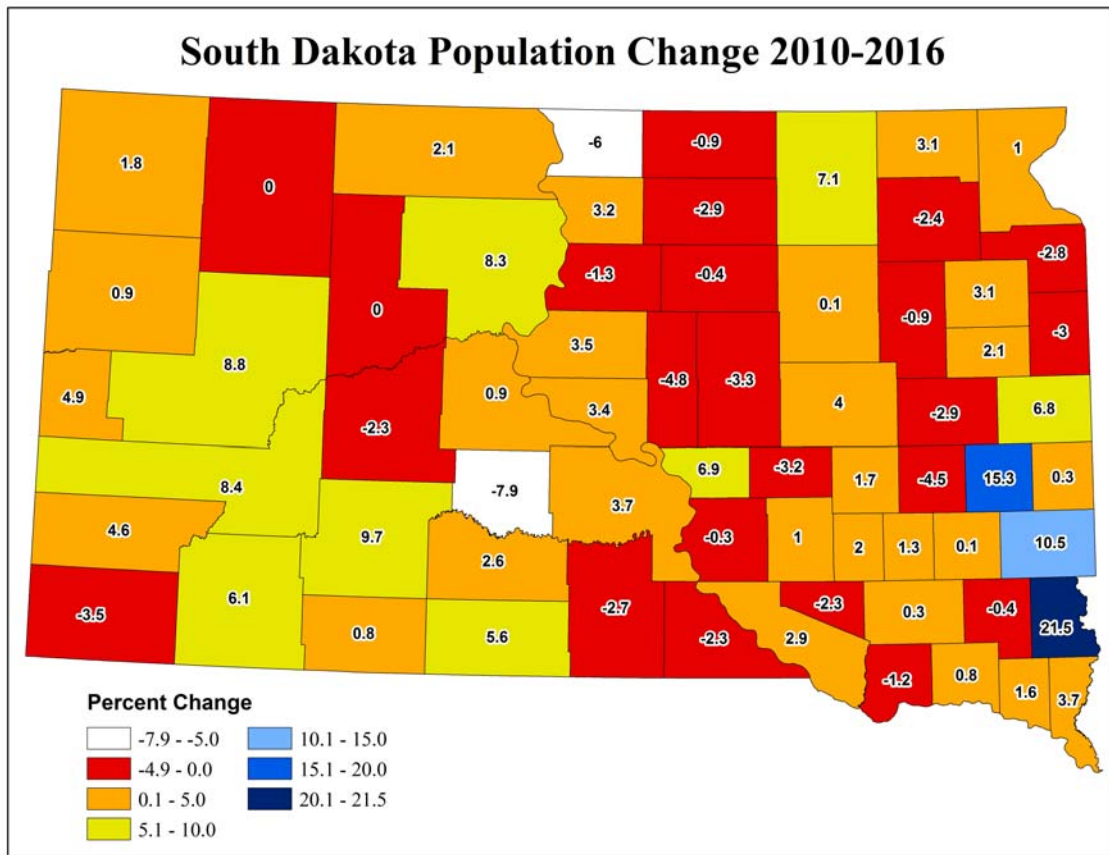
According to the 2016 U.S. Census estimates, there are 865,454 people living in South Dakota. This is a 6.2 percent increase over the 2010 census and the most people that have ever lived in the state. With the 2010 census, South Dakota became an urban state for the first time in history. At the time of the census, there were approximately 57% of South Dakota residents living in urban areas or urban clusters, with the remaining 43% or 352,933 people living in rural areas. The major demographic trends facing South Dakota are:

1. *Rural Depopulation.* Those counties that have experienced population loss in South Dakota in the last twenty years will likely continue to lose population. The reasons for this are outmigration and low birth rates. Farming-dependent counties are particularly vulnerable, particularly those not adjacent to larger metropolitan areas.
2. *Population Growth in Metropolitan Centers, Along the I-29 Corridor, and Among Counties with High American Indian Populations.* Sioux Falls, Rapid City, and other larger metropolitan areas continue to attract migrants from rural counties. Most counties with at least 50% American Indian population are experiencing growth due to young populations and high fertility rates.
3. *Out-Migration of Young Adults.* Young adults, especially in the 20-34 age category are leaving many counties, mostly farming-dependent counties.
4. *Increasing Elderly Population.* Out migration of youth leaves a higher percentage of elderly.
5. *Declining Number of Farms.* As net earnings grow, so do the size of farms.

Source: South Dakota State and County Profiles, South Dakota State University, College of Agriculture and Biological Sciences, May 2008.

Although population in the state has been increasing during recent decades, many areas of the state are experiencing population loss. Figure 1-1 shows which counties have experienced the greatest gains and losses from population change.

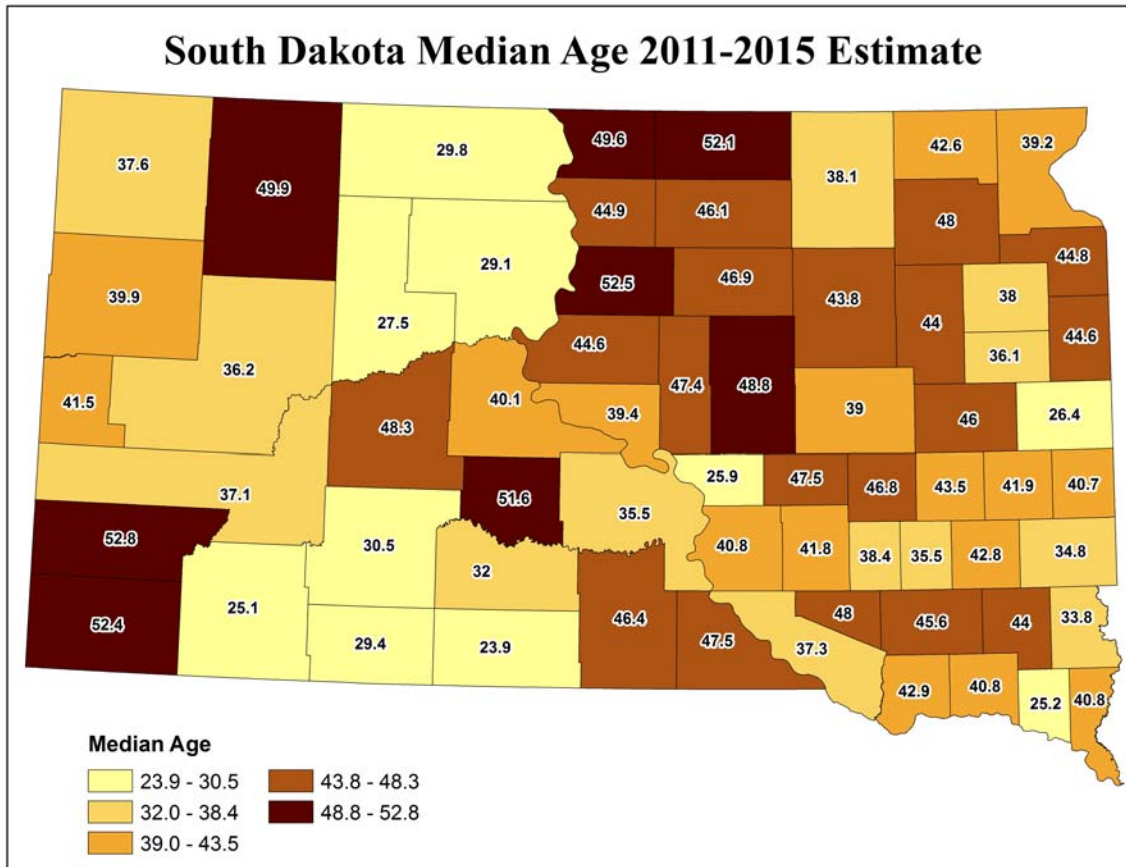
Figure 1 - 1



Source: U.S. Census Bureau – American Fact Finder

South Dakota is a diversified state when it comes to age structure. As seen in Figure 1-2 below, some of South Dakota’s youngest counties are those that are either associated with two of South Dakota’s largest universities (Brookings and Clay) or those that are within the boundaries of Tribal Reservations. Counties that are more urban are closer to the statewide median age of 36.8, while largely rural counties have aging populations.

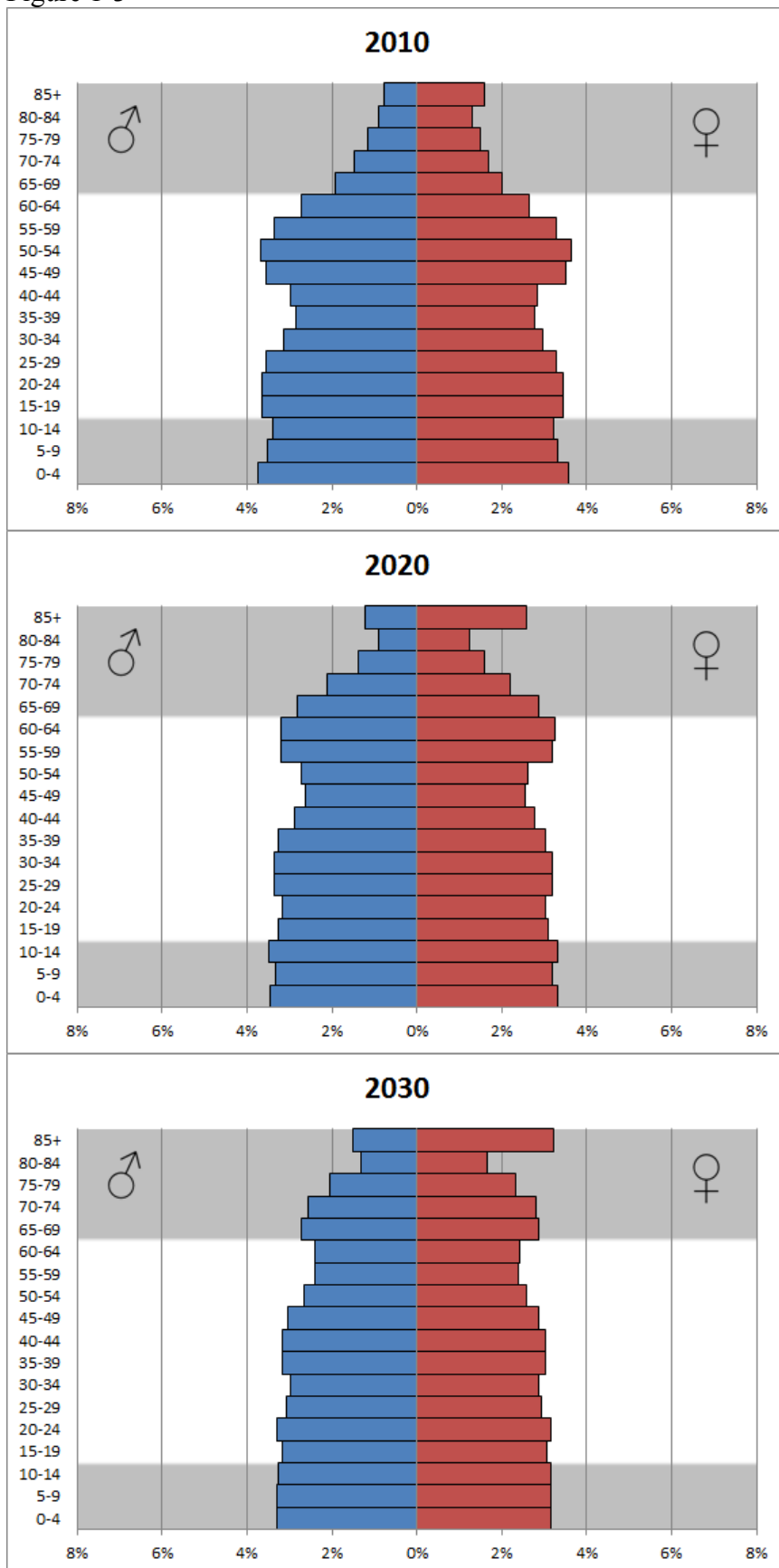
Figure 1-2



Source: U.S. Census Bureau – American Fact Finder

Looking at the map above, 27 of the state’s 66 counties have a median age roughly between 39 and 53. The projections from the South Dakota Rural Life and Census Data Center at South Dakota State University, displayed in Figure 1-3 on the following page, show that as these counties age, South Dakota will have a much larger percentage of persons age 65 and above in the next decade.

Figure 1-3



Source: South Dakota Rural Life and Census Data Center at South Dakota State University

South Dakota ranks first amongst all 50 states for having two working parents. According to the U.S. Census data, 75.4% of South Dakota children, younger than six, have both parents working. This is over 16% above the national average. For children ages 6 to 17, 79.15% of families have both parents working; over 14% higher than the national average. This presents challenges for parents trying to provide outdoor or other recreational activities for their children.

According to the U.S. Census Bureau's 2011-2015 American Community Survey, 14.1% of South Dakotans live below 100 percent of the federal poverty level (FPL) compared to 15.5% for the nation. While poverty levels for married couple families are relatively low (5.3%), the poverty levels for other households increases drastically. Over 37% of households with a female householder (no husband present) with related children under 18 are at or below the poverty level. This level increases to 46.9% for single parent female families with children under 5 years of age.

In recent decades, participation in outdoor recreational activities has continued to diversify and increase. The 2017 Outdoor Participation Report (Outdoor Foundation, 2017), shows almost half of the US population participated in at least one outdoor activity in 2016. Comparatively, as shown in Figure 1-6 later in this plan, over 95% of respondents to the 2017 South Dakota Outdoor Recreation Survey indicated they had participated in an outdoor activity at least once in the last year, with over 53% recreating outdoors at least once a week.

Unfortunately, the 2014 State Indicator Report on Physical Activity by the National Center for Chronic Disease Prevention and Health Promotion, states that only 16% of South Dakota adults meet the recommended combined aerobic and muscle strengthening guidelines and only 27.7% of South Dakota youth met the aerobic activity guidelines. This creates issues that cross over into other realms, such as health care and social issues. Other studies, such as the National Center for Health Statistics' brief on Prevalence of Obesity Among Adults and Youth: United States, 2011-2014, suggest that obesity and health problems, often attributable to poor diet and inactive lifestyles, have increased from 1999 through 2014 to over 36% in adults and 17% in youth. The Center for Disease Control and Prevention's youth obesity maps for high school students indicate that from 2011 to 2015 the percent of obese high school students in South Dakota increased from 10% to 15%.

THE INDUSTRY OF SOUTH DAKOTA

South Dakota's major industries are agriculture, tourism and manufacturing. Per the United States Department of Agriculture's National Agriculture Statistics Service, South Dakota has recently ranked in the top 10 in the U.S. for either inventory or production of bison, sunflowers, honey, oats, flaxseed, hay, millet, edible beans, wheat, soybeans, beef cattle, sheep, corn, popcorn and hogs. Tourism, including all types of outdoor recreation opportunities, contributes about \$2 billion, annually to the economy.

Table 1-1 South Dakota's Gross Domestic Product by Industry 2011-2015 (in millions of current dollars)

Industry	2011	2012	2013	2014	2015
All industry total	42253	43056	44560	45647	47356
Private industries	37092	37944	39617	40508	41989
Agriculture, forestry, fishing, and hunting	5513	4410	5444	4336	3773
Farms	5342	4227	5260	4146	3566
Forestry, fishing, and related activities	171	182	184	190	207
Mining	185	213	190	171	166
Oil and gas extraction	22	39	44	40	22
Mining, except oil and gas	158	168	142	129	142
Support activities for mining	4	6	4	3	2
Utilities	707	664	714	797	778
Construction	1509	1636	1680	1826	1940
Manufacturing	3818	3813	3900	4214	4527
Durable goods manufacturing	2610	2725	2893	2889	3010
Wood products manufacturing	91	130	138	156	152
Nonmetallic mineral products manufacturing	113	184	190	232	248
Primary metals manufacturing	35	45	44	46	55
Fabricated metal products	293	364	366	361	326
Machinery manufacturing	705	668	776	664	689
Computer and electronic products manufacturing	204	178	171	177	152
Electrical equipment, appliance, and components manufacturing	47	52	61	55	59
Motor vehicles, bodies and trailers, and parts manufacturing	229	209	190	223	267
Other transportation equipment manufacturing	22	22	23	27	27
Furniture and related products manufacturing	96	96	132	127	148
Miscellaneous manufacturing	775	778	802	821	888
Nondurable goods manufacturing	1207	1087	1007	1326	1517
Food and beverage and tobacco products manufacturing	552	599	401	521	629
Textile mills and textile product mills	19	21	21	24	26
Apparel and leather and allied products manufacturing	11	11	7	5	4
Paper products manufacturing	52	54	63	68	67
Printing and related support activities	80	85	87	83	90
Petroleum and coal products manufacturing	6	12	9	7	6
Chemical products manufacturing	396	200	306	500	569
Plastics and rubber products manufacturing	93	105	114	118	126
Wholesale trade	2473	2756	2974	3287	3491
Retail trade	2968	3091	3273	3416	3593
Transportation and warehousing	965	993	1014	1092	1152
Air transportation	27	28	32	33	43
Rail transportation	166	157	171	183	182
Water transportation	(L)	(L)	(L)	(L)	(L)
Truck transportation	513	535	528	584	612

Transit and ground passenger transportation	42	44	47	51	58
Pipeline transportation	14	16	17	16	17
Other transportation and support activities	158	168	172	178	193
Warehousing and storage	45	46	46	47	47
Information	991	962	1009	1072	1130
Publishing industries, except Internet (includes software)	170	170	163	155	161
Motion picture and sound recording industries	36	34	40	46	45
Broadcasting and telecommunications	765	740	789	849	888
Data processing, internet publishing, and other info. services	20	18	17	23	35
Finance, insurance, real estate, rental, and leasing	9921	10922	10456	10845	11457
Finance and insurance	6169	6863	6351	6732	7032
Federal Reserve banks, credit intermediation, related services	5254	5838	5225	5445	5610
Securities, commodity contracts, and investments	94	124	138	140	162
Insurance carriers and related activities	796	868	971	1079	1207
Funds, trusts, and other financial vehicles	24	34	16	69	53
Real estate and rental and leasing	3752	4058	4105	4113	4425
Real estate	3605	3889	3950	3930	4235
Rental and leasing services and lessors of intangible assets	146	170	155	184	189
Professional and business services	2263	2357	2476	2646	2782
Professional, scientific, and technical services	1167	1205	1297	1364	1448
Legal services	201	209	212	218	227
Computer systems design and related services	138	146	164	182	202
Miscellaneous professional, scientific, and technical services	828	850	921	964	1019
Management of companies and enterprises	458	504	531	575	629
Administrative and waste management services	638	648	648	707	705
Administrative and support services	583	594	591	645	638
Waste management and remediation services	56	54	57	61	67
Educational services, health care, and social assistance	3727	3922	4048	4185	4424
Educational services	269	277	274	274	279
Health care and social assistance	3458	3645	3774	3911	4145
Ambulatory health care services	1430	1435	1630	1687	1775
Hospitals and nursing and residential care facilities	1794	1972	1903	1979	2105
Social assistance	234	238	242	245	265
Arts, entertainment, recreation, accommodation, food services	1217	1332	1535	1660	1754
Arts, entertainment, and recreation	256	256	247	275	304
Performing arts, spectator sports, museums, related activities	63	66	68	76	78
Amusements, gambling, and recreation industries	193	190	179	198	226
Accommodation and food services	961	1076	1288	1385	1450
Accommodation	344	425	606	648	637
Food services and drinking places	617	651	683	737	813
Other services, except government	835	873	903	960	1023

Government	5161	5112	4944	5139	5367
Federal civilian	918	869	613	548	693
Federal military	534	517	498	491	468
State and local	3708	3726	3833	4100	4206
Addenda:					
Natural resources and mining	5697	4623	5634	4507	3939
Trade	5441	5847	6247	6703	7084
Transportation and utilities	1672	1657	1728	1889	1929
Private goods-producing industries	11024	10072	11214	10548	10406
Private services-providing industries	26068	27872	28403	29961	31583

Legend/Footnotes:

NAICS Industry detail is based on the 2007 North American Industry Classification System (NAICS)

(L) Less than \$500,000 in nominal or real GDP by state

Last Updated November 21, 2017 -- revised statistics for 2014-2016

Source: Bureau of Economic Analysis Regional Data

THE LAND OF SOUTH DAKOTA

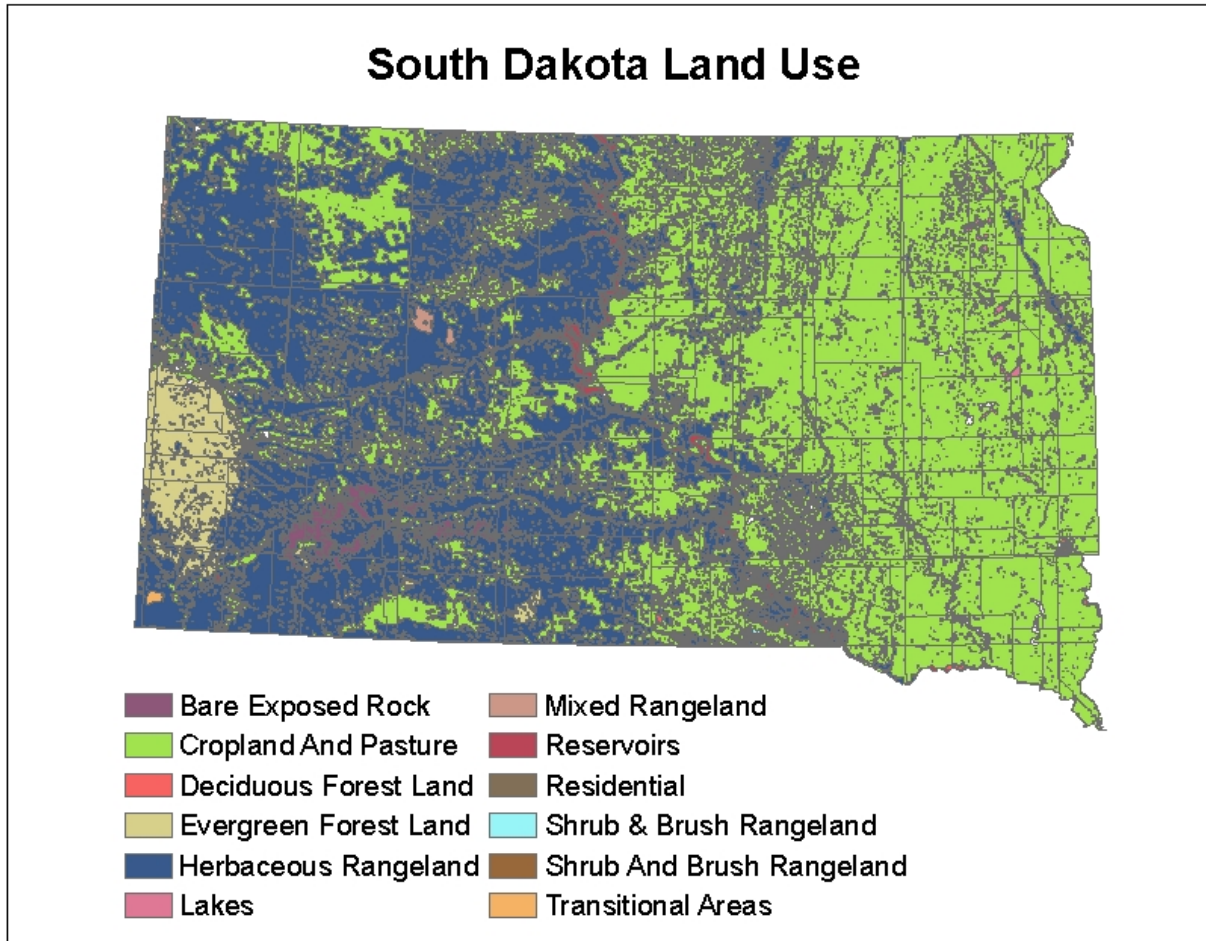
South Dakota contains 77,123 square miles, making it the 16th largest state. The average population density is 10.7 persons per square mile as compared to the national average of 87.4 persons per square mile for 2010.

The state is identified by several distinct geological regions. The Missouri River bisects the state into east and west regions. On the Missouri River are four main stem dams, authorized by the Flood Control Act of 1944, forming four reservoirs. These reservoirs total 470,000 acres of surface area and over 3,000 miles of shoreline.

The different land formations found on either side of the Missouri River have proven to be a driving factor of industry, economics and demographics of the state. Geologically speaking, the land east of the Missouri River is relatively new, being shaped by glaciers that melted as early as 10,000 years ago. It is gently rolling, has deep soils and enough precipitation to support many crops. The northeast portion of the state contains many prairie pothole wetlands and lakes, left behind as the large remnants as the glacier began to disappear. These natural lakes provide many of the major recreation centers for the residents of this region.

Land west of the river is much older. Most of it was formed over 60 million years ago and consists of shale, limestone and sandstone beds. The topography is more divided, soils are thin and precipitation is limited. For the most part, lakes are only present where man-made dams and reservoirs have been constructed. Near the Wyoming border, the Black Hills rise from the surrounding prairie. These pine-covered hills and mountains began as a bulge in the earth's crust, eventually allowing the softer sedimentary rocks to erode. The erosion exposed a bullseye pattern of formations and the granite core of the intrusion. Black Elk Peak (formerly Harney Peak), which rises 7,240 feet above sea level, is at the center of this pattern. (Figure 1-4)

Figure 1- 4



OUTDOOR RECREATION PROVIDERS

The government’s role in outdoor recreation in South Dakota started taking shape shortly after the state was admitted into the union. It was during this time that leaders recognized the significance of our natural resources and the protection needed in order to preserve these resources for future generations.

Numerous public entities have a stake in outdoor recreation in South Dakota. Following are some of the main public agencies that provide recreation services. All state and federal public lands are inventoried and compiled in a comprehensive GIS database. The information is accessible at <http://gfp.sd.gov/images/WebMaps/Viewer/WILMA/>. Some other data pertaining to recreation providers, such as municipal facilities, is maintained in a GIS database by GFP Division of Parks and Recreation, as well as by the municipalities themselves.

Federal Agencies

The presence of the National Park Service in South Dakota began in 1903 when Wind Cave National Park was designated by President Theodore "Teddy" Roosevelt. Other national park units in South Dakota include Mount Rushmore National Memorial, Jewel Cave National Monument, Badlands National Park and the Minuteman Missile National Historic Site. Services offered at each of these parks vary, but all offer extensive interpretative facilities and programs

along with some day-use activities such as picnicking, hiking/walking and sightseeing. Wind Cave National Park and Badlands National Park also offer overnight camping. In addition, the National Park Service manages sections of the lower Missouri River, a section of the National Recreational River, as part of the Wild and Scenic Rivers program. The National Park Service has also been a partner to the Lewis and Clark Bicentennial project, on the portion of the Lewis & Clark National Historic Trail traveling through South Dakota, as well as the Spirit Mound Historic Prairie project, 18 Community Conservation and Recreation projects with South Dakota communities and various other historic and natural landmarks .

The U.S. Fish and Wildlife service manages seven national wildlife refuges (NWR) in South Dakota including Bear Butte NWR (easement), Karl E. Mundt NWR, Lacreek NWR, Lake Andes NWR, Sand Lake NWR and Waubay NWR, as well as five wetland management districts. Services and facilities at each of these refuges vary, but they are all managed to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people. More specifically, these lands provide habitat for endangered species, migratory birds and other wildlife, and provide places for people to learn about, view and enjoy wildlife. Some offer basic facilities such as wildlife viewing areas, trails, picnic areas and fishing areas. The U.S. Fish and Wildlife Service also provides waterfowl production areas which are open to public access.

The US Army Corps of Engineers manages the four mainstem dams on the Missouri River in South Dakota. Over 63 recreation and lakeside use areas are associated with these projects. In 2002, federal legislation transferred these recreation areas to the State of South Dakota. Eight other sites were either retained by the Corps of Engineers or leased to tribal governments. The Corps of Engineers also manages Cottonwood Springs and Coldbrook Reservoirs in the southern Black Hills.

The U.S. Forest Service is the largest public landowner in South Dakota. The Black Hills National Forest is one of the most popular outdoor destinations in the region. The Black Hills National Forest offers a multitude of outdoor recreation facilities, including campgrounds, picnic areas, scenic byways, fishing, boat ramps, interpretive facilities and hiking, biking, horse, snowmobile and off highway vehicle trails. Custer Gallatin National Forest offers some limited recreational facilities in the northwestern corner of the state, including camping, fishing, hiking and scenic drives, as well as The Castles National Landmark. There are also three national grasslands (NG) administered by the Forest Service: Ft. Pierre NG, Grand River NG and Buffalo Gap NG. The grasslands also have various activities by location, including biking, hiking, fishing, horseback riding, small game hunting, various types of camping and nature viewing.

The Bureau of Reclamation manages five large reservoirs in western South Dakota. Angostura, Shadehill and Belle Fourche reservoirs have recreation areas that are leased to the South Dakota Game, Fish and Parks. The recreation areas on Pactola and Deerfield reservoirs are operated by the Black Hills National Forest. These recreation areas provide excellent water-based recreation along with camping, trails and picnicking facilities.

The Bureau of Land Management (BLM) maintains the Ft. Meade Recreation Area in the northern Black Hills. Hiking, fishing, picnicking and interpretive facilities occupy this area that lies within the old Fort Meade military reservation. The BLM also manages land in western South Dakota for multiple uses.

State Agencies

The South Dakota State Park system includes 13 state parks, 43 recreation areas, 69 lakeside use areas, 5 nature areas, 1 historic prairie and 10 marina/resorts. South Dakota Game, Fish and Parks (GFP) also manages the 114-mile George S. Mickelson Trail, South Dakota's Snowmobile Trail Program and maintains 240 public water access areas. The land managed by the Division of Parks and Recreation totals over 103,000 acres. Custer State Park alone consists of 71,000 acres in the Black Hills. System-wide visitation for the South Dakota Park System for 2016 topped 7.5 million.

Parks within the state system are classified according to the type of management objectives set for that particular unit. *State parks* are typically areas of natural, geological, historical or cultural significance where preservation and interpretation are main objectives for management. *Recreation areas* are usually more developed and offer a wide range of recreational opportunities. *Nature areas* are managed for little or no development. *Lakeside use areas* are normally small, water-based areas where access for boating and fishing is the primary objective.

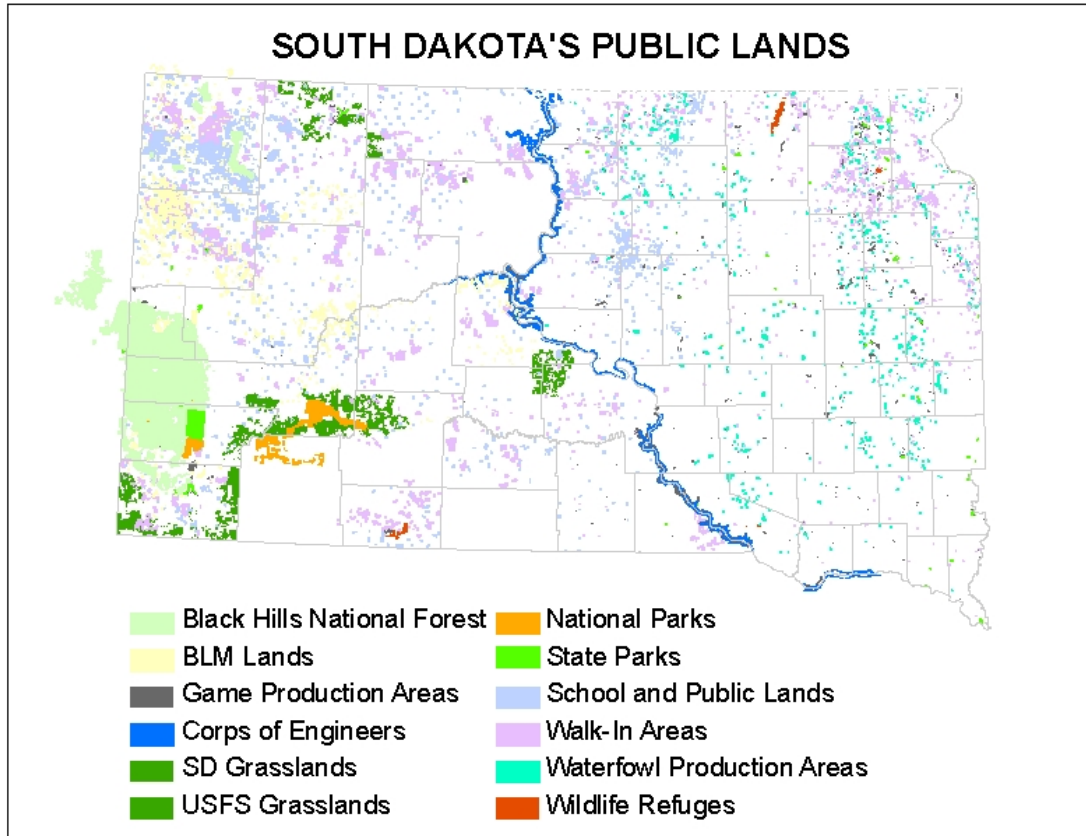
GFP also manages approximately 730 Game Production Areas, totaling more than 281,000 acres. Over 1.2 million acres of privately owned lands are enrolled in the Walk-In Area program for hunting access. Conservation Reserve Enhancement Program (C.R.E.P.) lands are owned by private individuals who have enrolled over 80,000 acres in a lease agreement to provide public hunting and fishing access. The Controlled Hunting Access Program includes 19,731 acres of privately owned lands, leased primarily for big game hunting. The Lower Oahe Waterfowl Access Program includes 31,434 acres of private land, leased for public hunting access, primarily for field waterfowl hunting. GFP also has access to 15,823 acres of Cooperative Management Areas. In 2016, a total of 66.9 million fish were stocked into 133 waters throughout the state in support of fisheries management efforts. The division also manages interpretive and educational centers at the Outdoor Campus in Sioux Falls, the Outdoor Campus West in Rapid City and Cleghorn Fish Hatchery in Rapid City.

In addition to the State Park System, the fishing and hunting opportunities described above and hundreds of interpretive and education programs, GFP offers numerous other seasonal and year around resources for recreation, including but not limited to:

- 13 Welcome Centers
- 3 Fish Hatcheries
- 2 Outdoor Campuses
- 83 Dams and associated water bodies
- 4,191 Campsites
- 215 Camping Cabins
- 7 Lodges
- 124 Picnic Shelters
- 74 Playgrounds
- Various outdoor recreation equipment, including fishing equipment, snowshoes and more
- 31 Fishing Docks
- 50 Fish Cleaning Stations
- 300 Boat Ramps
- 53 Beaches
- 337 Miles of Trails
- 1,585 Miles of Snowmobile Trails
- Canoe, Kayak, Paddle Board and other Rentals

The South Dakota Office of School and Public Lands manages over 750,000 acres of trust land to provide income to support public schools in South Dakota. Although these lands are open to the public, they are operated primarily under lease agreements.

Figure 1-5



Tribal Governments

There are nine Native American tribes in South Dakota, including the Cheyenne River Sioux Tribe, Crow Creek Sioux Tribe, Oglala Sioux Tribe, Yankton Sioux Tribe, Rosebud Sioux Tribe, Lower Brule Sioux Tribe, Sisseton Wahpeton Oyate Tribe, Flandreau Santee Sioux Tribe and the Standing Rock Sioux Tribe. Six of these tribes have established reservation boundaries within South Dakota. Some tribal governments offer parks and recreation facilities including campgrounds, ball fields, playgrounds, picnic areas, fishing and other outdoor recreation opportunities; while other areas are sparsely populated and remote.

Municipal Governments

There are 310 municipal governments in South Dakota. The South Dakota Municipal League categorizes cities into three groups based on population. There are 17 Class 1 cities with populations over 5,000, consisting of 50 percent of the state's population. There are 98 Class 2 cities with populations between 500 and 5,000. These cities make up 15 percent of the statewide population. Although there are 195 Class 3 cities with populations less than 500, these make up only 4 percent of the state's total population by 2010 Census standards.

Most of South Dakota cities have some form of outdoor recreational facilities. However, the extent and quality of these facilities often depends on the size of the city. Larger cities provide a greater variety of facilities and services, including swimming pools, trails and outdoor sports complexes. Almost all communities have some basic facilities, such as a park, playground, picnic area, sledding hill or softball field.

Cities play a vital role in outdoor recreation. They offer many of the services that people desire on a more frequent basis. City recreation programs also provide organized sports and fitness programs for children and adults.

County Governments

There are only four county governments that were identified as owning or managing outdoor recreational facilities. They are Minnehaha, Clay, Douglas and Codington counties. Most counties have the presence of federal, state or municipal recreational services. Tight budgets and other priorities make it difficult for counties to provide recreational services.

Institutional Providers

Many institutions such as schools and universities provide outdoor recreational facilities, primarily for students or faculty, but are sometimes open to the public. This SCORP did not attempt to inventory or assess these facilities, since the availability of these facilities is widely varied.

Private Providers and Outdoor Recreation Organizations

Quantifying private outdoor recreational services and facilities across the state is, undoubtedly, a complicated task. As previously reported in the industry portion of this plan, the amusement, gambling and recreation industries alone contribute over \$226 million dollars to the state's gross domestic product. In addition, the South Dakota tourism industry, largely focused on outdoor recreation in South Dakota, contributes over \$2 billion to the state's economy. Identifying the numerous private providers that contribute to these outdoor recreation opportunities across the state would be an undertaking.

Considering the array of terrain, opportunities and seasons in South Dakota, private outdoor recreation providers cover the gamut. These providers include the typical private facilities including campgrounds, golf courses, downhill ski and snowboard facilities, outdoor horse arenas and country clubs with outdoor pools and tennis courts. However, in South Dakota, the hunting and fishing, combined with the diverse habitat land and water resources, result in numerous providers of private outfitting for traditional sports such as hunting, fishing, canoeing, kayaking, horseback riding and others. In addition, private outfitters extend to more diverse classes, certifications and providers of unique experiences including paddle boarding, SCUBA, rock climbing, snowmobiling, off highway and all-terrain vehicle adventures and more.

There are also numerous organizations and clubs, across the state, which promote outdoor recreation and the protection of the habitat vital to future outdoor recreation experiences. These include organizations that span a variety of opportunities, like the Izaak Walton League, the Nature Conservancy and the South Dakota Association of Conservation Districts. However, many of these clubs are sport or experience specific, including bicycle clubs, disc golf associations, snowmobile clubs, horseback riding groups, the canoe and kayak association, fly fishing organizations, the trapping association, bowhunters, gun clubs and others. Many of these organizations also focus on a specific or groups of species, such as bird watching clubs, Pheasants Forever, Delta Waterfowl, Ducks Unlimited, National Wild Turkey Federation or Walleyes Unlimited. Regardless of the specific type or focus, many of these organizations promote and provide outdoor recreation, often by partnering with state and local agencies, by improving habitat, providing classes, educating the public and even providing funding for projects.

OUTDOOR RECREATION PREFERENCES

In 2017, GFP, with the assistance of South Dakota State University's Department of Health and Nutritional Sciences, Sport and Recreation Management program (SDSU), sent a survey to approximately 330,000 people who are part of the Department's voluntary email and electronic distribution lists. The public survey was also posted on social media, in GFP offices and parks and distributed through a variety of other email distribution groups. Cities and counties were also asked to post the survey to their websites, message boards and other communication venues to provide the general public the opportunity to participate in the 2017 Outdoor Recreation Survey. In all, 2,295 surveys were returned. The intent of the survey was to investigate the public perspective of outdoor recreation demand and current availability by assessing South Dakota residents' and visitors' behavioral patterns in outdoor recreation, and investigating residents' and visitors' motivation for, and potential barriers to, outdoor recreation in the state.

A statewide survey of South Dakota outdoor recreation providers was also conducted, by GFP and SDSU, to understand their general operation and current challenges in the field. General operation information included providers' outdoor recreation, providers' organizational information and responsibilities, such as type of organization/agency, target service population, budget, staff, program, facilities, partnership etc. Also surveyed were their perceived current challenges in providing outdoor recreation in South Dakota, including population change (i.e. aging, diversity, minority, residential area), financial shortfall, natural and environmental condition, social and cultural barriers for being outdoors and quality of staff. In addition, providers were asked to complete an inventory survey with detailed facilities and areas for outdoor recreation.

The following information is taken from the final reports for both the public and provider surveys for use in the South Dakota SCORP. The information included represents the perspective of the respondents to the 2017 Outdoor Recreation Survey and the 2017 Outdoor Recreation Survey: Providers.

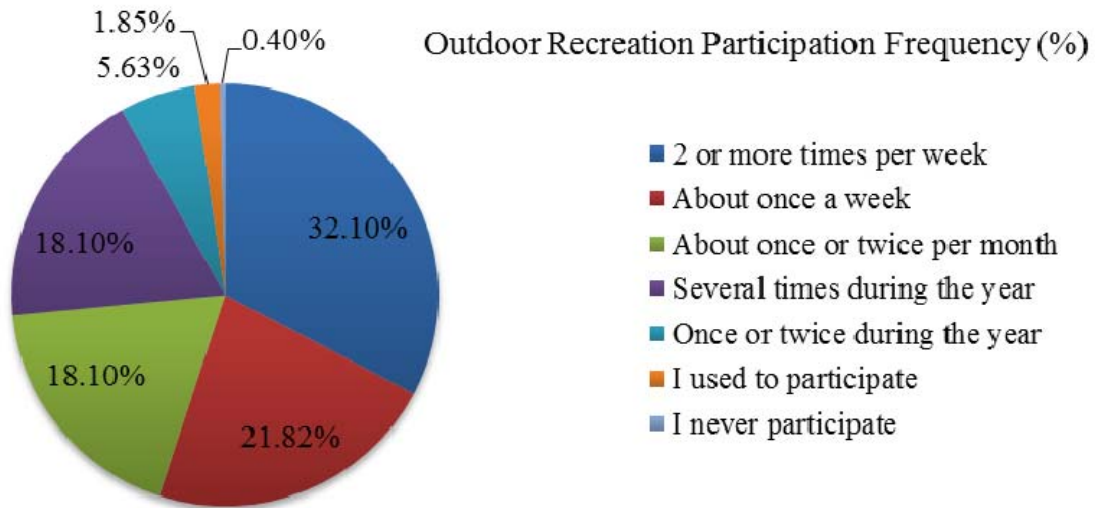
Public Survey Respondent Data

The questions in the first section were designed to gauge the relative frequency of participation in outdoor recreational activities, as well as to identify how the respondents participated.

Section I

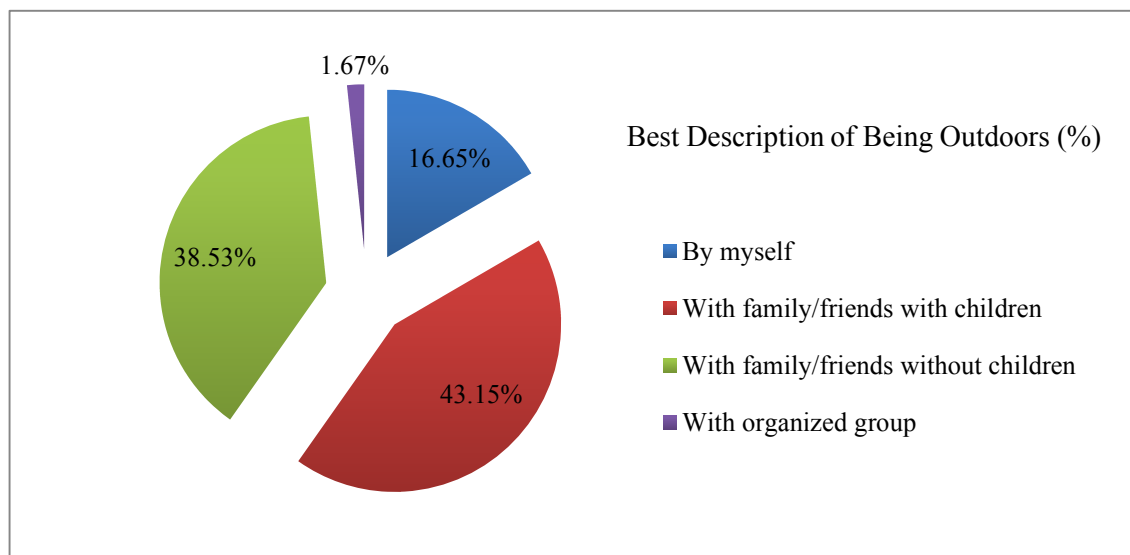
1. During the past year, how often did you participate in outdoor recreation activities?
Please select the statement that best describes your frequency of participation.

Figure 1-6 Overall Outdoor Recreation Participation Frequency



2. Which of the following best describes how you participated in outdoor recreation?

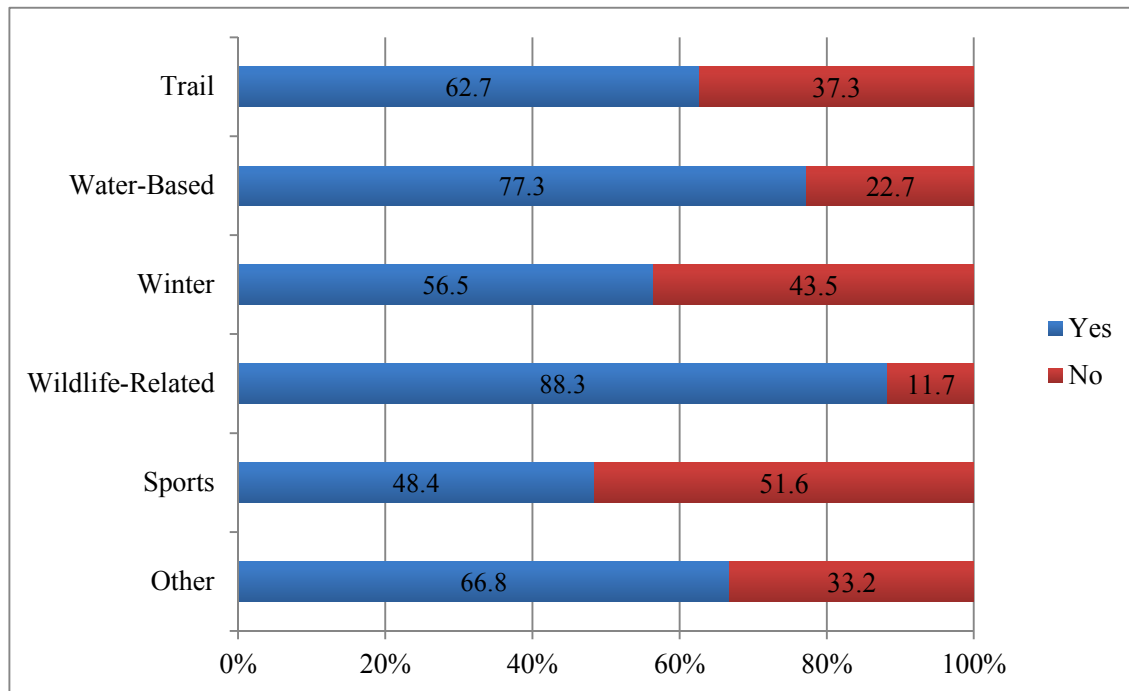
Figure 1-7 Best Description of Being Outdoors



The following series of questions was designed to gather detailed information about research participants' frequency of participating in outdoor recreation. Outdoor recreation activities were grouped into seven categories included in this section: 1) trail activities, 2) water-based activities, 3) winter activities, 4) wildlife-related activities, 5) sport activities, 6) other outdoor activities, and 7) additional activities. First, research participants were asked a yes/no question of

a particular type of outdoor recreation activity, which determined if a list of specific activities under the category would proceed (Figure 1-8).

Figure 1-8 Popular Outdoor Recreation Activities by Category



Next, under a list of activities, research participants were asked to report the number of times they participated, either alone or with others, and the age of participants, above or below 18 years of age in the past 12 months.

Trail activities: The first question was created to discover the frequency at which participants were engaged with trails and trail related activities.

Did you or any member of your household participate in any outdoor recreation activities on trails (i.e. walking, biking, hiking, ATV riding etc.) in South Dakota over the past year?

- Yes: 2119 (62.7%)
- No: 1259 (37.3%)

Within trail activities, the highest response for people without children was “walking on natural surface trails/hiking (day trip)” at 1137 responses, followed by “walking on paved trails” at 992 responses, and “biking on a paved road” at 570 responses. For people with children, the highest response was “walking on natural surface trails/hiking (day trip)” at 703 responses, followed by “walking on paved trails” at 635 responses, and “biking on a paved road” at 309 responses (Table 1-2).

Table 1-2 Frequency of Participation in Trail Activities

Trail Activities	Number of times participated: Median (Range)			
	Self or with friends/family 18 years or older	N *	With friends/family including children under 18	N *
Walking on paved trails	9 (1-360)	992	5 (1-410)	635
Walking on natural surface trails/Hiking (Day Trip)	8 (1-360)	1137	5 (1-300)	703
Backpacking (Overnight)	3 (1-80)	185	3 (1-30)	76
Jogging/Running	20 (1-500)	353	5 (1-100)	141
Horseback Riding	3 (1-350)	128	2 (1-200)	90
Biking on a paved road	10 (1-400)	570	6 (1-365)	309
Biking on paved trail	10 (1-400)	549	5 (1-365)	300
Biking on unpaved trail	10 (1-300)	385	5 (1-250)	195
Mountain Biking	20 (1-350)	269	10 (1-250)	119
Off Highway Vehicle (OHV)	5 (1-77)	160	4 (1-60)	97
All-Terrain Vehicle (ATV)	5 (1-200)	335	4 (1-150)	172
Utility Task Vehicle (UTV)	6 (1-150)	162	4 (1-60)	95
Full size 4×4 Vehicle	6 (1-250)	373	5 (1-300)	159

* N: the number of research participants responded their participation in a particular activity.

Water-based activities. Question two then looked at participation in any water-based activities within South Dakota during the previous year.

Did you or any member of your household participate in any water-based activities in South Dakota in the past year?

- Yes: 2324 (77.3%)
- No: 681 (22.7%)

The highest response for water-based activities for people without children was “motorized boating” at 1347 responses, followed by “swimming at beach” 648 responses, and “canoeing or kayaking” at 612 responses. For people with children, the highest response was “motorized boating” at 825 responses, “swimming at beach” at 724 responses, and “swimming at a pool” at 464 responses (Table 1-3).

Table 1-3 Frequency of Participation in Water-based Activities

Water-based Activities	Number of times participated: Median (Range)			
	Self or with friends/family 18 years or older	N *	With friends/family including children under 18	N *
Swimming at beach	4 (1-100)	648	5 (1-201)	724
Swimming at a pool	5 (1-250)	326	5 (1-240)	464
Motorized Boating	8 (1-150)	1347	5 (1-140)	825
Canoeing or Kayaking	4 (1-250)	612	3 (1-100)	361
Sailing or Sailboarding	3 (1-60)	44	3 (1-25)	22
Standup Paddle Boarding	2 (1-50)	151	2 (1-25)	113
Snorkeling or SCUBA Diving	2 (1-50)	93	3 (1-12)	42

* N: the number of research participants responded their participation in a particular activity.

Winter activities. The next question asked for outdoor winter recreation participation, including skiing, snowboarding, snowshoeing, skating (whether it was for hockey or not) fishing, snowmobiling or biking.

Did you or any member of your household participate in any winter outdoor recreation activities in South Dakota in the past year?

- Yes: 1645 (56.5%)
- No: 1264 (43.5%)

For winter activities (Table 1-4), the respondents without children placed “ice fishing” as their highest response at 787 responses, followed by “snowshoeing” at 244 responses, and “sledding” at 232. For respondents with children, the highest response rate was “sledding” at 404, followed by “ice fishing” at 365 responses, and then “downhill skiing/snowboarding” at 147 responses.

Table 1-4 Frequency of Participation in Winter Activities

Winter Activities	Number of times participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Downhill Skiing/Snowboarding	3 (1-50)	212	3 (1-30)	147
Sledding	2 (1-25)	232	4 (1-30)	404
Snowshoeing	3 (1-160)	244	2 (1-30)	83
Ice Skating (Outdoors)	2 (1-20)	92	2 (1-20)	105
Ice Hockey (Outdoors)	5 (1-30)	30	5 (1-60)	29
Ice Fishing	5 (1-100)	787	4 (1-100)	365
Snowmobiling	3 (1-50)	167	2 (1-50)	84
Cross-country Skiing	5 (1-100)	159	3 (1-50)	43
Fat Tire Biking	15 (1-100)	108	5 (1-50)	40

* *N*: the number of research participants responded their participation in a particular activity.

Wildlife-related activities. The next activity focused on anything related to wildlife, which was categorized as anything related to fishing, hunting, trapping or observing.

Did you or any member of your household participate in any wildlife-related outdoor recreation activities (i.e. hunting, fishing, wildlife watching, etc.) in South Dakota in the past year?

- Yes: 2529 (88.3%)
- No: 336 (11.7%)

With wildlife-related activities (Table 1-5), the survey participants without children stated that their highest response rate was “hunting (rifle/pistol/shot gun)” at 1492 responses, followed by “boat fishing” at 1244 responses, and then “shore fishing” at 1060 responses. With survey participants with children, the highest response was “shore fishing” at 681 responses, followed by “boat fishing” at 622 responses, and then “hunting (rifle/pistol/shot gun)” at 556 responses.

Table 1-5 Frequency of Participation in Wildlife-related Activities

Wildlife-related Activities	Number of times participated: Median (Range)			
	Self or with friends/family 18 years or older	N *	With friends/family including children under 18	N *
Shore Fishing	5 (1-200)	1060	4 (1-150)	681
Fly Fishing	4 (1-200)	259	3 (1-50)	72
Boat Fishing	8 (1-250)	1244	5 (1-150)	622
Hunting (Bow)	10 (1-125)	478	5 (1-60)	131
Hunting (Rifle/Pistol/Shot Gun)	8 (1-300)	1492	5 (1-101)	556
Trapping	10 (1-300)	113	5 (1-50)	51
Wildlife Viewing	10 (1-365)	903	6 (1-365)	466
Birdwatching	10 (1-505)	527	5 (1-365)	228

* N: the number of research participants responded their participation in a particular activity.

Sports activities. The fifth question was gauged toward discovering the participation rates in outdoor sports activities. The sports activities included generic outdoor activities, such as golf, tennis, football, baseball/softball and others, and more unique outdoor sport activities, such as archery, rock climbing and pickleball.

Did you or any member of your household participate in any outdoor sports (i.e. baseball, golf, shooting sport etc.) in South Dakota in the past year?

- Yes: 1356 (48.4%)
- No: 1445 (51.6%)

The next category was sports activities (Table 1-6). The highest response was “golf” at 545 responses, followed by “rifle/pistol range shooting (outdoor)” at 537 responses, followed by “shotgun range shooting (outdoor)” at 425 responses. For responses with children, the highest response rate was “baseball/softball” at 212 responses, followed by “rifle/pistol range shooting (outdoor)” at 210 responses, and then “golf” at 184 responses.

Table 1-6 Frequency of Participation in Sport Activities

Sports Activities	Number of times participated: Median (Range)			
	Self or with friends/family 18 years or older	N *	With friends/family including children under 18	N *
Tennis	5 (1-320)	68	5 (1-320)	54
Golf	5 (1-200)	545	4 (1-65)	184
Disc Golf	3 (1-30)	159	3 (1-25)	115
Baseball/softball	10 (1-300)	162	15 (1-450)	212
Basketball (outdoors)	5 (1-50)	90	5 (1-50)	128
Volleyball (outdoors)	5 (1-40)	85	3 (1-20)	61
Lacrosse	0	0	4 (1-40)	4
Soccer (outdoors)	5 (1-75)	46	10 (1-80)	103
Football	6 (1-100)	69	10 (1-60)	125
Skateboarding	4 (1-30)	15	6 (1-104)	24
Rock Climbing	2 (1-100)	95	2 (1-19)	57
Archery Range Shooting (Outdoor)	6 (1-200)	267	4 (1-60)	141
Shotgun Range Shooting (Outdoor)	5 (1-190)	425	3 (1-280)	183
Rifle/Pistol Range Shooting (Outdoor)	5 (1-200)	537	5 (1-280)	210
Pickle Ball	5 (1-150)	32	3 (1-25)	8

* N: the number of research participants responded their participation in a particular activity.

Other outdoor activities. The penultimate question asked for other outdoor activities that aren't categorized under anything else listed above, including camping, picnicking, lawn games, geocaching, being with pets and other more passive activities.

Did you or any member of your household participate in any other outdoor activities (i.e. camping, picnicking, recreating with pets, playing at a playgroup, etc.) in South Dakota in the past year?

- Yes: 1836 (66.8%)
- No: 914 (33.2%)

The highest response rate for other activities (Table 1-7), for respondents without children, was “visiting history sites” at 696 responses, followed by “recreating with pet(s)” at 673 responses, and then “RV camping” at 622 responses. The highest response rate for respondents with children was “playing at a playground” at 577 responses, followed by “picnicking” at 461 responses, and then “lawn games (horseshoes, bocce, corn hole)” at 432 responses.

Table 1-7 Frequency of Participation in Other Outdoor Activities

Other outdoor activities	Number of times participated: Median (Range)			
	Self or with friends/family 18 years or older	N *	With friends/family including children under 18	N *
Tent Camping	3 (1-45)	481	3 (1-60)	297
RV Camping	5 (1-365)	622	5 (1-120)	426
Picnicking	4 (1-100)	593	3 (1-100)	461
Visiting Historic Sites	3 (1-230)	696	3 (1-230)	425
Visiting Nature Centers	2 (1-230)	545	3 (1-230)	395
Outdoor photography	6 (1-320)	472	5 (1-320)	193
Attending Educational Programs	2 (1-50)	204	2 (1-50)	191
Attending Outdoor festivals	2 (1-25)	440	2 (1-15)	267
Playing at a Playground	5 (1-175)	242	6 (1-180)	577
Geocaching	2 (1-100)	91	2 (1-30)	80
Lawn games (horseshoes, bocce, corn hole)	5 (1-100)	531	5 (1-100)	432
Recreating with Pet(s)	12 (1-500)	673	10 (1-365)	372

* N: the number of research participants responded their participation in a particular activity.

Additional activities. The final question asked to list any other activity that wasn't covered in any of the previous categories. The question was left open-ended and was used to include any and all additional activities that weren't listed in any of the other questions.

Survey participants responded with many different and unique activities, including horse riding, spelunking, researching plant life (berry picking, mushroom gathering, locating edible plants in wild), conservation of local areas, panning for gold and other unique activities. By asking this question, participants can share ideas that could possibly be incorporated into outdoor recreation activities. Other activities include:

- Tubing
- Rollerblading
- Using a fire pit
- Ultimate Frisbee
- Gardening
- Participating in outdoor events (Renaissance Festival, Concerts, Rodeos, Reenactments)

- Stargazing
- Hot air balloon riding
- Butterfly catching/watching
- Dirt bike riding/Motorcycle riding

Section II: Outdoor Recreation Motivation and Constraints

The section was designed to understand why people participate in outdoor recreation activities, and what obstacles people face in pursuing their outdoor recreation interests.

1. We would like to know why you participate in outdoor recreation. How strongly do you agree or disagree with each of the following reasons for participating in outdoor recreation activities? Please rate between 1 (Entirely Disagree) to 5 (Entirely Agree) that indicates your agreement on each reason for participating in outdoor recreation.

South Dakota recreation participants reported mainly intrinsic motivations for participating in outdoor recreation. Activity enjoyment was the top motivation for outdoor recreation with 62.63% of participants selecting strongly agree. People also listed “being with friends and family” and “enjoying scenery” as motivations. About half of survey participants reported outdoor recreation as a source of “relaxation” or as a way to “experience peace and tranquility”. Some of the less popular motivations included: “meeting new people”, “developing self-confidence”, and “learning about the environment”. Table 1-8 highlights the most popular motivations for participating in outdoor recreation.

Table 1-8 Summary of Motives in Outdoor Recreation

	Entirely Disagree	Disagree	Neutral	Agree	Entirely Agree	Mean (M)	SD
To enjoy my favorite activity	28 (1.10%)	7 (0.27%)	91 (3.54%)	836 (32.48%)	1612 (62.63%)	4.55	0.68
To develop confidence in myself	231 (9.27%)	286 (11.48%)	1193 (47.87%)	563 (22.59%)	219 (8.79%)	3.10	1.03
To experience peace/tranquility	36 (1.42%)	26 (1.02%)	273 (10.75%)	1118 (44.03%)	1086 (42.77%)	4.26	0.80
For relaxation	29 (1.14%)	12 (0.47%)	154 (6.03%)	1146 (44.89%)	1212 (47.47%)	4.37	0.72
For stimulation and excitement	38 (1.51%)	75 (2.98%)	418 (16.63%)	1133 (45.09%)	849 (33.78%)	4.07	0.87
To feel at one with nature	73 (2.90%)	109 (4.34%)	684 (27.22%)	978 (38.92%)	669 (26.62%)	3.82	0.97
To escape daily routine	43 (1.71%)	65 (2.58%)	415 (16.47%)	1043 (41.39%)	954 (37.86%)	4.11	0.89
To learn about the environment	82 (3.29%)	218 (8.76%)	966 (38.80%)	851 (34.18%)	373 (14.98%)	3.49	0.96
To experience new things	57 (2.29%)	103 (4.14%)	704 (28.33%)	1096 (44.10%)	525 (21.13%)	3.78	0.90
To observe wildlife	29 (1.15%)	54 (2.14%)	290 (11.48%)	1119 (44.28%)	1035 (40.96%)	4.22	0.82
To meet new people	314 (12.49%)	570 (22.67%)	1108 (44.07%)	426 (16.95%)	96 (3.82%)	2.77	1.00
To be with family and friends	30 (1.18%)	50 (1.96%)	230 (9.03%)	1157 (45.44%)	1079 (42.38%)	4.26	0.79

To enjoy beautiful scenery	15 (0.59%)	12 (0.47%)	150 (5.93%)	1070 (42.29%)	1283 (50.71%)	4.42	0.68
To develop skill and knowledge	41 (1.64%)	121 (4.83%)	779 (31.11%)	1073 (42.85%)	490 (19.57%)	3.74	0.88
To gain a sense of accomplishment	78 (3.12%)	160 (6.40%)	892 (35.68%)	943 (37.72%)	427 (17.08%)	3.59	0.95
To challenge myself	70 (2.79%)	158 (6.27%)	781 (30.98%)	932 (36.97%)	580 (23.01%)	3.71	0.98
To keep physically fit	55 (2.20%)	122 (4.87%)	639 (25.52%)	1048 (41.85%)	640 (25.56%)	3.84	0.94
To use my outdoor gear/equipment	90 (3.57%)	173 (6.86%)	663 (26.28%)	1025 (40.63%)	572 (22.67%)	3.72	1.00

2. We would like to know about your perceived barriers to participating in outdoor recreation. How strongly do you agree or disagree with each of the following being obstacles you face in pursuing your outdoor recreation interests? Please rate on a scale from 1 (Entirely Disagree) to 5 (Entirely Agree).

Table 1-9 highlights the most popular constraints for participating in outdoor recreation. The results showed structural constraints as the most common reasons/barriers to participating in outdoor recreation:

- “Lack of time” (M = 3.09) and high costs were the main barriers to participation. Three out of the top five constraints dealt with cost barriers.
- Participants listed “high activity fees” (M = 2.48), “high equipment costs” (M = 2.74), and “high admission fees” (M = 2.51) as barriers to their participation.
- People also stated parks and recreation areas were “too crowded” (M = 2.86).

Intrapersonal constraints were among the least reported barriers to recreation.

- “Lack of interest” (M = 1.76) and “lack of confidence” (M = 1.76) were among the less common constraints.

Table 1-9 Summary of Constraints in Outdoor Recreation

	Entirely Disagree	Disagree	Neutral	Agree	Entirely Agree	Mean	SD
Afraid of getting hurt by animals /insects	1334 (53.70%)	770 (31.00%)	274 (11.03%)	94 (3.78%)	12 (0.48%)	1.66	0.86
Lack of interest	1194 (48.36%)	791 (32.04%)	384 (15.55%)	92 (3.73%)	8 (0.32%)	1.76	0.87
Don't feel welcome	1091 (44.13%)	808 (32.69%)	393 (15.90%)	139 (5.62%)	41 (1.66%)	1.88	0.98
Lack of information	805 (32.72%)	806 (32.76%)	589 (23.94%)	238 (9.67%)	22 (0.89%)	2.13	1.01
Don't have enough time	350 (14.23%)	436 (17.72%)	557 (22.64%)	872 (35.45%)	245 (9.96%)	3.09	1.22
Don't have the skills or physical ability	838 (34.02%)	887 (36.01%)	487 (19.77%)	223 (9.05%)	28 (1.14%)	2.07	1.00
Lack of confidence	1111 (45.35%)	896 (36.57%)	362 (14.78%)	74 (3.02%)	7 (0.29%)	1.76	0.83

Companions prefer other things	687 (27.95%)	752 (30.59%)	640 (26.04%)	347 (14.12%)	32 (1.30%)	2.30	1.06
Don't have people to go with	736 (30.02%)	744 (30.34%)	532 (21.33%)	395 (16.11%)	54 (2.20%)	2.30	1.13
Activity fees are too high	582 (23.84%)	682 (27.94%)	712 (29.17%)	365 (14.95%)	100 (4.10%)	2.48	1.13
Admission fees are too high	517 (21.00%)	723 (29.37%)	766 (31.11%)	352 (14.30%)	104 (4.22%)	2.51	1.10
Equipment costs are too high	364 (14.92%)	609 (24.96%)	853 (34.96%)	525 (21.42%)	89 (3.65%)	2.74	1.07
The facility I want doesn't exist in parks	609 (24.91%)	851 (34.81%)	736 (30.10%)	171 (6.99%)	78 (3.19%)	2.29	1.02
Parks and recreation areas are too crowded	309 (12.57%)	637 (25.92%)	774 (31.49%)	577 (23.47%)	161 (6.55%)	2.86	1.11
Concern about safety / crime	933 (38.14%)	961 (39.29%)	457 (18.66%)	82 (3.35%)	13 (0.53%)	1.89	0.86
Nearby parks are dirty or poorly maintained	893 (36.43%)	1021 (41.66%)	448 (18.28%)	68 (2.77%)	21 (0.86%)	1.90	0.85
Lack of transportation / no way to get to parks	1193 (48.56%)	938 (38.18%)	301 (12.25%)	19 (0.77%)	6 (0.24%)	1.66	0.74
Don't have necessary equipment	896 (36.75%)	948 (38.88%)	458 (18.79%)	122 (5.00%)	14 (0.57%)	1.94	0.90
Weather (i.e., extreme cold or hot temperatures)	611 (24.85%)	754 (30.66%)	669 (27.21%)	375 (15.25%)	50 (2.03%)	2.39	1.08
Age (i.e. busy with kids' activities now, unable to physically participate in the same activities, etc.)	697 (28.40%)	753 (30.68%)	544 (22.17%)	395 (16.10%)	65 (2.65%)	2.34	1.13

3. Do you, or anyone in your household, have a physical disability that affects your ability to participate in outdoor recreation?

- 2135 (59%) No, no one in my household has a disability (Skip to Question 5)
- 235 (7%) Yes, I have a disability
- 187 (5%) Yes, someone else in my household has a disability

4. If your response is Yes in the previous question, what recommendations could be made to improve your ability to engage in outdoor recreation activities?

As an open-end question, content analysis was used to interpret and code textural responses. (Original responses are available upon request.) The following is a summary from the analysis:

Water access. Boat and fishing access was a common response. Outdoor recreation participants expressed a huge need for more wheelchair accessible boat ramps and docks. Research participants also discussed the need for more ADA accessible shore fishing areas.

Hunting. Hunting accessibility was common among responses. Hunters would like regulations regarding crossbows and ATVs changed in order to accommodate for those with disabilities. ATVs and other off-road vehicles would ease peoples' accessibility barriers to hunting. Other suggestions included special areas or seasons set aside for hunters with disabilities.

Camping. Research participants suggested building more ADA accessible camping cabins and campsites. Users would like more paved areas in campgrounds. They also noted a need for lighted paths at night, especially paths going towards the restroom facilities and comfort stations.

Trails and Facilities. Survey respondents stated the need for more paved trails. They are unable to use some trails now due to the width, condition and incline of the trail. Research participants wish to have more paved trails at a lower incline to accommodate the public with disabilities. Users also requested to have more seating areas around trails and facilities to give people a chance to take a break from their outdoor recreation activity. Research participants also suggested more ADA accessible restrooms. Parking was a popular need among survey participants. They described the need for more handicap parking, especially near boat ramps and docks.

Programs. Participants expressed a need for more programming for people with disabilities. They thought having more staffing for programs would aid in helping those with disabilities. Some of the programs suggested included kayaking and activities at ranger stations.

5. Do you have any suggestions for how outdoor recreation providers can help remove the barriers to your participation in outdoor recreation activities?

With content analysis for an open-ended question, four common themes stood out based on participants' responses regarding how outdoor recreation providers can help in removing barriers to outdoor recreation. The four themes are: dissension, areas and facilities, programs and information, and policy:

Dissension

- Some participants had differing views regarding camping. While some people would like to see more campsites and campsites with full hook-ups, other campers hoped to see more primitive campsites away from loud RV campgrounds. People also wanted campgrounds to create more privacy between campsites.
- Outdoor recreation users also reported overcrowding problems in a variety of areas. Campsites are often hard to book. People also stated fishing and hunting areas are beginning to become overcrowded.
- While people were advocating for more ATV trails across the state, others wished to see more regulations regarding ATV and off-road vehicle usage. Many people had concerns regarding noise created by off-road vehicles.
- Nonresident vs. resident rules and regulations were among the most common responses. Nonresidents wish for lower fees for camping, hunting and fishing in South Dakota. South Dakota residents want the fees for nonresidents to increase. Residents also suggested giving South Dakota residents preference when it comes to reserving campsites within state parks.

Areas and Facilities

- People desire more access to public land for recreation.
- Respondents reported a need for more RV campgrounds. They also expressed a desire for more campsites with full hook-ups. Along with campgrounds, campers wish for more camping cabins at state park campgrounds. People also voiced the need for more primitive campsites in eastern South Dakota.
- Trails were a common theme among responses. Participants said there is a need for more ADA accessible trails. People also suggested creating more bike trails. Others would like to see more hiking trails of varying difficulties across the state.
- Boat users would like to see more and improved boat ramps. Both boaters and fishermen noted the need for more water access.
- With ATV and off-road vehicle popularity increasing, users would like more areas to use their off-road vehicles, particularly on the eastern side of the state.
- Participants also expressed a desire for more gun ranges.

Programs and Information

- Numerous respondents would like to see more information regarding programs and events posted on easily accessible mediums like social media.
- People would like to see more programming for outdoor recreation. Suggestions included group programs, skills programs and guided hikes. Other respondents expressed their desire for more classes at The Outdoor Campus as most classes fill up quickly.
- Survey participants suggested updating websites to make them easier to navigate and find specific information.

Policy

- Overall, both residents and nonresidents expressed the need to lower fees for annual park passes and hunting and fishing licenses. People stated that the increasing prices are discouraging them from participating in outdoor recreation.
- Regarding park passes, people expressed dislike for having to purchase stickers for each vehicle. They would like to see a transferable park pass.
- Campground users suggested changing the camping reservation system. They believe that 90 days is too far out to plan a camping trip. Other people suggested adding more same day reservation campsites.
- Many hunters believe there are too many rules and regulations regarding hunting in South Dakota.

Section III: Outdoor Recreation Needs in South Dakota

This section was designed to understand the State's needs for outdoor recreation related facilities, amenities and areas to promote and sustain the outdoor recreation legacy of South Dakota over the next five years.

1. Please indicate whether or not you feel there is a need for more facilities or if efforts should be made to improve what already exists. Please select all that apply.

Participants' responses indicated a need for more hunting areas, shooting ranges, nature areas, fishing areas, archery ranges, walking/biking trails, campgrounds and canoe/kayak water trails. The top ten facilities of "Need More" and "Need to Improve" were marked in the following Table 1-10.

Table 1-10 Percentage and Rank of Need in Facilities and Areas

	Need more	Need to improve	Adequate	No opinion
Tent-camping Campgrounds	15.21%	10.11%	39.06%	35.64%
RV or trailer Campgrounds	[8] 19.83%	9.23%	36.99%	33.95%
Areas for Backpacking	14.37%	9.34%	34.20%	42.09%
Picnic Areas	7.14%	10.05%	52.61%	30.20%
Facilities for Boating	12.81%	[5] 16.16%	44.26%	26.76%
Swimming Beaches	12.12%	[3] 17.21%	37.50%	33.16%
Swimming Pools	7.02%	7.79%	36.73%	48.46%
Fishing Areas	[9] 19.78%	[4] 16.58%	45.43%	18.20%
Shore Fishing Areas	[5] 22.56%	[1] 18.82%	36.27%	22.35%
Hunting Areas	[1] 34.40%	[2] 17.26%	26.91%	21.43%
Walking/Biking Trails (unpaved)	[7] 20.13%	11.45%	38.38%	30.03%
Horseback Riding Trails	5.21%	3.83%	23.86%	67.10%
Paved Trails	11.52%	8.22%	38.54%	41.47%
Mountain Biking Trails	12.01%	5.63%	23.48%	58.88%
Mountain Biking Skills Course	8.73%	4.24%	19.13%	67.91%
Fat Tire Bike Trails	8.52%	3.70%	17.22%	70.56%
Cross-country Skiing Trails	9.98%	5.87%	16.97%	67.18%
Down-hill Skiing/Snowboarding Areas	8.47%	4.90%	21.08%	65.55%
Sledding Areas	16.14%	9.91%	18.80%	55.15%
Ice Skating or Hockey Rinks (Outdoor)	8.96%	7.23%	20.30%	63.51%
Snowmobile Trails	4.67%	3.89%	28.73%	62.70%
Off-road or ATV Riding Areas	11.52%	7.55%	28.67%	52.26%
Off-road or ATV Trails	12.31%	7.95%	28.35%	51.39%
Historic Sites (with interpretation)	10.96%	[7] 13.94%	35.78%	39.31%
Nature Areas/Open Space	[4] 23.00%	[9] 12.81%	37.12%	27.06%
Outdoor Festivals/Festival Areas	11.90%	8.68%	33.85%	45.58%
Pow-wow Grounds	3.55%	3.55%	22.73%	70.71%
Playgrounds	6.40%	8.97%	35.98%	48.65%
Soccer Fields	2.09%	2.52%	31.90%	63.49%
Football Fields	1.31%	2.41%	33.00%	63.28%
Lacrosse Fields	1.37%	1.63%	20.70%	76.30%
Golf Courses/Driving Ranges	4.49%	4.49%	42.80%	48.23%
Baseball or Softball Fields	3.02%	5.56%	39.83%	51.59%
Skateboarding Parks	3.76%	3.93%	25.68%	66.62%
Tennis Courts	1.91%	3.48%	31.25%	63.36%
Volleyball Courts (outdoor)	3.52%	4.43%	27.83%	64.22%
Basketball Courts (outdoor)	2.91%	4.99%	29.86%	62.24%
Horseshoe Pits	5.36%	6.18%	28.40%	60.06%
Archery Target Shooting Ranges	[6] 21.95%	[10] 11.70%	19.99%	46.36%
Shotgun Shooting Ranges	[3] 26.47%	[8] 13.27%	20.98%	39.28%
Pistol/Rifle Shooting Ranges	[2] 30.23%	[6] 14.06%	19.77%	35.94%
Disc Golf Courses	7.60%	5.25%	29.53%	57.62%
Dog Parks	15.17%	10.63%	24.13%	50.06%

Canoe/Kayak Water Trails	[10] 18.98%	10.96%	19.19%	50.87%
ATV Skill Parks	6.55%	4.19%	20.30%	68.97%
ADA Accessible Facilities. Please specify what types.	5.38%	4.24%	21.38%	69.00%

2. What other facilities/areas/amenities should be considered when promoting South Dakota’s outdoor recreation legacy for the next five years?

Based on participants’ open-ended responses regarding other facilities/areas/amenities should be considered in South Dakota, there are seven types of facilities commonly mentioned:

Trails. Outdoor recreation users hope to see more trails in South Dakota in the future. Survey participants had suggestions for a variety of trail types. People wish to see more mountain biking, hiking, cross country skiing and ATV/UTV trails in the state. Another common suggestion was a trail system to connect parks in a number of different communities.

Specialized activities. Survey participants also suggested a variety of additional specialized activity facilities throughout the state. People would like more rock climbing and zip lining opportunities. Pickleball courts were another common request among survey participants. Other participants would like to see more ATV/UTV trails, especially in eastern South Dakota. People also commented on their desire to geocache in state parks.

Facilities supporting aging population. A significant number of survey participants stated that aging was their number one barrier to outdoor recreation. They suggested a number of ways outdoor recreation providers can better accommodate the aging population’s needs. Paved and easier walking trails would allow the aging population to engage in outdoor recreation more. Users also thought programming for different age groups would also be beneficial.

Maintenance. Maintaining current facilities is important for promoting outdoor recreation in South Dakota in the future. Building and maintaining restroom facilities/comfort stations was common among participants’ responses. People also stated the importance of upkeep of fish cleaning stations.

Information. People suggested that outdoor recreation providers offer more information about different outdoor recreation activities. Survey participants believe that providers should publicize events more online. Outdoor recreation users also suggested creating more user-friendly websites to find information about different events and activities.

Parking. Recreation users would like more parking for various facilities. They stated many campgrounds and boating areas do not have enough parking for all of the users. Along with more general parking, users expressed the need for more ADA parking by outdoor recreation facilities.

Amenities for water activities. Survey respondents suggested updating and adding more boat docks around the state. Many boat docks and ramps need to be updated. Users also stated the need for more fish cleaning stations with running water near boat ramps. Kayakers suggested creating better water access points along lakes and rivers so they do not have to walk so far carrying their boat. Beach users recommended updating beaches.

Habitat. Land conservation and wildlife habitat were important themes among survey participants. People wish to see improved pheasant habitats. They also talked about conserving

and maintaining prairie and grasslands. Improved wildlife habitat in general was a common response.

Section IV: Public Perspective about Outdoor Recreation

The following section examined priorities in funding outdoor recreation and conservation efforts in South Dakota, the importance of potential benefits of outdoor recreation, and the ability of outdoor recreation providers to provide these benefits.

1. When funding outdoor recreation and conservation efforts in South Dakota, how important or unimportant are each of following considerations? Please rate each statement on a scale from: 1 =Extremely Unimportant to 5= Extremely Important.

In the Table 1-11 below, the findings are listed and include the Mean and Standard Deviation (SD). It is interesting to note that when asked twice what the most important consideration was, “(F) protect wildlife and fish habitat” was chosen both times, with 1610 responses (70.74%) citing that this consideration was Extremely Important. The second highest response turnout for Extremely Important was “(C) maintain existing park and recreation areas” at 1390 (61.42%) responses. The third highest was “(A) acquire and protect open space (as undeveloped, conserved land)” at 1167 responses (51.34%).

Table 1-11 Summary of Importance of Funding Efforts in Outdoor Recreation

	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Acquire and protect open space (as undeveloped, conserved land)	140 (6.16%)	110 (4.84%)	303 (13.33%)	553 (24.33%)	1167 (51.34%)	4.10	1.18
(B) Acquire additional land and water areas for developed recreation	146 (7.24%)	187 (8.26%)	452 (19.96%)	740 (32.67%)	722 (31.88%)	3.74	1.20
(C) Maintain existing park and recreation areas	133 (5.88%)	45 (1.99%)	146 (6.45%)	549 (24.26%)	1390 (61.42%)	4.33	1.08
(D) Provide environmental and conservation programs	98 (4.37%)	140 (6.24%)	457 (20.37%)	780 (34.77%)	768 (34.24%)	3.88	1.08
(E) Provide recreation programs at parks and recreation areas	94 (4.18%)	216 (9.61%)	692 (30.78%)	784 (34.88%)	462 (20.55%)	3.58	1.05
(F) Protect wildlife and fish habitat	149 (6.55%)	23 (1.01%)	94 (4.13%)	400 (17.57%)	1610 (70.74)	4.45	1.08

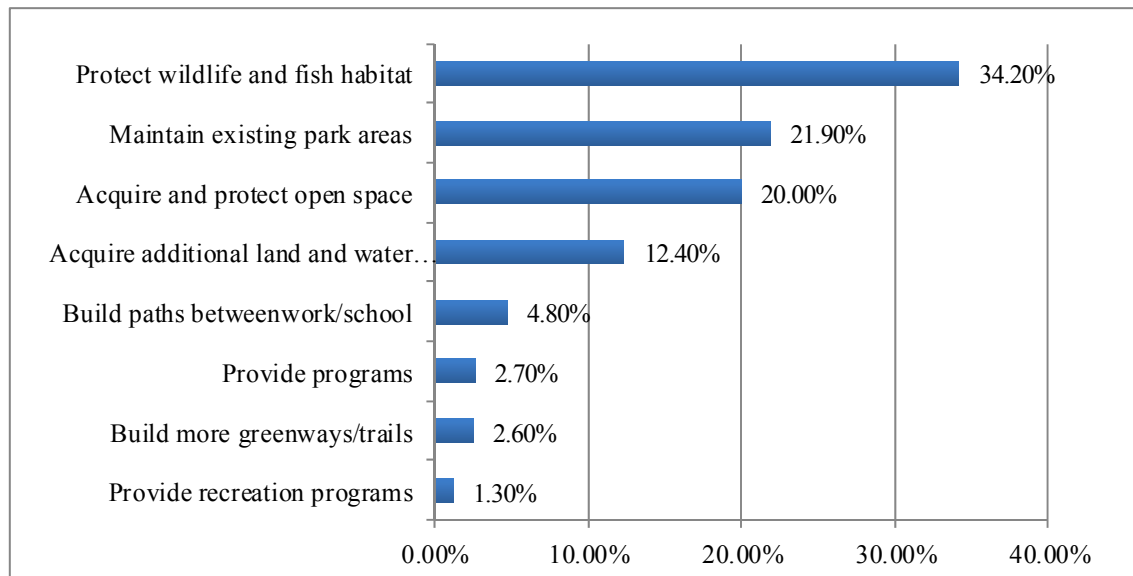
(G) Build more greenways/trails	133 (5.94%)	200 (8.94%)	814 (36.37%)	678 (30.29%)	413 (18.45%)	3.46	1.07
(H) Build pedestrian and cycling paths between places of work, parks, schools etc.	216 (9.63%)	274 (12.22%)	745 (33.23%)	594 (26.49%)	413 (18.42%)	3.32	1.19

2. In your opinion, which of the above considerations is the most important when making funding decisions about outdoor recreation and conservation efforts in South Dakota?

This question was used to discover what the respondents perceived as the most important consideration for funding. The ranking, from highest to lowest, for these considerations is as follows (Figure 1-9):

1. (F) Protect wildlife and fish habitat (34.2%)
2. (C) Maintain existing park and recreation areas (21.9%)
3. (A) Acquire and protect open space (20.0%)
4. (B) Acquire additional land and water areas (12.4%)
5. (H) Build paths between places of work/school (4.8%)
6. (D) Provide environmental and conservation programs (2.7%)
7. (G) Build more greenways/trails (2.6%)
8. (E) Provide recreation programs at parks and recreation areas (1.3%)

Figure 1-9 Ranking of Funding Priorities



3. How important or unimportant to you are each of the following possible benefits from parks and recreation in South Dakota?

The next two questions were looking to find the level of importance for possible benefits that come from parks and recreation in South Dakota, ranking the levels from Extremely Unimportant (1) to Extremely Important (5) and the most important benefit perceived by the respondents (Table 1-12).

- “(D) Preserve open space and the environment” was also the only response with over one thousand responses at 1165 (52.50%) for Extremely Important; no other response for any of the other benefits rose above one thousand.
- The second highest response was “(C) make your community a more desirable place to live” with Somewhat Important at 937 responses (42.15%).
- The third highest amount of responses, also in Somewhat Important, was “(I) preserve historical features in your community” at 922 responses (41.51%).
- (D) Preserve open space and the environment” was chosen as the most important when asked to pick the most important out of the possible benefits listed below, in which 991 responses (45.38%).

Table 1-12 Summary of Perceived Benefits from Parks and Recreation in South Dakota

	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Improve physical health and fitness	90 (4.03%)	113 (5.06%)	415 (18.57%)	910 (40.72%)	707 (31.63%)	3.91	1.03
(B) Help reduce crime	122 (5.53%)	195 (8.84%)	769 (34.84%)	691 (31.31%)	430 (19.48%)	3.50	1.07
(C) Make your community a more desirable place to live	83 (3.73%)	104 (4.68%)	340 (15.29%)	937 (42.15%)	759 (34.14%)	3.98	1.01
(D) Preserve open space and the environment	77 (3.47%)	63 (2.84%)	216 (9.73)	698 (31.46%)	1165 (52.50%)	4.27	.99
(E) Increase property values in your community	176 (7.97%)	257 (11.64%)	900 (40.78%)	612 (27.73%)	262 (11.87%)	3.24	1.06
(F) Improve mental health and reduce stress	74 (3.35%)	107 (4.85%)	425 (19.25%)	897 (40.63%)	705 (31.93%)	3.93	1.00
(G) Provide opportunities for social interaction	117 (5.29%)	259 (11.72%)	812 (36.74%)	768 (34.75%)	254 (11.49%)	3.35	1.01
(H) Help attract new residents and businesses	189 (8.61%)	268 (12.20%)	681 (31.01%)	730 (33.24%)	328 (14.94%)	3.34	1.13
(I) Preserve historical features in your community	84 (3.78%)	122 (5.49%)	546 (24.58%)	922 (41.51%)	547 (24.63%)	3.78	1.00
(J) Promote tourism	174 (7.88%)	239 (10.82%)	604 (27.34%)	798 (36.12%)	394 (17.84%)	3.45	1.14
(K) Enhance a sense of place and community	95 (4.35%)	125 (5.72%)	634 (29.03%)	851 (38.97%)	479 (21.93%)	3.68	1.02

4. In your opinion, which of the above is the most important benefit of parks and recreation in South Dakota?

This question was used to discover what the respondents perceived as the most important benefit of parks and recreation. The ranking, from highest to lowest, for these considerations is as follows:

1. (D) Preserve open space and the environment (45.3%)
2. (C) Make your community a more desirable place to live (14.4%)
3. (A) Improve physical health and fitness (12.6%)
4. (F) Improve mental health and reduce stress (9.0%)
5. (K) Enhance a sense of place and community (4.6%)
6. (J) Promote tourism (4.4%)
7. (I) Preserve historical features in your community (3.6%)
8. (H) Help attract new residents and businesses (2.0%)
9. (B) Help reduce crime (1.9%)
10. (G) Provide opportunities for social interaction (1.4%)
11. (E) Increase property values in your community (.6%)

5. How would you rate your local parks and recreation agencies ability to deliver each of the following benefit types? Please rate each statement on a scale from 1 = Not delivered at all to 5= Delivers extremely well OR Not applicable.

This question was asked to understand what the survey participants believe in terms of benefits and how their local parks and recreation agency delivers the benefits listed. Many of the responses were between Neutral and Delivers extremely well. Below are each benefit's highest responses (Table 1-13):

- "Improve physical health and fitness" had 982 responses for Delivers well (45.97%)
- "Help reduce crime" had 1230 responses for Neutral (58.13%)
- "Make your community a more desirable place to live" had 1050 responses for Delivers well (49.37%)
- "Preserve open space and the environment" had 1018 responses for Delivers well (47.97%)
- "Increase property values in your community" had 1210 responses for Neutral (57.18%)
- "Improve mental health and reduce stress" had 879 responses for Delivers well (41.62%)
- "Provide opportunities for social interaction" had 933 responses for Neutral (44.11%)
- "Help attract new residents and businesses" had 1033 responses for Neutral (49.12%) and 651 responses for Delivers well (30.96%)*
- "Preserve historical features in your community" had 888 responses for Neutral (42.25%)
- "Promote tourism" had 858 responses for Delivers well (40.84%)
- "Enhance a sense of place and community" had 849 responses for Delivers well (40.78%)

*Benefit H "Help attract new residents and businesses" had roughly 80% of their responses between these two points.

Table 1-13 Summary of Agencies’ Ability to Deliver Benefits from Parks and Recreation

	Not delivered at all	Delivers poorly	Neutral	Delivers well	Delivers extremely well	N/A
(A) Improve physical health and fitness	13 (0.61%)	60 (2.81%)	685 (32.07%)	982 (45.97%)	254 (11.89%)	142 (6.65%)
(B) Help reduce crime	41 (1.94%)	123 (5.81%)	1230 (58.13%)	388 (18.34%)	73 (3.45%)	261 (12.33%)
(C) Make your community a more desirable place to live	18 (0.85%)	76 (3.57%)	587 (27.60%)	1050 (49.37%)	260 (12.22%)	136 (6.39%)
(D) Preserve open space and the environment	15 (0.71%)	168 (7.92%)	583 (27.47%)	1018 (47.97%)	243 (11.45%)	95 (4.48%)
(E) Increase property values in your community	26 (1.23%)	98 (4.63%)	1210 (57.18%)	469 (22.16%)	79 (3.73%)	234 (11.06%)
(F) Improve mental health and reduce stress	14 (0.66%)	56 (2.65%)	806 (38.16%)	879 (41.62%)	224 (10.61%)	133 (6.30%)
(G) Provide opportunities for social interaction	16 (0.76%)	67 (3.17%)	933 (44.11%)	822 (38.87%)	139 (6.57%)	138 (6.52%)
(H) Help attract new residents and businesses	37 (1.76%)	107 (5.09%)	1033 (49.12%)	651 (30.96%)	97 (4.61%)	178 (8.46%)
(I) Preserve historical features in your community	21 (1.00%)	108 (5.14%)	888 (42.25%)	783 (37.25%)	157 (7.47%)	145 (6.90%)
(J) Promote tourism	31 (1.48%)	71 (3.38%)	712 (33.89%)	858 (40.84%)	304 (14.47%)	125 (5.95%)
(K) Enhance a sense of place and community	25 (1.20%)	74 (3.55%)	795 (38.18%)	849 (40.78%)	197 (9.46%)	142 (6.82%)

6. What else should we consider in developing the South Dakota outdoor recreation plan for the next five years?

Based on participants’ open-ended responses regarding future plans for outdoor recreation in South Dakota, there are four common themes included:

Preservation/Conservation. Many of the survey participants stated that they wanted to see the conservation of natural resources and land, as well as wildlife habitats. There is a push for the protection of nature, not development, and a balance needs to be found between preservation and development. For example:

- “Balance preservation of wildlife areas with development.”
- “Do not over develop commercial venues in parks.”
- “Promote conservation and wildlife growth.”
- “Improve habitat for hunting.”

Quality. Another area of development that the survey participants stated was the quality of state parks, parking spaces and tourism. Many of the responses for the quality of state parks were for a focus on maintenance and updating of parks, such as bathrooms and campsites, and bodies of water. The respondents also stated that they wanted more campsites and parking spaces, as well

as better ADA accessible areas. Tourism is also an area many respondents stated they wanted more emphasis on, including increasing awareness of accessible areas, promoting hiking and biking, and promoting smaller communities and everything South Dakota offers to out-of-state tourists. Examples like:

- “More updated maps.”
- “Better signage and maintenance of the Centennial Trail in the Black Hills.”
- “Improve many of our boat launch sites.”
- “Fix up bathrooms”.
- “...there are plenty of opportunities to promote local activities, history, and recreation outside of the Hills.”
- “...enhance law enforcement for existing fisheries.”

Activities. The respondents are also interested in new activities, such as rock-climbing and bungee jumping, as well as activities that will engage multiple age groups and various generations. The respondents also wanted activities that families could participate in together. There was also a push for better protection, promotion and enhancement of South Dakota’s heritage and Native American heritage. In addition, there was a desire to create activities that educates the general populous about conservation and creates activities that appealed to children, to try and get them outside and within nature. For example:

- “Family oriented areas and facilities.”
- “Get people outside.”
- “Multi-generational experiences.”
- “Open/support museums with a focus on local history.”
- “Get the children involved while they are young as they are our future stewards.”
- “A program to provide a mentor to teach people who want to learn how to do outdoor stuff with people who want to teach.”

Facilities. There were also a large number of respondents who brought up creating trails, campsites and cabins, and removing barriers for “disabled and elderly people”. The respondents want more trails, from ATV trails, to bike trails and horse trails, and want those trails maintained better. They also want more camping spaces for RVs and tents, and to have areas for just one or the other. They also brought up fees and the reservation systems, and the issues that they have with those topics.

- “Make more ATV trails that join each other for longer rides”
- “ATV and UTV trails”
- “More RV spots in state parks!”
- “more hiking & cross-country ski trails”
- “Overcrowding”
- “More walking trails for health...”
- “Stop raising prices so the youth can afford to hunt and fish”
- “Cost”

Outdoor recreation needs 2013 vs. 2017 survey

The following are the comparison of top ten need-more and need-to-improve outdoor recreation facilities between the 2013 SCORP and 2017 Survey (Table 1-14):

- The 2017 survey included 11 more types of facilities for participants to review.
- Compared to the 2013 SCORP, seven types of facilities remained in the top ten of facilities that participants would like to see more. These include: hunting areas, fishing

areas, shooting ranges, archery ranges, walking trails, RV or trailer campgrounds and nature areas.

- Hunting areas remained the number one area people would like to see more.
- While demand for more swimming beaches went down, need for improvement in the facilities increased.
- Participants would like to see more archery shooting ranges (21.95%), shotgun shooting ranges (26.47%) and pistol/rifle shooting ranges (30.23%).

Table 1-14 Comparison of Top Ten Need-More and Need-to-Improve Facilities

Top Ten Facilities	Need More		Need to Improve	
	2017 Survey	2013 SCORP	2017 Survey	2013 SCORP
Hunting Areas	34%	52%	17%	6%
Pistol/Rifle Shooting Ranges	30%	45%	14%	6%
Shotgun Shooting Ranges	26%	41%	13%	5%
Nature Areas/Open Space	23%	29%	13%	5%
Shore Fishing Areas	23%		19%	
Archery Target Shooting Areas	22%	33%	12%	9%
Walking/Biking Trails (Unpaved)	20%	22%	11%	6%
RV Or Trailer Campgrounds	20%	26%	9%	8%
Fishing Areas	20%	38%	17%	9%
Canoe/Kayak Water Trails	20%		11%	
Facilities for Boating		27%		10%
Swimming Beaches		22%		10%

Geographical Comparison of Facilities

The following two tables are geographical comparisons of facilities respondents checked as “Need More” (Table 1-15) and “Need to Improve” (Table 1-16). These comparisons only utilized those survey participants who identified themselves as South Dakota residents and reported their residential zip code. For urban areas, like Sioux Falls and the Black Hills, responses according to multiple zip codes were combined for the consideration of the larger regional area. For the remaining cities, only the primary zip code was used. Please notice that the number of responses for other geographic areas might not be sufficient to draw any type of conclusions.

Table 1-15 Outdoor Recreation Facility “Need More” Comparison in South Dakota

	Statewide	Sioux Falls Area	Black Hills	Aberdeen	Watertown	Pierre/Fort Pierre	Brookings	Mitchell	Huron	Yankton
Tent-Camping Campgrounds	18%	23%	18%	8%	11%	21%	20%	17%	0%	13%
RV or Trailer Campgrounds	21%	28%	15%	34%	23%	19%	16%	28%	39%	26%
Areas for Backpacking	17%	21%	14%	16%	14%	13%	25%	17%	17%	8%
Picnic Areas	8%	7%	8%	8%	5%	8%	8%	8%	11%	5%
Facilities for Boating	12%	18%	9%	7%	11%	17%	15%	11%	28%	13%
Swimming Beaches	15%	16%	13%	11%	12%	20%	14%	11%	22%	13%
Swimming Pools	8%	8%	6%	8%	5%	10%	10%	3%	11%	13%
Fishing Areas	19%	25%	16%	24%	28%	19%	11%	22%	33%	18%
Shore Fishing Areas	22%	28%	17%	29%	28%	23%	19%	19%	33%	18%
Hunting Areas	34%	38%	29%	45%	44%	34%	26%	36%	56%	38%
Walking/Biking Trails (Unpaved)	24%	26%	24%	18%	28%	20%	27%	36%	28%	10%
Horseback Riding Trails	5%	3%	5%	13%	7%	5%	7%	3%	0%	5%
Paved Trails	14%	20%	7%	16%	21%	9%	20%	19%	28%	13%
Mountain Biking Trails	16%	16%	19%	13%	19%	9%	11%	22%	28%	5%
Mountain Biking Skills Course	12%	14%	13%	5%	9%	9%	10%	8%	17%	5%
Fat Tire Bike Trails	12%	13%	14%	8%	11%	7%	9%	11%	17%	3%
Cross-Country Skiing Trails	13%	15%	12%	8%	9%	12%	18%	11%	6%	8%
Down-Hill Skiing/Snowboarding Areas	11%	14%	9%	11%	12%	7%	15%	8%	17%	5%
Sledding Areas	19%	17%	18%	29%	28%	13%	28%	11%	28%	18%
Ice Skating or Hockey Rinks (Outdoor)	10%	7%	10%	5%	7%	14%	19%	6%	11%	8%
Snowmobile Trails	5%	7%	3%	11%	7%	2%	2%	3%	17%	8%
Off-road or ATV Riding Areas	12%	14%	10%	34%	19%	9%	4%	25%	22%	18%
Off-road or ATV Trails	13%	16%	10%	29%	23%	11%	5%	25%	22%	15%
Historic Sites (With Interpretation)	12%	12%	11%	8%	12%	16%	14%	11%	0%	13%
Nature Areas/Open Space	26%	29%	23%	21%	19%	32%	30%	28%	17%	20%
Outdoor Festivals/Festival Areas	14%	13%	12%	18%	18%	18%	16%	11%	11%	15%
Pow-Wow Grounds	4%	4%	5%	3%	4%	3%	7%	0%	0%	3%
Playgrounds	7%	4%	7%	11%	11%	10%	7%	14%	11%	8%
Soccer Fields	3%	3%	2%	3%	5%	7%	4%	3%	0%	0%
Football Fields	1%	1%	1%	3%	0%	2%	3%	0%	0%	0%
Lacrosse Fields	2%	1%	2%	5%	0%	2%	2%	0%	0%	0%
Golf Course/Driving Ranges	4%	5%	3%	8%	4%	5%	3%	0%	0%	3%
Baseball or Softball Fields	4%	5%	2%	5%	0%	6%	6%	0%	0%	5%
Skateboarding Parks	5%	7%	6%	0%	7%	2%	5%	0%	6%	3%
Tennis Courts	2%	2%	2%	3%	4%	0%	2%	0%	0%	0%
Volleyball Courts (Outdoor)	4%	3%	4%	8%	5%	2%	6%	0%	11%	5%
Basketball Courts (Outdoor)	3%	3%	2%	11%	5%	1%	3%	0%	6%	3%
Horseshoe Pits	5%	5%	5%	11%	16%	2%	1%	8%	6%	8%
Archery Target Shooting Ranges	22%	23%	23%	26%	37%	16%	17%	19%	33%	13%
Shotgun Shooting Ranges	28%	32%	27%	26%	40%	19%	20%	25%	44%	35%
Pistol/Rifle Shooting Ranges	32%	33%	33%	29%	51%	21%	22%	44%	39%	45%
Disc Golf Courses	9%	13%	6%	11%	11%	7%	11%	8%	6%	3%
Dog Parks	18%	21%	15%	24%	16%	20%	26%	8%	6%	13%
Canoe/Kayak Water Trails	24%	30%	21%	24%	16%	25%	26%	22%	11%	23%
ATV Skills Parks	6%	8%	5%	11%	9%	2%	2%	8%	0%	18%

*Note: Statewide (N=1,262), Sioux Falls Area (N=336), Black Hills Area (N=513), Aberdeen (N=38), Watertown (N=57), Pierre (N=122), Brookings (N=102), Mitchell (N=36), Huron (N=18), and Yankton (N=40).

Table 1-16 Outdoor Recreation Facility “Need to Improve” Comparison in South Dakota

	Statewide	Sioux Falls Area	Black Hills	Aberdeen	Watertown	Pierre/Fort Pierre	Brookings	Mitchell	Huron	Yankton
Tent-Camping Campgrounds	11%	10%	11%	16%	14%	8%	15%	6%	22%	8%
RV or Trailer Campgrounds	9%	8%	9%	18%	16%	5%	9%	3%	22%	5%
Areas for Backpacking	11%	11%	11%	8%	11%	10%	16%	8%	6%	8%
Picnic Areas	10%	9%	12%	18%	11%	7%	9%	6%	11%	10%
Facilities for Boating	15%	22%	10%	29%	16%	16%	12%	11%	22%	28%
Swimming Beaches	21%	25%	17%	26%	18%	21%	26%	19%	11%	15%
Swimming Pools	9%	8%	9%	8%	7%	20%	4%	8%	11%	18%
Fishing Areas	16%	17%	16%	26%	18%	15%	12%	17%	22%	5%
Shore Fishing Areas	18%	21%	16%	21%	19%	18%	19%	17%	33%	13%
Hunting Areas	17%	17%	16%	21%	18%	19%	21%	11%	22%	25%
Walking/Biking Trails (Unpaved)	13%	11%	15%	5%	4%	12%	16%	14%	6%	8%
Horseback Riding Trails	4%	3%	4%	3%	5%	3%	5%	6%	0%	5%
Paved Trails	9%	10%	8%	5%	7%	10%	12%	14%	11%	5%
Mountain Biking Trails	7%	6%	10%	3%	0%	5%	9%	11%	6%	8%
Mountain Biking Skills Course	6%	4%	7%	5%	5%	3%	4%	14%	0%	3%
Fat Tire Bike Trails	5%	4%	6%	3%	4%	4%	4%	8%	0%	5%
Cross-Country Skiing Trails	7%	6%	7%	8%	5%	8%	13%	11%	6%	0%
Down-Hill Skiing/Snowboarding Areas	6%	5%	7%	8%	0%	5%	11%	8%	6%	3%
Sledding Areas	13%	9%	13%	18%	2%	15%	20%	14%	17%	15%
Ice skating or Hockey Rinks (Outdoor)	9%	8%	10%	5%	5%	8%	13%	6%	6%	5%
Snowmobile Trails	4%	5%	2%	5%	2%	2%	9%	8%	0%	3%
Off-road or ATV Riding Areas	7%	7%	6%	11%	7%	6%	8%	8%	0%	8%
Off-road or ATV Trails	8%	8%	7%	13%	7%	7%	8%	8%	0%	10%
Historic Sites (With Interpretation)	15%	15%	16%	5%	12%	17%	12%	22%	17%	13%
Nature Areas/Open Space	14%	13%	15%	13%	16%	12%	22%	8%	22%	13%
Outdoor Festivals/Festival Areas	10%	10%	10%	13%	7%	11%	17%	6%	11%	5%
Pow-Wow Grounds	4%	3%	4%	0%	9%	3%	7%	0%	6%	8%
Playgrounds	10%	8%	9%	18%	9%	13%	12%	8%	33%	13%
Soccer Fields	3%	1%	4%	5%	4%	2%	3%	6%	17%	5%
Football Fields	3%	1%	3%	5%	5%	2%	3%	6%	17%	3%
Lacrosse Fields	2%	1%	2%	5%	2%	2%	4%	8%	0%	3%
Golf Course/Driving Ranges	4%	4%	4%	5%	4%	6%	5%	6%	0%	3%
Baseball or Softball Fields	7%	7%	6%	8%	9%	8%	6%	6%	11%	5%
Skateboarding Parks	6%	4%	8%	0%	4%	3%	9%	3%	28%	5%
Tennis Courts	5%	3%	3%	8%	5%	5%	8%	11%	22%	5%
Volleyball Courts (Outdoor)	5%	3%	5%	5%	4%	7%	9%	8%	6%	0%
Basketball Courts (Outdoor)	5%	7%	5%	5%	4%	4%	3%	11%	11%	0%
Horseshoe Pits	7%	7%	7%	5%	7%	7%	5%	6%	6%	8%
Archery Target Shooting Ranges	13%	13%	14%	8%	12%	13%	15%	17%	17%	10%
Shotgun Shooting Ranges	14%	13%	14%	11%	21%	16%	16%	11%	17%	10%
Pistol/Rifle Shooting Ranges	14%	14%	14%	21%	16%	14%	14%	14%	28%	13%
Disc Golf Courses	6%	5%	5%	0%	4%	7%	12%	6%	17%	3%
Dog Parks	13%	12%	14%	11%	5%	15%	15%	8%	22%	10%
Canoe/Kayak Water Trails	13%	15%	12%	18%	5%	12%	19%	11%	28%	5%
ATV Skills Parks	4%	3%	4%	8%	2%	5%	3%	3%	17%	3%

*Note: Statewide (N=1,262), Sioux Falls Area (N=336), Black Hills Area (N=513), Aberdeen (N=38), Watertown (N=57), Pierre (N=122), Brookings (N=102), Mitchell (N=36), Huron (N=18), and Yankton (N=40).

Provider Survey Respondent Data

As stated previously, a survey was also distributed to providers of outdoor recreation in order to understand their perspectives and challenges surrounding outdoor recreation. In some cases, as one would imagine, the providers have a slightly different perspective than the public. In addition, their challenges or barriers to providing outdoor recreation opportunities also vary. The following section shares both the perspective of those who responded to the providers’ survey, as well as some comparisons of the public and provider responses.

Section I: Benefits and Priorities in Outdoor Recreation

1. When thinking about your community or organization, how important or unimportant are each of following considerations when making decisions about funding outdoor recreation and conservation efforts?

Table 1-17 below shows the range of responses for the eight considerations, ranging from Extremely Unimportant (1) to Extremely Important (5).

- “(C) Maintain existing park and recreation areas” had the highest response within Extremely Important at 64 responses (83.1%).
- “(E) Provide recreation programs at parks and recreation areas” had 62.4% of research participants reported as Important or Extremely Important.
- “(H) Build pedestrian and cycling paths between places of work, parks, schools etc.” had 63.7% participants reported as Important or Extremely Important.
- “(D) Provide environmental and conservation programs” had the highest response within Neutral at 41 responses (53.9%).

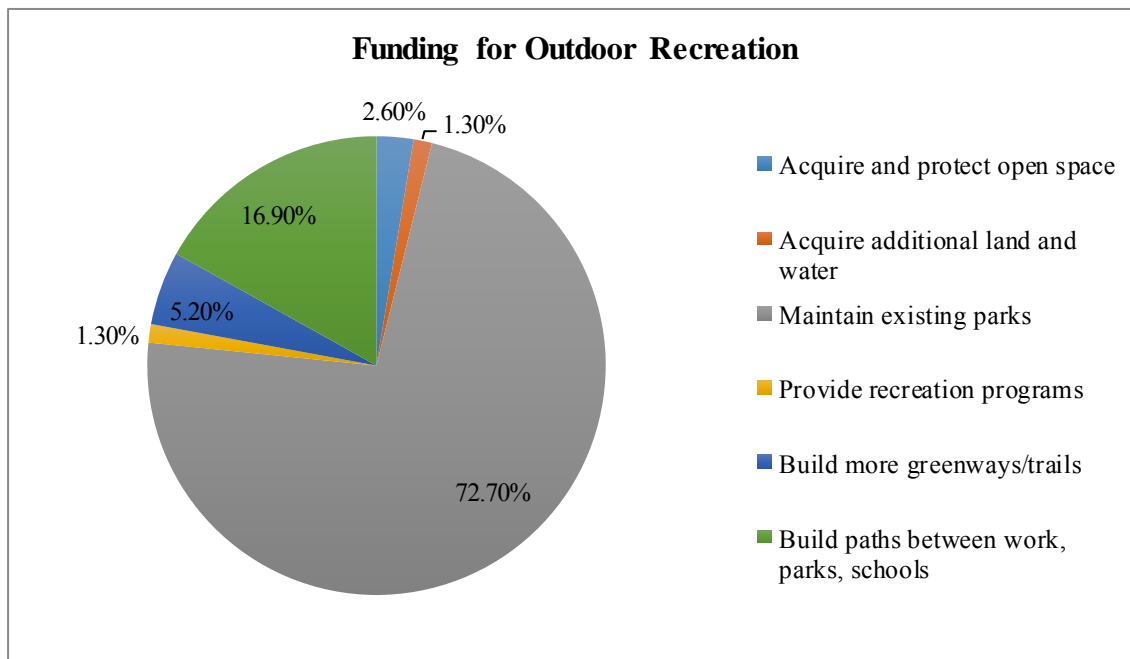
Table 1-17 Summary of Importance of Funding Efforts in Outdoor Recreation

	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Acquire and protect open space (as undeveloped, conserved land)	8 (10.4%)	13 (16.9%)	26 (33.8%)	21 (27.3%)	9 (11.7%)	3.12	1.17
(B) Acquire additional land and water areas for developed recreation	9 (11.7%)	17 (22.1%)	31 (40.3%)	15 (19.5%)	5 (6.5%)	2.86	1.09
(C) Maintain existing park and recreation areas	3 (3.9%)	1 (1.4%)	2 (2.6%)	7 (9.1%)	64 (83.1%)	4.65	.91
(D) Provide environmental and conservation programs	3 (3.9%)	9 (11.8%)	41 (53.9%)	17 (22.4%)	6 (7.9%)	3.19	.91
(E) Provide recreation programs at parks and recreation areas	5 (6.5%)	6 (7.8%)	18 (23.4%)	22 (28.6%)	26 (33.8%)	3.76	1.16
(F) Protect wildlife and fish habitat	3 (3.9%)	9 (11.7%)	28 (36.4%)	19 (24.7%)	18 (23.4%)	3.5	1.1
(G) Build more greenways/trails	6 (7.8%)	9 (11.7%)	20 (26%)	25 (32.5%)	17 (22.1%)	3.46	1.18
(H) Build pedestrian and cycling paths between places of work, parks, schools etc.	6 (7.8%)	6 (7.8%)	16 (20.8%)	20 (26%)	29 (37.7%)	3.74	1.26

2. In your community, which of the above considerations is the most important when making funding decisions about outdoor recreation and conservation efforts in South Dakota?

This question is used to gauge the most important consideration for providers by asking them to pick the most important consideration to them (Figure 1-10). The highest response was for consideration (C) “Maintain existing park and recreation areas” at 56 responses (73.7%). It is noted that considerations (D) and (F) were not chosen at all, and Considerations (A), (B) and (E) were only chosen by one respondent each (1.34%).

Figure 1-10 Summary of Funding Priorities of Providers



3. When thinking about your community, how important or unimportant is it that your agency delivers or provides the following to the public?

This question was used to ask how important providers perceived community considerations within their own communities and to see what the providers believe their community needs in terms of considerations. Table 1-18 shows the percentage and frequency of the providers, empty spaces (0) reflect no responses in that category.

- “(C) Make your community a more desirable place to live” had the highest response rate for extremely important at 58 responses (76.3%).
- “(H) Help attract new residents and businesses” had 62.7% of respondents reported as extremely important.
- “(A) Improve physical health and fitness” ranked highest in “somewhat important” at 37 responses (48.7%).
- “(D) Preserve open space and the environment” and (F) Improve mental health and reduce stress” were rated relatively lower than other benefits of parks and recreation services.

Table 1-18 Summary of Perceived Benefits from Parks and Recreation in South Dakota

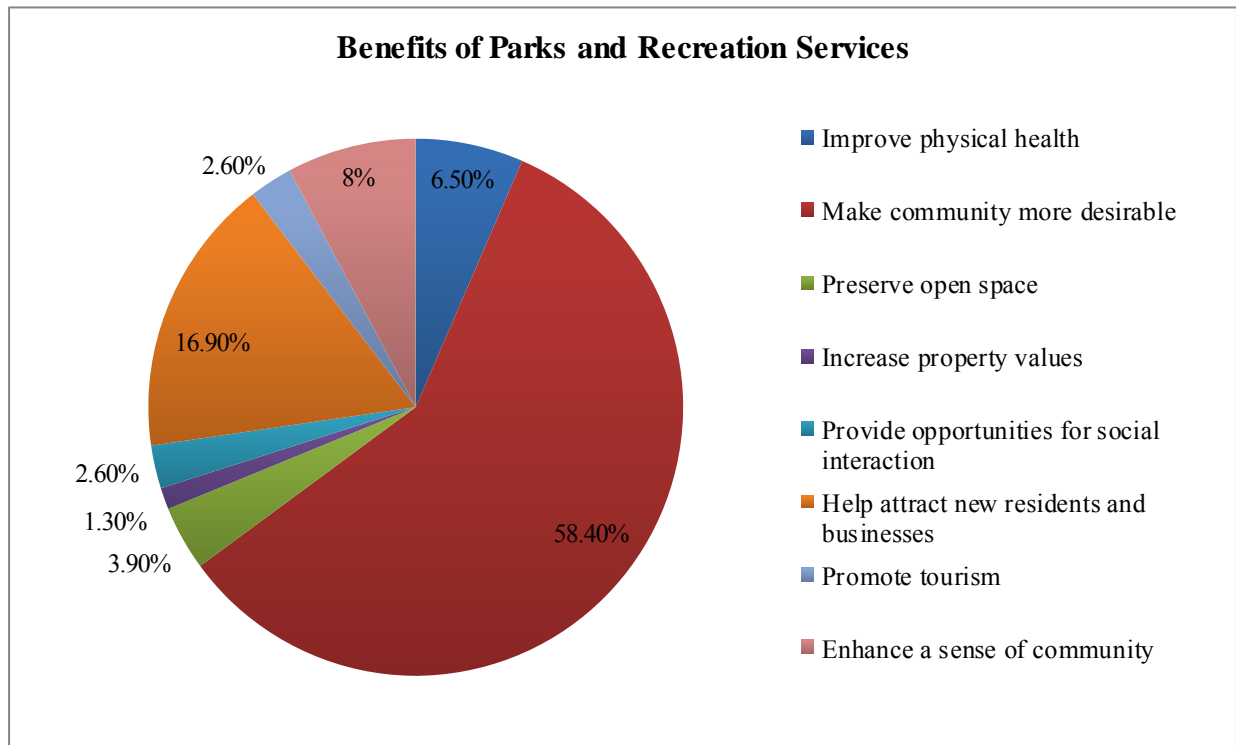
	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Improve physical health and fitness	1 (1.3%)	5 (6.6%)	10 (13.2%)	37 (48.7%)	23 (30.3%)	3.99	.920
(B) Help reduce crime	1 (1.3%)	5 (6.6%)	15 (19.7%)	25 (32.9%)	30 (39.5%)	4.00	1.0
(C) Make your community a more desirable place to live	2 (2.6%)	1 (1.3%)	0	15 (19.7%)	58 (76.3%)	4.66	.803
(D) Preserve open space and the environment	1 (1.3%)	4 (5.3%)	24 (31.6%)	27 (35.5%)	20 (26.3%)	3.81	.952
(E) Increase property values in your community	0	6 (7.9%)	13 (17.1%)	23 (30.3%)	34 (44.7%)	4.14	.952
(F) Improve mental health and reduce stress	1 (1.3%)	4 (5.3%)	18 (24%)	30 (40%)	22 (29.3%)	3.90	.952
(G) Provide opportunities for social interaction	0	4 (5.3%)	13 (17.1%)	32 (42.1%)	27 (35.5%)	4.08	.862
(H) Help attract new residents and businesses	3 (4%)	2 (2.7%)	5 (6.7%)	18 (24%)	47 (62.7%)	4.38	1.027
(I) Preserve historical features in your community	1 (1.3%)	3 (3.9%)	14 (18.4%)	32 (42.1%)	26 (34.2%)	4.03	.912
(J) Promote tourism	0	5 (6.6%)	18 (23.7%)	20 (26.3%)	33 (43.4%)	4.05	.970
(K) Enhance a sense of place and community	0	3 (4%)	4 (5.3%)	26 (34.7%)	42 (56%)	4.43	.784

4. From the list above, please select the single most important aspect you feel your agency/organization provides to your residents and community.

This question was used to ask the providers what they feel is the most important aspect that they add to their community from the list of considerations given above (Figure 1-11).

- (C) Make your community a more desirable place to live: 45 responses (59.2%)
- (H) Help attract new residents and businesses: 13 responses (17.1%)
- (B), (F), and (I) were not chosen by any of the providers as the most important aspect their organization provides to the community they reside within.

Figure 1-11 Providers' Perspective of Parks and Recreation Benefits



5. What is the level of priority that your agency places on investing in each of the following facilities?

Playgrounds were the top facility providers listed as their highest priority to invest in (61.6%). Other top facilities to invest in included: swimming pools/water parks (43.8%), basketball or softball fields (43.1%), paved walking/biking trails (30.8%) and picnic areas (25.0%). Providers listed their lowest priorities as investing in lacrosse fields, mountain biking trails, mountain biking skills courses, facilities for boating and skateboarding parks (Table 1-19).

Table 1-19 Municipal Parks and Recreation Providers' Facility Priority

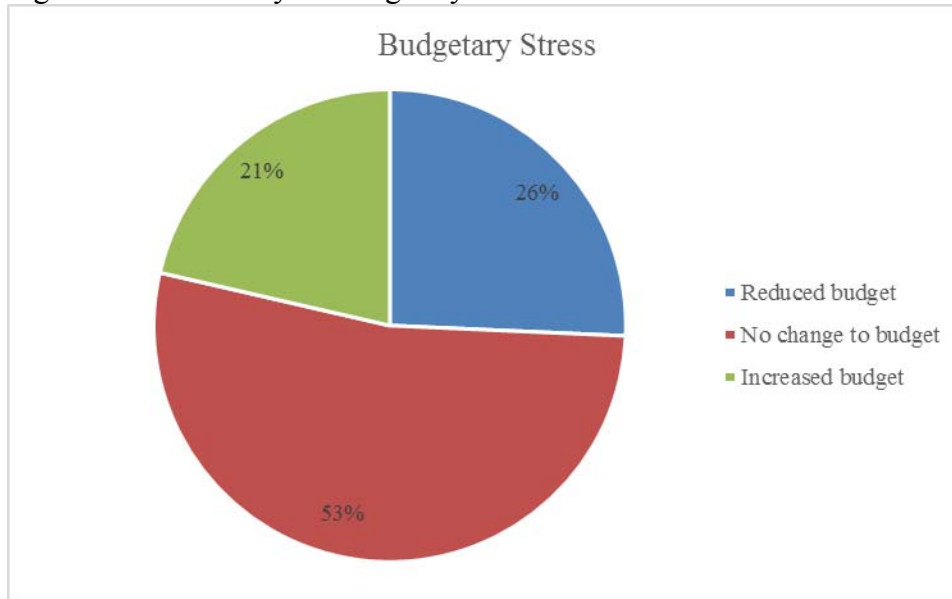
	Lowest Priority				Highest Priority	Mean
Tent-Camping Campgrounds	26 (35.6%)	12 (16.4%)	20 (27.4%)	9 (12.3%)	6 (8.2%)	2.41
RV or Trailer Campgrounds	16 (21.9%)	12 (16.4%)	10 (13.7%)	23 (31.5%)	12 (16.4%)	3.04
Picnic Areas	3 (4.2%)	4 (5.6%)	19 (26.4%)	28 (38.9%)	18 (25.0%)	3.75
Facilities for Boating	48 (66.7%)	6 (8.3%)	6 (8.3%)	7 (9.7%)	5 (6.9%)	1.82
Swimming Pool/Water Park	18 (24.7%)	4 (5.5%)	8 (11.0%)	11 (15.1%)	32 (43.8%)	3.48
Trails/Parks for Motorized Vehicles	36 (49.3%)	16 (21.9%)	13 (17.8%)	6 (8.2%)	2 (2.7%)	1.93
Fishing Areas	35 (47.9%)	9 (12.3%)	13 (17.8%)	9 (12.3%)	7 (9.6%)	2.23
Walking/Biking Trails (Unpaved)	13 (18.3%)	12 (16.9%)	19 (26.8%)	17 (23.9%)	10 (14.1%)	2.99

Walking/Biking Trails (Paved)	11 (16.9%)	8 (12.3%)	12 (18.5%)	14 (21.5%)	20 (30.8%)	3.37
Mountain Biking Skills Course	48 (73.8%)	6 (9.2%)	8 (12.3%)	1 (1.5%)	2 (3.1%)	1.51
Mountain Biking Trails	54 (76.1%)	4 (5.6%)	8 (11.3%)	1 (1.4%)	4 (5.6%)	1.55
Nature Areas/Open Space	13 (18.1%)	16 (22.2%)	23 (31.9%)	13 (18.1%)	7 (9.7%)	2.79
Outdoor Festival	14 (19.4%)	11 (15.3%)	24 (33.3%)	17 (23.6%)	6 (8.3%)	2.86
Playgrounds	1 (1.4%)	2 (2.7%)	8 (11.0%)	17 (23.3%)	45 (61.6%)	4.41
Soccer Fields	32 (43.8%)	6 (8.2%)	21 (28.8%)	8 (11.0%)	6 (8.2%)	2.32
Golf Courses/Driving Ranges	34 (46.6%)	5 (6.8%)	7 (9.6%)	11 (15.1%)	16 (21.9%)	2.59
Baseball or Softball Fields	11 (15.3%)	0	9 (12.5%)	21 (29.2%)	31 (43.1%)	3.85
Skateboarding Parks	47 (64.4%)	6 (8.2%)	11 (15.1%)	5 (6.8%)	4 (5.5%)	1.81
Disc Golf Courses	32 (43.8%)	7 (9.6%)	16 (21.9%)	9 (12.3%)	9 (12.3%)	2.40
Off-Leash Dog Parks	42 (57.5%)	12 (16.4%)	10 (13.7%)	6 (8.2%)	3 (4.1%)	1.85
Outdoor Education Facilities	31 (43.1%)	15 (20.8%)	14 (19.4%)	10 (13.9%)	2 (2.8%)	2.13
Lacrosse Fields	54 (81.8%)	6 (9.1%)	4 (6.1%)	1 (1.5%)	1 (1.5%)	1.32
Football Fields	32 (48.5%)	4 (6.1%)	12 (18.2%)	6 (9.1%)	12 (18.2%)	2.42

Section II: Challenges in Providing Outdoor Recreation

1. During the past three years, most municipalities/counties have experienced parks and recreation budgetary stress. What has your experience been in your community or area of responsibility?

Figure 1-12 Summary of Budgetary Stress in South Dakota



2. The following are potential concerns outdoor recreation providers may face. How much of a challenge, if at all, are each of the following concerns?

Outdoor recreation providers listed creating new park and recreation facilities as a major concern providers face (50.7%). Other major concerns include developing alternative revenue for parks and recreation (47.9%), recruiting and retaining quality staff and volunteers (37.0%), budgeting or allocating funds for operation and management (38.4%) and determining how to use limited resources for various recreation needs from the public (37.0%). Providers also listed concerns about maintaining existing recreation infrastructure or resources as moderate to major challenges. On the other hand, South Dakota’s providers’ lowest concern was adapting to serve ethnic minorities (46.6%). Please see the detailed results in Table 1-20.

Table 1-20 Summary of Challenges of Parks and Recreation Providers

Level of Challenge	Not	Slight	Somewhat	Moderate	Major	M	SD
Maintaining existing recreation infrastructure or resources	2 (2.7%)	8 (11.0%)	16 (21.9%)	24 (32.9%)	23 (31.5%)	3.79	1.09
Creating new park and recreation facilities	4 (5.5%)	9 (12.3%)	11 (15.1%)	12 (16.4%)	37 (50.7%)	3.95	1.29
Enhancing outdoor recreation opportunities on public land	6 (8.2%)	6 (8.2%)	19 (26.0%)	22 (30.1%)	20 (27.4%)	3.60	1.21
Collaborating with other government or non-profit organizations for outdoor recreation services	11 (15.1%)	12 (16.4%)	23 (31.5%)	17 (23.3%)	10 (13.7%)	3.04	1.25

Recruiting and retaining quality staff and volunteers	8 (11.0%)	6 (8.2%)	17 (23.3%)	15 (20.5%)	27 (37.0%)	3.64	1.35
Building public awareness of outdoor recreation opportunities in the community or state	9 (12.3%)	15 (20.5%)	27 (37.0%)	14 (19.2%)	8 (11.0%)	2.96	1.16
Advocating the benefits and importance of outdoor recreation related public services	7 (9.6%)	15 (20.5%)	27 (37.0%)	18 (24.7%)	6 (8.2%)	3.01	1.09
Budgeting or allocating funds for operation and management	2 (2.7%)	7 (9.6%)	13 (17.8%)	23 (31.5%)	28 (38.4%)	3.93	1.10
Developing alternative revenue for parks and recreation	0	5 (6.8%)	11 (15.1%)	22 (30.1%)	35 (47.9%)	4.19	0.94
Responding to new types of outdoor recreation activities	3 (4.1%)	10 (13.7%)	17 (23.3%)	28 (38.4%)	15 (20.5%)	3.58	1.09
Adapting to serve ethnic minorities	34 (46.6%)	20 (27.4%)	13 (17.8%)	5 (6.8%)	1 (1.4%)	1.89	1.02
Adapting to serve the aging population	15 (21.4%)	14 (20.0%)	23 (32.9%)	16 (22.9%)	2 (2.9%)	2.66	1.14
Determining how to use limited resources for various recreation needs from the public	0	12 (16.4%)	20 (27.4%)	14 (19.2%)	27 (37.0%)	3.77	1.12
Providing parks and recreation related facilities/services that meet the needs of people with disabilities	3 (4.1%)	8 (11.0%)	27 (37.0%)	24 (32.9%)	11 (15.1%)	3.44	1.01
Keeping up with technological changes for management and promotion	10 (13.7%)	15 (20.5%)	24 (32.9%)	14 (19.2%)	10 (13.7%)	2.99	1.23
Attracting younger generations to participate in outdoor recreation	4 (5.5%)	16 (21.9%)	26 (35.6%)	17 (23.3%)	10 (13.7%)	3.18	1.10
Improving public health and active living through providing outdoor recreation	4 (5.6%)	15 (20.8%)	22 (30.6%)	20 (27.8%)	11 (15.3%)	3.26	1.13

Comparison Analysis: Providers vs. the Public

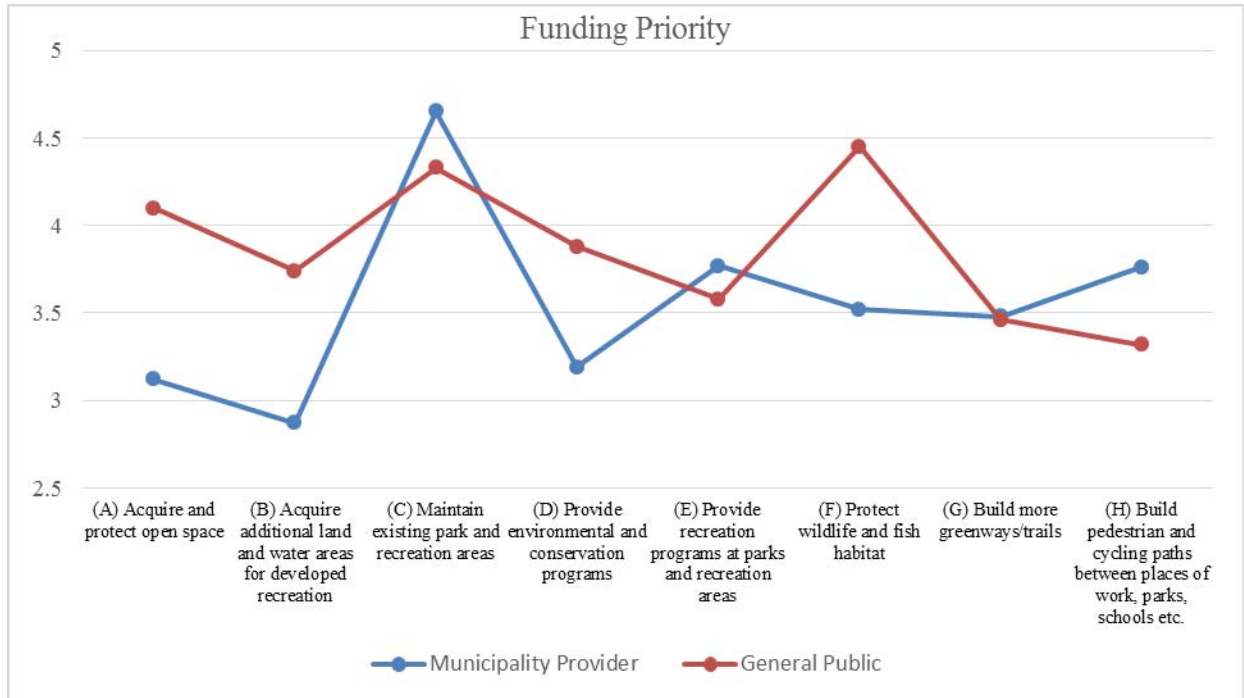
This section is aimed at investigating if there is any difference between the general publics’ and providers’ perspectives in funding priorities for outdoor recreation and perceived benefits in local parks and recreation services. It is worth notice that the public survey had around 2,000 cases, while the providers’ survey, targeting municipality parks and recreation managers, had about 80 cases.

Funding Priorities for Outdoor Recreation. The following graph examines the different perspectives and priorities in funding outdoor recreation and conservation efforts between providers and public perspectives in South Dakota. The results are summarized as follows (Figure 1-13):

- No statistical difference was found between municipal parks and recreation providers and general public in statements (C), (E), (G) and (H).

- The public reported a statistically higher priority in the following priorities than municipal parks and recreation providers:
 - (A) Acquire and protect open space (as undeveloped, conserved land)
 - (B) Acquire additional land and water areas for developed recreation
 - (D) Provide environmental and conservation programs
 - (F) Protect wildlife and fish habitat
- The difference between the two groups might result from the role of municipality parks and recreation providers in providing facilities and programs for local communities with less emphasis on nature resources and wildlife habitat management.

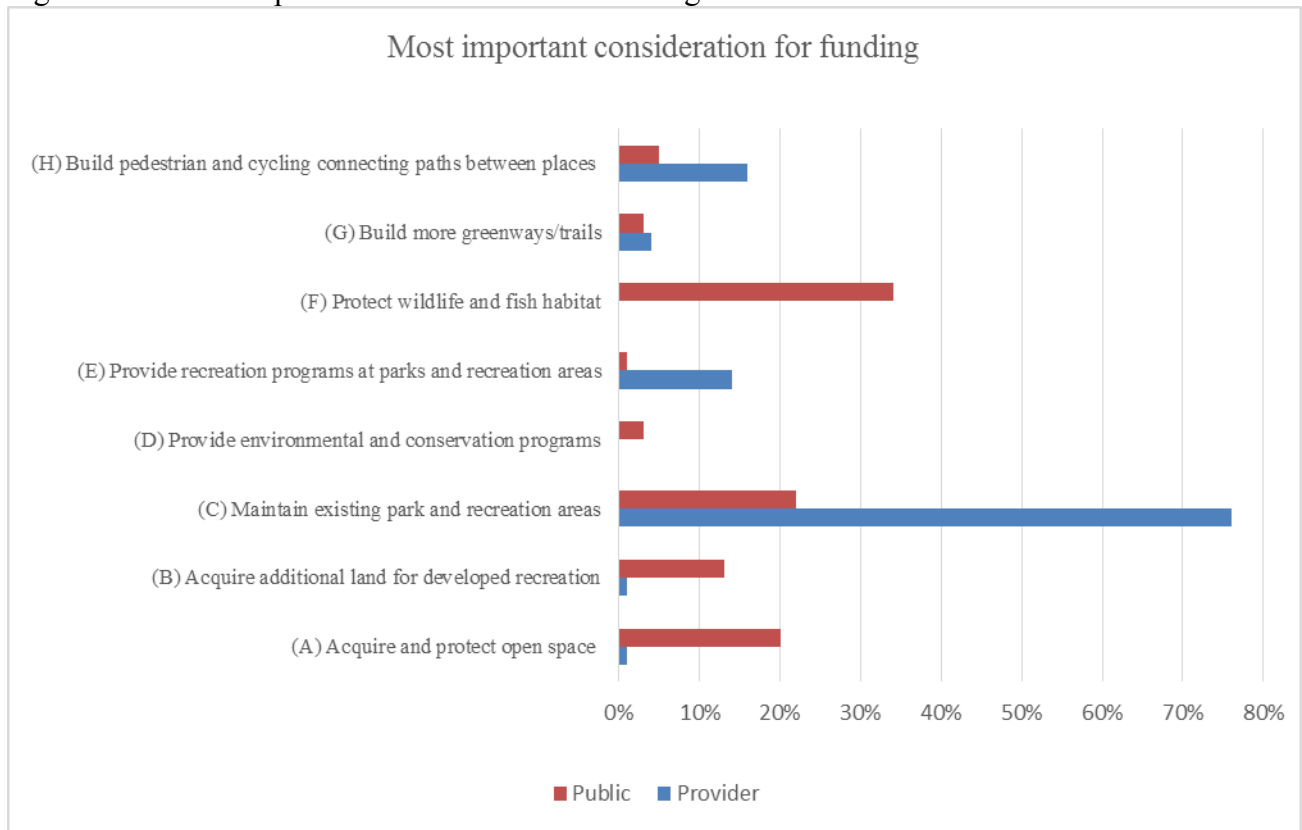
Figure 1-13 Providers’ Priority in Funding Outdoor Recreation



The following comparison was based on both the public and municipal parks and recreation providers’ perspectives in the most important consideration for funding. The percentage is the proportion of participants that selected a specific statement as the most important funding priority within their group as either provider or the public. The results show (Figure 1-14):

- 75% of municipal providers selected (C) “Maintain existing park and recreation areas” as the most important funding priority.
- 34% of the general public selected (F) “Protect wildlife and fish habitat” as the most important funding priority, while no provider selected it as their most important funding priority.
- Municipal providers reported a more similar perspective in funding priorities than the public.
- The difference between the two groups might result from the role of municipality parks and recreation in providing facilities and programs for local communities with less emphasis on nature resources and wildlife habitat management.

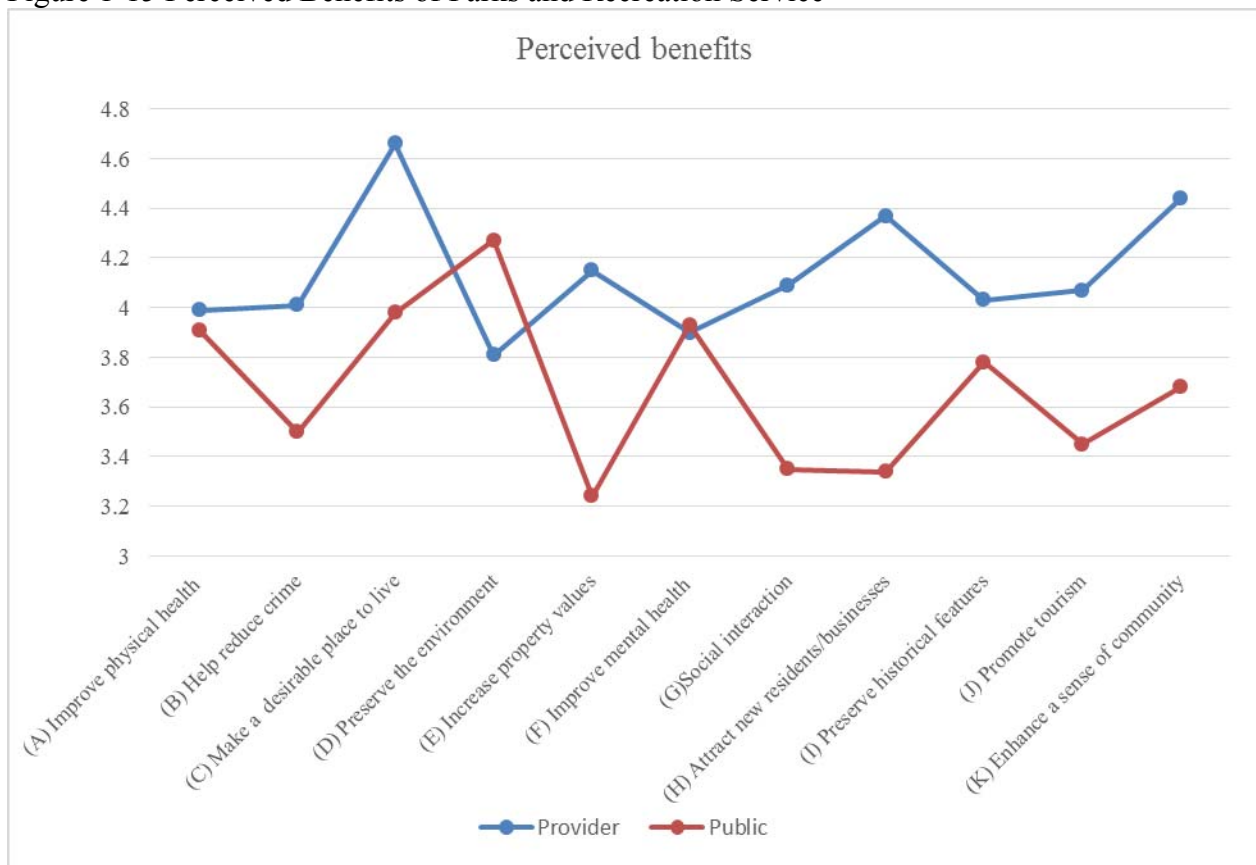
Figure 1-14 Most Important Consideration in Funding



Benefits of Parks and Recreation. Researchers evaluated whether survey participants showed differences in perceived benefits of parks and recreation between providers’ and publics’ perspectives in South Dakota. The results were summarized as follows:

- No statistical difference was found between municipal parks and recreation providers and general public in statement (A), (F) and (I). In other words, the providers and public showed a similar perspective in the benefits of parks and recreation for improving physical health, improving mental health and reduce stress, and preserving historical features.
- The public indicated a statistically higher benefit in “Preserving open space and nature environment” (D) than the providers.
- Overall, municipal parks and recreation providers reported a statistically higher score than the public in parks and recreation benefits, ranging from helping reduce crime, providing opportunities for social interaction, to making their community a more desirable place to live.
- The largest differences of perceived benefits in parks and recreation between providers and the public were (E) “Increase property values” and (H) “Attract new businesses and residents”.

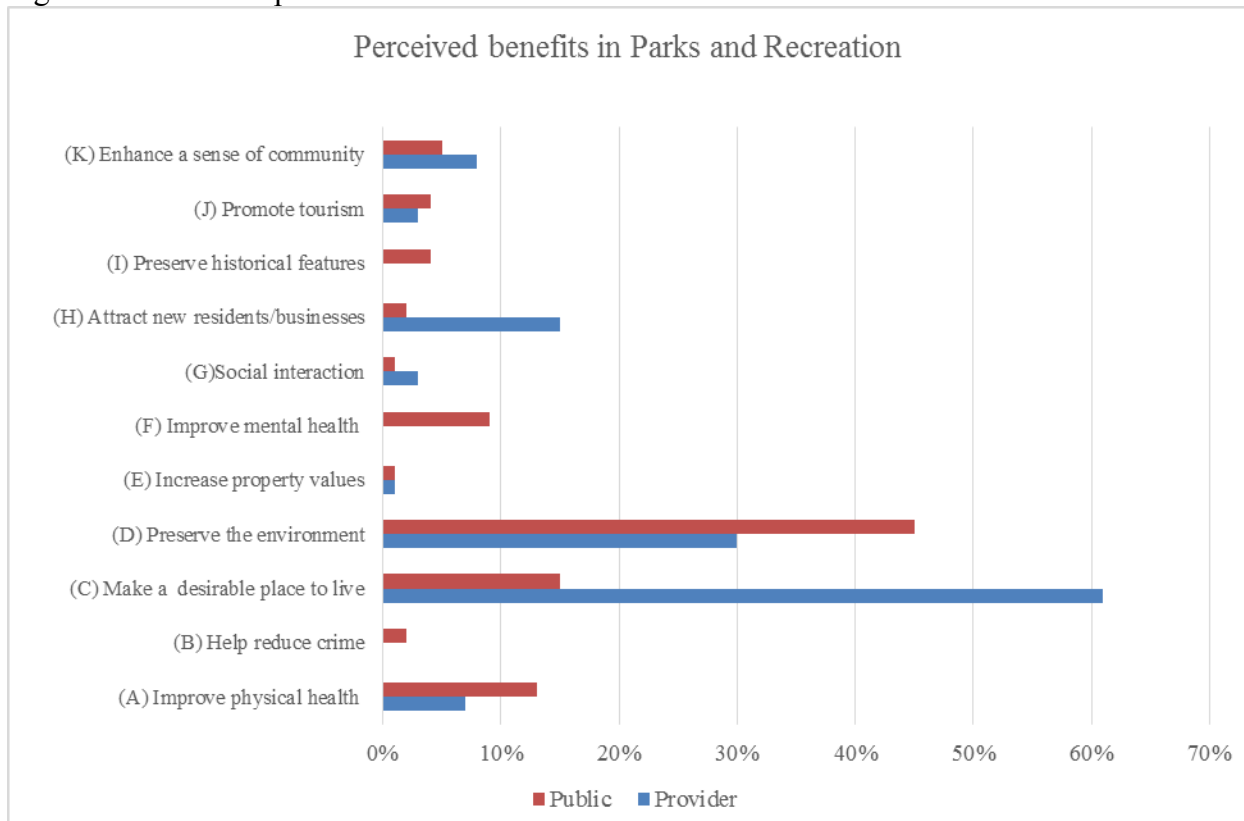
Figure 1-15 Perceived Benefits of Parks and Recreation Service



The following comparison was based on both the publics’ and municipal providers’ perspectives in perceived benefits of parks and recreation. The percentage is the proportion of participants that selected a specific statement as the most important benefits within their group as either provider or the public. The results show:

- 61% of municipal providers selected (C) “Make your community a more desirable place to live” as the most important benefit for delivering their parks and recreation services
- 46% of the general public selected (D) “Preserve open space and the environment” as the most perceived benefit of parks and recreation services
- Municipal providers reported a more homogenous perceptive in parks and recreation benefits than the public
- The difference between the two groups might result from the role of municipal parks and recreation in providing facilities and programs for local communities with less emphasis on nature resources and wildlife habitat management.

Figure 1-16 Most Important Benefits of Parks and Recreation





Chapter 2:

Outdoor Recreation Challenges

South Dakota, as described previously, is a state largely blessed with infinite variety – from the glacial lakes in the northeast, to the central plains and glory of the Missouri River, to the majestic Black Hills in the west. With this variety comes an array of outdoor recreation opportunities. However, in addition to the opportunities, South Dakota is also faced with many challenges. The vastness of the state, with large expanses of sparsely populated areas, hundreds of small towns with declining and aging populations, a society where both parents are working in order to afford the costs of raising a family, and even Mother Nature and her great range in weather conditions test outdoor recreation providers in their efforts to meet the needs of the state’s residents.

As with any statewide task, recognizing these challenges aids in identifying the ways to improve outdoor recreation opportunities in the state. They charge us to pinpoint the needs and wants of our citizens, while inspiring us to be diligent in focusing on the best and most equitable approaches to outdoor recreation. This list is not meant to point out the faults of the state in any way, as undoubtedly, most states in our region are dealing with similar challenges. Instead, by recognizing the challenges that outdoor recreation participants and providers confront, we are better able to consider these issues and respond appropriately with the right opportunities moving forward.

Following, in no particular order, are some of the challenges South Dakota has and will continue to evaluate as we develop the strategies to successfully provide outdoor recreation opportunities across the state.

Challenge: Population Shifts

South Dakota continues to see significant shifts in the population make-ups across our towns, cities and counties. While certain South Dakota counties have seen significant drops in population the past six years, the twenty-three counties that experienced the decrease in population only account for approximately a little over 10% percent of the state’s total population. Conversely, the top three counties that saw increases in population of over 10% from 2010-2016 make up over 29% of the state’s population. Therefore, the loss of population from largely rural counties is far less than the gains more populous counties, such as Lincoln, Minnehaha and Lake Counties, are seeing.

Options for smaller, rural communities are often limited to focusing on preservation of the most basic and sustainable forms of outdoor recreation by maximizing their resources. It is not surprising, as these communities are trying to hang on to what they have, that almost 73% of provider survey respondents indicated their top funding priority as maintaining existing parks, as opposed to building new.

In South Dakota, collaboration with other communities, groups and organizations is typically necessary to achieve even the most basic services in small communities. Over 41% of provider survey respondents indicated their community or county does not have a dedicated individual providing park and recreation services. In most of these cases, communities rely on the public works or maintenance department, or split the parks and recreation responsibilities among various city staff or departments. However, many of these communities also collaborate with local citizens, non-profit organizations or volunteer groups including youth centers, youth groups, school districts, sports associations and other local organizations to meet their needs. These partnerships foster community pride and active volunteers, but often literally take the entire community’s involvement to provide outdoor recreation activities and maintain the community’s facilities.

Communities seeing increases in population also have their share of struggles and must be able to invest and react to the increasing demands of a growing and diversifying population. Although these communities might have park and recreation departments or dedicated staff, respondents indicated other challenges in providing outdoor recreation, including:

- Educating the public that investment in outdoor recreation is important and a good use of public funds
- Coordinating with developers
- Finding the time and resources to plan for future park and recreation needs
- Keeping up with the demand for new park and recreation facilities
- Acquiring land for parks and to preserve open space

Another inferred result of the population migration from rural areas to cities, is the request for access to more public land. As South Dakotans move off farms and into large or even small towns, the lack of access to land for hunting and other outdoor recreation activities may increase. Respondents stated that hunting and fishing areas are becoming overcrowded. Respondents also prioritized the acquisition and protection of open space and protecting wildlife and fish habitat, along with acquiring additional land and water areas as being the most important consideration when funding outdoor recreation efforts.

Challenge: Elderly Population

The elderly segment of South Dakota's population provides both needs and opportunities. Accessible recreational opportunities are needed in order to sustain a healthy lifestyle. Retirees also provide many opportunities for volunteer programs, especially to encourage recreation with children and grandchildren, as well as mentor programs.

Sixty-six percent of those responding to the public survey indicated they were over the age of 45. Forty-seven percent indicated they were over the age of 54. In short, during the duration of this SCORP, these respondents will age into the over 50 and over 60 age groups.

Public Survey participants were asked what other facilities/areas/amenities should be considered when promoting South Dakota's outdoor recreation legacy for the next five years. Based on participants' open-ended responses regarding other facilities/areas/amenities that should be considered in South Dakota, a significant number of survey participants stated that aging was their number one barrier to outdoor recreation. They suggested a number of ways outdoor recreation providers can better accommodate the aging population's needs. Paved and easier walking trails would allow the aging population to engage in outdoor recreation more. Users also thought programming for different age groups would also be beneficial. Along with more general parking, users expressed the need for more ADA parking by outdoor recreation facilities.

Additionally, respondents asked for more multi-generational experiences. As our population ages, it is more likely that grandparents and other older South Dakotans are more apt to participate in activities with younger family members or in groups. Over 44% of respondents indicated they typically participate in outdoor activities with family/friends with children or in groups.

Challenge: Both Parents Working

As mentioned previously, South Dakota ranks first in the nation for having two working parents with children under the age of 6. This provides challenges for parents to set aside time as a family to participate in recreation or fitness activities. With both parents working, a higher percentage of children may be placed in daycares or after school programs where outdoor and physical activity may be limited or more confined for safety reasons. In addition, more children may be under the care of grandparents or older members of the community, leading to the need for multi-generational activities and programs.

Opportunities exist for recreation providers to offer quality activities geared towards families, and provide maximum flexibility for hours and days of availability to the public. Also, recreation providers can locate and market parks and facilities that are closer to daycares, youth centers and schools. This will help to engage kids in both activities that promote fitness and an appreciation of the outdoors.

Due to limited time together, respondents seemed to prioritize more family time and better educational opportunities for children. When asked what else should be considered in the South Dakota outdoor recreation plan for the next five years, respondents asked for more activities that families can participate in together, as well as more family oriented areas and facilities. In addition, respondents asked for more activities that appealed to children, to try to get them outside and within nature and appealed to the need to get children involved when they are young, as they are the future stewards.

Challenge: Low Incomes

As detailed in the Introduction to this plan, 14.1% of South Dakotans live below 100 percent of the federal poverty level (FPL). This number increases significantly in single parent families. Whether below the poverty level or not, survey respondents indicated, through their responses, either their use or the need for lower cost outdoor recreation activities. For example:

- Over 27% of respondents frequented local/municipal parks more than any other option. These community parks and facilities are typically free to use, with the exception of a few activities, such as the swimming pool or organized league play.
- When asked about perceived barriers to outdoor recreation, the most popular constraints for participating included activity fees are too high, admission fees are too high or equipment costs are too high.
- Overall, in the public survey analysis, both residents and nonresidents expressed the need to lower fees for annual park passes and hunting and fishing licenses.
- People also stated that increasing prices are discouraging them from participating in outdoor recreation.
- When asked what should be considered in developing the outdoor recreation plan for the next five years, respondents indicated cost and the need to stop raising prices so the youth can afford to hunt and fish.

Public survey respondents also indicated their need for activities close to home and with low participation cost in how they responded to where and which activities they participate in most frequently.

- Over 54% of respondents enjoy most of their outdoor recreation activities in South Dakota.
- When asked what other outdoor activities survey respondents participated in, in addition to those specifically listed, the highest response rates for respondents with children included the low cost options of playing at a playground, picnicking and lawn games.
- The leading trail activities for respondents were walking on paved or natural surface trails.
- The second highest water based activity was swimming at the beach.
- The highest ranking winter activity was sledding.
- The highest ranking wildlife related activity was shore fishing, with wildlife viewing in 4th and birdwatching in 5th.

Challenge: High Obesity and Inactivity Rates

According to the South Dakota State Plan for Nutrition and Physical Activity to Prevent Obesity and Other Chronic Diseases 2015-2020 (PNPA), chronic diseases pose a major health challenge in South Dakota, but many of these diseases and related deaths can be prevented with lifestyle changes, including physical activity and healthy eating. The most recent obesity data from the 2015 South Dakota Behavioral Risk Factor Surveillance System indicates that 30.4% of South Dakota (SD) adults are overweight and 34.1% of SD adults are obese. This statistic puts adult obesity up 6% since the last SCORP. In addition, 25.8 % of South Dakotans reported no leisure time physical activity or exercise outside of work.

According to the SD Department of Health’s School Height and Weight Report: South Dakota Students 2015-2016 School Year, over 37% of South Dakota children and adolescents, ages 5 to 19, are either overweight or obese. This number is up from the 32.5% reported in the last SCORP. According to the SD Department of Health’s 2013 Youth Risk Behavior Survey, a shocking 72% of youth were not meeting the physical activity guidelines of 60 minutes a day.

Also according to the PNPA, several disparate populations in South Dakota are disproportionately affected by health issues, including obesity. These disparate populations include those:

- with low socioeconomic status,
- with physical disabilities,
- in rural and underserved locations, and
- Native American populations.

A few other statistics from HealthySD.Gov:

- 39.3% of South Dakotans live within a ½ mile of a park
- 58.3% of South Dakota youth have access to parks, community centers and sidewalks
- Only 4.8% of SD adults bike or walk to work

One point of good news from Healthy SD.Gov, especially considering South Dakota’s aging population, 23% of older adults fall into the highly active category.

Challenge: Winter

South Dakota is known for cold winters. With snow and high winds added to the mix, only 56.5% of public survey respondents indicated participating in winter outdoor recreation activities. Leading the pack for winter activities are ice fishing and sledding, but downhill skiing/snowboarding and snowshoeing also had high participation. Although many of the state's larger communities have indoor ice hockey programs, very few respondents indicated playing hockey outside.

Availability of the resources for outdoor activities varies across the state due to topography, climate and services. The terrain in most areas east of the Black Hills reduces the opportunity for downhill skiing and snowboarding. Likewise, open winters without sufficient snow can limit snowmobiling, snowshoeing and cross country skiing options. Also, the lack of equipment and, in some cases, instruction can limit how much residents are involved in outdoor winter recreation.

With proof of an aging and somewhat inactive population, the real threats of slippery ice, bitter cold and disorienting snow can reduce outdoor recreation activities and pose a challenge to outdoor recreation activities in the winter.

Challenge: Technology

The debate over the impact of technology on outdoor recreation activities is likely one that will continue for years to come, with strong cases on both sides of the line. One can argue the increased use of computers, video games, and other technology has come at the expense of leisure time available for outdoor recreation or physical activity, especially among our youth who may spend hours a day gaming, participating in social media or watching TV. On the other hand, the craze of Pokemon Go sent thousands of players into the great outdoors in search of imaginary creatures.

When asked why they participate in outdoor recreation, over 40% of participants reported they participated to experience peace/tranquility or for relaxation, while over 70% indicated they participated in outdoor recreation to escape their daily routine. However, when driving through most campgrounds in South Dakota, you will likely see RVs with more technology inside and out than some South Dakota homes. Undoubtedly, the age old debate between primitive camping and full hook-ups with WIFI will continue. Likewise, discussions on trail cameras and the use of other such equipment in hunting and depth finders and the like in fishing will be ongoing.

The challenge surrounding technology, therefore, may best be described as figuring out where technology fits into outdoor recreation opportunities. The answers to how technology can be used to attract people into the great outdoors and where the use of technology should be limited will likely continue to change as quickly as technology itself.

Challenge: Fears of the Outdoors

Sensationalized accounts of rare incidents, crimes and injuries that can occur while recreating outdoors have fostered a form of fear that often precludes individuals, families and children from partaking in outdoor activities. The reality is that obesity and other health risks from too little physical activity is likely a greater risk than most encountered in the outdoors. At the same time, fear of the outdoors creates a society of misunderstanding and low appreciation for the natural environment.

Although outdoor safety should continue to be of utmost importance as we design for and provide outdoor recreation, the biggest challenge surrounding the fear of the outdoors will be to reach out to those unfamiliar with the outdoors and help educate them on the opportunities. In addition, providing classes and mentors with the skills to introduce new participants to outdoor recreation in a safe and inviting manner will be a challenge for agencies and communities to continue with the generations to come.

Challenge: Universal Accessibility

Often referred to as ADA accessibility, the challenge of universal accessibility or the concept of providing opportunities for the largest segment of our communities is always in need of solutions, especially as we provide outdoor recreation opportunities. When public survey respondents answered the question on what can be done to improve their ability to engage in outdoor recreation activities, a wide array of ideas was put forth, including the need for:

- More wheelchair accessible boat ramps and fishing docks, as well as shore fishing areas
- A review of regulations regarding crossbows and ATV use in hunting, as well as special seasons
- More accessible camping cabins and campsites, but also improved surfaces in the campgrounds and lighting to assist with moving around safely at night
- More accessible trails, including seating areas or places to rest
- Improvements to restrooms and parking areas, especially at boat ramps, docks and other outdoor recreation facilities
- Increased programming for people with disabilities or the inclusion of more staff to assist with current programs. Ideas ranged from kayaking to activities at ranger stations.

Some of the challenges surrounding accessibility often come merely with the definition. Often, the first thought goes to a person in a wheelchair or other mobility aid device, when our survey respondents replied that old age was their number one barrier to outdoor recreation. In other cases, outdoor recreationalists may include someone with a broken arm, someone who uses a walker, or a child with a sight or hearing impairment. Providing access to the largest segment of our community is the challenge to consider as we look at all of our outdoor recreation opportunities and facilities.

Challenge: Time

Although listed here separately, time is a challenge that, likely, spans all others. When asked about perceived barriers to outdoor recreation, lack of time was identified as one of the main hurdles by the public survey participants. In families where both parents work, there is a struggle to find the time with family, let alone to spend that time recreating outdoors. With over 60% of South Dakotans living over a half mile from a park or open space, travel time is sometimes a factor in getting to areas for certain outdoor recreation opportunities. With increased use of technology, often times it is a challenge to get children and teens to spend time away from the gaming, the smart phone or social media.

Likewise, outdoor recreation providers identified finding time and resources to plan for future park and recreation needs as a challenge. However, time is an underlying factor in many of the other challenges, such as finding enough people ‘with the time’ to volunteer to help with projects or finding ‘the time’ to identify and pursue funding opportunities or ‘the time’ to educate the public and city officials on the importance of outdoor recreation facilities.

Regardless of the viewpoint, considering time as a key factor in the strategies for providing outdoor recreation opportunities is a must.

Challenge: The Need for More

This challenge combines a number of items, identified by public survey participants, which fit into a common theme of needing more. When asked about barriers to outdoor recreation, participants indicated overcrowding as a barrier with campsites hard to book, fishing and hunting areas becoming more crowded and the desire for more programming for outdoor recreation as examples of areas that need more. When asked if there is a need for more facilities, participants responses indicated a need for more hunting areas, shooting ranges, nature areas, fishing areas, archery ranges, trails and campgrounds, to name a few. When asked about the most important considerations for funding, two of the top four answers focused on the need for more, including the need to acquire and protect open space and acquire additional land and water areas; while several other considerations infer the need for more protection of wildlife and fish habitat and more maintenance of existing park and recreation areas.

The need for more rises to the top in other responses and categories, as well. This plan has already identified the need for more family oriented areas and facilities, the need for more public hunting and access areas, and the need for more boat ramps and docks, to name a few. In addition, more trails comes to the top of many respondents' list, including everything from more cross country ski trails, to more ATV trails, to more walking trails. The need for more diverse recreational opportunities also came to light, such as more rock climbing and zip lining opportunities, more pickleball courts and more geocaching opportunities in parks.

Regardless of what exactly the 'more' is describing, survey participants tend to respond with 'we need more...', rather than 'we need less...'.

Challenge: Communication

As with almost any topic, decision, work place or family issue, communication is at the heart of many outdoor recreation challenges. Some of the challenges relative to communication are expected and often easily fixed with more or improved communication efforts or the use of a different medium. Other communication challenges are more difficult to resolve and may require different approaches in order to achieve a good resolution.

When asked about barriers to outdoor recreation, survey respondents stated they would like to see more information regarding programs and events posted on easily accessible mediums like social media. Others suggested updating websites to make it easier to navigate and find specific information. Likewise, when asked what should be considered for outdoor recreation for the next five years, respondents suggested that outdoor recreation providers offer more information about different outdoor recreation activities, that providers publicize events more online and create more user-friendly websites to find information about different events and activities. Other respondents offered encouragement for items like more updated maps and better signage.

As mentioned above there are some other communication items that take a different approach to resolve an issue. In numerous cases, improved communication can possibly eliminate the need for other actions. For example, there may not be a need for more ADA accessible campsites or cabins, but there may be a need to communicate how many and where ADA accessible campsites and cabins are located across the state. Some respondents indicated difficulties in accomplishing

certain tasks, such as booking a campsite or purchasing a license. In addition to improving a website, some form of education or how-to communication may also help in this case.

Although it may not be an obvious location to some, the communication challenge may also be a good place to house the challenge of differing viewpoints and perspectives. Several of these items were apparent in the survey responses:

- Full hook up vs. primitive campsites
- More ATV trails vs. no off-road vehicles
- Residents vs nonresident rules, regulations and fees
- Advance vs. same day reservations

Communication covers the challenges of discussion, education, interpretation, promotion, balance, perspective, priorities, planning and many other topics beyond websites and event announcements. Often times, the challenge is using the right communication tool to accomplish the goal or resolve the task.

Challenge: Priorities and Funding

Identifying priorities and finding funding are often two tasks that go hand in hand. Although provider responses to the survey communicated loud and clear that funding outdoor recreation is their top challenge, deciding what aspect of outdoor recreation gets the limited funds is almost as difficult.

When the public was asked what they perceived as the most important consideration for funding, their ranking was as follows:

1. Protect wildlife and fish habitat (34.2%)
2. Maintain existing park and recreation areas (21.9%)
3. Acquire and protect open space (20.0%)
4. Acquire additional land and water areas (12.4%)

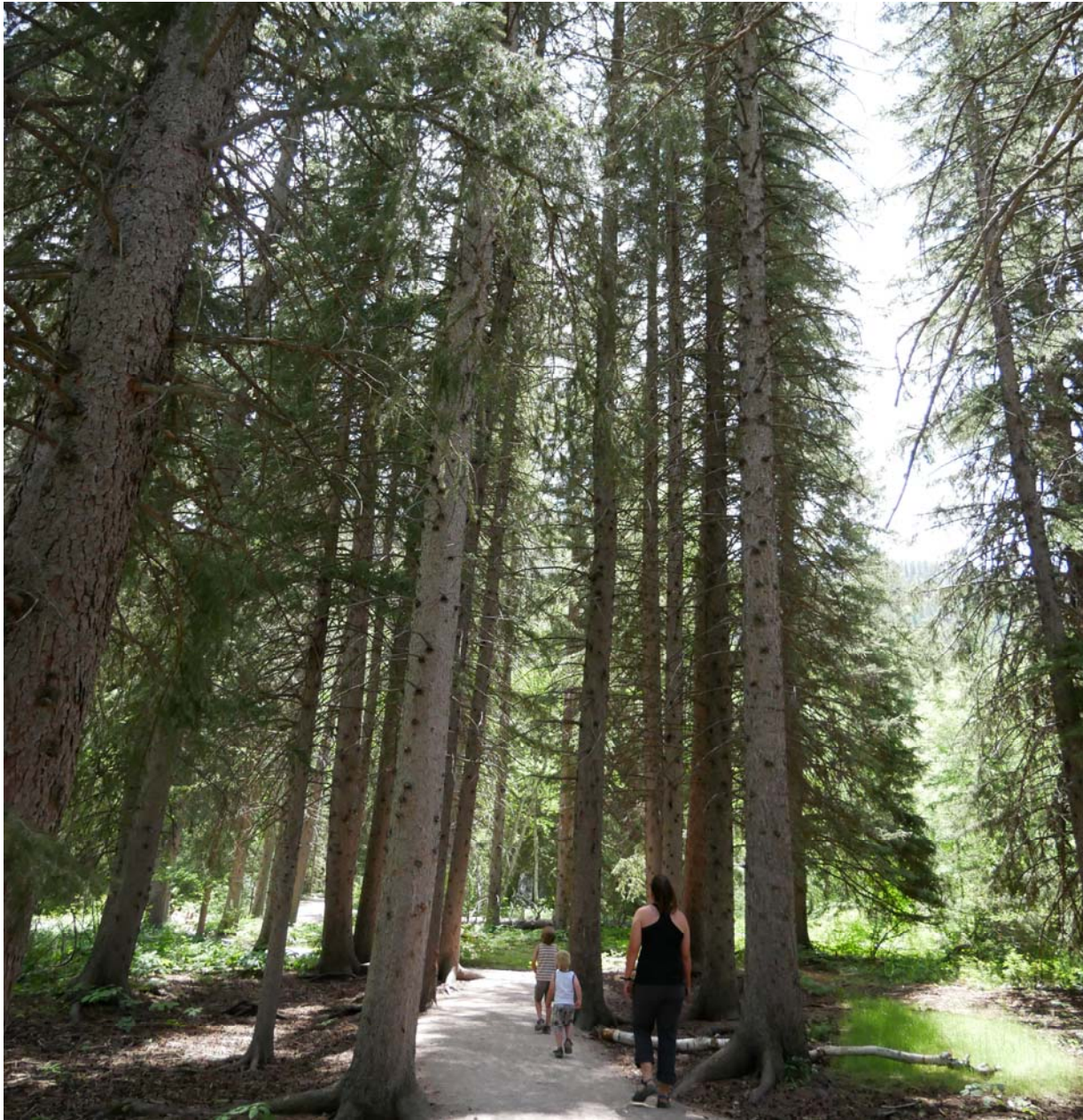
However, when providers were asked their top consideration when it came to funding, the highest response was a clear “Maintain existing park and recreation areas” at 73.7%.

Tables 1-15 and 1-16 on pages 1.37 and 1.38 show the Need More and Need for Improvement lists, respectively, as identified by public survey respondents. The Need More list is topped with hunting areas, pistol/rifle shooting ranges, shotgun shooting ranges and nature areas/open spaces. From the other perspective, respondents to the provider survey list playgrounds, swimming pools, basketball or softball fields and paved walking/biking trails as their top four priorities for investing funds. However, one needs to remember that most providers responding are affiliated with local and municipal parks.

Regardless of the priorities for any given location or type of park, the level of funding is one of the top challenges. In responding to questions on their budget for the last three years, 26% of providers indicated a reduced budget, with 53% experience no change in budget. With essentially 79% of providers in a reduced budget situation, park and recreation providers rank their top challenges as creating new parks and recreation facilities, developing alternative revenue sources, recruiting and retaining quality staff and volunteers, and allocating funds for operation and management.

Other provider funding challenges, not previously discussed in this plan include:

- Replacing versus repairing
- Funding existing and creating new facilities
- Not enough revenue to help maintain the parks
- Finding funding for smaller communities
- Meeting resident expectations on a small town budget
- Increase funding opportunities
- Making it easier to get grant funds



Chapter 3:

Outdoor Recreation Strategies

As mentioned in the previous chapter, the list of challenges can be daunting. However, as South Dakota looks to the future, outdoor recreation providers need to consider these challenges in order to be successful in meeting the state's needs. The following chapter recognizes these challenges and identifies the strategies necessary to move the state's outdoor recreation opportunities forward, not only for the next five years, but for future generations, as well.

It is important to remember that although prepared by the South Dakota Department of Game, Fish and Parks (GFP), this is not a plan for GFP or the Forest Service or the National Park Service or any other provider to accomplish alone, nor can it be. It will take municipalities, counties, agencies, organizations and private providers working together to bring this plan to life. One of the most important concepts to glean from the challenges in the previous chapter is the diversity of the challenges. Likewise, it will take a diverse group of providers to overcome the challenges.

Often times, providers may think they need to be everything to everyone, when the key to a successful SCORP may be recognizing which provider has the best opportunity to be the most effective with certain strategies. If the Forest Service is already successful in providing OHV/ATV trails, then perhaps there isn't a need for the Bureau of Reclamation to try to do the same thing. Likewise, cities and counties have an opportunity to collaborate with developers to acquire property and set aside park land as communities grow, where the Forest Service may not. In turn, GFP may have the staff, technical expertise, access to land and water, and the partnerships to improve fish and wildlife habitat on a large scale, where communities and counties may not. Likewise, private providers have the option of delivering a variety of opportunities, that due to policy, regulations or even public perception, state or federal agencies may not be able to accomplish.

In short, one provider doesn't need to have all the pieces, but if each provider joins in the process with their own one or two pieces – it is possible to complete the entire statewide puzzle.

Before delving into the strategies, it is important to revisit what this plan means for the state of South Dakota. This is the Statewide Comprehensive Outdoor Recreation Plan.

Statewide: This plan covers from North Sioux City, Union County, to Ladner, Harding County, and from Ardmore, Fall River County, to White Rock, Roberts County, and every community and county in between. Whether the outdoor recreation opportunity occurs in Sioux Falls, population 153,888 or Hillsvie, population 3, or any city, town or burg in between, this plan should include something that applies to all areas of the state. Likewise, if you are one of the 1,006 people that live in Jones County or the 71,557 people that live in Minnehaha County, you should be covered. Whether you live in one of the fastest growing suburbs in Lincoln County or on the prairie in the middle of Perkins County you, too, should be covered by this plan.

Comprehensive: This plan covers all types of outdoor recreation providers in the state, including municipal, county, state, federal, tribal and private providers. City, county and tribal parks, campgrounds and ballfields; State Parks and Recreation Areas; State School and Public Lands; National Parks; Bureau of Reclamation reservoirs; National Forests and Grasslands; National Fish and Wildlife areas; Corps of Engineers properties; as well as private ski resorts, golf courses, country clubs, snowmobile renters and guides, fishing and hunting guides and all other providers of outdoor recreation should benefit from the information in this SCORP and should use it as a planning tool moving forward. But this plan reaches beyond the easily apparent providers of outdoor recreation to those entities, agencies and businesses who may not be as

obvious, but are critical to the state’s outdoor recreation opportunities, including schools, rehabilitation and health care centers, daycare facilities, colleges and universities, boys and girls clubs, other state and tribal agencies, such as the Departments of Health and Agriculture, and the many other agencies and organizations that encourage, teach and promote the benefits of outdoor recreation. The list of people covered by this plan would also not be complete without the numerous local, state and national organizations and partners, including rodeo and horse trail riding clubs, various biking and mountain biking organization, fishing and hunting clubs and organizations, shooting clubs and ranges, rock climbing groups, bird watching clubs, conservation and habitat groups and the hundreds of other organizations that mentor future generations, fund projects, maintain habitat and dedicate their time and efforts to insure outdoor recreation stays at the forefront of our South Dakota heritage.

Outdoor Recreation: As numerous as the people, places and organizations covered in this plan, so are the types of outdoor recreation. Even though there are many outdoor recreational activities listed on pages 1.18 through 1.23 and 1.34 through 1.38, this plan is just the tip of the iceberg. However, although every type of recreation doesn’t appear in print in this SCORP, the participants responded and their priorities, barriers, participation levels, comments and ideas appear in the statistics of the report and are included in the complete 2018 South Dakota SCORP Outdoor Recreation Public Survey Report prepared by SDSU. In addition to those listed elsewhere in this report, respondents also listed caving, spearfishing, rodeo activities, plant identification, broom ball, mushroom hunting, gardening, rock hounding, compass trekking, rollerblading, star gazing, war reenacting, tubing, motorcycle and dirt bike riding, kickball, yoga, painting, listening, scenic driving and many other activities, even skinny dipping, as ways they participated in outdoor recreation this last year.

Plan: As the name implies, this document doesn’t identify specific projects. It is not a set of construction documents. It doesn’t include specifications or step by step instructions, nor is it a mandated call to action. It is a plan, a tool, a course of action. Plan: a method of acting, doing, proceeding, developed in advance. Plan: a written account of intended future course of action aimed at achieving specific goals or objectives. Plan: a method of achieving something that you have worked out in detail beforehand. Although the definition varies slightly from dictionary to dictionary, the intent is consistent. This plan provides the method needed for South Dakota to continue to meet the outdoor recreation needs and provide future opportunities for South Dakotans. It is the road map that will guide us through the next five years.

The following strategies are a guide for the state of South Dakota’s outdoor recreation providers and their cooperative partners and programs, including the Land and Water Conservation Fund. These strategies are established to address the challenges faced by the outdoor recreation providers in the state of South Dakota and to offer a plan to accomplish the goal of providing outdoor recreation opportunities, while encouraging healthy lifestyles and protecting the natural environment.

Strategy #1 – Provide and promote year around, diverse outdoor recreation opportunities for South Dakotans of all ages, interests, economic status and ability.

- Develop additional diverse outdoor recreational facilities and renovate/replace existing ones to meet current demands.
 - Continue to identify the facilities desired by people who recreate outdoors in South Dakota and provide a diverse range of traditional and new and emerging activities, including trails (to work and school, mountain biking, cross country skiing and

- UTV/ATV), rock climbing, zip lining, pickle ball courts, archery and shooting ranges, as well as more areas for fishing, hunting and exploring of open space.
- Identify funding to renovate and replace existing structures, such as pools, playground equipment and playfields, especially in small towns.
 - Develop more amenities for water activities, including updating boat docks and ramps, creating urban fishing opportunities, improving access points and trails for kayaking and canoeing and updating beach facilities.
- Meet the public’s diverse outdoor recreation desires through collaboration among providers, maximizing staff talents and time, and incorporating volunteers.
 - Seek people in the community who have the backgrounds with different outdoor recreation activities to share their experiences through educational opportunities.
 - Identify persons and organizations with shared goals and services to create collaborative programs that share resources.
 - Co-host programs and events with both public and private entities, such as schools, communities, federal agencies, state departments, YMCA/YWCAs, clubs, organizations, private businesses and others to maximize outreach and opportunity.
 - Provide more universally accessible outdoor recreation facilities and opportunities.
 - Reduce the impacts of aging and disabilities as barriers to outdoor recreation by providing opportunities and facilities suitable for the aging and those participants in outdoor recreation with disabilities. These facilities and opportunities may include wheelchair accessible boat ramps and docks, accessible shore fishing and hunting areas/opportunities, accessible camping cabins/camp pads and campground facilities, and accessible trails, seating areas, kayaking and parking areas.
 - Identify and provide more programming for outdoor recreation enthusiasts with disabilities or physical limitations.
 - Evaluate and modify regulations and policies, as needed, to improve accessibility to outdoor recreation opportunities, such as regulations regarding crossbows, the use of ATVs and special seasons.
 - Conduct annual reviews of outdoor recreation facilities, involving persons with varying abilities, to identify potential hazards, barriers and opportunities for participants in outdoor recreation activities.
 - Design and construct outdoor recreation facilities for varying ages, mobility and ability levels, especially playgrounds, trails and the like, so that multiple age and mobility groups can enjoy the experience.
 - Identify and promote outdoor recreation activities that can be enjoyed in the shoulder seasons and winter.
 - Provide educational and equipment rental opportunities for adults and children to learn more about winter activities including ice fishing, snowshoeing, cross country skiing and other low cost outdoor winter activities.
 - Collaborate with clubs and winter sport organizations to mentor and introduce citizens to winter activities, including instruction on proper outfitting, safety, equipment and training.
 - Provide safe opportunities for youth, elderly and citizens with disabilities to continue to recreate outdoors in the winter, including snow removal ordinances on sidewalks and maintaining trails for winter use.

- Increase the number of activities suitable for busy and working families, youth and the elderly.
 - Develop programming and activities that provide opportunities for mentors, grandparents and staff to teach youth about specific outdoor recreation activities, when parents may not be available for activities.
 - Explore programming at diverse times and days of the week to accommodate the schedules of busy and working families.
 - Locate park and recreation facilities and outdoor recreation opportunities in close proximity to daycares, senior centers and family-centered neighborhoods and fill the areas in the state where there are gaps in recreation opportunities.
 - Concentrate family oriented activities in high family use times, so limited family time can be spent recreating together.
 - Provide a wide range of activities to cover an array of age and ability levels.
 - Select specific activities that appeal to children to try to get youth interested in being outside and with nature, to develop the state's stewards of the future.

- Develop and provide outdoor recreation opportunities that can be enjoyed with minimal financial investment.
 - Provide park and recreation areas so that every South Dakotan has an outdoor recreation activity within a half mile of where they live or, at a minimum, access to an outdoor recreation activity.
 - Seek funding and equipment opportunities to keep costs for equipment or access as low as possible.
 - Provide outdoor recreation equipment that can be borrowed or rented for a minimum fee.
 - Evaluate and set fees to provide for equitable use whenever possible.
 - Promote the use of community parks and open spaces, public land and other low cost opportunities.
 - Collaborate with partners and other outdoor recreation providers to share resources and keep costs to a minimum.

- Continue to research and analyze information about South Dakotan's needs and demands for outdoor recreation.
 - Provide additional opportunities for citizens to communicate their thoughts, through targeted surveys, comment cards, social media, public involvement and visiting with people one on one during park and recreation activities.
 - Utilize research conducted by other agencies, including the National Park and Recreation Association, the Society of Outdoor Recreation Professionals, the National Association of State Park Directors, the National Center for Disease Control, the Outdoor Industry Association, the South Dakota Department of Health and the South Dakota Office of Tourism.
 - Involve researchers to assist in research design, implementation and analyzing data, including South Dakota university researchers and students.
 - Use the SCORP as an excellent base for research and conduct ongoing research throughout not only the year of the SCORP update, but the five years between SCORP updates.
 - Conduct research and utilize existing research to keep outdoor recreation professionals on the right track, which is especially critical when funding is limited.

Priorities ranked **HIGH** for local and state LWCF projects pertinent to this strategy:

- Projects that provide for universal access to outdoor recreation opportunities, when the availability of other federal matching fund programs is not possible or practical.
- Land purchases for parks and recreation areas in close proximity to underserved communities, the youth, the aging population and other gaps in opportunities across the state.
- Opportunities to develop diverse outdoor recreation opportunities, including new and emerging activities, as well as traditional South Dakota activities.
- Projects that provide facilities and opportunities at affordable costs and encourage family oriented recreation.

Strategy #2 – Maintain and improve existing park and recreation areas, open spaces and facilities for outdoor recreation opportunities.

- Continually evaluate existing parks, facilities and services in regards to maintenance needs, safety standards and ways to better protect the environment.
 - Encourage cities, counties, state and federal agencies to build and maintain GIS inventories and asset management programs to continually evaluate maintenance needs and schedule preventative maintenance projects to maintain existing outdoor recreation properties and facilities.
 - Promote long range planning for open space and park and recreation areas to help identify, scope and design projects far in advance of when the projects are needed, to assist in fund identification, allocation and budgeting.
 - Continue to develop partnerships between federal, state, county and municipal agencies, as well as private and non-profit groups, to maintain and manage open space and park and recreation areas, including facilities, habitat, plant and animal species, and historical and cultural resources.
 - Identify additional funding sources that can be used to maintain existing open space, parks and facilities.
 - Develop alternative revenue streams for parks and recreation to aid in funding maintenance and operations.
 - Advance preventative maintenance plans and programs in order to prolong the life of outdoor recreation facilities and more effectively use limited outdoor recreation funds.
- Recruit and retain quality staff and volunteers.
 - Promote ongoing training to teach staff about preventative maintenance approaches and safe management of parks and open spaces.
 - Assist with and promote programs with colleges and universities that offer park management, park and recreation administration, habitat management, fish and wildlife biology, landscape design/architecture and other programs that develop future open space and park and recreation staff.
 - Improve staff and volunteer programs, including training, volunteer housing and other benefits, to solicit and retain quality volunteers and staff.
- Be vigilant against potential threats, including fires, floods, pollution, infestations, over-use and abuse of outdoor recreation lands.

- Continue to train staff in controlled burning and firefighting methods and coordinate with appropriate agencies, as needed.
- Research common and alternative methods for land management and protection.
- Continue to monitor small head dams.
- Collaborate amongst agencies to fight insect infestations, including the pine beetle, Emerald Ash Borer and others.
- Monitor and take action in areas where there is over-use and/or abuse of the land, such as compaction on trails, erosion and other negative impacts to park lands and waters.

Priorities ranked **HIGH** for local and state LWCF projects pertinent to this strategy:

- Projects that maintain, improve or update existing outdoor recreation facilities, when the availability of other federal matching fund programs is not possible or practical. Projects may include playgrounds, sports courts and fields, trails and tracks, swimming pools and other renovated facilities. Maintenance is defined as a major maintenance activity to prolong the life of an existing facility that might otherwise be deemed unusable.
- Projects that improve or update an existing facility to increase participation in an outdoor recreation activity.
- Outdoor learning centers and interpretive facilities that educate the public on open space management, threats to outdoor recreation resources and maintenance and care of land, water, historical and cultural resources.

Strategy #3 – Acquire and protect South Dakota’s open space and natural resources for future outdoor recreation opportunities.

- Acquire property for open space and park and recreation opportunities in locations that are in areas of or have a high likelihood for future development.
 - Develop policies and planning guidelines to require open space to be preserved and park and recreation areas to be reserved in community and regional development plans, especially in high growth areas.
 - Seek and develop funding opportunities for the purchase of open space and park land, including park and open space development fees or land donations, endowments, grants and other funding generators designated for this purpose.
 - Provide guidelines for establishing park lands in new developments.
- Identify and acquire properties in order to conserve and protect the state’s natural resources, especially those that are unique and in need of preservation due to plant and animal species or geological, soil or water features.
 - Evaluate areas with unique features in need of protection and determine the best course of action to achieve protection, including acquisition, management or other preservation techniques.
 - Conduct plant and animal species inventories to identify the presence of rare and endangered species.
 - Seek funding or partnerships for land acquisition and protection.
- Identify and acquire properties to meet the state’s recreation needs, especially near urban areas or areas where there are significant gaps between recreation opportunities.
 - Complete a statewide GIS inventory of park facilities.

- Determine areas in the state where there are significant gaps in outdoor recreation opportunities, where South Dakotans live more than ½ mile from a park or do not have reasonable access to a park, community center or outdoor recreation facility
- Acquire property or management rights for properties where outdoor recreation opportunities may be introduced to fill the gap.
- Evaluate and acquire properties or establish easements adjacent to park lands to properly protect and manage existing parks.
 - Identify parks at risk from encroachment through urbanization, housing and commercial development.
 - Seek funding to purchase land that is at risk.
 - Work with willing landowners on management rights or easements.
- Take immediate measures to protect highly sensitive historical, cultural and archeological resources through acquisition or cooperative management alternatives.
 - Assess lands that have valuable historical, cultural and archaeological findings and seek ways to protect them.
 - Implement management practices on existing park lands to preserve and protect historical, cultural and archaeological resources.
- Continue to form partnerships and collaborate amongst municipalities, counties, tribes, state and federal agencies, private providers, South Dakota land owners and organizations to acquire and protect South Dakota’s open space and natural resources.
- Identify opportunities to eliminate local, state and national funding limitations and policies that negatively impact the ability of outdoor recreation providers to acquire properties and hire staff to properly manage the properties.

Priorities ranked **HIGH** for local and state LWCF projects pertinent to this strategy:

- Land acquisitions for park areas and open space in areas subject to encroachment by development, either in areas of new growth or areas adjacent to existing parks and outdoor recreation areas.
- Land acquisition in areas where populations are underserved and there are gaps in public open space and outdoor recreation opportunities.
- Land acquisitions where immediate action is needed to protect the state’s natural, cultural or archeological resources.

Strategy #4 – Protect and improve the state’s fish and wildlife habitat for outdoor recreation opportunities.

- Manage fish and wildlife habitat to optimize outdoor recreation opportunities within social, fiscal and biological constraints.
 - Utilize partnerships between public and private land owners, land managers and wildlife-focused organizations to acquire areas with existing habitat or potential to improve fish, wildlife and associated habitat.
 - Identify and acquire or secure management of areas important for fish and wildlife habitat.

- Develop funding resources or partnerships to aid in the acquisition or management of areas vital for fish and wildlife habitat.
- Work with private land owners to encourage placement of land into management agreements, conservation easements, endowments, trusts or other such programs to protect habitat for future generations.
- Continue to increase land conservation and improve wildlife and fish habitat.
 - Improve pheasant and other wildlife and fish habitat for both conservation and hunting and fishing opportunities.
 - Conserve and maintain prairie and grasslands.
 - Collaborate and develop partnerships and promote involvement in organizations that educate, assist with and develop conservation and habitat development.
- Manage properties to protect and improve fish and wildlife habitat.
 - Continue to refine and follow statewide species and habitat management plans.
 - Educate private and public land owners on the management of property to maintain and improve fish and wildlife habitat.
 - Educate public and private landowners on the value of pollinator plots and continue to expand the acreage of pollinator plots across the state.
 - Increase or maintain private landowner participation in conservation programs.
 - Manage noxious weeds, invasive species, and woody encroachment to reduce impacts on desired habitats.
 - Identify priority habitats, including both intact native communities and non-native habitats, for enhanced conservation, restoration, and management activities.
 - Promote collaboration with conservation partners and universities to leverage funding for research, inventory, restoration and management activities.
 - Continue to identify and develop funding opportunities for habitat management and protection.
- Improve and increase public access to fish and wildlife related outdoor recreation opportunities.
 - Provide family fishing/hunting and introductory and advanced fishing/hunting clinics and coordinate fishing and hunting opportunities for people with developing skill sets.
 - Establish a program where mentor groups and individuals take novice anglers/hunters, senior anglers/hunters, and people with disabilities fishing/hunting a few times per year.
 - Develop partnerships between municipalities and other parties to identify opportunities and funding sources for urban fishery creation, enhancement and maintenance.
 - Evaluate current license structures, application processes, fees, rules and regulations to enhance fishing and hunting opportunities.
 - Improve and increase fishing access and public land hunting access.
 - Develop opportunities with private landowners to access inaccessible (landlocked) public lands.
 - Increase quality private land hunting access, and inventory, evaluate and promote current access programs for private land.
 - Improve and increase access to diverse outdoor recreational opportunities related to fish and wildlife habitat, including birdwatching, wildlife viewing, nature

photography, plant identification and viewing, canoeing and kayaking, trails, interpretation, trapping, archery and shooting ranges

Priorities ranked **HIGH** for local and state LWCF projects pertinent to this strategy:

- Projects to improve and increase access to diverse outdoor opportunities related to fish and wildlife habitat, including docks, platforms, shore fishing, shooting sports, trails, wildlife viewing platforms and other such projects when the availability of other federal matching fund programs is not possible or practical.
- Projects that promote habitat education and interpretation.
- New and improved access to public land for fishing and hunting when the availability of other federal matching fund programs is not possible or practical.

Strategy #5 – Educate, promote and improve communications related to outdoor recreation opportunities.

- Eliminate or reduce fears associated with outdoor recreation.
 - Provide educational sessions and myth buster sessions to eliminate the fears that sometimes preclude individuals, families and children from recreating in the outdoors.
 - Introduce South Dakotan's who have never participated in outdoor recreation activities to a variety of opportunities to familiarize them with the outdoors and help gain a comfort level with the natural environment.
- Promote opportunities to use technology as a benefit to outdoor recreation, instead of a detractor.
 - Develop maps, educational information, scavenger hunts, geocaching activities and other similar tools to attract high technology users into parks and recreation areas.
 - Use social media to inform and promote classes, educational opportunities and events to potential participants, giving plenty of advance time and information.
 - Update outdoor recreation websites to make it easier to navigate and find information on licensing, events, activities, classes, volunteer experiences and other opportunities to interact with park and recreation, habitat and conservation programs.
- Improve maps, signage and other online and site specific tools to guide participants in planning activities and finding their way at around trails, nature areas and other park and recreation facilities.
- Improve communication relative to ADA accessible facilities, licensing regulations, class schedules, reservations and other items identified in the public survey where clearer communication and additional information is needed to alleviate frustrations, inform outdoor participants and introduce participants to more opportunities.
 - Improve websites to provide information in a user friendly atmosphere.
 - Utilize social media, where appropriate to communicate quickly, yet accurately with busy youth and families.
 - Review current communication techniques for accuracy and effectiveness in reaching all outdoor recreation participants and, perhaps most importantly, those residents of the state who are not currently participating in outdoor recreation activities.

- Continue and expand the efforts to involve the public in the conversation on outdoor recreation in South Dakota.
 - Identify and use the appropriate public involvement opportunities to discuss outdoor recreation with the public.
 - Collaborate with outdoor recreation clubs and organizations to educate and provide the public with accurate information on outdoor recreation topics and initiatives.
 - Provide the venue and the tools for citizens to be involved in decision making processes and share their viewpoints and perspectives.
- Provide relevant and effective educational and interpretive programs.
 - Provide quality training for parks and recreation staff, maximizing efforts to inform and educate the public about outdoor recreational opportunities and programs.
 - Define a suitable and appropriate program and activity inventory for each park, park facility, community, agency or provider and continuously evaluate the effectiveness of each program in meeting the community's or provider's goals.
 - Partner with other communities, agencies and organizations to share expertise, equipment and programming to maximize efforts and investment in outdoor recreation programming.
 - Vary programming and educational sessions to broaden the reach and increase the effectiveness of the interpretive and educational message, concentrating specific programs on families, adults, youth, the elderly, persons with disabilities, South Dakotan's not currently participating in outdoor recreation, participants already beyond the entry level program and looking for more, and other such groups.

Priorities ranked **HIGH** for local and state LWCF projects pertinent to this strategy:

- Projects that focus on amphitheaters, interpretive shelters, visitor centers and other such on-site tools to aid in interpretation, communication and education at parks, public open space and other outdoor recreation facilities.

Strategy #6 – Be a compelling voice for action when it comes to making outdoor recreation a priority in people's choices to improve their health and lifestyle.

- Promote parks as the state's largest wellness centers, where the public can find a wide variety of individually initiated physical activities, as well as staff-led events.
 - Make mileage information for trails and park roads easily available to walkers and runners.
 - Offer free or low cost use of recreation equipment by park visitors to encourage physical activity. I.e. discs for disc golf.
 - Host physical activity-focused programs, such as snowshoe lessons, nature walks, canoe and kayak lessons or organized bike rides.
 - Provide geocaches in the parks to get people out walking while using technology.
 - Incorporate mileage information into interpretive signs for park trails to encourage users to learn while exercising.
 - Partner with the SD Department of Health and other health focused organizations to include health messages in program and activity guides, reservation letters, park and recreation publications, and other opportunities to promote physical activity and healthy eating when enjoying outdoor recreation.

- Encourage the use of the local trails, sidewalks, playgrounds and other such common community facilities as physical activity centers for all ages.
- Use the state park system's Fitness Passport Challenge and other similar programs offered by other agencies, to encourage families to stay active in the outdoors.
- Promote the concept of getting youth active outdoors and involved in natural resource protection through educational programs, the media and events.
 - Offer many family-oriented programs, so parents can bring their children and join them in park and outdoor recreation activities.
 - Provide the media with more public service announcements and press releases concerning the importance of getting outdoors and the opportunities available.
 - Create interpretive products (I.e. brochures, site bulletins, exhibits).
 - Stimulate interest in going outdoors by providing learning opportunities online.
 - Capitalize on printed opportunities such as the children's section of the South Dakota Conservation Digest, community newsletters and other such publications to educate the public about getting outdoors.
 - Develop and promote challenging youth-oriented programs, such as junior naturalist or junior park ranger programs.
- Start or continue to participate and cooperate with the Department of Health on the Healthy South Dakota program to provide recreational equipment and programs for park and recreation facility users. Efforts include promoting the importance of physical activity and healthy lifestyles, purchasing equipment for public use at parks, and programs offering health-themed programs in the parks.
- Identify and pursue funding, such as Department of Transportation administered Transportation Alternatives grants, for projects that provide walking and biking facilities to promote and increase active transportation (walking, biking), walking to school and work and other such activities in neighborhoods and communities.
- Continue to support and promote the SD Healthy Concessions Model Policy in communities, parks, and on city grounds.
- Involve older adults through volunteer work, intergenerational activities, and older age-specific programs.
 - Target retirees for volunteer opportunities.
 - Plan special events for grandparents and grandchildren.
 - Offer programs specifically for seniors, such as community walking clubs, mid-week kayak lessons and morning exercise classes in community parks.
- Plan family-oriented activities to promote physical activity, unity, memories and the desire to return.
 - Offer family outdoor challenges to get the whole family involved and active in the outdoors.
 - Promote activities for all ages, including parents and grandparents, rather than just focused on the children,
 - Provide outdoor recreation opportunities that make it as easy as possible for the entire family to participate, such as a nature hikes on a surface suitable for a baby stroller, mobility aid device or walker; provide benches for resting along trails; diaper

changing tables in restrooms and other such facilities to allow the whole family to be involved.

- Provide low cost or no cost opportunities to introduce all income levels to outdoor recreation and physical activities in the outdoors.
 - Offer open houses, free days or free introductory classes that give participants the opportunity to explore certain parks and activities without a high initial investment.
 - Work with partners, organizations, private providers, sponsors and volunteers to pool resources, knowledge and equipment to keep costs low while providing the experience and opportunity to as many participants as possible.

Priorities ranked **HIGH** for local and state LWCF projects pertinent to this strategy:

- Projects that provide healthy, outdoor recreation activities for children and youth.
- Projects and facilities that provide healthy, outdoor recreation activities that will serve currently underserved populations based upon statewide averages and identified gaps in opportunities.
- Projects that provide healthy, outdoor recreation activities for persons with disabilities and the aging population.
- Projects that provide healthy, outdoor recreation activities year around or encourage winter outdoor recreation activities.
- Projects that promote appreciation and protection of our natural, historical and cultural resources as part of the outdoor recreation activity.



Chapter 4:

South Dakota

Wetlands Component

INTRODUCTION

Prairie wetlands are a dominant feature across much of South Dakota's prairie landscape and play an important role in the hydrologic cycle that maintains the state's water resources. Conservation of wetlands of all types is a vital component of the state's broader goals of improving management and protection of its water and wildlife resources. Prairie wetlands provide many benefits to all South Dakota citizens, both rural and urban. Wetlands benefit the state's water resources by: storing flood waters and slowing runoff to streams, rivers and lakes; recharging groundwater aquifers; stabilizing stream flows; and removing pollutants from the water by trapping sediments and contaminants and recycling nutrients. Prairie wetlands are perhaps the most diverse, productive and important wildlife habitats found in South Dakota. This diversity of wetland habitats and associated grasslands are vital to maintain a wide variety of wetland dependent game and non-game wildlife species. South Dakota wetlands and grasslands provide some of the North America's most intact and important breeding and brood rearing habitat for waterfowl. Wetlands with dense stands of emergent cover such as cattails also provide important winter cover of economically important resident wildlife such as ring-necked pheasants and white-tailed deer. Prairie wetlands annually provide important recreational opportunities for many outdoor recreation activities including: hunting, fishing, trapping, bird-watching, photography and boating.

The Prairie Pothole Region (PPR) covers nearly 300,000 square miles and includes portions of Minnesota, Iowa, North and South Dakota, Montana and the Canadian provinces of Alberta, Saskatchewan and Manitoba. Nearly all of South Dakota east of the Missouri River was glaciated during the last ice age and is considered part of the PPR. The PPR is the most critical waterfowl breeding habitat in North America. While it encompasses only 10 percent of the waterfowl breeding habitat in North America, it can produce greater than 50 percent of the continental duck population during wet years (Batt and others, 1989). In the contiguous 48 states, 87 percent of the ducks breed in the four prairie pothole states. South Dakota is usually ranked number two in total waterfowl production. However, during wet years, South Dakota wetlands and associated nesting cover (e.g. Conservation Reserve Program grass cover and remaining native prairie) produce more waterfowl than any other state in the lower contiguous U.S.

Over 50 percent of the Prairie Pothole Region's original wetland base has been converted to other land uses. During the 20 years from the mid-1950s to the mid-1970s, such losses averaged 458,000 acres annually. Dahl (1990) estimated that Iowa has lost nearly 90 percent of its' original wetlands. The same author also concluded that the lower 48 states have lost an estimated 53 percent of all wetlands since the late 1700s.

According to National Wetlands Inventory data, wetlands and deep water habitats account for over 2.2 million acres or slightly less than 10 percent of eastern South Dakota's landscape (Johnson and Higgins, 1997). Fortunately South Dakota has managed to conserve more of its' wetlands than all the neighboring Prairie Pothole states. Dahl (1990) estimated that about 35 percent of South Dakota wetlands have been lost since settlement with most losses related to agricultural development. More than 80 percent of wetlands lost were located east of the James River. In a more recent report, Dahl (2014) estimated that 2.8% of all wetlands in the SD PPR were drained from 1997-2009.

Past and continuing rural and urban development have also contributed significantly to the total wetland loss in the state. Significantly increased agricultural drainage, as well as continued

urban/suburban development in the last several years in eastern South Dakota will likely result in increased frequency of flooding.

PURPOSE AND SCOPE

In November 1986, Public Law 99-645 was passed by Congress. This legislation is also known as the Emergency Wetlands Resources Act of 1986 (Act). Section 303 of the Act requires the inclusion of wetlands in Statewide Comprehensive Outdoor Recreation Plans. This chapter is South Dakota's assessment and target for accomplishments in wetland acquisition, restoration and protection under the provisions of the Act and the Statewide Comprehensive Outdoor Recreation Plan.

AUTHORITY

The authority for the development of this Wetlands Chapter to the South Dakota Comprehensive Outdoor Recreation Plan (SCORP) is Section 303 of the Act. Other funding for both wetlands acquisition and restoration is also provided for by the Act.

The South Dakota Department of Game, Fish and Parks has the authority for the conservation and protection of all wildlife. South Dakota Codified Law 41-2-18 states, "The department ... shall have the power to regulate, direct and control...the conservation, protection...and the hunting ... of all game and furbearing animals, game birds and fish ... and ... shall have jurisdiction and authority for such purposes over all lands and waters ... including all meandered lakes, sloughs, marshes and streams ... and also including all lands to which the state has acquired any right, title or interest for the purposes of water conservation and recreation."

The Department of Game, Fish and Parks has both a Parks and Recreation Division which is responsible for SCORP planning and a Wildlife Division which manages the wildlife resources of the State.

COORDINATION AND CONSULTATION

This wetlands plan was written by the Division of Wildlife in cooperation with the Division of Parks and Recreation. Organizations including; Ducks Unlimited, the SD Wetlands Coalition, SD Wildlife Society, SD Wildlife Federation and the Izaak Walton League have provided input on previous versions of this plan. This plan has been updated as needed and generally addresses the goals and objectives of the SCORP regarding wetlands conservation in South Dakota.

ASSESSMENT

Inventory

With completion of the National Wetlands Inventory (NWI) of South Dakota in the mid-1990s and digitization of those data for the eastern part of the state, Johnson and Higgins (1997) completed an excellent state-of-the-art geographic information system (GIS)-based /inventory and summary of eastern South Dakota wetlands. Similarly, Rieger et al. (2006) summarized the NWI data for western South Dakota.

South Dakota wetlands occur in all four of Bailey's (1994) ecoregion provinces (Prairie Parkland, Great Plains Steppe, Great Plains Dry steppe and Black Hill Coniferous Forest) that

comprise the state. Because of the important ecological link between wetlands and associated grassland (e.g. many wetland dependent birds are grassland nesters), it's important to discuss South Dakota wetlands in the context of grassland resources. Excluding the Black Hills, most ecologists consider South Dakota to be comprised of an eastern tier of true tall grass prairie, with the balance of the state being characterized by mixed-grass prairie. Much of the native grass prairie (an estimated 75 percent) in PPR portion of South Dakota has been lost due to agricultural conversion. Conversion of mixed-grass prairie in the western part of the state is considerably less severe.

According to Johnson and Higgins (1997), 2.2 million acres of wetlands and deep water habitats comprise nearly 10 percent of eastern South Dakota's landscape. In turn, these habitats consist of approximately 80 percent palustrine wetlands, 17 percent lacustrine wetlands and deep water habitats and 3 percent riverine wetlands. These three wetland systems are further divided by subsystems, class, water regime and special modifiers. Because of their ecologic importance to many species, patterns of historic loss and future agricultural and development related threats, palustrine wetlands (particularly eastern prairie potholes) are a conservation priority in South Dakota. 77.5 percent of the palustrine wetlands are classified as emergent wetlands, 15.8 percent are emergent/aquatic bed, 3.4 percent are aquatic bed and 3.3 percent are other classes. In terms of water regime, 43.5 percent of palustrine wetlands have a seasonal water regime, 32.8 percent are temporary, 23.3 percent are semi-permanent and 0.2 percent are intermittently exposed. The reader should refer to Johnson and Higgins (1997) and Cowardin and others (1979) for more detailed treatment of eastern South Dakota's other wetland resources.

Rieger et al. (2006) summarized that surface water covers 635,054 acres or about 2.4% of the western South Dakota landscape. These waters are comprised of approximately 50% palustrine, 42% lacustrine and 8% riverine wetlands. There are nearly 173,000 wetland basins in western South Dakota and they are further categorized by the following water regimes: 36% temporary water; 29% seasonal; 34% semipermanent; and about 1% permanent. Just over 50% of the total number of basins, or approximately 87,000 are created wetlands. Over 72,500 of these are relatively small impoundments or stock dams. Just over 14,000 are livestock watering dugouts and about 300 are natural beaver dams/ponds.

In general, many of the wetlands in the mixed-grass prairie portion of western South Dakota are associated with stream and river corridors and associated riparian areas. Palustrine forested wetlands (e.g. forested oxbows) are relatively common along larger river systems.

While western South Dakota has less than 1/3 of the wetland area of eastern South Dakota, western palustrine emergent wetlands provide similar functions and values. In some areas, wetland densities are quite high (e.g. Lyman, Jones, Stanley, Dewey, Ziebach and Corson counties) with wetlands occurring within large tracts of native or planted grassland habitats. Such areas provide very productive and important breeding, brood rearing and migration habitat for waterfowl, shorebirds and other wetland dependent species when water conditions are favorable.

The Black Hills region of southwestern South Dakota is a unique ecoregion similar to those in the intermountain west. Like other areas in unglaciated western South Dakota, wetlands in the Black Hills are primarily related to streams (riverine system) and related riparian areas. Saturated wet meadow montane wetlands characterized by sedges and associated wetland plants occur along some stream/riparian corridors. Most of these wetlands are classified as palustrine, emergent, saturated wetlands. Saturated scrub/shrub or forested palustrine wetlands, with

various water regimes also occur in association with these riverine systems. Additionally, beaver ponds along stream corridors are of local significance and add a unique diversity to these riverine systems.

Protection

South Dakota Department of Game Fish and Parks owns and manages 303,778 acres of Game Production Areas (GPA's) across the state. Wildlife habitat on these areas is managed to benefit game and non-game species alike. These areas are open to public hunting, fishing, wildlife watching and other outdoor activities. East of the Missouri River, essentially all such areas consist of wetland/grassland complexes and developed upland habitats such as woody winter cover and food plots. We estimate that between 90,000 and 95,000 acres east of the river are wetland acres. Many of the GPA's west of the Missouri River are associated with the Missouri River reservoir system or smaller impoundments.

As part of its National Wildlife Refuge System, the United States Fish and Wildlife Service (USFWS) owns and/or manages 49,634 acres, within six designated refuges () and owns in fee title 161,868 acres of Waterfowl Production Areas. The Service has also purchased voluntary wetland and grassland conservation easements from willing sellers. Habitat protected with these perpetual easements totals 1,445,092 acres of wetland/grassland complexes. These habitat protection easements are designed to mesh well with a wide variety of agricultural uses and have proven to be popular with landowners. Wetlands on these areas cannot be drained, burned or filled and grasslands cannot be plowed and converted to cropland. Haying is allowed after July 15. Management focus on all these USFWS areas is for waterfowl and other migratory bird species. Funds for these programs come primarily from Federal Migratory Bird Hunting and Conservation Stamp sales and in recent years, from the Land and Water Conservation Fund.

Wetland Threats

A national status and trends study showed that from 1954 to 1974 certain wetland types had high rates of conversion to other land uses in specific regions of the United States, including palustrine emergent wetlands in the Prairie Pothole Region of the Dakotas and Minnesota. The study also noted South Dakota as being one of 19 states that had significant decreases in wetlands over the 20-year period (Frayer and others, 1983). Subsequent reports (Dahl, 2000) indicate that agriculture related losses of freshwater wetlands nationwide decreased from about 1.0 million acres between the mid-1970s and 1984 down to about 198,000 acres between 1986 and 1997. Implementation and enforcement of the "Swampbuster" provisions of the 1985 Food Security Act (Farm Bill), as well as other land retirement or conservation programs (e.g. CRP, WRP, EWRP, etc.) were the primary reasons for this significant reduction in wetland losses. More recent reports (Dahl, 2006 and Dahl, 2011) indicate that freshwater wetlands have increased nationwide due in large part to wetland restoration activities through programs noted above and due to construction of ponds and other non-vegetated wetlands in urban and suburban settings. However, in South Dakota and neighboring prairie pothole states, losses of emergent wetlands have outpaced gains. Losses are primarily attributed to agricultural conversion, urban expansion and rural development (Dahl, 2011). Dahl (2014) estimated that 2.8% of all wetlands in the SD PPR were drained from 1997-2009.

Trends in Agricultural Drainage

In the last decade and a half, trends, including record commodity prices, years with double digit annual increases in land values across South Dakota fueled large investments in agricultural drainage infrastructure to improve crop production conditions and yields. At rates not seen in decades, crop fields in eastern South Dakota have been ditched, or plastic drainage tile has been installed on entire fields to drain excess water. Many such fields contain numerous small temporary and seasonal wetlands. In some instances, larger seasonal and even semi-permanent marshes have been drained. While conservation provisions in the federal Farm Bill known as “Swampbuster” are intended to prevent wetland drainage on lands for which producers receive federal farm program benefits, subtle changes in administration of those provisions, as well as producers dropping out federal programs subject to the Swampbuster provisions contributed to significant, but difficult to quantify wetland losses across eastern South Dakota. Prior to the 2014 relinking of conservation compliance provisions of the Farm Bill to federally subsidized crop insurance programs, this insurance remained available to producers even if they converted wetlands for production of a commodity crop. This unintended incentive to drain wetlands on agricultural land was the topic of much debate during Congressional deliberations that led up to passage of the 2014 Farm Bill, which, in the end, included strengthened conservation compliance provisions intended to protect both wetland and grassland resources in the region. These protections, as well as much moderated commodity crop prices, has slowed wetland drainage activity in eastern South Dakota in more recent years.

While the scale of wetland drainage and loss in eastern South Dakota in the last decade has alarmed the conservation and wildlife management community, efforts to quantify actual losses have been hampered by lack of sufficient funding to update the National Wetlands Inventory on a regional basis. The lack of a comprehensive USDA tracking system to monitor changes to wetlands on agricultural lands has also made it extremely difficult to verify real trends in wetland losses on agricultural lands

Changes in Wetland Protection under the Federal Clean Water Act

The United States Supreme Court’s 2001 decision in *Solid Waste Agency of Northern Cook County (SWANNC) v. U.S. Army Corps of Engineers*, and its’ 2006 decision in the joint cases of *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* significantly lessened federal authority to protect certain isolated wetlands and small streams across the nation, particularly from urban, suburban and rural development. Loss of federal Clean Water Act protection of isolated wetlands, wetlands not directly connected to navigable waters and small, often intermittent, tributary streams in South Dakota put these wetlands and waters at increased risk of outright loss. Attempts to clarify federal jurisdiction over such wetlands during the Obama presidential administration through comprehensive rulemaking was contested and implementation of the rules was stayed by the courts in 2015. The current Trump administration intends to revise the rules (Wikipedia, 2017).

South Dakota's prairie pothole wetlands are of international importance in sustaining viable populations of migratory birds and other wildlife, but are now suffering the consequences of rolling the regulatory calendar back by more than 40 years. It is estimated that that between 91% and 95% of the isolated wetlands in portions of eastern South Dakota are no longer afforded Clean Water Act protection due to the above court decisions. Efforts to restore protection of such wetlands have failed to gain traction in Congress, despite national initiatives by the conservation community.

Functions and Values of South Dakota Wetlands

A large body of literature documents the wide range of important functions and values that wetlands provide. Besides supporting a diversity of wildlife and plant communities, including threatened and endangered species, wetlands of various types provide numerous other functions and values. These include water storage, flood attenuation and reduction, ground water recharge, water quality enhancement, erosion control, nutrient retention and recycling, sediment retention, carbon sequestration, food production, stock water, forage production, fishing, hunting, other forms of outdoor recreation, education, and aesthetics. The environmental and socio-economic benefits of wetlands are also well documented and recognized by the scientific community, policy makers, as well as most of the general public. We will only briefly discuss some of these functions and values as they relate to South Dakota's fish, wildlife, habitat and recreational resources.

Outdoor recreation and education

The recreational value of South Dakota's wetlands is important to residents and nonresidents alike. Wetlands provide places for hunting, fishing, trapping, bird watching, photography, boating and other outdoor recreation activities. Wetlands also provide outdoor classrooms and laboratories for school children, college students, wildlife biologists and other researchers studying wetland ecosystems.

Water levels in natural lakes in South Dakota can fluctuate widely from year to year. These variable water levels can seriously affect recreational use of the waters as boat ramps and beaches become unusable at low lake levels. Wetlands within lake watersheds, can moderate lake inflows or maintain stream flows throughout the year. Wetlands recharging local aquifers can also function to stabilize lake levels.

Wildlife

As summarized above most of South Dakota's wetland resources lie in the glaciated eastern Prairie Pothole Region (PPR) portion of the state. Portions of this landscape are dotted by as many as 100 small wetland basins per square mile (Johnson and others, 1997). Complexes of small temporary and seasonal wetlands in conjunction with larger semi-permanent marshes are vitally important for breeding, foraging and migrating waterfowl, shorebirds and other water birds (Evans and Black, 1956; Hubbard, 1988; and Kantrud and others, 1989).

The PPR is the most critical waterfowl breeding habitat in North America. It encompasses only 10 percent of the waterfowl breeding habitat in North America, yet can produce as much as 50 to 70 percent of the continental duck population during wet years (Batt and others, 1989, Ducks Unlimited, 2001). Many areas in eastern South Dakota can support over 100 breeding pairs of ducks per sq. mile when water conditions are favorable. In 2001, such conditions in the eastern Dakotas alone supported an estimated 25% of all breeding ducks in the north central North America traditional survey area (USFWS, 2001). Often South Dakota is ranked number two in total waterfowl production for the contiguous 48 states. However, unusually wet conditions, such as those that occurred in the late 1990s and early 2000s, in conjunction with abundant nesting cover (e.g. remaining native prairie and Conservation Reserve Program grass cover) led to South Dakota producing more waterfowl than any other of the contiguous 48 states. As alluded to above, re-establishing federal Farm Bill and Clean Water Act protection of South

Dakota's PPR wetlands, as well as other wetlands across the state, is critical to sustain nationally and internationally important waterfowl populations. This protection is also vital to maintain viable populations of dozens of other wetland dependent migratory passerine, shorebird and waterbird species, including several state and/or federally listed endangered and threatened species.

South Dakota's wetlands, particularly those characterized by dense stands of emergent cattails also provide extremely important winter cover for popular resident game species such as ring-necked pheasants and white-tailed deer. Additionally, wetlands are the most important furbearer habitat in South Dakota. Mink, muskrats and raccoons are particularly abundant in areas characterized by numerous wetlands.

Wildlife Related Economic Benefits

The total wildlife-related economic value of wetlands is difficult to ascertain, but is undoubtedly important to South Dakota's economy. According to the 2011 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, 662 thousand residents and non-residents spent \$1.2 billion on wildlife-related recreation in South Dakota. 270 thousand resident and nonresident hunters alone spent over \$596 million that same year, with the migratory bird hunters' share totaling over \$63 million. It is noteworthy that migratory bird hunters primarily pursue ducks and geese and spend much of their time on or near wetlands of various types where waterfowl congregate in the fall. Other hunters spend considerable time near or on wetlands because of the quality cover some wetlands (e.g. seasonal wetlands) provide for pheasants and deer.

The 2011 national survey also indicates that 384 thousand residents and nonresidents spent nearly \$167 million in South Dakota on wildlife-watching activities such as observing, feeding or photographing wildlife. Nearly 200 thousand wildlife watchers observed waterfowl and shorebird species, most of which would have been observed on or near wetlands. Similar 1996 survey results showed that 65 thousand wildlife-watchers that visited some type of public land visited a marsh or wetland site. Although numbers are unavailable, many other folks likely participated in these activities on or near privately owned wetlands.

In 2016, South Dakota Department of Game Fish and Parks commissioned a survey to determine the economic impact of outdoor activities in the state that are managed by the department. The report indicates that in 2016 residents and nonresident spent over 8.3 million days participating in wildlife-related activities including fishing, hunting, trapping and wildlife watching and spent over \$1 billion. 215,793 resident and nonresident hunters spent almost \$683 million, with migratory bird hunters alone spending nearly \$85 million (Southwick Associates, 2017).

Due to fluctuating markets and demand, as well as highly variables furbearer populations, the annual value of furs harvested in South Dakota varies significantly year to year. Furbearers often trapped on or near wetlands include mink, muskrats, raccoons, beaver and skunk. According to South Dakota Department of Game, Fish and Parks harvest estimates based on fur dealer reports, annual total values recently have ranged from \$500,000 to slightly over \$1 million. While it may not be as important as it once was, trapping is an important source of income for many South Dakota families and for many an important recreational pursuit. The 2016 SD GFP commissioned study documented that trappers directly spent over \$1.6 million.

Commercial and sport fisheries and economic benefits

Wetlands play a key role in supporting high quality fisheries across the state. Wetlands adjacent to lakes, immediately upstream from lakes, or elsewhere in a watershed serve as spawning and nursery areas for many species of fish. Those adjacent to rivers and streams also provide important habitat for spawning and juvenile fish.

Baitfish harvest from South Dakota waters is a commercial activity regulated by the Department of Game, Fish and Parks. It has an economic impact of over \$3 million a year, with over 75% of the approximately 170,000 gallons of baitfish netted in South Dakota exported to other states (Ward, 2008). Baitfish were harvested from waters in 25 different counties, with the greatest harvest occurring in Day County. Fathead minnows comprised 99.7% of the harvest, with much smaller numbers of white suckers, creek chubs, and golden shiners also collected. These baitfish are harvested primarily in wetlands in the eastern part of the state.

Sport fishing in South Dakota is a very popular pursuit for resident and non-resident anglers alike. According to the 2011 National Survey of Fishing, Hunting and Wildlife-Associated Recreation 268 thousand anglers spent nearly \$203 million on fishing-related expenses in the state. The numerous natural lakes and associated wetlands in eastern South Dakota support a significant portion of this angling and economic activity. The 2016 SD GFP commissioned economic study indicated that 215,173 resident and nonresident anglers spent over 3.2 million days fishing and spent over \$271 million in 2016.

Surface and groundwater supplies

Prairie wetlands play a very important role in the hydrologic cycle and are a key element in maintaining and conserving South Dakota's water resources. Wetlands provide benefits to farmers, ranchers and rural and urban citizens in their capacity to store flood water, recharge groundwater, provide nutrient recycling and stabilize stream flows.

The U.S. Army Corps of Engineers recognized wetland values for flood water storage in at least two South Dakota projects (Harmon, 1976). Various federally and state funded projects have advocated restoration and/or acquisition of wetlands to store water on the landscape in lieu on constructing additional flood control dams.

Prairie pothole wetlands are capable of storing a tremendous amount of water on the landscape. Shjeflo (1968) and Eisenlohr and others (1972) have shown that from May to October wetlands lose approximately 2.5 feet of water to evapotranspiration. In other words, intact wetlands on the landscape can provide a 2.5 foot cushion of storage of spring runoff and precipitation. In a recent study completed in the Devils Lake Basin in North Dakota, Ludden and others (1983) found that small wetlands could contain 657,000 acre-feet of water — equivalent to about 72 percent of the total runoff from a 2-year frequency runoff and about 41 percent of the total runoff from a 100-year frequency runoff. The US Fish and Wildlife Service estimates that each acre of small wetland reduces flood damage to roads by \$6.11 per year. Each acre of small wetland also provides \$29.23 worth of flood damage protection to agricultural land per year.

Maintenance of Lake Water Quality

Sedimentation is a water quality concern in lakes or permanent wetlands used for recreation. The preservation of wetlands controlling inflows into lakes and permanent wetlands is an important

watershed management strategy to address sediment inflows. In the past, dredging of lakes degraded by excessive sedimentation has been suggested and even tried, but such projects are extremely expensive and address symptoms rather than real causes of poor water quality. Advocates now promote watershed management and implementation of conservation practices that prevent erosion and downstream sedimentation.

Protection Strategies

Conservation of South Dakota's wetland resources is vital if the above described functions and values are to be preserved for future generations. Gigliotti (2012) demonstrated that over 95 percent of South Dakotans believe that wetlands are moderately or very important in preserving clean water and should be protected. Ninety-seven percent of them also feel that healthy wildlife populations are very (77 percent) or moderately (20 percent) important to the economy and well-being of South Dakota residents. These data demonstrate that there is significant public support for conservation of wetlands and wetland dependent wildlife in the state. South Dakota GFP's wetland conservation efforts fall into several broad categories including: education; management; acquisition; continued support of various state and federal regulatory; and legislative measures.

Education

South Dakota GFP will continue to provide educational materials in various media formats to the public regarding wetland functions and values and the importance of wetland conservation. We will also continue to support and provide technical assistance to other state and federal agencies producing such materials.

Management

Management of wetlands and associated grasslands on existing state Game Production Areas (GPA's) for the benefit of game and non-game species is a top priority for the Wildlife Division. Control of noxious weeds and other invasive species is an integral component of GFP public land management. Assisting private landowners with wetland and grassland management by providing technical assistance, cost-share and/or incentive payments will continue and is likely to become more important. Practices including: wetland restoration, enhancement and creation, as well as grazing management and grassland restoration are all eligible for cost share through SD GFP's private lands habitat program.

Acquisition

Consistent with Executive branch administrative direction, South Dakota GFP may continue to opportunistically purchase new lands from willing sellers. Priority for new land acquisitions will include "round outs" of existing areas through purchase of private inholdings within, or areas immediately adjacent to, existing GPA's. Prairie pothole wetlands of virtually any type, as well as associated grassland (or cropland that can be restored to grassland) within the Prairie Pothole Region of eastern South Dakota are acquisition priorities. Riverine wetlands associated with stream and river corridors (riparian areas) statewide are acquisition priorities as well. Lastly, fens, due to their rarity, special vulnerability and the unique plant communities they support also deserve special consideration by GFP, although open access to such areas may need to be controlled due to the fragile nature of fens.

Support of State and Federal Regulations or Legislation

As discussed above, most regulations, laws or provisions that protect wetlands in South Dakota are federal (Clean Water Act, Farm Bill). Wetlands regulations have historically been very controversial in the state, and despite supportive public attitudes, legislative support for more protection in state law seems unlikely. Continued state and public support of federal programs is important for wetland protection in lieu of formal state regulatory protection. South Dakota GFP will continue to provide the Army Corps of Engineers and the Natural Resources Conservation Service with technical guidance regarding proposed regulation changes and specific projects that are likely to adversely affect wetland resources. Such guidance will include supporting avoidance, minimization and mitigation of wetland losses on State and Federally-funded projects, with priority given to restoring drained wetlands. State laws and regulations that protect water quality of all waters, including wetlands should be supported and enforced. Improved state level wetland protection legislation should be considered in the future if and when public support demands it.

Wetlands Assessment Criteria

The following criteria are based on the National Wetlands Priority Conservation Plan (U.S. Department of the Interior, 1989) for protection of wetlands through various forms of acquisition. The NWPC Plan has been developed by the US Fish and Wildlife Service for the Department of Interior. The Emergency Wetlands Resources Act requires consistency between the Statewide Comprehensive Outdoor Recreation Plan process and the NWPC Plan. Therefore, we have adequate NWPC Plan criteria in South Dakota.

Although the National Wetlands Priority Conservation Plan only applies to wetlands acquired by Federal Agencies and "wetlands acquired by the States through the Land and Water Conservation Fund grants program administered by the National Park Service", these criteria may be useful in guiding other wetland protection programs as well. The NWPC Plan represents only one tool to be used for the protection of valuable wetland ecosystems. Only through the coordinated efforts of all interests, public and private, can wetland resources be adequately protected for future generations.

All South Dakota wetland types, as defined by Cowardin (1979), will be considered for acquisition. There are many factors that must be considered in setting the priority for the acquisition of wetlands. Those identified within the NWPC Plan and adapted to South Dakota include:

1. Wetland losses: Wetland types may be given priority consideration for acquisition if they have declined within an ecoregion.

- Palustrine emergent, forested and scrub-shrub wetland types warrant priority consideration for Federal and State acquisition.
- An ecoregion sustaining a high or moderate loss of the base area of wetland types could warrant priority consideration over an ecoregion having a Low Index of Loss of original wetlands.
- Statistically valid data or supportable information could be used to substantiate significant losses for a specified wetland type or types within an ecoregion, a State or

portion of a State when National Wetlands Inventory (NWI) trends study data do not show a high or moderate Index of Loss.

2. Threat of Future Wetland Loss: Wetlands may be given priority if they are facing imminent threat or long-term cumulative loss or degradation of functions and values to receive priority consideration.

- Priority may be assigned to a site regardless of size.

3. Wetland Functions and Values: Wetlands to be given priority consideration for acquisition are those with diverse functions and values and/or especially high or special values for specific wetland functions.

- Priority consideration will be given to wetlands whose public values and benefits cannot be maintained or realized, except through acquisition.
- Priority consideration will be given to interests in wetland acquisition methods that are the most cost-effective available while fully and permanently allowing for protection and/or improvement of the public values provided by the wetland. Fee title, perpetual easements, leases, deed restrictions, land donations and exchanges or other methods may be employed.
- Priority consideration will normally be given to wetlands which can be acquired from willing sellers.
- The relative size of a wetland, particularly smaller wetlands, will not in itself disqualify it from priority consideration.
- Restorable wetland sites or systems warrant priority consideration for acquisition.
- Wetland sites that would require minimal operation and maintenance requirements warrant priority consideration for acquisition.

IMPLEMENTATION AND GUIDANCE

Although the Emergency Wetlands Resources Act of 1986 authorizes the use of the Land and Water Conservation Fund (LWCF) for the acquisition of wetlands, no additional money has been appropriated to this already diminished funding source.

The LWCF is a federal program that was established for the acquisition and development of outdoor recreation opportunities. Through a system of matching grants, states have traditionally used their apportionment for acquiring and improving state parks and municipal recreation facilities. Applications for these types of projects already far exceed the level of funding available.

However, as stated earlier in this plan (page 4-5), wetlands do provide important recreational values. If a local government identifies wetlands acquisition as an important project to provide recreational opportunities in their area, such a project would be eligible for funding. The current procedures for evaluating LWCF applications do allow wetland related projects to compete with other project applications.

When funding is specifically appropriated to the LWCF for state acquisition of wetlands (as originally intended by the Emergency Wetlands Resources Act or the level of funding for the

LWCF program in general reaches a point where a broader range of recreational needs can be addressed) wetland acquisition will be considered a priority for the use of LWCF funds.

In addition to the LWCF, the Department has the authority to use several other funding sources for wetlands acquisition. The use of any particular source will depend on the purpose of the acquisition and the amount of money available in the fund. The following is a list of sources with a brief description of each fund:

Game Fund

1. License Revenue. The Game, Fish and Parks Commission can authorize the use of these revenues for approved projects, including land acquisition.
2. SD Migratory Bird Certification Stamp. This stamp was established as a source of revenue for waterfowl habitat development which could include wetland acquisition.

Acquisition Fund

Pursuant to state statute portions of each nonresident 10 day waterfowl (\$4.00) and small game (\$3.00) license sold and all funds generated from the sale of temporary nonresident waterfowl licenses sold are placed in this fund. This fund can be used both for paying real estate taxes and acquiring new lands.

Federal Aid

Wildlife Restoration funds (Pittman-Robertson or PR) and Sportfish Restoration funds (Dingell-Johnson or DJ) can be used to reimburse the Department 75 percent of the acquisition costs depending on the purpose. PR funds could be used to acquire wetlands to be managed for wildlife habitat purposes. DJ funds can be used to acquire wetlands that are suited for fisheries habitat management.

Other Funding Partnerships

Partnerships with other governmental entities or programs such as the U.S. Fish & Wildlife Service, North American Wetlands Conservation Act Grants Program, County Conservation Districts, the State Conservation Commission or non-governmental organizations such as Ducks Unlimited, The Nature Conservancy, Pheasants Forever, Rocky Mountain Elk Foundation, other conservation organizations or clubs and private landowners are very important sources of funding for continued wetland and grassland conservation efforts in South Dakota.

Review and Revision

This document and priority wetlands identified will be reviewed and updated at least every 5 years or during the revision of the SCORP. Feedback into the National Wetlands Priority Plan will take place as supported technical data is made available.

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Appendix

2018 South Dakota SCORP Outdoor Recreation Public Survey Report



Sport and Recreation Management

Hung-Ling (Stella) Liu, Ph.D.

Paige E. O'Farrell

Jason Mehlhaf

Project Background

This present report is a collaborative research project between the South Dakota Department of Game, Fish, and Park (GFP) and the Department of Health and Nutritional Sciences, Sport and Recreation Management program of South Dakota State University (SDSU) for preparing the 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP) of South Dakota. This collaboration is not only used to understand the outdoor recreation demand-supply in South Dakota, a required component in SCORP, but also to conserve and sustain the South Dakota great outdoor legacy for generations to come.

Purpose of the Study

There are four major goals of this research project in preparing the 2018 SCORP. The ultimate goal of this research project is to incorporate the public input for sustaining the South Dakota great outdoor legacy and to plan for provision of high quality and accessible outdoor recreation opportunities.

The first goal of the project was to investigate public perspective of outdoor recreation demand and current availability through assessing South Dakota residents' behavioral patterns in outdoor recreation, and investigating residents' motivation for, and potential barriers to, outdoor recreation in the state. Additional literature review in both scientific research and practical studies in outdoor recreation were include to provide essential information for further discussion.

As a preparation for SCORP, outdoor recreation supply in South Dakota was required. The study assessed the outdoor recreation supply in South Dakota from various providers in the state as well as identifies current trends and challenges. A statewide survey of South Dakota outdoor recreation providers was conducted to understand their general operation and current challenges in the field. General operation in outdoor recreation included providers' outdoor recreation, providers' organizational information, and responsibilities, such as type of organization/agency, target service population, budget, staff, program, facilities, partnership etc. Also, their perceived current challenges in providing outdoor recreation in South Dakota, including population change (i.e. aging, diversity, minority, residential area), financial shortfall, natural and environmental condition, social and cultural barriers for being outdoors, and quality of staff.

The third goal of this project is to understand South Dakota's outdoor recreation market and opportunities with studies in the state, and compare with national studies and similar states' studies for good benchmark. By using existing publications and studies, we were able to examine the similarities and differences in managing outdoor recreation services and perceived current trends and challenges at different recreation providers in South Dakota.

Finally, the research aimed to investigate the relationship between socio-demographics, economics, and population change from the perspective of and participation in outdoor recreation. In order to advance the understanding of the relationship between socio-demographics and outdoor recreation participations, advanced analysis was applied to examine how South Dakotans' outdoor recreation participation pattern, motivation, and constraints vary with their socio-demographics (i.e. age, gender, race, family status, education, residential area, income, and economic status).

Research Team

- **Hung-Ling (Stella) Liu, Ph.D.** is an Assistant Professor in the Department of Health and Nutritional Sciences in the College of Education and Human Sciences at South Dakota State University. She was a co-author of the 2012 Oklahoma Statewide Comprehensive Outdoor Recreation Plan (SCORP), multiple Resource Management Plans (RMPs) for Oklahoma state parks, and several assessments of recreational use and users' experience and behavioral patterns in natural environment (i.e. service quality, feasibility studies, economic impacts etc.). She also was a research consultant with the Oklahoma Tourism and Recreation Assistant Center (OTRAC) in assisting Oklahoma's 2018 SCORP preparation before her appointment with SDSU in Fall 2016. She has conducted research with municipal, state, and federal agencies in the past seven years. Her research interests and approaches include survey and evaluation research techniques focusing on behaviors in outdoor recreation, the human dimension of natural resources management, and impacts of recreation and tourism for individuals and community.
- **Paige E. O'Farrell** is an undergraduate research assistant for the Sports and Recreation Management program at South Dakota State University. She will graduate with her Bachelor of Science degree in Sports, Recreation, and Park Management in December of 2017. She also works as a naturalist intern at The Outdoor Campus in Sioux Falls, South Dakota. Paige started her internship in May of 2016.
- **Jason Mehlhaf** is pursuing his Master's in Sport and Recreation Studies at South Dakota State University, where he received his Bachelor's degree in the spring of 2017. He has been involved in many organizations and occupations on and off the SDSU campus, including being a Community Assistant and a mentor for the Brookings County Youth Mentorship Program. He enjoys participating in many recreation activities, and enjoys spending time within South Dakota's many unique parks.

Preparation Process and Timeline

Liu worked with GFP to process the research proposal and research methods in April/May 2017. The proposal was awarded in June 2017. During July 2017, the Liu worked with GFP toward agreement on research design and finalized the survey instrument. The research procedure was reviewed by the instructional review board (IRB) at SDSU on early August 2017 (Approval #: IRB-1707001-EXM). Three web-based surveys (general public survey, providers' survey, and inventory survey) were launched in late July and early August. Distribution of the survey and data collection started in early August, the first round and second round of invitations were sent out in July, followed by follow-up reminders to state recreation providers and through social media. Two student research staff, Jason and Paige, joined the research team on August 2017. Please see the overall timeline for the completion of the project.

Table 1 Timeline of the SCORP Research Project

Tasks	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Proposal preparation	■	■								
Proposal agreement			■	■	■					
Instrument development		■	■	■	■					
IRB application			■	■						
Web-survey development			■	■	■	■				
Literature review	■	■	■	■	■	■	■	■		
Survey distribution							■	■		
Data collection							■	■		
Manage web-based survey					■	■	■	■		
Data analysis						■	■	■		
Results writing						■	■	■	■	■
Review and modification						■	■	■	■	■
Assist SCORP completion							■	■	■	■

Method

Research participant

There are two target survey participants in the study:

(1) Resident survey

- The population sampled for this survey includes adult South Dakota residents (18 or order) and individuals (18 or order) who are interested in providing their experience and perspective about South Dakota outdoor recreation.
- Convenience sample was applied to maximize public inputs for future planning process.
- The Division of Parks and Recreation of South Dakota Department of Game, Fish, and Parks shared the survey information via email invitation and social media to the general public.
- The public survey link: <http://sdoutdoors.questionpro.com>

(2) Provider survey

- The population sampled for this survey includes municipality outdoor recreation/recreation providers (18 or order) in South Dakota.
- Snowball sampling (purposive sample) was used to target municipal organizations and agencies in the state of South Dakota.
- Ms. Nancy Surprenant, a GFP Division Staff Specialist, sent out an online survey to towns and cities in South Dakota.
- The provider survey link: <http://sdorprovider.questionpro.com>

Data collection

For all survey participants, the respondents will voluntarily access an online survey (QuestionPro) and may do so from any appropriate electronic communication device (i.e., personal computer, public computer, tablet, smart phone). An assent form was placed at the beginning of the survey on the paper survey and the identical online survey. The assent form explains the purpose of the

study, the voluntary nature of participation, and the guarantee of participants' confidentiality and privacy. By choosing to proceed, it is implied that individuals fully understand the assent form and agree to participate.

The public survey was available from August 7, 2017 until September 22, 2017, while the providers' survey and inventory survey were available from August 7, 2017 until October 31, 2017. All the online surveys also had an identical paper-based survey prepared as an alternative for individuals who prefer paper survey.

Survey instrument

Two survey instruments were used in the project: public survey and provider survey (including inventory). The survey instruments were developed by adapting and modifying several instruments in related topics, including outdoor recreation motivation (Kil, Holland, & Stein, 2014; Whiting, Larson, Green & Kralowec, 2017), constraints to outdoor recreation (White, 2008; Shores, Scott, & Floyd, 2007), and park/recreation behavioral patterns of using parks or participating in outdoor recreation (Mowen, Payne, & Scott, 2005; Ries, et. al, 2009). Other government reports and publications of South Dakota and other states were used to explore the current trends and challenges in outdoor recreation from a variety of land management agencies and recreation service providers. Additional sources of developing the instrument included the theme and strategies discussed in the South Dakota 2013 SCORP. The core values of park and recreation services, health and wellness, conservation, and social equality, identified by National Recreation and Park Association (NRPA) were also implemented in developing the survey instruments. Please see the detailed survey instrument below:

Outdoor recreation survey for general public. Conduct research to provide federally-mandated public input regarding the outdoor recreation demand and current availability as part of the SCORP preparation. There are five sections in the general public survey, including (1) Past year participation in outdoor recreation, (2) Research participants' motivation and constraints in outdoor recreation, (3) Perceived outdoor recreation needs in South Dakota, (4) Personal perspective about outdoor Recreation, and (5) Demographics (Appendix A).

The first section of the general public survey was used to assess South Dakota residents' behavioral patterns in outdoor recreation, such as preferred locations, participation in consumptive and non-consumptive recreational activities, and general perception of outdoor recreation opportunities in the state.

It was followed by a series of questions associated with research participants' motivation for, and potential barriers to, outdoor recreation in South Dakota. By using a common definition, motivation was defined as a reason(s) an individual has for participating in outdoor recreation activities from both personal and social aspects. Motivations dictate why people take part in a certain activity. People are motivated either intrinsically or extrinsically. Intrinsic motivation means a person enjoys an activity for internal reasons such as simply finding the activity enjoyable. On the other hand, extrinsic motivation means a person participates in an activity for external reasons such a rewards or punishments.

Constraints are barriers to participating in outdoor recreation. According to Jackson, Crawford, & Godbey (1993), people experience three types of constraints: intrapersonal, interpersonal, and structural. Intrapersonal constraints deal with an individual's internal attitude towards a specific activity. Interpersonal constraints involve other people and their attitudes towards an activity. Lastly, structural constraints involve aspects such as time, money, and location that prevent participation in an activity.

In order to access the State's needs and priorities for outdoor recreation, the next section focused on the public's perception of outdoor recreation facilities, amenities, and areas, and the importance of potential benefits of outdoor recreation in South Dakota.

Outdoor recreation survey for providers. The providers' survey was used to assess the outdoor recreation supply in South Dakota from various providers in the state as well as identify current trends and challenges (Appendix B). There are two main components of providers' survey:

- (1) Outdoor recreation management in communities, including organization and community information, benefits and priorities in outdoor recreation, challenges in providing outdoor recreation.
- (2) Outdoor recreation facilities inventory survey with detailed facilities and areas for outdoor recreation, such as water-based facilities, trails, sport facilities, and parks and natural/historic areas.

Data analysis

Descriptive analysis was applied to report the general finding of the survey results, including frequency, range of response, percentage, mean (average), and standard deviation. Tables and figures were used to illustrate and exemplify the findings of the project. Advanced data analyses, such as analysis of variance and chi-square were utilized for further comparison.

In addition, content analysis was used to interpret and code open-ended questions and textual responses, which is a process of converting qualitative data into quantitative meaning with summary in the report and original responses in Appendix C.

In order to retain the most information from the general public outdoor recreation, all cases/respondents were kept with at least one question was answered. It is common that the beginning questions have higher response rate than the later questions. Close-ended questions (i.e. yes or no; multiple choice) usually also have a higher response rate than open-ended questions (i.e. comments). Therefore, the number of respondents of each item/statement might vary question by question.

Overall Survey Participation

According to the QuestionPro database, a SDSU paid online survey platform, there were approximately 6,900 people who viewed the 2017 SCORP public online survey. Among these people, 3,955 started the survey but only 2,295 completed the survey, which might include missed response and skip questions due to the without forced response survey design. The

completion rate of the public survey was approximately 58%. Sixteen minutes (16) was the average time to complete the public survey.

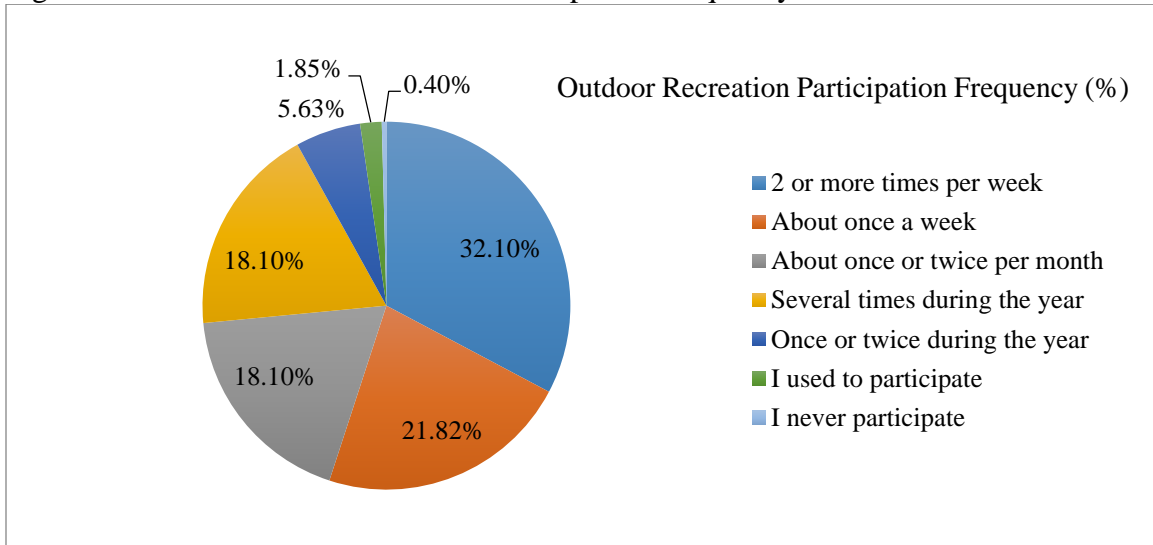
Results: Public Outdoor Recreation Survey

The followings are the results of the public outdoor recreation survey, which is relevant to the first goal of the project by investigating the public perspective of outdoor recreation demand and current availability through assessing South Dakota residents' behavioral patterns in outdoor recreation, and investigating residents' motivation for, and potential barriers to, outdoor recreation in the state. The results below followed the sequence of the public survey questions.

Section I: Participation in outdoor recreation

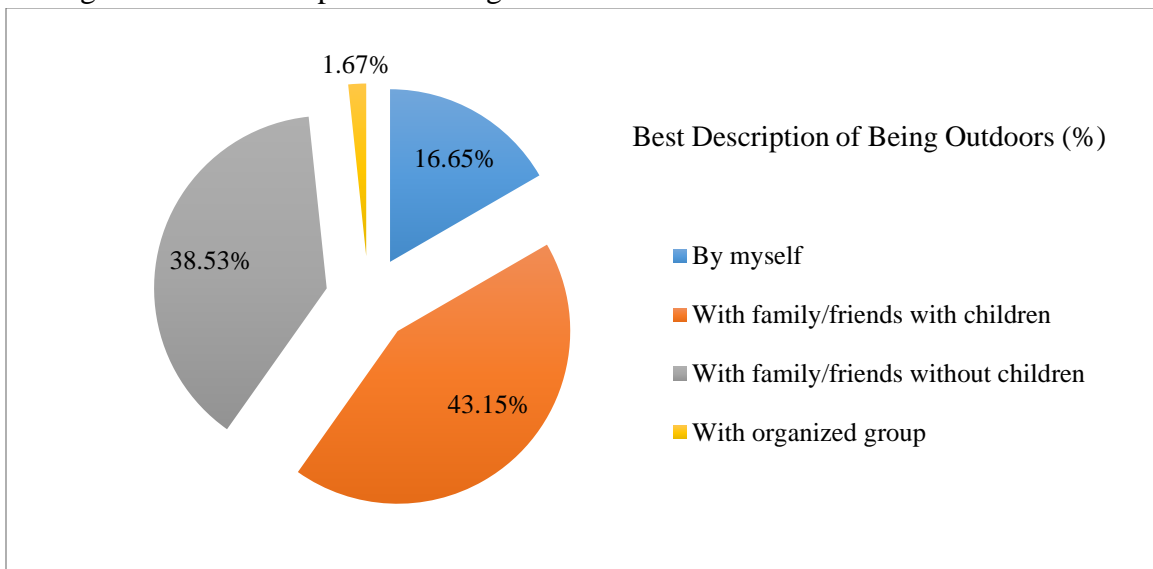
1. During the past year, how often did you participate in outdoor recreation activities?
Please select the statement that best describes your frequency of participation.

Figure 1 Overall Outdoor Recreation Participation Frequency



2. Which of the following best describes how you participated in outdoor recreation?

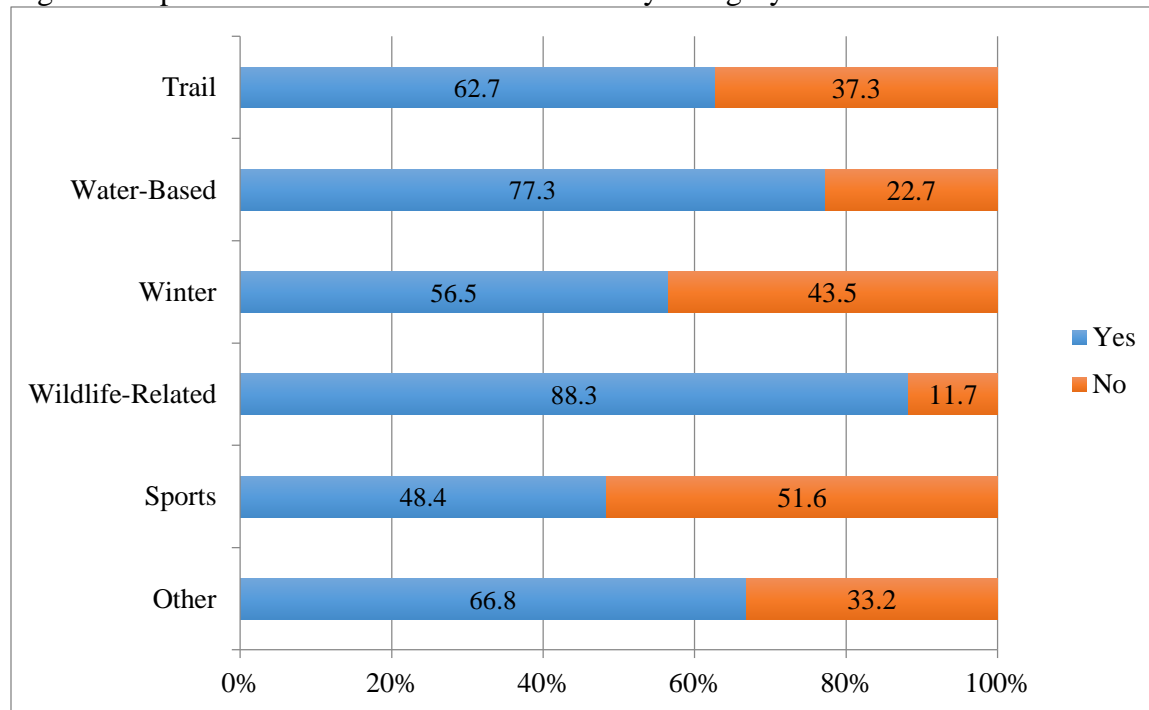
Figure 2 Best Description of Being Outdoors



The following series of questions were designed to gather detailed information about research participants' frequency of participating in outdoor recreation. Outdoor recreation activities were grouped into seven categories included in this section: (1) trail activities, (2) water-based activities, (3) winter activities, (4) wildlife-related activities, (5) sport activities, (6) other outdoor activities, and (7) additional activities. First, research participants were asked a yes/no question of a particular type of outdoor recreation activity, which determined if a list of specific activities under the category would proceed (Figure 3).

Next, under a list of activities, research participants were asked to report the number of times participated, either alone or with others, and the age of participants, above or below 18 years of age in the past 12 months. As for data analysis, range (minimum to maximum frequency) and median (mid-point or 50 percentile) statistics were selected to present for participation frequency in the following result tables.

Figure 3 Popular Outdoor Recreation Activities by Category



3.1 Trail activities: The first question was created to discover the frequency at which participants were engaged with trails and trail related activities. The survey specified trail related activities as anything that involves walking, biking, hiking, or All-Terrain Vehicles (ATVs) within South Dakota. The question asked for the number of times participated, either alone or with others, and the age of participants, above or below 18 years of age. These questions will be repeated for every question following within this section of questions.

Did you or any member of your household participate in any outdoor recreation activities on trails (i.e. walking, biking, hiking, ATV riding etc.) in South Dakota over the past year?

- Yes: 2119 (62.7%)
- No: 1259 (37.3%)

Within trail activities, the highest response for people without children was “walking on natural surface trails/hiking (day trip)” at 1137 responses, followed by “walking on paved trails” at 992 responses, and “biking on a paved road” at 570 responses. For people with children, the highest response was “walking on natural surface trails/hiking (day trip)” at 703 responses, followed by “walking on paved trails” at 635 responses, and “biking on a paved road” at 309 responses (Table 2).

Table 2 Frequency of Participation in Trail Activities

Trail Activities	Number of time participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Walking on paved trails	9 (1-360)	992	5 (1-410)	635
Walking on natural surface trails/Hiking (Day Trip)	8 (1-360)	1137	5 (1-300)	703
Backpacking (Overnight)	3 (1-80)	185	3 (1-30)	76
Jogging/Running	20 (1-500)	353	5 (1-100)	141
Horseback riding	3 (1-350)	128	2 (1-200)	90
Biking on a paved road	10 (1-400)	570	6 (1-365)	309
Biking on paved trail	10 (1-400)	549	5 (1-365)	300
Biking on unpaved trail	10 (1-300)	385	5 (1-250)	195
Mountain biking	20 (1-350)	269	10 (1-250)	119
Off Highway Vehicle (OHV)	5 (1-77)	160	4 (1-60)	97
All-Terrain Vehicle (ATV)	5 (1-200)	335	4 (1-150)	172
Utility Task Vehicle (UTV)	6 (1-150)	162	4 (1-60)	95
Full size 4x4 Vehicle	6 (1-250)	373	5 (1-300)	159

* *N*: the number of research participants responded their participation in a particular activity.

3.2 Water-based activities. Question two then looked at participation in any water-based activities within South Dakota during the previous year. The survey listed activities such as swimming, either at a pool or beach, using a watercraft, either boat, kayak, sail, or paddle board, and snorkeling or SCUBA diving as water-based activities. As stated above, the question looked to find the age, either above or below 18, and amount of people, either alone or within a group, participating during the past year in water-based activities.

Did you or any member of your household participate in any water-based activities in South Dakota in the past year?

- Yes: 2324 (77.3%)
- No: 681 (22.7%)

The highest response for water-based activities for people without children was “motorized boating” at 1347 responses, followed by “swimming at beach” 648 responses, and “canoeing or kayaking” at 612 responses. For people with children, the highest response was “motorized boating” at 825 responses, “swimming at beach” at 724 responses, and “swimming at a pool” at 464 responses (Table 3).

Table 3 Frequency of Participation in Water-based Activities

Water-based Activities	Number of time participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Swimming at beach	4 (1-100)	648	5 (1-201)	724
Swimming at a pool	5 (1-250)	326	5 (1-240)	464
Motorized boating	8 (1-150)	1347	5 (1-140)	825
Canoeing or kayaking	4 (1-250)	612	3 (1-100)	361
Sailing or sailboarding	3 (1-60)	44	3 (1-25)	22
Standup paddle boarding	2 (1-50)	151	2 (1-25)	113
Snorkeling or SCUBA diving	2 (1-50)	93	3 (1-12)	42

* *N*: the number of research participants responded their participation in a particular activity.

3.3 Winter activities. The next question, question three, asked for outdoor winter recreation participation, including skiing, snowboarding, snowshoeing, skating, whether it be for hockey or not, fishing, using a snowmobile, or biking. In following with the other questions, the survey asked for age and amount of people participating in the winter recreational activities.

Did you or any member of your household participate in any winter outdoor recreation activities in South Dakota in the past year?

- Yes: 1645 (56.5%)
- No: 1264 (43.5%)

For winter activities (Table 4), the respondents without children placed “ice fishing” as their highest response at 787 responses, followed by “snowshoeing” at 244 responses, and “sledding” at 232. For respondents with children, the highest response rate was “sledding” at 404, followed by “ice fishing” at 365 responses, and then “downhill skiing/snowboarding” at 147 responses.

Table 4 Frequency of Participation in Winter Activities

Winter Activities	Number of time participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Downhill skiing/Snowboarding	3 (1-50)	212	3 (1-30)	147
Sledding	2 (1-25)	232	4 (1-30)	404
Snowshoeing	3 (1-160)	244	2 (1-30)	83
Ice skating (Outdoors)	2 (1-20)	92	2 (1-20)	105
Ice hockey (Outdoors)	5 (1-30)	30	5 (1-60)	29
Ice fishing	5 (1-100)	787	4 (1-100)	365
Snowmobiling	3 (1-50)	167	2 (1-50)	84
Cross-country skiing	5 (1-100)	159	3 (1-50)	43
Fat tire biking	15 (1-100)	108	5 (1-50)	40

* *N*: the number of research participants responded their participation in a particular activity.

3.4 Wildlife-related activities. The next activity focused on anything related to wildlife, which were categorized as anything related to fishing, hunting, trapping, or observing. Again, the

survey asked for the age of the participant or participants, and the amount of people participating in the activity.

Did you or any member of your household participate in any wildlife-related outdoor recreation activities (i.e. hunting, fishing, wildlife watching etc.) in South Dakota in the past year?

- Yes: 2529 (88.3%)
- No: 336 (11.7%)

With wildlife-related activities (Table 5), the survey participants without children stated that their highest response rate was “hunting (rifle/pistol/shot gun)” at 1492 responses, followed by “boat fishing” at 1244 responses, and then “shore fishing” at 1060 responses. With survey participants with children, the highest response was “shore fishing” at 681 responses, followed by “boat fishing” at 622 responses, and then “hunting (rifle/pistol/shot gun)” at 556 responses.

Table 5 Frequency of Participation in Wildlife-related Activities

Wildlife-related Activities	Number of time participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Shore fishing	5 (1-200)	1060	4 (1-150)	681
Fly Fishing	4 (1-200)	259	3 (1-50)	72
Boat fishing	8 (1-250)	1244	5 (1-150)	622
Hunting (Bow)	10 (1-125)	478	5 (1-60)	131
Hunting (Rifle/Pistol/Shot Gun)	8 (1-300)	1492	5 (1-101)	556
Trapping	10 (1-300)	113	5 (1-50)	51
Wildlife viewing	10 (1-365)	903	6 (1-365)	466
Birdwatching	10 (1-505)	527	5 (1-365)	228

* *N*: the number of research participants responded their participation in a particular activity.

3.5 Sports activities. The fifth question was gauged toward discovering the participation rates in outdoor sports activities, looking at the ranges of people 18 years and older, or younger than 18, and the amount of people participating at the same time. The sports activities included generic outdoor activities, such as golf, tennis, football, baseball/softball, and others, and more unique outdoor sport activities, such as archery, rock climbing, and pickleball.

Did you or any member of your household participate in any outdoor sports (i.e. baseball, golf, shooting sport etc.) in South Dakota in the past year?

- Yes: 1356 (48.4%)
- No: 1445 (51.6%)

The next category was sports activities (Table 6). The highest response was “golf” at 545 responses, followed by “rifle/pistol range shooting (outdoor)” at 537 responses, and followed by “shotgun range shooting (outdoor)” at 425 responses. For responses with children, the highest response rate was “baseball/softball” at 212 responses, followed by “rifle/pistol range shooting (outdoor)” at 210 responses, and then “golf” at 184 responses.

Table 6 Frequency of Participation in Sport Activities

Sports Activities	Number of time participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Tennis	5 (1-320)	68	5 (1-320)	54
Golf	5 (1-200)	545	4 (1-65)	184
Disc golf	3 (1-30)	159	3 (1-25)	115
Baseball/softball	10 (1-300)	162	15 (1-450)	212
Basketball (outdoors)	5 (1-50)	90	5 (1-50)	128
Volleyball (outdoors)	5 (1-40)	85	3 (1-20)	61
Lacrosse	0	0	4 (1-40)	4
Soccer (outdoors)	5 (1-75)	46	10 (1-80)	103
Football	6 (1-100)	69	10 (1-60)	125
Skateboarding	4 (1-30)	15	6 (1-104)	24
Rock climbing	2 (1-100)	95	2 (1-19)	57
Archery Range Shooting (Outdoor)	6 (1-200)	267	4 (1-60)	141
Shotgun Range Shooting (Outdoor)	5 (1-190)	425	3 (1-280)	183
Rifle/Pistol Range Shooting (Outdoor)	5 (1-200)	537	5 (1-280)	210
Pickle ball	5 (1-150)	32	3 (1-25)	8

* *N*: the number of research participants responded their participation in a particular activity.

3.6 Other outdoor activities. The penultimate question asked for other outdoor activities that aren't categorized under anything else listed above, including camping, picnicking, lawn games, geocaching, being with pets, and other more passive activities. As with every other question in this section, the survey asked for the ages and amount of people participating at the same time.

Did you or any member of your household participate in any other outdoor activities (i.e. camping, picnicking, recreating with pets, playing at a playgroup etc.) in South Dakota in the past year?

- Yes: 1836 (66.8%)
- No: 914 (33.2%)

The highest response rate for other activities (Table 7), for respondents without children, was “visiting history sites” at 696 responses, followed by “recreating with pet(s)” at 673 responses, and then “RV camping” at 622 responses. The highest response rate for respondents with children was “playing at a playground” at 577 responses, followed by “picnicking” at 461 responses, and then “lawn games (horseshoes, bocce, corn hole)” at 432 responses.

Table 7 Frequency of Participation in Other Outdoor Activities

Other outdoor activities	Number of time participated: Median (Range)			
	Self or with friends/family 18 years or older	<i>N</i> *	With friends/family including children under 18	<i>N</i> *
Tent camping	3 (1-45)	481	3 (1-60)	297
RV camping	5 (1-365)	622	5 (1-120)	426
Picnicking	4 (1-100)	593	3 (1-100)	461
Visiting historic sites	3 (1-230)	696	3 (1-230)	425
Visiting nature centers	2 (1-230)	545	3 (1-230)	395
Outdoor photography	6 (1-320)	472	5 (1-320)	193
Attending educational programs	2 (1-50)	204	2 (1-50)	191
Attending outdoor festivals	2 (1-25)	440	2 (1-15)	267
Playing at a playground	5 (1-175)	242	6 (1-180)	577
Geocaching	2 (1-100)	91	2 (1-30)	80
Lawn games (horseshoes, bocce, corn hole)	5 (1-100)	531	5 (1-100)	432
Recreating with pet(s)	12 (1-500)	673	10 (1-365)	372

* *N*: the number of research participants responded their participation in a particular activity.

3.7 Additional activities. The final question asked to list any other activity that wasn't covered in any of the categories from question 1-6. The question was left open-ended, and was used to include any and all additional activities that weren't listed in any of the other questions.

Survey participants responded with many different and unique activities, including horse riding, spelunking, researching plant life (berry picking, mushroom gathering, locating edible plants in wild), conservation of local areas, panning for gold, and other unique activities. By asking this question, participants can share ideas that could possibly be incorporated into outdoor recreation activities. Other activities include:

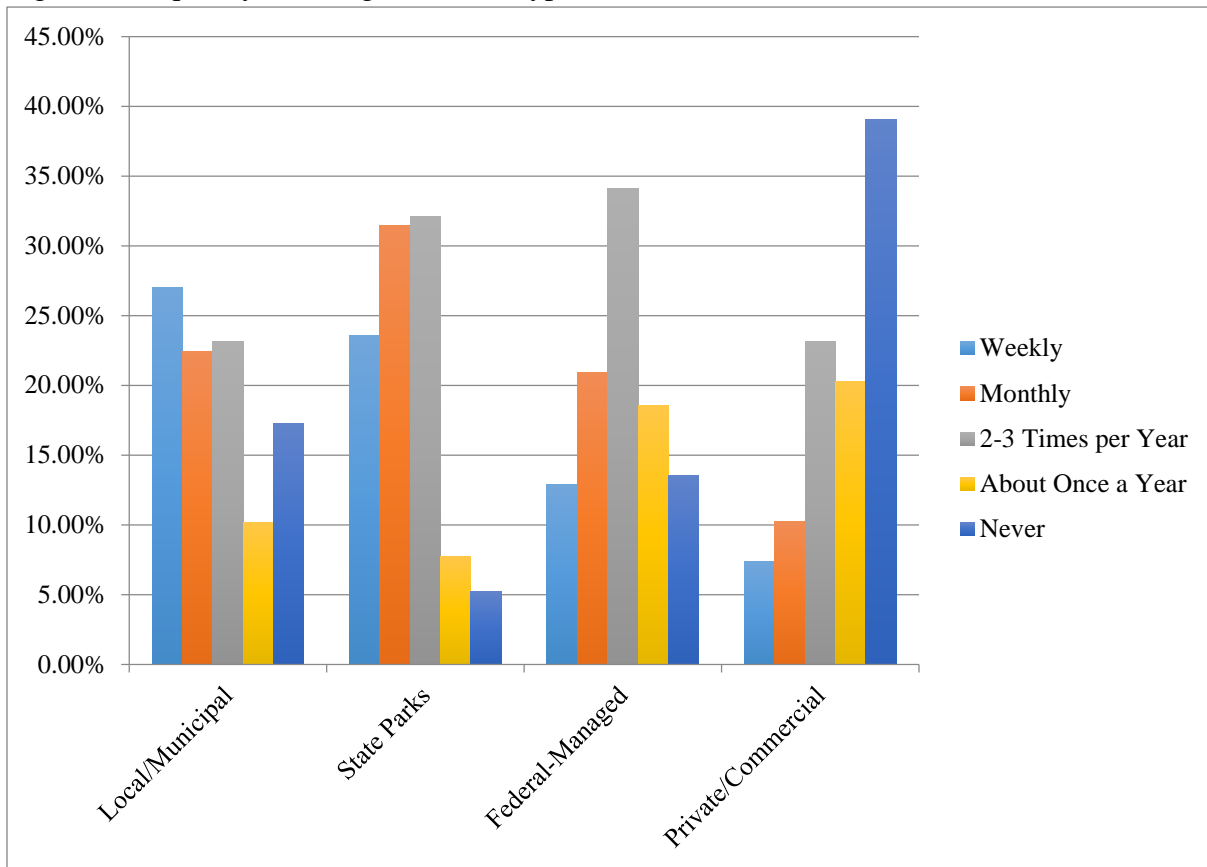
- Tubing
- Rollerblading
- Using a fire pit
- Ultimate Frisbee
- Gardening
- Participating in outdoor events (Renaissance Festival, Concerts, Rodeos, Reenactments)
- Stargazing
- Hot air balloon riding
- Butterfly catching/watching
- Dirt bike riding/Motorcycle riding

4. In the past year, how often did you use each of the following types of outdoor recreation areas on average?

The results showed (Figure 4) that local and municipal parks were frequented the highest weekly, at 27.03%. For state parks, 32.07% of survey participants stated that they visited the state parks two to three times a year, and 34.11% of survey participants stated they participated in federal-

managed areas two to three times a year as well. A large majority, 39.04% of survey participants, stated they never went to private/commercial recreation areas.

Figure 4 Frequency of Using Different Types of Outdoor Recreation Areas



5. Please select the best statement to describe your preferred locations for outdoor recreation.

- 1551 (58.4%): I enjoy most of my outdoor recreation activities in South Dakota.
- 892 (33.6%): I enjoy some of my outdoor recreation activities in South Dakota and outside of the state as well
- 214 (8.1%): I enjoy most of my outdoor recreation activities outside of South Dakota

This question asked for the statement that best describe the preferred location for outdoor recreation outside of South Dakota, in which roughly one-fourth (24.13%) of the respondents stated they participate in Minnesota, Wyoming was at 13.58%, and Colorado was 8.28%. Figure 5 shows the percentages, which are an approximation of the survey participants; “Other” refers to any state not listed in the figure.

This question also asked about what the survey participants did in the other states, and roughly one-fourth (25.3%) of participants stated fishing, 19.3% said hunting, and 18.2% said backpacking/hiking on trails. Figure 6 shows an approximation of the survey participant’s responses; “Other” refers to activities including climbing, golfing, or riding ATVs.

Figure 5 Other Locations Outside of South Dakota

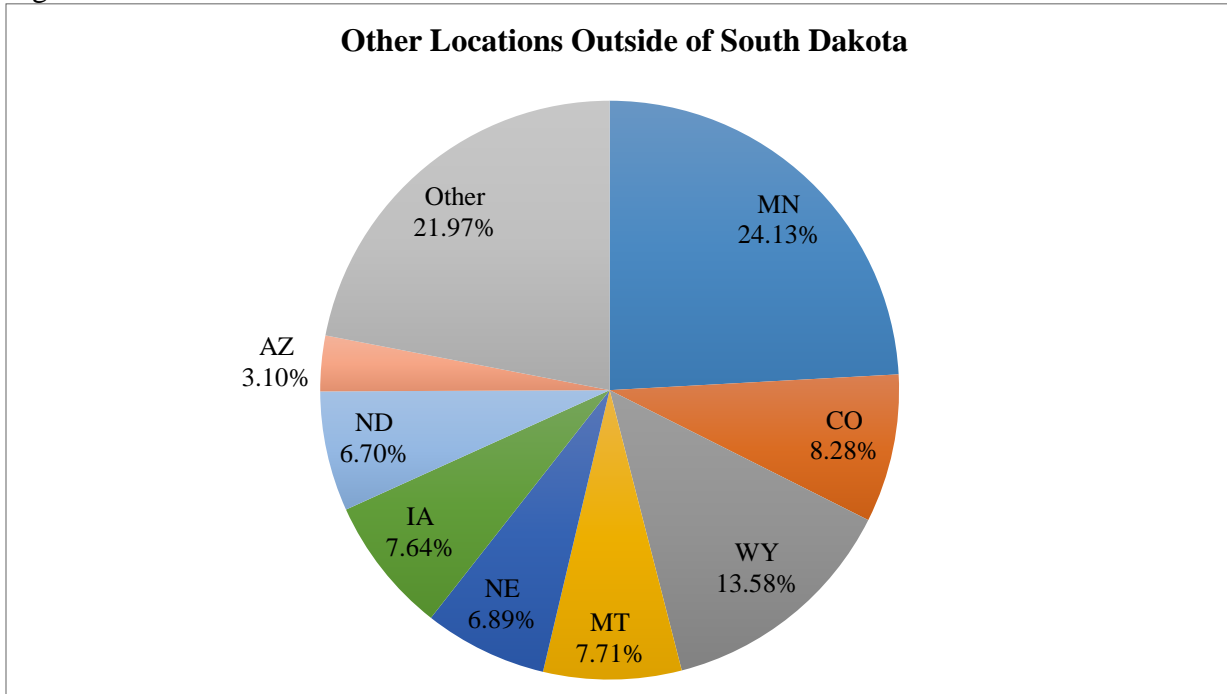
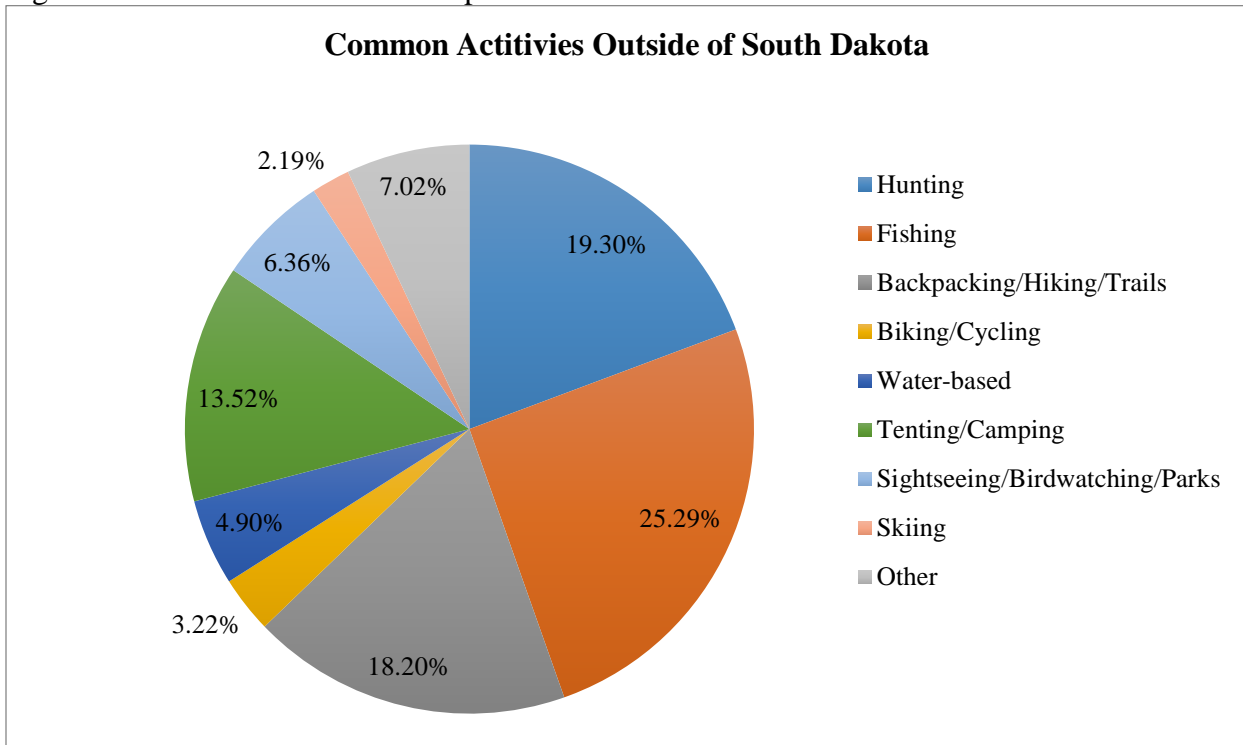


Figure 6 Common Activities Participated Outside of South Dakota



Section II: Outdoor Recreation Motivation and Constraints

The section was designed to understand why people participate in outdoor recreation activities, and what obstacles people face in pursuing their outdoor recreation interests.

1. We would like to know why you participate in outdoor recreation. How strongly do you agree or disagree with each of the following reasons for participating in outdoor recreation activities? Please rate between 1 (Entirely Disagree) to 5 (Entirely Agree) that indicates your agreement on each reason for participating in outdoor recreation.

South Dakota recreation participants reported mainly intrinsic motivations for participating in outdoor recreation. Activity enjoyment was the top motivation for outdoor recreation with 62.63% of participants selecting strongly agree (M = 4.55). People also listed “being with friends and family” (M = 4.26) and “enjoying scenery” (M = 4.42) as motivations. About half of survey participants reported outdoor recreation as a source of “relaxation” (M = 4.37) or as a way to “experience peace and tranquility” (M= 4.26). Some of the less popular motivations included: “meeting new people” (M = 2.77), “developing self-confidence” (M = 3.10), and “learning about the environment” (M = 3.49). Table 8 highlights the most popular motivations for participating in outdoor recreation.

Table 8 Summary of Motives in Outdoor Recreation

	Entirely Disagree	Disagree	Neutral	Agree	Entirely Agree	Mean (M)	SD
To enjoy my favorite activity	28 (1.10%)	7 (0.27%)	91 (3.54%)	836 (32.48%)	1612 (62.63%)	4.55	0.68
To develop confidence in myself	231 (9.27%)	286 (11.48%)	1193 (47.87%)	563 (22.59%)	219 (8.79%)	3.10	1.03
To experience peace/tranquility	36 (1.42%)	26 (1.02%)	273 (10.75%)	1118 (44.03%)	1086 (42.77%)	4.26	0.80
For relaxation	29 (1.14%)	12 (0.47%)	154 (6.03%)	1146 (44.89%)	1212 (47.47%)	4.37	0.72
For stimulation and excitement	38 (1.51%)	75 (2.98%)	418 (16.63%)	1133 (45.09%)	849 (33.78%)	4.07	0.87
To feel at one with nature	73 (2.90%)	109 (4.34%)	684 (27.22%)	978 (38.92%)	669 (26.62%)	3.82	0.97
To escape daily routine	43 (1.71%)	65 (2.58%)	415 (16.47%)	1043 (41.39%)	954 (37.86%)	4.11	0.89
To learn about the environment	82 (3.29%)	218 (8.76%)	966 (38.80%)	851 (34.18%)	373 (14.98%)	3.49	0.96
To experience new things	57 (2.29%)	103 (4.14%)	704 (28.33%)	1096 (44.10%)	525 (21.13%)	3.78	0.90
To observe wildlife	29 (1.15%)	54 (2.14%)	290 (11.48%)	1119 (44.28%)	1035 (40.96%)	4.22	0.82
To meet new people	314 (12.49%)	570 (22.67%)	1108 (44.07%)	426 (16.95%)	96 (3.82%)	2.77	1.00
To be with family and friends	30 (1.18%)	50 (1.96%)	230 (9.03%)	1157 (45.44%)	1079 (42.38%)	4.26	0.79

To enjoy beautiful scenery	15 (0.59%)	12 (0.47%)	150 (5.93%)	1070 (42.29%)	1283 (50.71%)	4.42	0.68
To develop skill and knowledge	41 (1.64%)	121 (4.83%)	779 (31.11%)	1073 (42.85%)	490 (19.57%)	3.74	0.88
To gain sense of accomplishment	78 (3.12%)	160 (6.40%)	892 (35.68%)	943 (37.72%)	427 (17.08%)	3.59	0.95
To challenge myself	70 (2.79%)	158 (6.27%)	781 (30.98%)	932 (36.97%)	580 (23.01%)	3.71	0.98
To keep physically fit	55 (2.20%)	122 (4.87%)	639 (25.52%)	1048 (41.85%)	640 (25.56%)	3.84	0.94
To use my outdoor gear/equipment	90 (3.57%)	173 (6.86%)	663 (26.28%)	1025 (40.63%)	572 (22.67%)	3.72	1.00

2. We would like to know about your perceived barriers to participating in outdoor recreation. How strongly do you agree or disagree with each of the following being obstacles you face in pursuing your outdoor recreation interests? Please rate on a scale from 1 (Entirely Disagree) to 5 (Entirely Agree).

Table 9 highlights the most popular constraints for participating in outdoor recreation. The results showed structural constraints as the most common reasons/barriers to participating in outdoor recreation:

- “Lack of time” (M = 3.09) and high costs were the main barriers to participation. Three out of the top five constraints dealt with cost barriers.
- Participants listed “high activity fees” (M = 2.48), “high equipment costs” (M = 2.74), and “high admission fees” (M = 2.51) as barriers to their participation.
- People also stated parks and recreation areas were “too crowded” (M = 2.86). Intrapersonal constraints were among the least reported barriers to recreation.
- “Lack of interest” (M = 1.76) and “lack of confidence” (M = 1.76) were among the less common constraints.

Table 9 Summary of Constraints in Outdoor Recreation

	Entirely Disagree	Disagree	Neutral	Agree	Entirely Agree	Mean	SD
Afraid of getting hurt by animals /insects	1334 (53.70%)	770 (31.00%)	274 (11.03%)	94 (3.78%)	12 (0.48%)	1.66	0.86
Lack of interest	1194 (48.36%)	791 (32.04%)	384 (15.55%)	92 (3.73%)	8 (0.32%)	1.76	0.87
Don't feel welcome	1091 (44.13%)	808 (32.69%)	393 (15.90%)	139 (5.62%)	41 (1.66%)	1.88	0.98
Lack of information	805 (32.72%)	806 (32.76%)	589 (23.94%)	238 (9.67%)	22 (0.89%)	2.13	1.01
Don't have enough time	350 (14.23%)	436 (17.72%)	557 (22.64%)	872 (35.45%)	245 (9.96%)	3.09	1.22
Don't have the skills or physical ability	838 (34.02%)	887 (36.01%)	487 (19.77%)	223 (9.05%)	28 (1.14%)	2.07	1.00

Lack of confidence	1111 (45.35%)	896 (36.57%)	362 (14.78%)	74 (3.02%)	7 (0.29%)	1.76	0.83
Companions prefer other things	687 (27.95%)	752 (30.59%)	640 (26.04%)	347 (14.12%)	32 (1.30%)	2.30	1.06
Don't have people to go with	736 (30.02%)	744 (30.34%)	532 (21.33%)	395 (16.11%)	54 (2.20%)	2.30	1.13
Activity fees are too high	582 (23.84%)	682 (27.94%)	712 (29.17%)	365 (14.95%)	100 (4.10%)	2.48	1.13
Admission fees are too high	517 (21.00%)	723 (29.37%)	766 (31.11%)	352 (14.30%)	104 (4.22%)	2.51	1.10
Equipment costs are too high	364 (14.92%)	609 (24.96%)	853 (34.96%)	525 (21.42%)	89 (3.65%)	2.74	1.07
The facility I want doesn't exist in parks	609 (24.91%)	851 (34.81%)	736 (30.10%)	171 (6.99%)	78 (3.19%)	2.29	1.02
Parks and recreation areas are too crowded	309 (12.57%)	637 (25.92%)	774 (31.49%)	577 (23.47%)	161 (6.55%)	2.86	1.11
Concern about safety / crime	933 (38.14%)	961 (39.29%)	457 (18.66%)	82 (3.35%)	13 (0.53%)	1.89	0.86
Nearby parks are dirty or poorly maintained	893 (36.43%)	1021 (41.66%)	448 (18.28%)	68 (2.77%)	21 (0.86%)	1.90	0.85
Lack of transportation / no way to get to parks	1193 (48.56%)	938 (38.18%)	301 (12.25%)	19 (0.77%)	6 (0.24%)	1.66	0.74
Don't have necessary equipment	896 (36.75%)	948 (38.88%)	458 (18.79%)	122 (5.00%)	14 (0.57%)	1.94	0.90
Weather (i.e., extreme cold or hot temperatures)	611 (24.85%)	754 (30.66%)	669 (27.21%)	375 (15.25%)	50 (2.03%)	2.39	1.08
Age (i.e. busy with kids activities now, unable to physically participate in the same activities, etc.)	697 (28.40%)	753 (30.68%)	544 (22.17%)	395 (16.10%)	65 (2.65%)	2.34	1.13

3. Do you, or anyone in your household, have a physical disability that affects your ability to participate in outdoor recreation?

- 2135 (59%) No, no one in my household has disability (Skip to Question 5)
- 235 (7%) Yes, I have disability
- 187 (5%) Yes, someone else in my household has a disability

4. If your response is Yes in the previous question, what recommendations could be made to improve your ability to engage in outdoor recreation activities?

As an open-end question, content analysis was used to interpret and code textual responses. Please see original responses in Appendix C. The following is a summary from the analysis:

Water access. Boat and fishing access was a common response. Outdoor recreation participants expressed a huge need for more wheelchair accessible boat ramps and docks. Research participants also discussed the need for more handicap shore fishing areas.

Hunting. Hunting accessibility was common among responses. Hunters would like regulations regarding crossbows and ATVs changed in order to accommodate for those with disabilities. ATVs and other off-road vehicles would ease peoples' accessibility barriers to hunting. Other suggestions included special areas or seasons set aside for hunters with disabilities.

Camping. Research participants suggested building more handicap accessible camping cabins and campsites. Users would like more paved areas in campgrounds. They also noted a need for lighted paths at night, especially paths going towards the bath houses.

Trails and Facilities. Survey respondents stated the need for more paved trails. They are unable to use some trails now due to the width, condition, and incline of the trail. Research participants wish to have more paved trails at a lower incline to accommodate the public with disabilities. Users also requested to have more seating areas around trails and facilities to give people a chance to take a break from their outdoor recreation activity. Research participants also suggested more handicap restrooms. Parking was a popular need among survey participants. They described the need for more handicap parking, especially near boat ramps and docks.

Programs. Participants expressed a need for more programming for people with disabilities. They thought having more staffing for programs would aid in helping those with disabilities. Some of the programs suggested included kayaking and activities at ranger stations.

5. Do you have any suggestions for how outdoor recreation providers can help remove the barriers to your participation in outdoor recreation activities?
--

With content analysis for an open-ended question, four common themes stood out based on participants' responses regarding how outdoor recreation providers can help in removing barriers to outdoor recreation. The four themes are: dissension, areas and facilities, programs and information, and policy:

Dissension

- Some participants had differing views regarding camping. While some people would like to see more campsites and campsites with full hook-ups, other campers hoped to see more primitive campsites away from loud RV campgrounds. People also wanted campgrounds to create more privacy between campsites.
- Outdoor recreation users also reported overcrowding problems in a variety of areas. Campsites are often hard to book. People also stated fishing and hunting areas are beginning to become overcrowded.
- While people were advocating for more ATV trails across the state, others wished to see more regulations regarding ATV and off-road vehicle usage. Many people had concerns regarding noise created by off-road vehicles.
- Nonresident vs. resident rules and regulations were among the most common responses. Nonresidents wish to for lower fees for camping, hunting, and fishing in South Dakota. South Dakota residents want the fees for nonresidents to increase. Residents also

suggested giving South Dakota residents preference when it comes to reserving campsites within state parks.

Areas and facilities

- People desire more access to public land for recreation
- Respondents reported a need for more RV campgrounds. They also expressed a desire for more campsites with full hook-ups. Along with campgrounds, campers wish for more camping cabins at state park campgrounds. People also voiced the need for more primitive campsites in eastern South Dakota.
- Trails were a common theme among responses. Participants said there is a need for more ADA accessible trails. People also suggested creating more bike trails. Others would like to see more hiking trails of varying difficulties across the state.
- Boat users would like to see more and improved boat ramps. Both boaters and fishermen noted the need for more water access.
- With ATV and off-road vehicle popularity increasing, users would like more areas to use their off-road vehicles, particularly on the eastern side of the state.
- Participants also expressed a desire for more gun ranges.

Programs and information

- Numerous respondents would like to see more information regarding programs and events posted on easily accessible mediums like social media.
- People would like to see more programming for outdoor recreation. Suggestions included group programs, skills programs, and guided hikes. Other respondents expressed their desire for more classes at The Outdoor Campus as most classes fill up quickly.
- Survey participants suggested updating the website to make it easier to navigate and find specific information.

Policy

- Overall, both residents and nonresidents expressed the need to lower fees for annual park passes and hunting and fishing licenses. People stated that the increasing prices are discouraging them from participating in outdoor recreation.
- Regarding park passes, people expressed dislike for having to purchase stickers for each vehicle. They would like to see a transferable park pass.
- Campground users suggested changing the camping reservation system. They believe that 90 days is too far out to plan a camping trip. Other people suggested adding more same day reservation campsites.
- Many hunters believe there are too many rules and regulations regarding hunting in South Dakota.

Section III: Outdoor recreation needs in South Dakota

This section was designed to understand the State’s needs for outdoor recreation related facilities, amenities, and areas to promote and sustain the outdoor recreation legacy of South Dakota over the next five years.

1. Please indicate whether or not you feel there is a need for more facilities or if efforts should be made to improve what already exists. Please select all that apply.

Participants’ responses indicated a need for more hunting areas, shooting ranges, nature areas, fishing areas, archery ranges, walking/biking trails, campgrounds, and canoe/kayak water trails. The top ten facilities of “Need More” and “Need to Improve” were marked in the following Table 10.

Table 10 Percentage and Rank of Need in Facilities and Areas

	Need more	Need to improve	Adequate	No opinion
Tent-camping campgrounds	15.21%	10.11%	39.06%	35.64%
RV or trailer campgrounds	[8] 19.83%	9.23%	36.99%	33.95%
Areas for backpacking	14.37%	9.34%	34.20%	42.09%
Picnic areas	7.14%	10.05%	52.61%	30.20%
Facilities for boating	12.81%	[5] 16.16%	44.26%	26.76%
Swimming beaches	12.12%	[3] 17.21%	37.50%	33.16%
Swimming pools	7.02%	7.79%	36.73%	48.46%
Fishing areas	[9] 19.78%	[4] 16.58%	45.43%	18.20%
Shore Fishing Areas	[5] 22.56%	[1] 18.82%	36.27%	22.35%
Hunting areas	[1] 34.40%	[2] 17.26%	26.91%	21.43%
Walking/biking trails (unpaved)	[7] 20.13%	11.45%	38.38%	30.03%
Horseback riding trails	5.21%	3.83%	23.86%	67.10%
Paved trails	11.52%	8.22%	38.54%	41.47%
Mountain biking trails	12.01%	5.63%	23.48%	58.88%
Mountain biking skills course	8.73%	4.24%	19.13%	67.91%
Fat Tire bike trails	8.52%	3.70%	17.22%	70.56%
Cross-country skiing trails	9.98%	5.87%	16.97%	67.18%
Down-hill skiing/Snowboarding areas	8.47%	4.90%	21.08%	65.55%
Sledding areas	16.14%	9.91%	18.80%	55.15%
Ice skating or hockey rinks (Outdoor)	8.96%	7.23%	20.30%	63.51%
Snowmobile trails	4.67%	3.89%	28.73%	62.70%
Off-road or ATV riding areas	11.52%	7.55%	28.67%	52.26%
Off-road or ATV trails	12.31%	7.95%	28.35%	51.39%
Historic sites (with interpretation)	10.96%	[7] 13.94%	35.78%	39.31%
Nature areas/open space	[4] 23.00%	[9] 12.81%	37.12%	27.06%
Outdoor festivals/Festival areas	11.90%	8.68%	33.85%	45.58%
Pow-wow grounds	3.55%	3.55%	22.73%	70.71%
Playgrounds	6.40%	8.97%	35.98%	48.65%
Soccer fields	2.09%	2.52%	31.90%	63.49%

Football fields	1.31%	2.41%	33.00%	63.28%
Lacrosse fields	1.37%	1.63%	20.70%	76.30%
Golf courses/driving ranges	4.49%	4.49%	42.80%	48.23%
Baseball or softball fields	3.02%	5.56%	39.83%	51.59%
Skateboarding parks	3.76%	3.93%	25.68%	66.62%
Tennis courts	1.91%	3.48%	31.25%	63.36%
Volleyball courts (outdoor)	3.52%	4.43%	27.83%	64.22%
Basketball courts (outdoor)	2.91%	4.99%	29.86%	62.24%
Horseshoe pits	5.36%	6.18%	28.40%	60.06%
Archery target shooting ranges	[6] 21.95%	[10] 11.70%	19.99%	46.36%
Shotgun shooting ranges	[3] 26.47%	[8] 13.27%	20.98%	39.28%
Pistol/rifle shooting ranges	[2] 30.23%	[6] 14.06%	19.77%	35.94%
Disc golf courses	7.60%	5.25%	29.53%	57.62%
Dog parks	15.17%	10.63%	24.13%	50.06%
Canoe/Kayak water trails	[10] 18.98%	10.96%	19.19%	50.87%
ATV skill parks	6.55%	4.19%	20.30%	68.97%
ADA accessible facilities. Please specify what types.	5.38%	4.24%	21.38%	69.00%

2. What other facilities/areas/amenities should be considered when promoting South Dakota's outdoor recreation legacy for the next five years?

Based on participants' open-ended responses regarding other facilities/areas/amenities should be considered in South Dakota, there are seven types of facilities commonly mentioned:

Trails. Outdoor recreation users hope to see more trails in South Dakota in the future. Survey participants had suggestions for a variety of trail types. People wish to see more mountain biking, hiking, cross country skiing, and ATV/UTV trails in the state. Another common suggestion was a trail system to connect parks in a number of different communities.

Specialized activities. Survey participants also suggested a variety of additional specialized activity facilities throughout the state. People would like more rock climbing and zip lining opportunities. Pickleball courts were another common request among survey participants. Other participants would like to see more ATV/UTV trails, especially in eastern South Dakota. People also commented on their desire to geocache in state parks.

Facilities supporting aging population. A significant number of survey participants stated that aging was their number one barrier to outdoor recreation. They suggested a number of ways outdoor recreation providers can better accommodate to the aging population's needs. Paved and easier walking trails would allow the aging population to engage in outdoor recreation more. Users also thought programming for different age groups would also be beneficial.

Maintenance. Maintaining current facilities is important for promoting outdoor recreation in South Dakota in the future. Building and maintaining bath houses was common among participants' responses. People also stated the importance of upkeep of fish cleaning stations.

Information. People suggested that outdoor recreation providers offer more information about different outdoor recreation activities. Survey participants believe that providers should publicize events more online. Outdoor recreation users also suggested creating a more user-friendly website to find information about different events and activities.

Parking. Recreation users would like more parking for various facilities. They state many campgrounds and boating areas do not have enough parking for all of the users. Along with more general parking, users expressed the need for more ADA parking by outdoor recreation facilities.

Amenities for water activities. Survey respondents suggested updating and adding more boat docks around the state. Many boat docks and ramps need to be updated. Users also stated the need for more fish cleaning stations with running water near boat ramps. Kayakers suggested creating better water access points along lakes and rivers so they do not have to walk so far carrying their boat. Beach users recommended updating beaches.

Habitat. Land conservation and wildlife habitat were important themes among survey participants. People wish to see improved pheasant habitats. They also talked about conserving and maintaining prairie and grasslands. Improved wildlife habitat in general was a common response.

Section IV: Public Perspective about Outdoor Recreation

The following section examined priorities in funding outdoor recreation and conservation efforts in South Dakota, the importance of potential benefits of outdoor recreation, and the ability of outdoor recreation providers to provide these benefits. The first two questions were gauged toward funding outdoor recreation and conservation efforts in South Dakota, and are ranked from Extremely Unimportant (1) to Extremely Important (5). The respondents were then asked, in their opinion, which of the considerations is the most important when making funding decisions.

1. When funding outdoor recreation and conservation efforts in South Dakota, how important or unimportant are each of following considerations? Please rate each statement on a scale from: 1 =Extremely Unimportant to 5= Extremely Important.

In the Table 11 below, the findings are listed, and include the Mean and Standard Deviation (SD). It is interesting to note that when asked twice what the most important consideration was, “(F) protect wildlife and fish habitat” was chosen both times, with 1610 responses (70.74%) citing that this consideration was Extremely Important (M = 4.45). The second highest response turnout for Extremely Important was “(C) maintain existing park and recreation areas” at 1390 (61.42%) responses (M = 4.33). The third highest was “(A) acquire and protect open space (as undeveloped, conserved land)” at 1167 response (51.34%) with mean score at 4.10.

Table 11 Summary of Importance of Funding Efforts in Outdoor Recreation

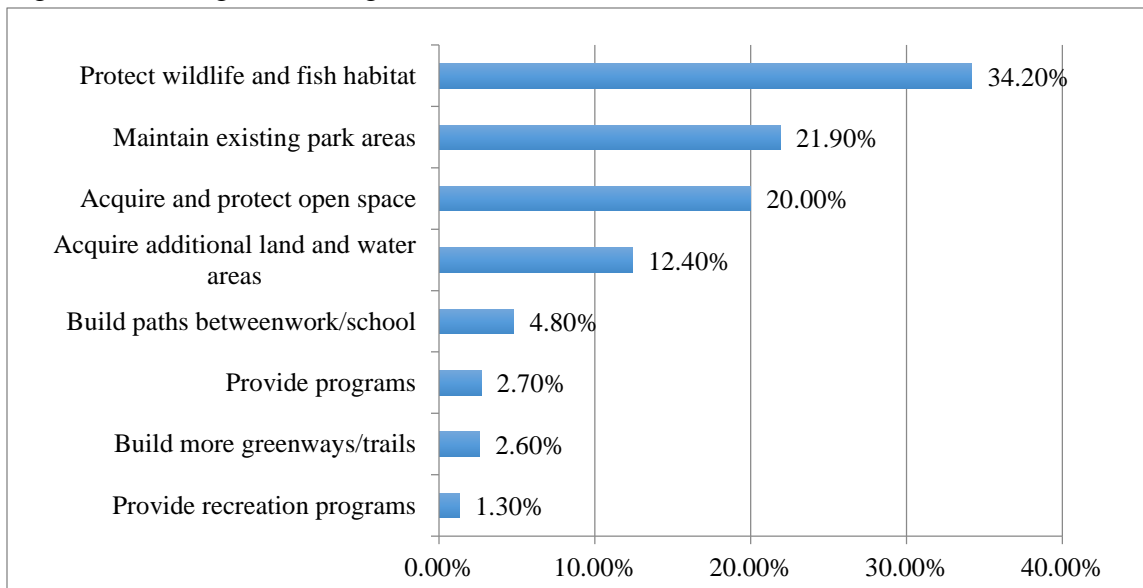
	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Acquire and protect open space (as undeveloped, conserved land)	140 (6.16%)	110 (4.84%)	303 (13.33%)	553 (24.33%)	1167 (51.34%)	4.10	1.18
(B) Acquire additional land and water areas for developed recreation	146 (7.24%)	187 (8.26%)	452 (19.96%)	740 (32.67%)	722 (31.88%)	3.74	1.20
(C) Maintain existing park and recreation areas	133 (5.88%)	45 (1.99%)	146 (6.45%)	549 (24.26%)	1390 (61.42%)	4.33	1.08
(D) Provide environmental and conservation programs	98 (4.37%)	140 (6.24%)	457 (20.37%)	780 (34.77%)	768 (34.24%)	3.88	1.08
(E) Provide recreation programs at parks and recreation areas	94 (4.18%)	216 (9.61%)	692 (30.78%)	784 (34.88%)	462 (20.55%)	3.58	1.05
(F) Protect wildlife and fish habitat	149 (6.55%)	23 (1.01%)	94 (4.13%)	400 (17.57%)	1610 (70.74%)	4.45	1.08
(G) Build more greenways/trails	133 (5.94%)	200 (8.94%)	814 (36.37%)	678 (30.29%)	413 (18.45%)	3.46	1.07
(H) Build pedestrian and cycling paths between places of work, parks, schools etc.	216 (9.63%)	274 (12.22%)	745 (33.23%)	594 (26.49%)	413 (18.42%)	3.32	1.19

2. In your opinion, which of the above considerations is the most important when making funding decisions about outdoor recreation and conservation efforts in South Dakota? (select from statement A to H)

This question was used to discover what the respondents perceived as the most important consideration for funding. The ranking, from highest to lowest, for these considerations is as followed (Figure 7):

1. (F) Protect wildlife and fish habitat (34.2%)
2. (C) Maintain existing park and recreation areas (21.9%)
3. (A) Acquire and protect open space (20.0%)
4. (B) Acquire additional land and water areas (12.4%)
5. (H) Build paths between places of work/school (4.8%)
6. (D) Provide environmental and conservation programs (2.7%)
7. (G) Build more greenways/trails (2.6%)
8. (E) Provide recreation programs at parks and recreation areas (1.3%)

Figure 7 Ranking of Funding Priorities



3. How important or unimportant to you are each of the following possible benefits from parks and recreation in South Dakota? Please rate each statement from scale: 1 =Extremely Unimportant to 5= Extremely Important.

The next two questions were looking to find the level of importance for possible benefits that come from parks and recreation in South Dakota, ranking the levels from Extremely Unimportant (1) to Extremely Important (5) and the most important benefit perceived by the respondents (Table 12).

- “(D) Preserve open space and the environment” was also the only response with over one thousand responses at 1165 (52.50%) for Extremely Important (M = 4.27), no other response for any of the other benefits rose above one thousand.

- The second highest response was “(C) make your community a more desirable place to life”- Somewhat Important at 937 responses (42.15%) with average score of 3.98.
- The third highest amount of responses, also in Somewhat Important, was “(I) preserve historical features in your community” at 922 responses (41.51%).
- (D) Preserve open space and the environment” was chosen as the most important when asked to pick the most important out of the possible benefits listed below, in which 991 responses (45.38%).

Table 12 Summary of Perceived Benefits from Parks and Recreation in South Dakota

	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Improve physical health and fitness	90 (4.03%)	113 (5.06%)	415 (18.57%)	910 (40.72%)	707 (31.63%)	3.91	1.03
(B) Help reduce crime	122 (5.53%)	195 (8.84%)	769 (34.84%)	691 (31.31%)	430 (19.48%)	3.50	1.07
(C) Make your community a more desirable place to live	83 (3.73%)	104 (4.68%)	340 (15.29%)	937 (42.15%)	759 (34.14%)	3.98	1.01
(D) Preserve open space and the environment	77 (3.47%)	63 (2.84%)	216 (9.73)	698 (31.46%)	1165 (52.50%)	4.27	.99
(E) Increase property values in your community	176 (7.97%)	257 (11.64%)	900 (40.78%)	612 (27.73%)	262 (11.87%)	3.24	1.06
(F) Improve mental health and reduce stress	74 (3.35%)	107 (4.85%)	425 (19.25%)	897 (40.63%)	705 (31.93%)	3.93	1.00
(G) Provide opportunities for social interaction	117 (5.29%)	259 (11.72%)	812 (36.74%)	768 (34.75%)	254 (11.49%)	3.35	1.01
(H) Help attract new residents and businesses	189 (8.61%)	268 (12.20%)	681 (31.01%)	730 (33.24%)	328 (14.94%)	3.34	1.13
(I) Preserve historical features in your community	84 (3.78%)	122 (5.49%)	546 (24.58%)	922 (41.51%)	547 (24.63%)	3.78	1.00
(J) Promote tourism	174 (7.88%)	239 (10.82%)	604 (27.34%)	798 (36.12%)	394 (17.84%)	3.45	1.14
(K) Enhance a sense of place and community	95 (4.35%)	125 (5.72%)	634 (29.03%)	851 (38.97%)	479 (21.93%)	3.68	1.02

4. In your opinion, which of the above is the most important benefit of parks and recreation in South Dakota? (select from statement A to K)

This question was used to discover what the respondents perceived as the most important benefit of parks and recreation. The ranking, from highest to lowest, for these considerations is as followed:

1. (D) Preserve open space and the environment (45.3%)

2. (C) Make your community a more desirable place to live (14.4%)
3. (A) Improve physical health and fitness (12.6%)
4. (F) Improve mental health and reduce stress (9.0%)
5. (K) Enhance a sense of place and community (4.6%)
6. (J) Promote Tourism (4.4%)
7. (I) Preserve historical features in your community (3.6%)
8. (H) Help attract new residents and business (2.0%)
9. (B) Help reduce crime (1.9%)
10. (G) Provide opportunities for social interaction (1.4%)
11. (E) Increase property values in your community (.6%)

5. How would you rate your local parks and recreation agencies ability to deliver each of the following benefit types? Please rate each statement on a scale from 1 = Not delivered at all to 5= Delivers extremely well OR Not applicable.

This question was asked to understand what the survey participants believe in terms of benefits and how their local parks and recreation agency delivers the benefits listed. Many of the responses were between Neutral and Delivers extremely well. Below are each benefit’s highest responses (Table 13):

- “Improve physical health and fitness” had 982 responses for Delivers well (45.97%)
- “Help reduce crime” had 1230 responses for Neutral (58.13%)
- “Make your community a more desirable place to live” had 1050 responses for Delivers well (49.37%)
- “Preserve open space and the environment” had 1018 responses for Delivers well (47.97%)
- “Increase property values in your community” had 1210 responses for Neutral (57.18%)
- “Improve mental health and reduce stress” had 879 responses for Delivers well (41.62%)
- “Provide opportunities for social interaction” had 933 responses for Neutral (44.11%)
- “Help attract new residents and businesses” had 1033 responses for Neutral (49.12%) and 651 responses for Delivers well (30.96%)*
- “Preserve historical features in your community” had 888 responses for Neutral (42.25%)
- “Promote tourism” had 858 responses for Delivers well (40.84%)
- “Enhance a sense of place and community” had 849 responses for Delivers well (40.78%)

*Benefit H “Help attract new residents and businesses” had roughly 80% of their responses between these two points.

Table 13 Summary of Agencies’ Ability to Deliver Benefits from Parks and Recreation

	Not delivered at all	Delivers poorly	Neutral	Delivers well	Delivers extremely well	N/A
(A) Improve physical health and fitness	13 (0.61%)	60 (2.81%)	685 (32.07%)	982 (45.97%)	254 (11.89%)	142 (6.65%)
(B) Help reduce crime	41 (1.94%)	123 (5.81%)	1230 (58.13%)	388 (18.34%)	73 (3.45%)	261 (12.33%)
(C) Make your community a more desirable place to live	18 (0.85%)	76 (3.57%)	587 (27.60%)	1050 (49.37%)	260 (12.22%)	136 (6.39%)

(D) Preserve open space and the environment	15 (0.71%)	168 (7.92%)	583 (27.47%)	1018 (47.97%)	243 (11.45%)	95 (4.48%)
(E) Increase property values in your community	26 (1.23%)	98 (4.63%)	1210 (57.18%)	469 (22.16%)	79 (3.73%)	234 (11.06%)
(F) Improve mental health and reduce stress	14 (0.66%)	56 (2.65%)	806 (38.16%)	879 (41.62%)	224 (10.61%)	133 (6.30%)
(G) Provide opportunities for social interaction	16 (0.76%)	67 (3.17%)	933 (44.11%)	822 (38.87%)	139 (6.57%)	138 (6.52%)
(H) Help attract new residents and businesses	37 (1.76%)	107 (5.09%)	1033 (49.12%)	651 (30.96%)	97 (4.61%)	178 (8.46%)
(I) Preserve historical features in your community	21 (1.00%)	108 (5.14%)	888 (42.25%)	783 (37.25%)	157 (7.47%)	145 (6.90%)
(J) Promote tourism	31 (1.48%)	71 (3.38%)	712 (33.89%)	858 (40.84%)	304 (14.47%)	125 (5.95%)
(K) Enhance a sense of place and community	25 (1.20%)	74 (3.55%)	795 (38.18%)	849 (40.78%)	197 (9.46%)	142 (6.82%)

6. What else should we consider in developing the South Dakota outdoor recreation plan for the next five-years?

Based on participants’ open-ended responses regarding future plan for outdoor recreation in South Dakota, there are four common themes included:

Preservation/Conservation. Many of the survey participants stated that they wanted to see the conservation of natural resources and land, as well as wildlife habitats; there is a push for the protection of nature, not development, and a balance needs to be found between preservation and development. For example:

- “Balance preservation of wildlife areas with development”
- “Do not over develop commercial venues in parks.”
- “Promote conservation and wildlife growth.”
- “Improve habitat for hunting”

Quality. Another area of development that the survey participants stated was the quality of state parks, parking spaces, and tourism. Many of the responses for the quality of state parks were for a focus on maintenance and updating of parks, such as bathrooms and campsites, and bodies of water. The respondents also stated that they wanted more campsites and parking spaces, as well as better ADA accessible areas. Tourism is also an area many respondents stated they wanted more emphasis on, including increasing awareness of accessible areas, promoting hiking and biking, and promoting smaller communities and everything South Dakota offers to out-of-state tourists. Examples like:

- “More updated maps.”
- “Better signage and maintenance of the Centennial Trail in the Black Hills.”
- “Improve many of out boat launch sites.”

- “Fix up bathrooms”
- “...there are plenty of opportunities to promote local activities, history, and recreation outside of the Hills.”
- “...enhance law enforcement for existing fisheries.”

Activities. The respondents are also interested in new activities, such as rock-climbing and bungee jumping, as well as activities that will engage multiple age groups and various different generations. The respondents also wanted activities that families could participate in together. There was also a push for better protection, promotion, and enhancement of South Dakota’s heritage and Native American heritage. There was also a desire to create activities that educated the general populous about conservation, and create activities that appealed to children, to try and get them outside and within nature. For example:

- “Family oriented areas and facilities.”
- “Get people outside.”
- “Multi-generational experiences.”
- “Open/support museums with a focus on local history.”
- “Get the children involved while they are young as they are our future stewards.”
- “A program to provide a mentor to teach people who want to learn how to do outdoor stuff with people who want to teach.”

Facilities. There was also a large number of respondents who brought up creating trails, campsites, and cabins, and removing barriers for “disabled and elderly people”. The respondents want more trails, from ATV trails, to bike trails, and horse trails, and want those trails maintained better. They also want more camping spaces for RVs and tents, and to have areas for just one or the other. They also brought up fees and the reservation systems, and the issues that they have with those topics.

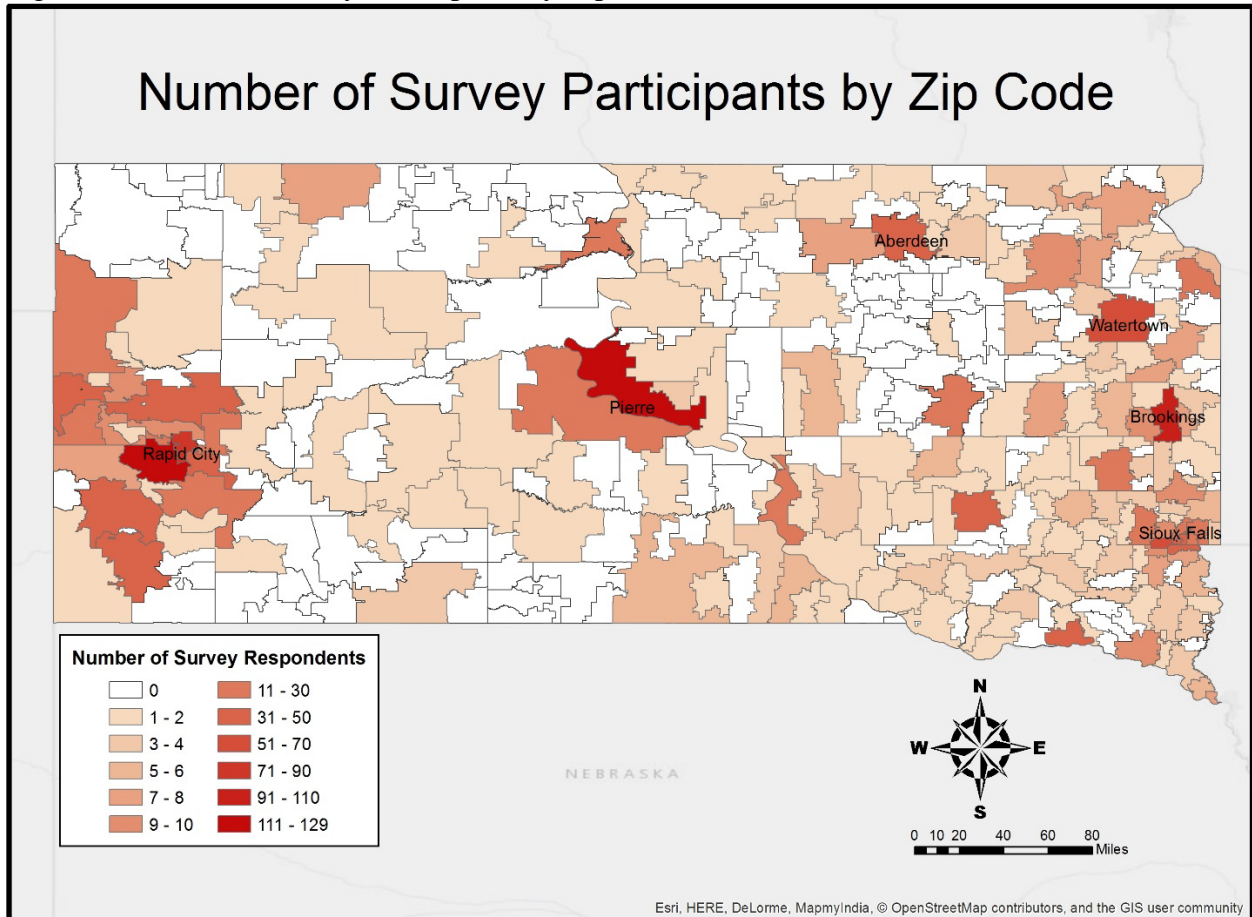
- “Make more atv trails that join each other for longer rides”
- “atv and utv trails”
- “More RV spots in state parks!”
- “more hiking & cross-country ski trails”
- “Overcrowding”
- “More walking trails for health...”
- “Stop raising prices so the youth can afford to hunt and fish”
- “Cost”

Section V: Demographics of Research Participants

1. What is your home zip code?

Based on reported zip code, 1687 (76.6%) survey participants were identified as South Dakota residents while 516 (23.45%) were out of state residents. The top five out-state survey participants are from Minnesota (N=279), Iowa (N=232), Nebraska (N=186), North Dakota (N=153), and Connecticut (N=102). Other States, such as Illinois, Missouri, Wisconsin, Texas, and California, also showed a range of 20 to 50 residents responding to the public outdoor recreation survey. The map below (Figure 8) shows number off research participants in South Dakota by zip code.

Figure 8 Number of Survey Participants by Zip Code



Note: The map was created by Dr. I-Chun (Nicky) Wu at Middle Tennessee State University.

2. Are you male or female?

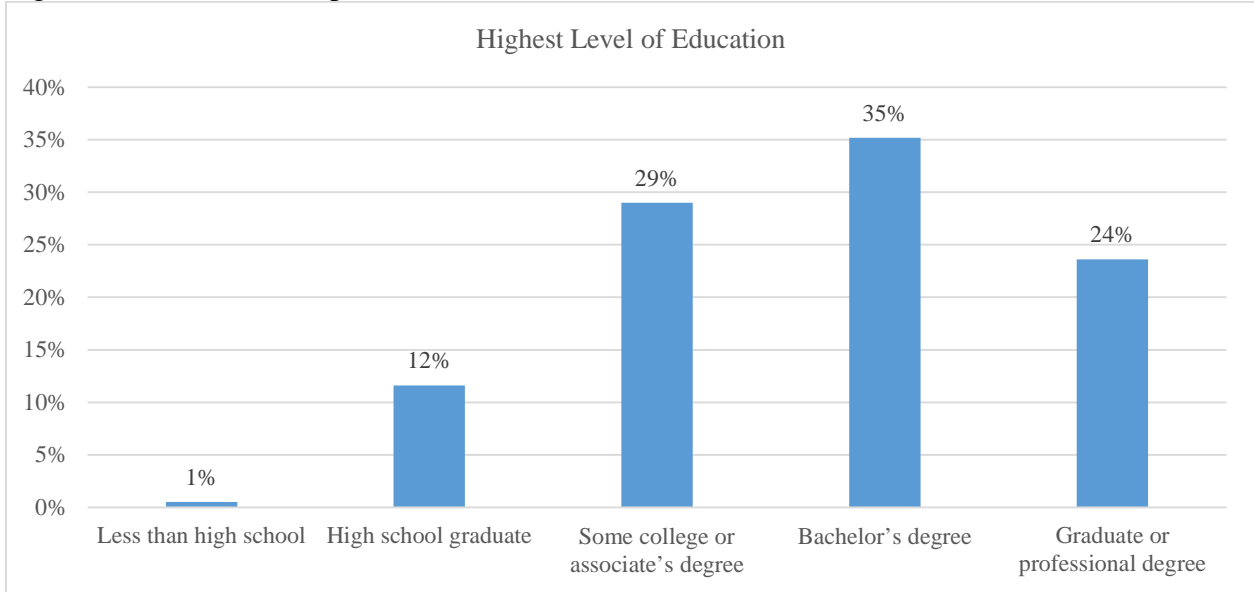
- Male: 1747 (78.3 %)
- Female: 483 (21.7%)

Slightly above 78% of survey participants are male and approximately 22% are female, while the male and female proportion in the state of South Dakota is fairly even in distribution.

3. What is the highest level of education you have achieved?

A majority survey of respondents reported that they received Bachelor’s degree (35%) or graduate/professional degree (26%), which is significantly higher than the South Dakota stateside record of 19% Bachelor’s degree and 8% graduate/professional degree (Figure 9).

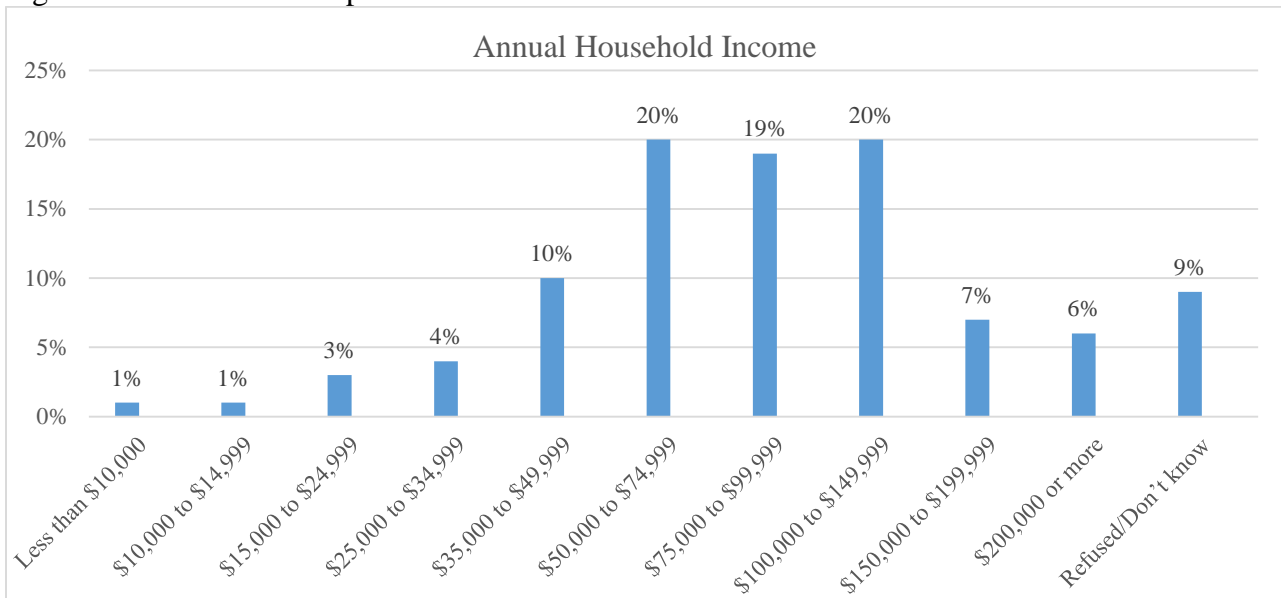
Figure 9 Research Participants’ Education Level



4. What was your total household income for 2016?

When asked about total household income for 2016, 20% of the respondents stated “\$50,000 to \$74,999, 19% of the respondents stated \$75,000 to \$99,999, and 20% stated \$100,000 to \$149,999, which are the highest responses (Figure 10).

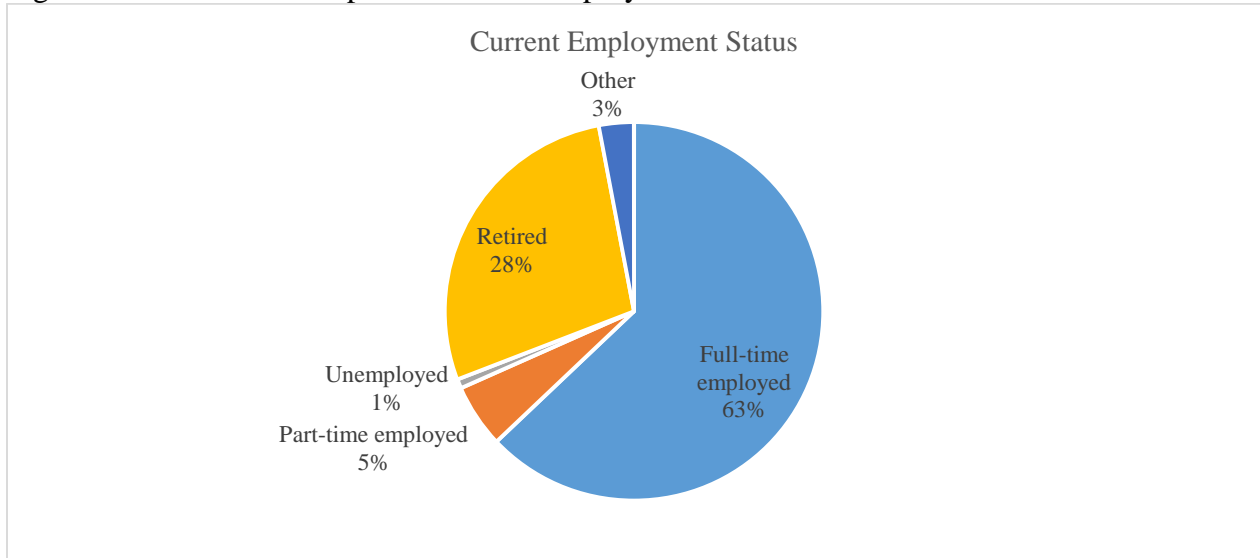
Figure 10 Research Participants’ Annual Household Income



5. What is your current employment status?

When asked about current employment status, 63% of the responses stated “full-time employed”, 28% of responses stated “retired”. The other 9% was broken up to 1% “unemployed”, 3% “other”, and 5% “part-time employed” (Figure 11). The participants’ current employment status is similar to the employment status of general population in South Dakota.

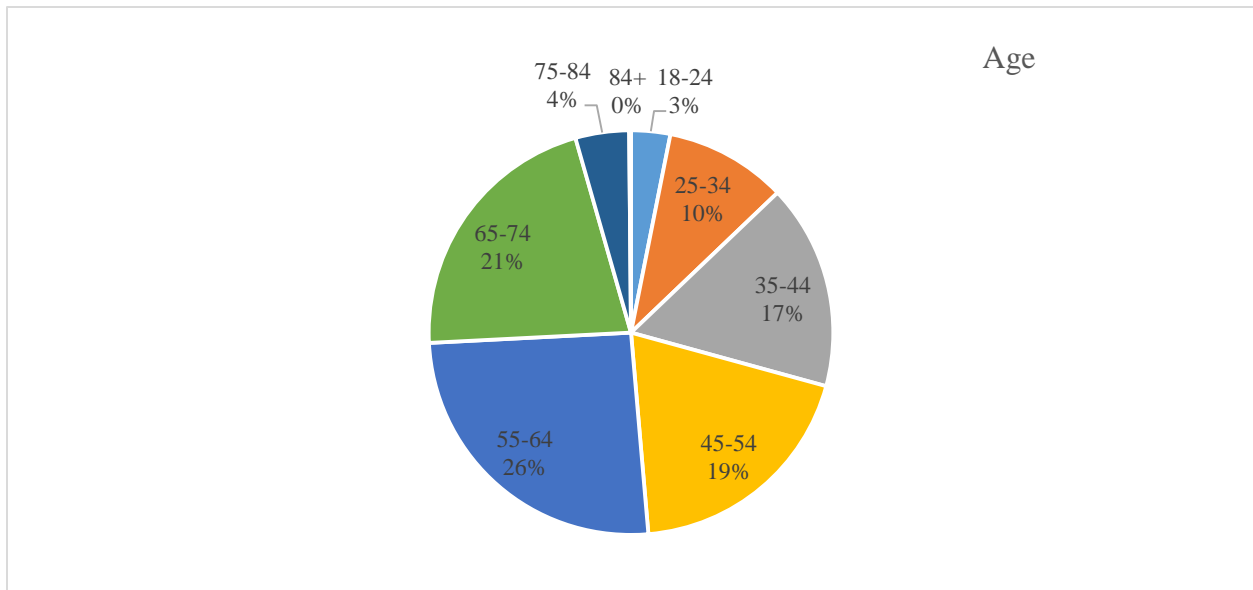
Figure 11 Research Participants’ Current Employment Status



6. How old are you?

Survey participants were asked to report their age in an open-ended question. The average age of survey participants is 53 years old with a wide range of participants from 18 to 92 years old. Please see Figure 12, in which categorized survey participants into 10-year increments with frequency and percentage for each age group.

Figure 12 Research Participants’ Age



7. Are you of Hispanic, Latino or Spanish origin?

- Yes: 18 (1%)
- No: 2148 (99%)

8. What is your race?

This question showed that 2102 respondents (95.6%) stated “White”, 52 respondents (2.4%) stated “Other”, 29 respondents (1.3%) stated “Two or more races”, 18 responses (1%) stated “Hispanic/Latino/Spanish”, 7 respondents (0.3%) stated “American Indian/Alaskan native”, 3 respondents (0.1%) stated “Black/African American”, and 4 respondents (0.2%) stated “Asian”.

- White: 2102 (95.6%)
- Black/African American: 3 (0.1%)
- American Indian/Alaska native: 7 (0.3%)
- Asian: 4 (0.2%)
- Pacific Islander: 2 (0.1%)
- Two or more races: 29 (1.3%)
- Other: 52 (2.4%)

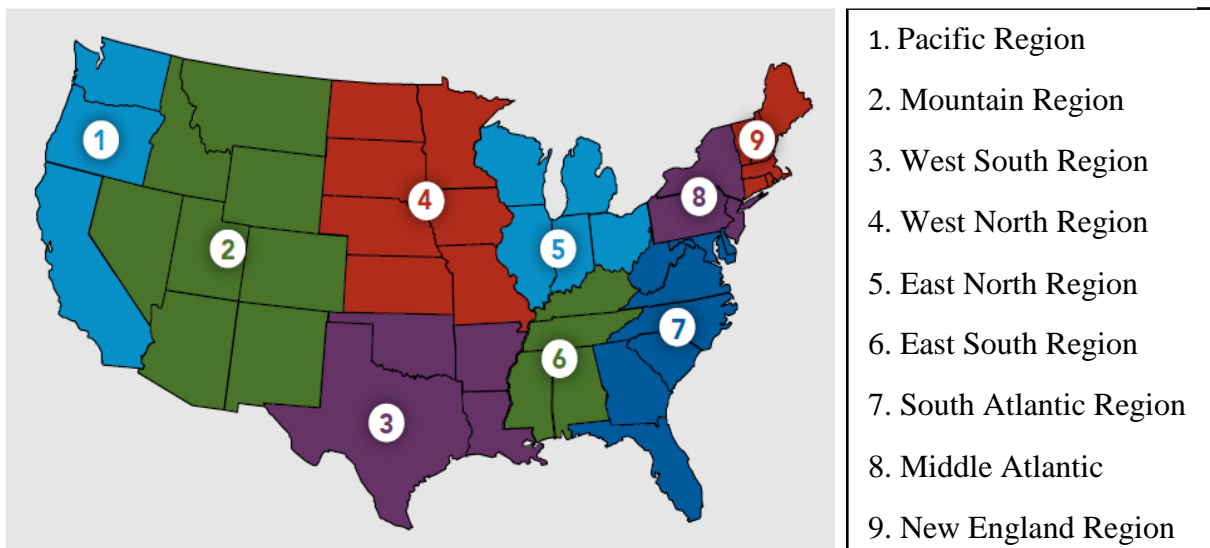
National Trends and Outdoor Recreation Studies

The third goal of this research project was to understand South Dakota's outdoor recreation market and opportunities comparing to national studies and statistics. By using existing publications and studies, it might be helpful to examine the similarities and differences in managing outdoor recreation services and perceived current trends and challenges at different recreation providers in South Dakota.

American Outdoor Participation

According to 2017 Outdoor Participation Report (Outdoor Foundation, 2017), almost half of the US population participated in at least one outdoor activity in 2016. From 2015 to 2016, outdoor recreation participation rose by 2 million people. The number of outdoor outings decreased from 11.7 billion in 2015 to 11.0 billion in 2016. Running, jogging, and trail running was the most popular outdoor activity among participants. In 2016, 144.4 million Americans participated in at least one outdoor activity. Outdoor participation rose by 2 million from 2015 to 2016. While participation rose, the number of outings declined from 11.7 billion to 11.0 billion. In 2016, 10.6 million people participated in outdoor activities for the first time. As part of the West North Central Region, South Dakota has around 8% of its residents participating in outdoor participation.

Figure 13 Regions in National Outdoor Participation Report (2017)



Annual outings. The number of annual outdoor outings varied among residents. Twenty percent of Americans participate in four to eleven outdoor outings a year. Around 15% of Americans take part in outdoor outings one to two times a week.

2016 sport and recreation spending. In 2016, 10% of outdoor participants spent more on sports and recreational footwear than they had the previous year. Sports and recreational clothing spending declined in 2016. Over three-fourths of participants spent no money on team sports at school.

What motivates Americans to get outside. Exercise is the top motivator for outdoor recreation participation. Over half of the US population uses outdoor activities as a way to spend time with family and friends. Other top motivators to participate in outdoor activities include observing scenic beauty, being close to nature, and enjoying the sounds and smells of nature (Table 14) (Outdoor Foundation, 2017).

Table 14 Motivations being Outdoors in the United States

Motivations	% of Participants
Get exercise	64%
Be with family and friends	55%
Keep physically fit	50%
Observe scenic beauty	49%
Be close to nature	47%
Enjoy the sounds and smells of nature	47%
Get away from the usual demands	40%
Be with people who enjoy the same things I do	31%
Experience excitement and adventure	32%
Experience solitude	20%
Be with people who share my values	19%
Gain a sense of accomplishment	18%
Gain a sense of self-confidence	15%
Because it is cool	15%
Talk to new and varied people	9%
Other	4%

Source: 2017 Outdoor Participation Report (Outdoor Foundation, 2017)

Why Americans didn't participate in outdoor activities more often. Family responsibilities are the top reason people do not participate in outdoor activities more often. Equipment costs is among the top reasons people don't participate in outdoor recreation. Other top barriers include: no one to participate with, lack of skills or abilities, and physical disability. Only 3% of the population listed getting hurt by other people as barriers to outdoor recreation (Table 15) (Outdoor Foundation, 2017).

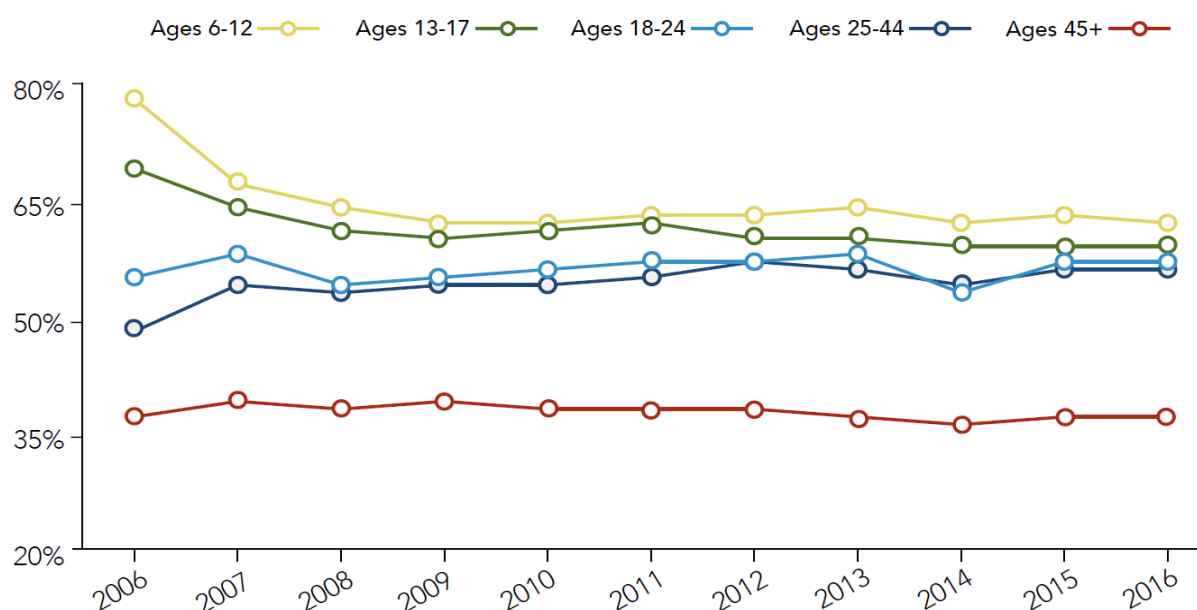
Table 15 Barriers/Constraints being Outdoors in the United States

Barriers/Constraints	% of Non-participants
Too busy with family responsibilities	21%
Outdoor recreation equipment is too expensive	18%
Do not have anyone to participate with	17%
Do not have the skills or abilities	16%
Have a physical disability	14%
My health is poor	11%
Places for outdoor recreation cost too much	10%
Too busy with other recreation activities	10%
Places for outdoor recreation are too far away	10%
Do not have enough information	7%

Have no way to get to venues for outdoor recreation	5%
Places for outdoor recreation are too crowded	4%
Have household members with a physical disability	4%
Am afraid of getting hurt by other people	3%
Other reason	15%

Source: 2017 Outdoor Participation Report (Outdoor Foundation, 2017)

Outdoor participation by age. Between 2015 and 2016, participation in outdoor activities remained relatively constant across all age groups. Outdoor participation among 6-12 year olds decreased by 1% from 2015 to 2016. Otherwise, all other age groups remained the same. The following is a trend of outdoor participation from 2006 to 2016 by age in the United States (Outdoor Foundation, 2017):



Source: 2017 Outdoor Participation Report (Outdoor Foundation, 2017)

Youth participation. According to 2017 Outdoor Participation Report (Outdoor Foundation, 2017), youth participants took part in a collective 2.2 billion outdoor outings in 2016. Each participant made an average of 66 outings in 2016. This number decreased by 11 from 2015. Road, mountain, and BMX biking was the most popular outdoor activity with 12.9 million participants. Running, jogging, and trail running was listed as the favorite outdoor activity among youth with 884.5 million outings. Costs and time constraints were among the top reasons youth and young adults did not participate in outdoor activities. Over-developed places for outdoor recreation and poorly maintained facilities were among the least common restraints to outdoor recreation. Adults with kids are more likely to participate in outdoor activities than adults without kids. Adults with children between the ages of 6-12 had the highest participation in outdoor recreation among families. Adults without kids had a participation rate of 42% compared to 56% of adults with kids ages 6-12.

National Trend of Research to Practice

In order to bridge the gap between practice and research, the National Recreation and Park Association (NRPA) collaborated with North Carolina State University (NC State) in reviewing evidence-based research from 2012 to 2015 for providing evidence and/or potential impact on the practice and decision making in the field of park and recreation (NRPA, 2015a). The following is the summary of the research findings based on NRPA's pillars—Conservation, Health and Wellness, and Social Equity:

Conservation. Many of the articles focused on the challenges that climate change and conservation pose to outdoor recreation. Some articles addressed the impact outdoor recreation has on the surrounding ecosystems. Many trails and areas for outdoor recreation do not have regulations regarding outdoor recreation's environmental impact. Researchers suggesting implementing plans to aid in preventing negative effects on the environment. Other articles proposed frameworks for minimizing negative environmental impact. One suggested using principles such as "Leave No Trace" to inform people how to reduce their impact.

Health and wellness. Almost half of American adults do not get enough physical activity each day. People can improve their health in many areas by participating in outdoor recreation. Recreation providers should come up with more programming for people of all ages, especially older adults. Researchers have found that there are not enough programs available for older adults. It is also important for children to participate in outdoor activities. Communities can promote a healthy lifestyle and park usage by making outdoor areas more accessible to the public. People are more likely use parks when they have a safe and easy way to reach parks.

Social equity. Based on the articles summarized, local and state governments should work to incorporate social media to learn more about people's physical activity and contribute to disaster management plans. Governments should also look at park and outdoor access for lower-income neighborhoods. Parks and outdoor space contribute to society in ways that money cannot. Communities that embrace physical activity and outdoor space are typically more successful than those that do not.

Economic Impact of Public Park

Parks and recreation have a significant impact in the United States economy. Economic impact studies have been an evidence-based approach to show the benefits of parks and recreation not only serving as a public amenity/service but also an enhancement of economy and quality of life in local communities. The following research summary is the findings from an economic study commissioned by NRPA to the Center for Regional Analysis at George Mason University (NRPA, 2015b):

National analysis. In the United States, local and regional public park agencies generated nearly \$140 billion in economic activity and supported almost 1 million jobs. Local and regional public park agencies directly provided more than 356,000 jobs in the United States during 2013, which is almost \$32.3 billion in operation spending (Table 16).

Table 16 Economic Impact of Local and Regional Public Parks on the U.S. Economy (2013)

	Operating Impacts	Capital Spending Impacts	Total Impact of Local and Regional Parks' Spending
Economic Activity (transactions)	\$79,972,818,000	\$59,655,408,000	\$139,628,226,000
Value Added (GDP)	\$38,782,352,000	\$29,169,189,000	\$67,951,541,000
Labor Income (salaries, wages, benefits)	\$24,176,431,000	\$19,613,750,000	\$43,790,181,000
Employment (jobs)	658,478 jobs	340,604 jobs	999,082 Jobs

Sources: NRPA, U.S. Census Bureau, PRORAGIS, IMPLAN (RIMS), Center for Regional Analysis

State-level analysis. The NRPA looked at each state, and the District of Columbia, and wanted to see each state's effect on economic activity and employment. South Dakota had \$357,992,328 in economic activity, \$121,493,158 in labor income, and created 3,278 jobs. The following table shows the economic impact in South Dakota and the sounding states (Table 17).

Table 17 Economic Impact of Local and Regional Public Parks by State (2013)

State	Economic Activity (Transactions)	Labor Income	Employment (Jobs)
South Dakota	\$357,992,328	\$121,493,158	3,278
Iowa	\$964,052,949	\$310,393,234	8,497
Minnesota	\$2,834,173,626	\$1,064,812,177	22,411
Montana	\$206,687,842	\$66,401,994	1,952
Nebraska	\$461,242,866	\$158,995,140	4,150
North Dakota	\$504,269,473	\$156,685,464	4,737
Wyoming	\$387,698,334	\$132,829,457	3,385

Demographics and Park Use

As for constraints for using parks, Mowen, Payne, & Scott (2005) found that *income* had the highest influence on park constraints. Higher income participants listed busy schedules, family obligations, and inadequate time as constraints. Adversely, lower income participants listed crime, inability to travel to parks, poor health, distance, high costs, and disinterest in outdoor recreation as reasons not to attend parks. *Age* also had an impact on different constraints. Older adults' constraints consisted of not having people to go with, poor health, and lack of transportations. Younger adults listed busy schedules, family obligations, and insufficient information as park usage constraints. *Level of education* proved to be useful in determining possible constraints. Lower levels of education were associated with listing family obligations as a vital reason for using parks less often. Up-keeping the appearance of parks and increasing crime surveillance may aid in decreasing "fear of crime" as a park usage constraint. They suggested that park and city officials could consider creating bike and walking trails to make park access easier, especially for lower income neighborhoods. After 9/11, local park usage rose. This may be due to changes in peoples' perceptions of travel and security. More people began choosing to stay near home rather than travel elsewhere. In conclusion, different organizations like public transportation, social services, and park agencies must work together in order to

increase park visitors. However, park managers must also consider safety, maintenance, and crime when implementing new strategies aimed at increasing park visitation.

Comparison and Advanced Analysis

The fourth goal of the research project is to investigate the relationship between socio-demographics, economics, and population change from the perspective of and participation in outdoor recreation. In order to advance understanding of the relationship between socio-demographics and outdoor recreation participations, advanced analysis was applied to examine how South Dakotans’ outdoor recreation participation pattern, motivation, and constraints vary with their socio-demographics (i.e. age, gender, education, and residential area etc.).

Outdoor recreation needs 2013 vs. 2017 survey

The followings are the comparison of top ten need-more and need-to-improve outdoor recreation facilities between 2013 SCORP and 2017 Survey (Table 18):

- The 2018 survey included 11 more types of facilities for participants to review.
- Compared to the 2013 SCORP, seven types facilities remained in the top ten of facilities that participants would like more of. These include: hunting areas, fishing areas, shooting ranges archery ranges, walking trails, RV or trailer campgrounds, and nature areas.
- Hunting areas remained the number one area people would like to see more of.
- While demand for more swimming beaches went down, need for improvement in the facilities increased.
- Participants would like to see more archery shooting ranges (21.95%), shotgun shooting ranges (26.47%), and pistol/rifle shooting ranges (30.23%).

Table 18 Comparison of Top Ten Need-More and Need-to-Improve Facilities

Top Ten Facilities	Need More		Need to Improve	
	2017 Survey	2013 SCORP	2017 Survey	2013 SCORP
Hunting areas	34%	52%	17%	6%
Pistol/rifle shooting ranges	30%	45%	14%	6%
Shotgun shooting ranges	26%	41%	13%	5%
Nature areas/open space	23%	29%	13%	5%
Shore fishing areas	23%		19%	
Archery target shooting areas	22%	33%	12%	9%
Walking/biking trails (unpaved)	20%	22%	11%	6%
RV or trailer campgrounds	20%	26%	9%	8%
Fishing areas	20%	38%	17%	9%
Canoe/Kayak water trails	20%		11%	
Facilities for boating		27%		10%
Swimming beaches		22%		10%

Geographical comparison of facilities respondents

The following two tables are geographical comparison of facilities respondents checked “Need More” (Table 19) and “Need to Improve” (Table 20). These comparisons only utilized these survey participants who identified themselves as South Dakota residents and reported their residential zip code. For urban areas, like Sioux Falls and the Black Hills, responses according to

multiple zip codes were combined for the consideration of the larger regional area. For the remaining cities, only the primary zip code was used. Please notice that the number of responses for other geographic areas might not sufficient to draw any type of conclusions.

Table 19 Outdoor Recreation Facility “Need More” Comparison in South Dakota

	Statewide	Sioux Falls Area	Black Hills	Aberdeen	Watertown	Pierre/FP	Brookings	Mitchell	Huron	Yankton
Tent-camping campgrounds	18%	23%	18%	8%	11%	21%	20%	17%	0%	13%
RV or trailer campgrounds	21%	28%	15%	34%	23%	19%	16%	28%	39%	26%
Areas for backpacking	17%	21%	14%	16%	14%	13%	25%	17%	17%	8%
Picnic Areas	8%	7%	8%	8%	5%	8%	8%	8%	11%	5%
Facilities for boating	12%	18%	9%	7%	11%	17%	15%	11%	28%	13%
Swimming beaches	15%	16%	13%	11%	12%	20%	14%	11%	22%	13%
Swimming pools	8%	8%	6%	8%	5%	10%	10%	3%	11%	13%
Fishing areas	19%	25%	16%	24%	28%	19%	11%	22%	33%	18%
Shore fishing areas	22%	28%	17%	29%	28%	23%	19%	19%	33%	18%
Hunting areas	34%	38%	29%	45%	44%	34%	26%	36%	56%	38%
Walking/biking trails (unpaved)	24%	26%	24%	18%	28%	20%	27%	36%	28%	10%
Horseback riding trails	5%	3%	5%	13%	7%	5%	7%	3%	0%	5%
Paved trails	14%	20%	7%	16%	21%	9%	20%	19%	28%	13%
Mountain biking trails	16%	16%	19%	13%	19%	9%	11%	22%	28%	5%
Mountain biking skills course	12%	14%	13%	5%	9%	9%	10%	8%	17%	5%
Fat Tire bike trails	12%	13%	14%	8%	11%	7%	9%	11%	17%	3%
Cross-country skiing trails	13%	15%	12%	8%	9%	12%	18%	11%	6%	8%
Down-hill skiing/Snowboarding areas	11%	14%	9%	11%	12%	7%	15%	8%	17%	5%
Sledding areas	19%	17%	18%	29%	28%	13%	28%	11%	28%	18%
Ice skating or hockey rinks (outdoor)	10%	7%	10%	5%	7%	14%	19%	6%	11%	8%
Snowmobile trails	5%	7%	3%	11%	7%	2%	2%	3%	17%	8%
Off-road or ATV riding areas	12%	14%	10%	34%	19%	9%	4%	25%	22%	18%
Off-road or ATV trails	13%	16%	10%	29%	23%	11%	5%	25%	22%	15%
Historic sites (with interpretation)	12%	12%	11%	8%	12%	16%	14%	11%	0%	13%
Nature areas/open space	26%	29%	23%	21%	19%	32%	30%	28%	17%	20%
Outdoor festivals/Festival areas	14%	13%	12%	18%	18%	18%	16%	11%	11%	15%
Pow-wow grounds	4%	4%	5%	3%	4%	3%	7%	0%	0%	3%
Playgrounds	7%	4%	7%	11%	11%	10%	7%	14%	11%	8%
Soccer fields	3%	3%	2%	3%	5%	7%	4%	3%	0%	0%
Football fields	1%	1%	1%	3%	0%	2%	3%	0%	0%	0%
Lacrosse fields	2%	1%	2%	5%	0%	2%	2%	0%	0%	0%
Golf course/driving ranges	4%	5%	3%	8%	4%	5%	3%	0%	0%	3%
Baseball or softball fields	4%	5%	2%	5%	0%	6%	6%	0%	0%	5%
Skateboarding parks	5%	7%	6%	0%	7%	2%	5%	0%	6%	3%
Tennis courts	2%	2%	2%	3%	4%	0%	2%	0%	0%	0%
Volleyball courts (outdoor)	4%	3%	4%	8%	5%	2%	6%	0%	11%	5%
Basketball courts (outdoor)	3%	3%	2%	11%	5%	1%	3%	0%	6%	3%
Horseshoe pits	5%	5%	5%	11%	16%	2%	1%	8%	6%	8%
Archery target shooting ranges	22%	23%	23%	26%	37%	16%	17%	19%	33%	13%
Shotgun shooting ranges	28%	32%	27%	26%	40%	19%	20%	25%	44%	35%
Pistol/rifle shooting ranges	32%	33%	33%	29%	51%	21%	22%	44%	39%	45%
Disc golf courses	9%	13%	6%	11%	11%	7%	11%	8%	6%	3%
Dog parks	18%	21%	15%	24%	16%	20%	26%	8%	6%	13%
Canoe/Kayak water trails	24%	30%	21%	24%	16%	25%	26%	22%	11%	23%
ATV skills parks	6%	8%	5%	11%	9%	2%	2%	8%	0%	18%

*Note: Statewide (N=1,262), Sioux Falls Area (N=336), Black Hills Area (N=513), Aberdeen (N=38), Watertown (N=57), Pierre (N=122), Brookings (N=102), Mitchell (N=36), Huron (N=18), and Yankton (N=40).

Table 20 Outdoor Recreation Facility “Need to Improve” Comparison in South Dakota

	Statewide	Sioux Falls Area	Black Hills	Aberdeen	Watertown	Pierre/FP	Brookings	Mitchell	Huron	Yankton
Tent-camping campgrounds	11%	10%	11%	16%	14%	8%	15%	6%	22%	8%
RV or trailer campgrounds	9%	8%	9%	18%	16%	5%	9%	3%	22%	5%
Areas for backpacking	11%	11%	11%	8%	11%	10%	16%	8%	6%	8%
Picnic Areas	10%	9%	12%	18%	11%	7%	9%	6%	11%	10%
Facilities for boating	15%	22%	10%	29%	16%	16%	12%	11%	22%	28%
Swimming beaches	21%	25%	17%	26%	18%	21%	26%	19%	11%	15%
Swimming pools	9%	8%	9%	8%	7%	20%	4%	8%	11%	18%
Fishing areas	16%	17%	16%	26%	18%	15%	12%	17%	22%	5%
Shore fishing areas	18%	21%	16%	21%	19%	18%	19%	17%	33%	13%
Hunting areas	17%	17%	16%	21%	18%	19%	21%	11%	22%	25%
Walking/biking trails (unpaved)	13%	11%	15%	5%	4%	12%	16%	14%	6%	8%
Horseback riding trails	4%	3%	4%	3%	5%	3%	5%	6%	0%	5%
Paved trails	9%	10%	8%	5%	7%	10%	12%	14%	11%	5%
Mountain biking trails	7%	6%	10%	3%	0%	5%	9%	11%	6%	8%
Mountain biking skills course	6%	4%	7%	5%	5%	3%	4%	14%	0%	3%
Fat Tire bike trails	5%	4%	6%	3%	4%	4%	4%	8%	0%	5%
Cross-country skiing trails	7%	6%	7%	8%	5%	8%	13%	11%	6%	0%
Down-hill skiing/Snowboarding areas	6%	5%	7%	8%	0%	5%	11%	8%	6%	3%
Sledding areas	13%	9%	13%	18%	2%	15%	20%	14%	17%	15%
Ice skating or hockey rinks (outdoor)	9%	8%	10%	5%	5%	8%	13%	6%	6%	5%
Snowmobile trails	4%	5%	2%	5%	2%	2%	9%	8%	0%	3%
Off-road or ATV riding areas	7%	7%	6%	11%	7%	6%	8%	8%	0%	8%
Off-road or ATV trails	8%	8%	7%	13%	7%	7%	8%	8%	0%	10%
Historic sites (with interpretation)	15%	15%	16%	5%	12%	17%	12%	22%	17%	13%
Nature areas/open space	14%	13%	15%	13%	16%	12%	22%	8%	22%	13%
Outdoor festivals/Festival areas	10%	10%	10%	13%	7%	11%	17%	6%	11%	5%
Pow-wow grounds	4%	3%	4%	0%	9%	3%	7%	0%	6%	8%
Playgrounds	10%	8%	9%	18%	9%	13%	12%	8%	33%	13%
Soccer fields	3%	1%	4%	5%	4%	2%	3%	6%	17%	5%
Football fields	3%	1%	3%	5%	5%	2%	3%	6%	17%	3%
Lacrosse fields	2%	1%	2%	5%	2%	2%	4%	8%	0%	3%
Golf course/driving ranges	4%	4%	4%	5%	4%	6%	5%	6%	0%	3%
Baseball or softball fields	7%	7%	6%	8%	9%	8%	6%	6%	11%	5%
Skateboarding parks	6%	4%	8%	0%	4%	3%	9%	3%	28%	5%
Tennis courts	5%	3%	3%	8%	5%	5%	8%	11%	22%	5%
Volleyball courts (outdoor)	5%	3%	5%	5%	4%	7%	9%	8%	6%	0%
Basketball courts (outdoor)	5%	7%	5%	5%	4%	4%	3%	11%	11%	0%
Horseshoe pits	7%	7%	7%	5%	7%	7%	5%	6%	6%	8%
Archery target shooting ranges	13%	13%	14%	8%	12%	13%	15%	17%	17%	10%
Shotgun shooting ranges	14%	13%	14%	11%	21%	16%	16%	11%	17%	10%
Pistol/rifle shooting ranges	14%	14%	14%	21%	16%	14%	14%	14%	28%	13%
Disc golf courses	6%	5%	5%	0%	4%	7%	12%	6%	17%	3%
Dog parks	13%	12%	14%	11%	5%	15%	15%	8%	22%	10%
Canoe/Kayak water trails	13%	15%	12%	18%	5%	12%	19%	11%	28%	5%
ATV skills parks	4%	3%	4%	8%	2%	5%	3%	3%	17%	3%

*Note: Statewide (N=1,262), Sioux Falls Area (N=336), Black Hills Area (N=513), Aberdeen (N=38), Watertown (N=57), Pierre (N=122), Brookings (N=102), Mitchell (N=36), Huron (N=18), and Yankton (N=40).

Comparison analysis: Perspectives of outdoor recreation

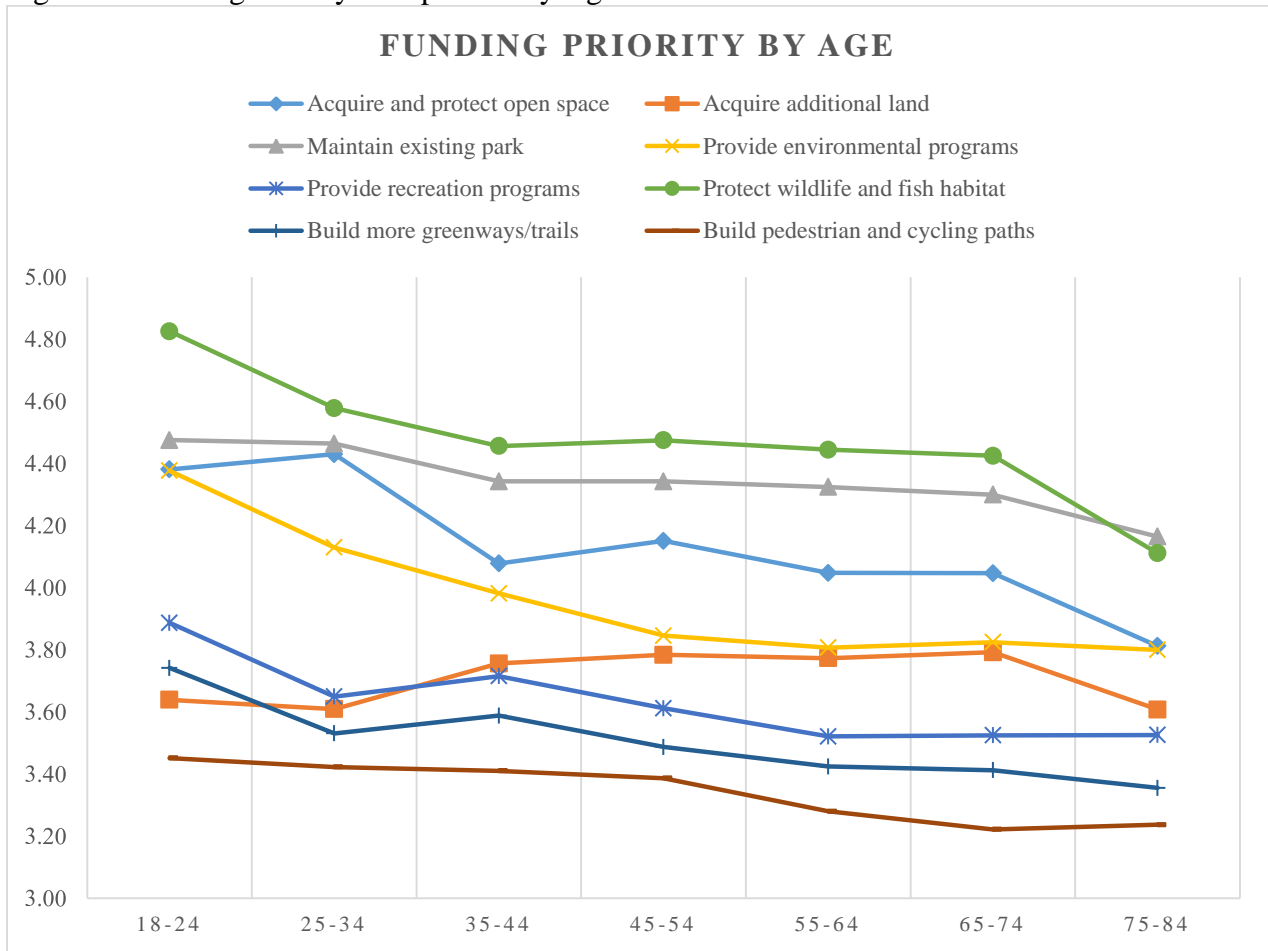
The purpose of this comparison analysis was to provide further information through advanced statistical analyses in explaining the public's perspectives about outdoor recreation by factors that have been identified affecting individuals' perceptions and experiences during outdoor recreation, such as socio-demographics and residential area (Heberlein & Ericsson, 2005; Hendee, 1969; Stedman & Heberlein, 2002; Zawacki, Marsinko, & Bowker, 2000). Analysis of variance (ANOVA) with Post-Hoc test, a statistical comparison technique, was applied to examine if there is any statistical difference among group means and variance (Vaske, 2008).

In addition, this section only utilized these survey participants who identified themselves living in South Dakota and reported their residential zip code and socio-demographics. Therefore, the numbers of respondents may vary from analysis to analysis. Race was not analyzed in this comparison because of lower representation of non-white population (4%).

Age and outdoor recreation/conservation. In this comparison, all survey participants' were categorized in to groups based on a 10 years of increment in age (i.e. 18-24, 25-34, 45-54, 55-64, 65-74, 75-84, and 85+). Among public survey participants of outdoor recreation, approximately 60% of them were 55 or older, while only 13% were under age of 35. The ANOVA was applied to examine if survey participants showed different perspectives and priorities in funding outdoor recreation and conservation efforts (Section IV, Question 1) and perceived benefits of parks and recreation (Section IV, Question 3 & 5) in South Dakota with different age groups. The results were summarized as follows:

- (1) Younger generation, especially these participants 18 to 24 of age, reported a significant higher value in the following funding properties in outdoor recreation and conservation than all other age groups (Figure 14):
 - Acquire and protect open space (as undeveloped and conserved land)
 - Provide environmental and conservation programs
 - Protect wildlife and fish habitat
- (2) "Preserve open space and the environment" and "provide opportunities for social interaction" were the most essential value and perceived benefits of parks and recreation in South Dakota from community members in all ages.
- (3) The younger generations between 18 to 34 years of age received a greater benefit in the following category from local parks and recreation than the older generation especially these who 55 or more years old:
 - Improve physical health and fitness
 - Increase property values in their community
 - Improve mental health and reduce stress.
- (4) Survey participants in all ages received "well" or "very well" quality of parks and recreation in their local community.

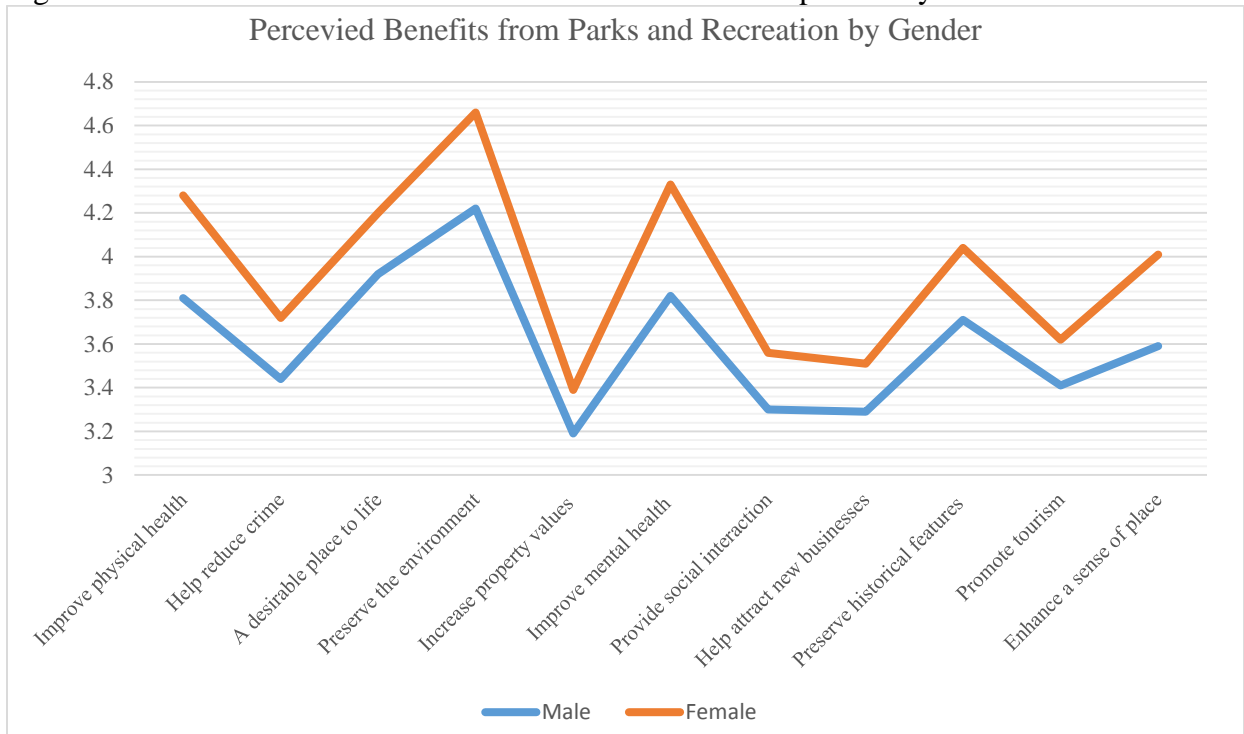
Figure 14 Funding Priority Comparison by Age



Gender and outdoor recreation. The ANOVA was applied to examine if survey participants showed different perspectives and priorities in funding outdoor recreation and conservation efforts (Section IV, Question 1) and perceived benefits of parks and recreation (Section IV, Question 3 & 5) in South Dakota with their gender. The results indicated that (Figure 15):

- (1) For both man and women research participants, “maintaining existing park and recreation areas” and “protect wildlife and fish habitat” were the two most important priorities for financially supporting outdoor recreation and conservation.
- (2) Women research participants were likely to support “building more greenways/trails” and “build pedestrian cycling path between places of work, parks, and schools” as priorities of outdoor recreation in South Dakota than their male counterpart.
- (3) Women participants reported approximately 10-15% higher in scores on all potential benefits from parks and outdoor recreation than man.

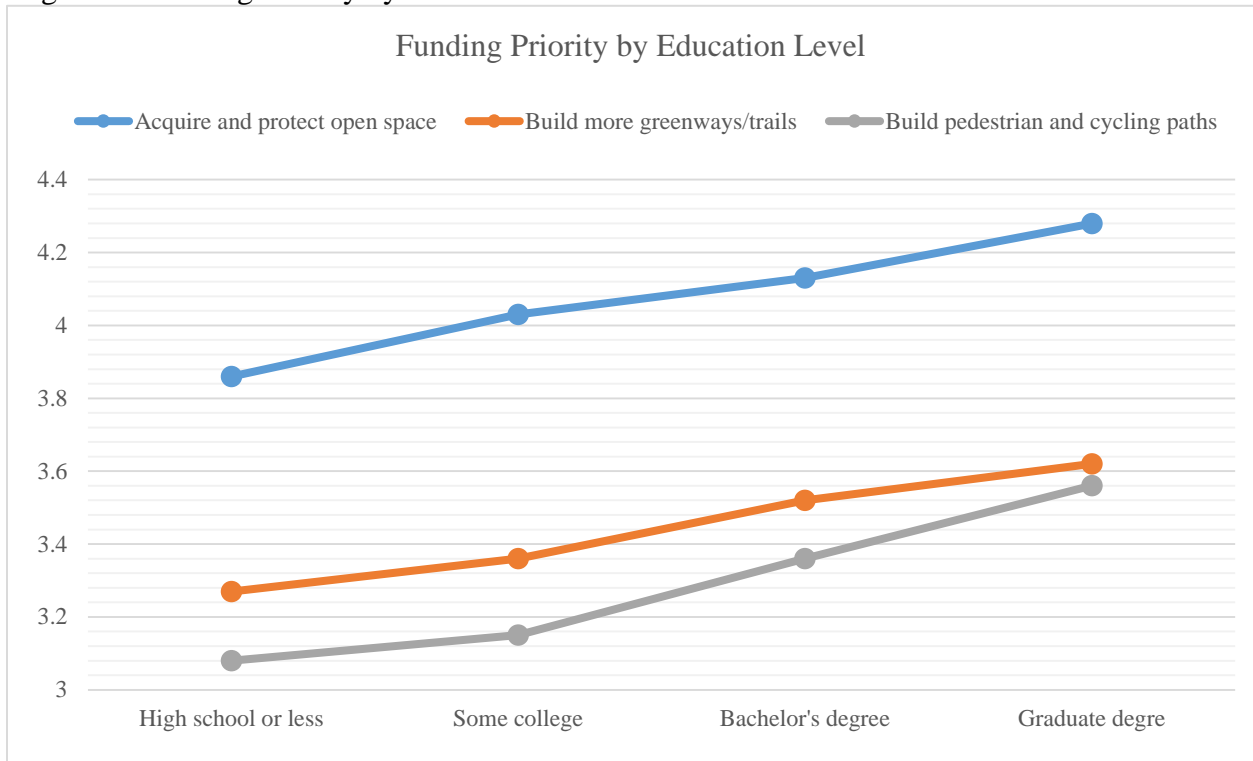
Figure 15 Perceived Benefits from Parks and Recreation Comparison by Gender



Education level and annual family income. The ANOVA was applied to test if the public have different perspectives and priorities in funding outdoor recreation and conservation efforts (Section IV, Question 1) and perceived benefits of parks and recreation (Section IV, Question 3 & 5) in South Dakota with their received highest education level and annual family income. The results were summarized as follows:

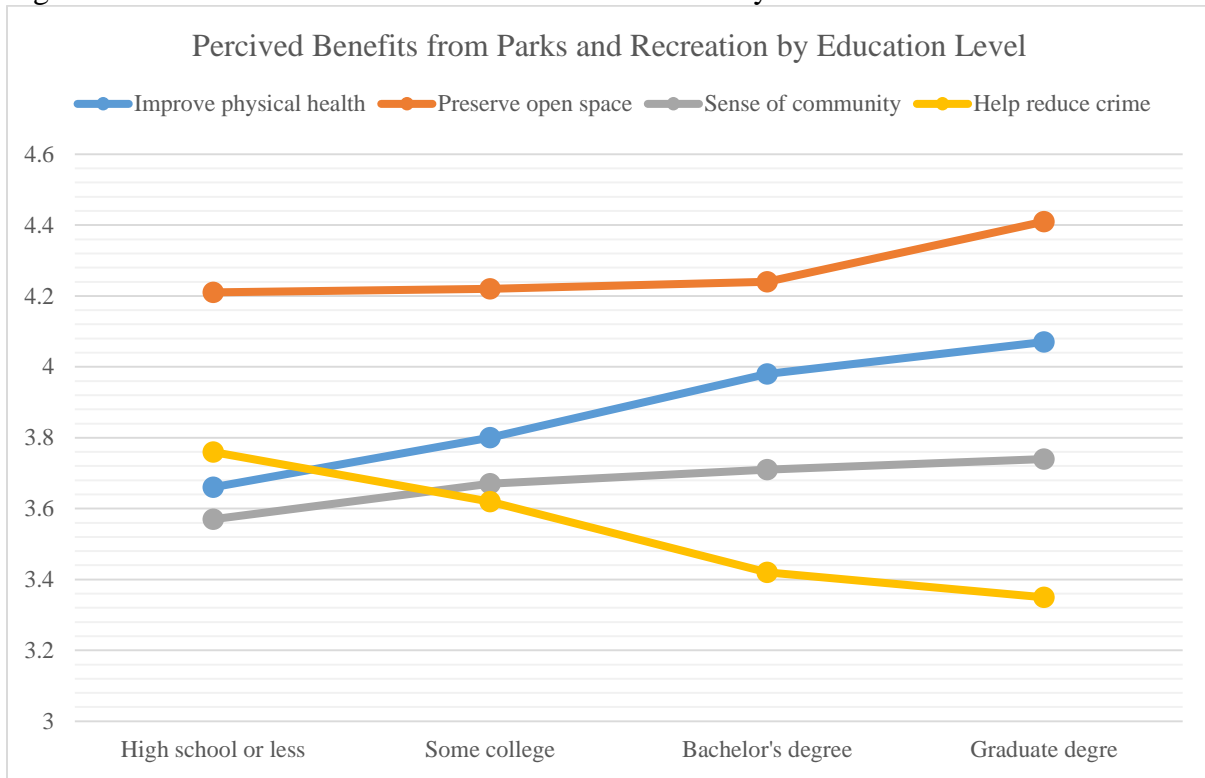
- (1) Survey participants with college and graduate degree were more likely to support the following conservation effort than those without a college degree (Figure 16):
 - Acquire and protect open space (as undeveloped and conserved land)
 - Build greenways/trails
 - Build pedestrian and cycling paths between places of work, park, and school etc.

Figure 16 Funding Priority by Education Level



- (2) Survey participants with graduate degree tended to report a higher score in (Figure 17):
- “Preserving open space and the environment” from parks and recreation in South Dakota than other groups.
 - “Improving physical, health, and fitness” as a perceived benefit from local parks and recreation.
 - “Enhancing a sense of place and community” as a perceived benefit from local parks and recreation.
- (3) Survey participants with high school or some college experience tended to report a higher importance in “help reduce crime” from parks and recreation in South Dakota than other groups.
- (4) As for annual income, there is no significant difference was found among different annual income groups in both funding priorities of conservation efforts and perceived benefits of parks and recreation.

Figure 17 Perceived Benefits from Parks and Recreation by Education Level



Population/city size of residential area in South Dakota. In this comparison, all research participants were categorized into groups based on the population of their residential area converted from their reported zip code (United States Census Bureau, 2017). Among public survey participants of outdoor recreation, approximately 30% of research participants live in cities/towns with population of 500 to 4,999, while majority of respondents (56.6%) live in cities with population 10,000 or more (Table 21).

Table 21 Survey respondents by city size

City population/size	Examples	Survey respondents
Less than 500	Bruce, Florence, Hermosa, Lake City, etc.	147 (8.8%)
500 – 4,999	Deadwood, Volga, Webster, Chamberlain, Custer etc.	501 (29.9%)
5,000 – 9,999	Dell Rapids, Brandon, Hot Springs, Sturgis, North Sioux City etc.	80 (4.8%)
10,000 – 19,999	Huron, Vermilion, Pierre, Spearfish, Yankton, Mitchell	231 (13.8%)
20,000 – 49,999	Aberdeen, Brookings, Watertown	237 (14.2%)
50,000 – 99,999	Rapid City	246 (14.7%)
100,000 or more	Sioux Falls	232 (13.9%)
Total		1674

*Note: include only in-state research participants who answer the zip code question.

The ANOVA was employed to investigate if the public might have different perspectives and priorities in funding outdoor recreation and conservation efforts (Section IV, Question 1) and perceived benefits of parks and recreation (Section IV, Question 3 & 5) in South Dakota with residential areas by population size. The results indicated that:

- Sioux Falls residents (overall population of 153,888) reported that “building more greenways/trails” and “build pedestrian cycling path between places of work, parks, and schools” are priorities in funding outdoor recreation (Figure 18).
- Overall, survey participants who live in larger cities/towns tend to report a higher priority in “building more greenways/trails” and “build pedestrian cycling path between places of work, parks, and schools” than smaller community residents.
- Residents of median size cities, population of 10,000 to 19,999 and 20,000 to 49,999, indicated the highest value of parks and recreation in “making community a more desirable place to live” than smaller communities and larger cities.
- Rapid City (population of 67,956) residents showed the strongest value of parks and recreation in “help attract new residents and business” and “promote tourism” than all the other communities (Figure 19).
- As for parks and recreation delivery, all community members received similar benefits of local parks and recreation services in “preserve open space and environment”, “provide opportunities for social interaction”, and “help reduce crime”.
- Residents’ in larger communities tended to report their local parks and recreation services particularly beneficial to “improve physical health and fitness” and “improve mental health and reduce stress”.

Figure 18 Funding Priority by City Population

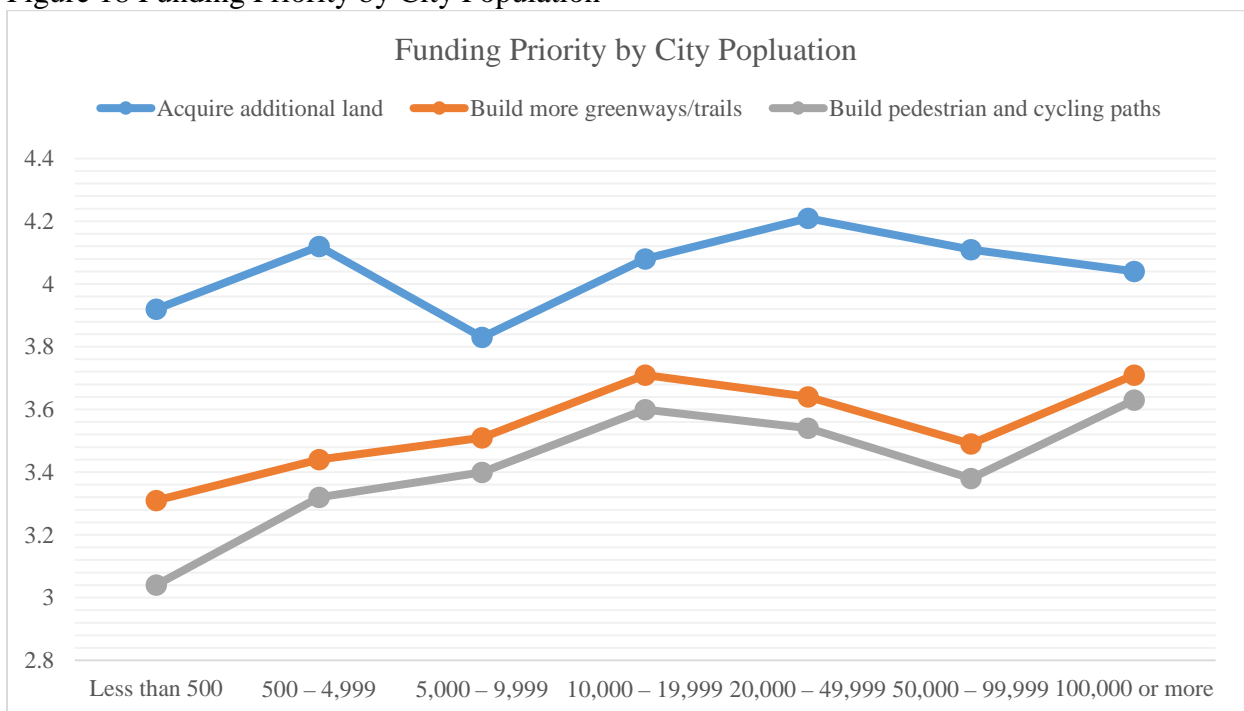
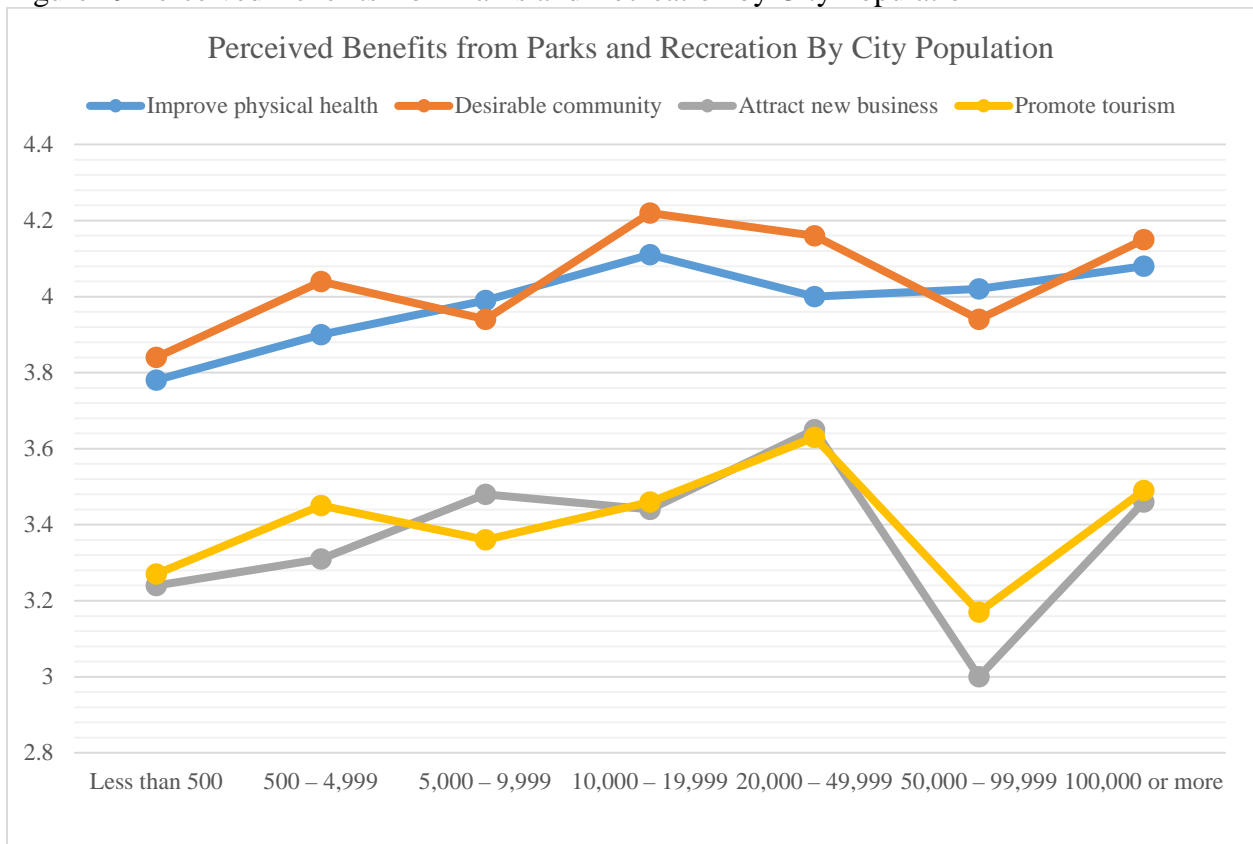


Figure 19 Perceived Benefits from Parks and Recreation by City Population



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*2018 South Dakota SCORP
Outdoor Recreation
Providers Survey Report*



Sport and Recreation Management

Hung-Ling (Stella) Liu, Ph.D.

Paige E. O'Farrell

Jason Mehlhaf

Results: Survey for Outdoor Recreation Providers

As a preparation for SCORP, outdoor recreation supply in South Dakota was required. The study assessed the outdoor recreation supply in South Dakota from various providers in the state as well as identified current trends and challenges. A statewide survey of South Dakota outdoor recreation providers was conducted to understand their general operation and current challenges in the field. General operation in outdoor recreation included providers' outdoor recreation, providers' organizational information, and responsibilities, such as type of organization/agency, target service population, budget, staff, program, facilities, partnership etc. The survey also asked about perceived current challenges in providing outdoor recreation in South Dakota, including population change (i.e. aging, diversity, minority, residential area), financial shortfall, natural and environmental conditions, social and cultural barriers for being outdoors, and quality of staff.

Overall Survey Participation

Provider Survey. According to the QuestionPro database, a SDSU paid online survey platform, there were approximately 100 individuals who viewed the 2017 SCORP Survey for Outdoor Recreation Providers online. As for online platform, 76 started the survey but only 64 completed the survey, which might include missed responses and skipped questions due to the without forced response survey design. The online completion rate of the provider survey was approximately 80%. The average time to complete the providers' survey (not including inventory survey) was ten minutes (10). Additionally, fourteen surveys were sent through emails and three were returned in mail. There were 82 research participants (cities, towns, or counties) utilized in the report.

The findings of the providers' survey (Appendix A) will follow the sections of the survey, including (1) Organization and community information, (2) Benefits and priorities in outdoor recreation, and (3) Challenges in providing outdoor recreation.

Inventory Survey. Seventy (70) cities/towns/organizations finished their inventory survey (Appendix B), of which 39 responded online, and 31 sent email or paper-based survey to the principle investigator. A separate Excel file of inventory survey will be provided to GFP.

Section I: Organization and Community Information

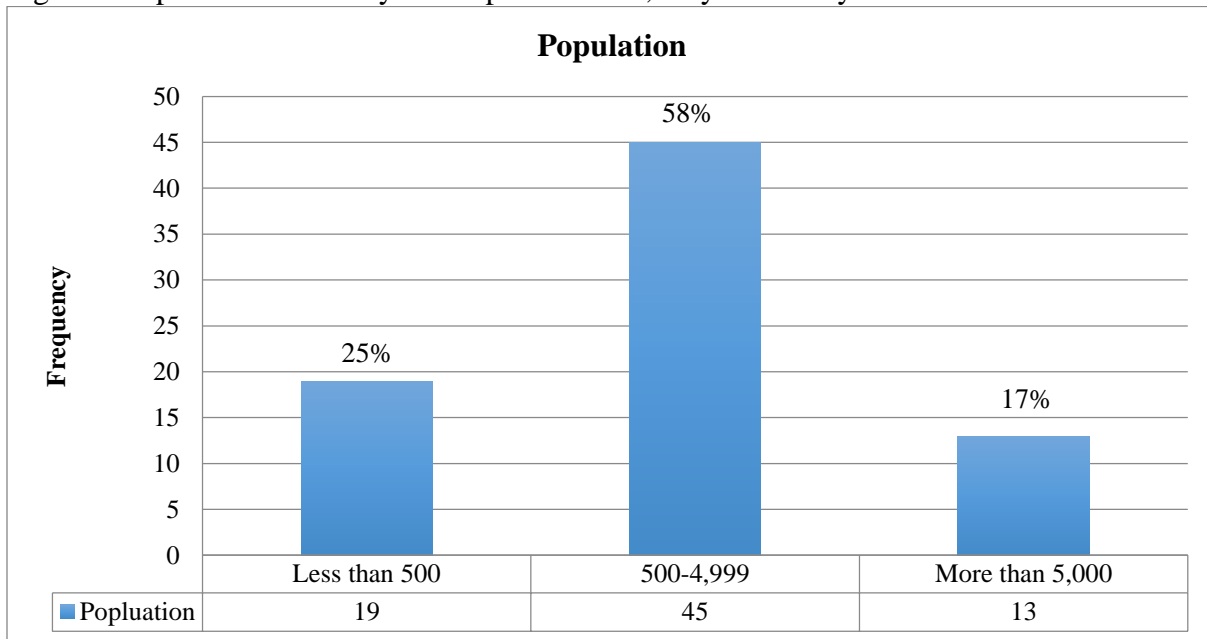
1. What is the best description of the park and recreation agency/organization with which you are affiliated?

The first question of the provider’s survey asked what was the best description of the park and recreation agency/organization which respondents were affiliated. Almost 94% of survey participants were affiliated with a “local and municipal parks and recreation agency” (N = 76). One research participant (1.2%) was affiliated with a “state agency”, two individuals (2.5%) stated “non-profit private organization”, 1.2% (N=1) stated “federal land management agency”, and 1.2% (N = 1) stated “other”.

2. What is the population of your town, city or county based on the latest census?

The second question asked for the population size of the city that the providers were providing their services. A total of 80 individuals responded this question. Below is a graph that shows the responses. 24.7% stated “less than 500”, 58.4% stated “500-4,999”, and 16.9% stated “more than 5,000” (Figure 1).

Figure 1 Population of Survey Participants: Town, City or County



3. What is the zip code of your community/municipality/county office?

Please see Appendix C for the list of zip code of community/municipality/county participating the survey.

4. Does your community/municipality/county have a Parks and/or Recreation Department that employs at least one dedicated individual providing park and recreation services?

A majority of the survey respondents (58.9%, N = 43) reported that their community/municipality/county have at least one dedicated individual providing park and recreation services, while 41.1% (N = 30) do not at least one dedicated individual providing park and recreation services. The survey participants who selected “No” in this question were asked to answer the following question (Question 5) for what other unit of city government provides recreation services for the community.

5. If there is not a Parks and/or Recreation Department, what other unit of city government provides recreation services for the community?

If there is not a park and recreation department, the followings are the common answers of other units of city government providing recreation services:

- Public works or city maintenance department
- Related duties split among different departments
- Collaboration with local non-profit organizations or volunteer groups

Please see the open-ended responses in Appendix C.

6. Does your community/municipality/county have a Parks and Recreation Board?

- Yes: 31 (40.8%)
- No: 45 (59.2%)

7. Does the community/municipality/county offer recreation programs for persons 17 years old and younger?

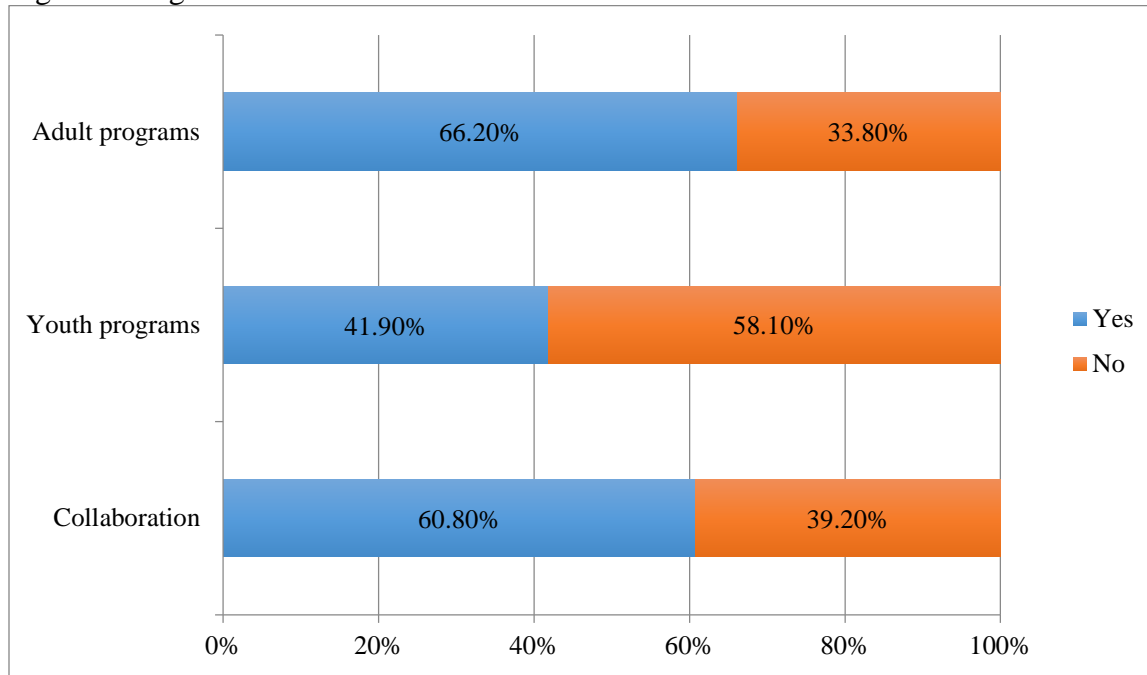
8. Does the community/municipality/county offer recreation programs for persons 18 years old and older?

9. Does your community/municipality/county jointly provide park resources with another non-governmental unit (e.g., YMCA or other local nonprofit organization)?

The following three questions were designed to acquire information about adult and youth programs and collaboration respectively. Figure 2 show percentages:

- Programs for adults “yes” (N = 49) versus “no” (N = 25),
- Programs for youth “yes” (N = 31) versus “no” (N = 43)
- Collaboration another non-governmental unit with “yes” (N = 45) versus “no” (N = 27).

Figure 2 Programs and Collaboration of Parks and Recreation Services



Section II: Benefits and Priorities in Outdoor Recreation

1. When thinking about your community or organization, how important or unimportant are each of following considerations when making decisions about funding outdoor recreation and conservation efforts? Please rate each statement from scale: 1 =Extremely Unimportant to 5= Extremely Important.

Table 1 below shows the range of responses for the eight considerations, ranging from Extremely Unimportant (1) to Extremely Important (5).

- “(C) Maintain existing park and recreation areas” had highest response within extremely important at 64 responses (83.1%) and mean score of 4.65.
- “(E) Provide recreation programs at parks and recreation areas” had 62.4% of research participants reported as important or extremely important and mean score of 3.76.
- “(H) Build pedestrian and cycling paths between places of work, parks, schools etc.” had 63.7% participants reported as important or extremely important and mean score of 3.74.
- “(D) Provide environmental and conservation programs” had highest response within neutral at 41 responses (53.9%).

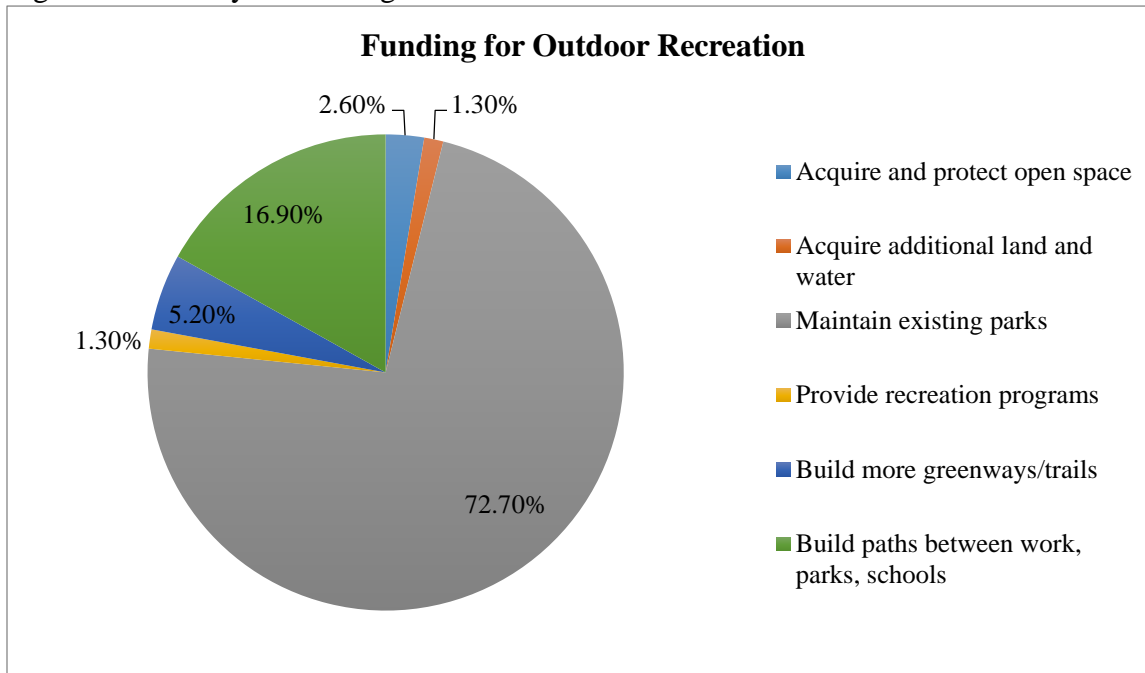
Table 1 Summary of Importance of Funding Efforts in Outdoor Recreation

	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Acquire and protect open space (as undeveloped, conserved land)	8 (10.4%)	13 (16.9%)	26 (33.8%)	21 (27.3%)	9 (11.7%)	3.12	1.17
(B) Acquire additional land and water areas for developed recreation	9 (11.7%)	17 (22.1%)	31 (40.3%)	15 (19.5%)	5 (6.5%)	2.86	1.09
(C) Maintain existing park and recreation areas	3 (3.9%)	1 (1.4%)	2 (2.6%)	7 (9.1%)	64 (83.1%)	4.65	.91
(D) Provide environmental and conservation programs	3 (3.9%)	9 (11.8%)	41 (53.9%)	17 (22.4%)	6 (7.9%)	3.19	.91
(E) Provide recreation programs at parks and recreation areas	5 (6.5%)	6 (7.8%)	18 (23.4%)	22 (28.6%)	26 (33.8%)	3.76	1.16
(F) Protect wildlife and fish habitat	3 (3.9%)	9 (11.7%)	28 (36.4%)	19 (24.7%)	18 (23.4%)	3.5	1.1
(G) Build more greenways/trails	6 (7.8%)	9 (11.7%)	20 (26%)	25 (32.5%)	17 (22.1%)	3.46	1.18
(H) Build pedestrian and cycling paths between places of work, parks, schools etc.	6 (7.8%)	6 (7.8%)	16 (20.8%)	20 (26%)	29 (37.7%)	3.74	1.26

2. In your community, which of the above considerations is the most important when making funding decisions about outdoor recreation and conservation efforts in South Dakota? _____(select from statements A to H)

This question is used to gauge the most important consideration for providers by asking them to pick the most important consideration to them (Figure 3). The highest response was for Consideration C “Maintain existing park and recreation areas” at 56 responses (73.7%). It is noted that Considerations D and F were not chosen at all, and Considerations A, B, and E were only chosen by one respondent each (1.34%).

Figure 3 Summary of Funding Priorities of Providers



3. When thinking about your community, how important or unimportant is it that your agency delivers or provides the following to the public? Please rate each statement from scale: 1 =Extremely Unimportant to 5= Extremely Important.

This question was used to ask how important providers perceived community considerations within their own communities and see what the providers believe their community needs in terms of considerations. Table 2 shows the percentage and frequency of the providers, empty spaces (0) reflect no responses in that category.

- “(C) Make your community a more desirable place to live” had the highest response rate for extremely important at 58 responses (76.3%) with mean score of 4.66 out of 5.
- “(H) Help attract new residents and businesses” had 62.7% of respondents reported as extremely important with mean score of 4.38.
- “(A) Improve physical health and fitness” ranked highest in “somewhat important” at 37 responses (48.7%).

- “(D) Preserve open space and the environment” and (F) Improve mental health and reduce stress” were rated relatively lower than other benefits of parks and recreation services.

Table 2 Summary of Perceived Benefits from Parks and Recreation in South Dakota

	Extremely Unimportant	Somewhat Unimportant	Neutral	Somewhat Important	Extremely Important	Mean (M)	SD
(A) Improve physical health and fitness	1 (1.3%)	5 (6.6%)	10 (13.2%)	37 (48.7%)	23 (30.3%)	3.99	.920
(B) Help reduce crime	1 (1.3%)	5 (6.6%)	15 (19.7%)	25 (32.9%)	30 (39.5%)	4.00	1.0
(C) Make your community a more desirable place to live	2 (2.6%)	1 (1.3%)	0	15 (19.7%)	58 (76.3%)	4.66	.803
(D) Preserve open space and the environment	1 (1.3%)	4 (5.3%)	24 (31.6%)	27 (35.5%)	20 (26.3%)	3.81	.952
(E) Increase property values in your community	0	6 (7.9%)	13 (17.1%)	23 (30.3%)	34 (44.7%)	4.14	.952
(F) Improve mental health and reduce stress	1 (1.3%)	4 (5.3%)	18 (24%)	30 (40%)	22 (29.3%)	3.90	.952
(G) Provide opportunities for social interaction	0	4 (5.3%)	13 (17.1%)	32 (42.1%)	27 (35.5%)	4.08	.862
(H) Help attract new residents and businesses	3 (4%)	2 (2.7%)	5 (6.7%)	18 (24%)	47 (62.7%)	4.38	1.027
(I) Preserve historical features in your community	1 (1.3%)	3 (3.9%)	14 (18.4%)	32 (42.1%)	26 (34.2%)	4.03	.912
(J) Promote tourism	0	5 (6.6%)	18 (23.7%)	20 (26.3%)	33 (43.4%)	4.05	.970
(K) Enhance a sense of place and community	0	3 (4%)	4 (5.3%)	26 (34.7%)	42 (56%)	4.43	.784

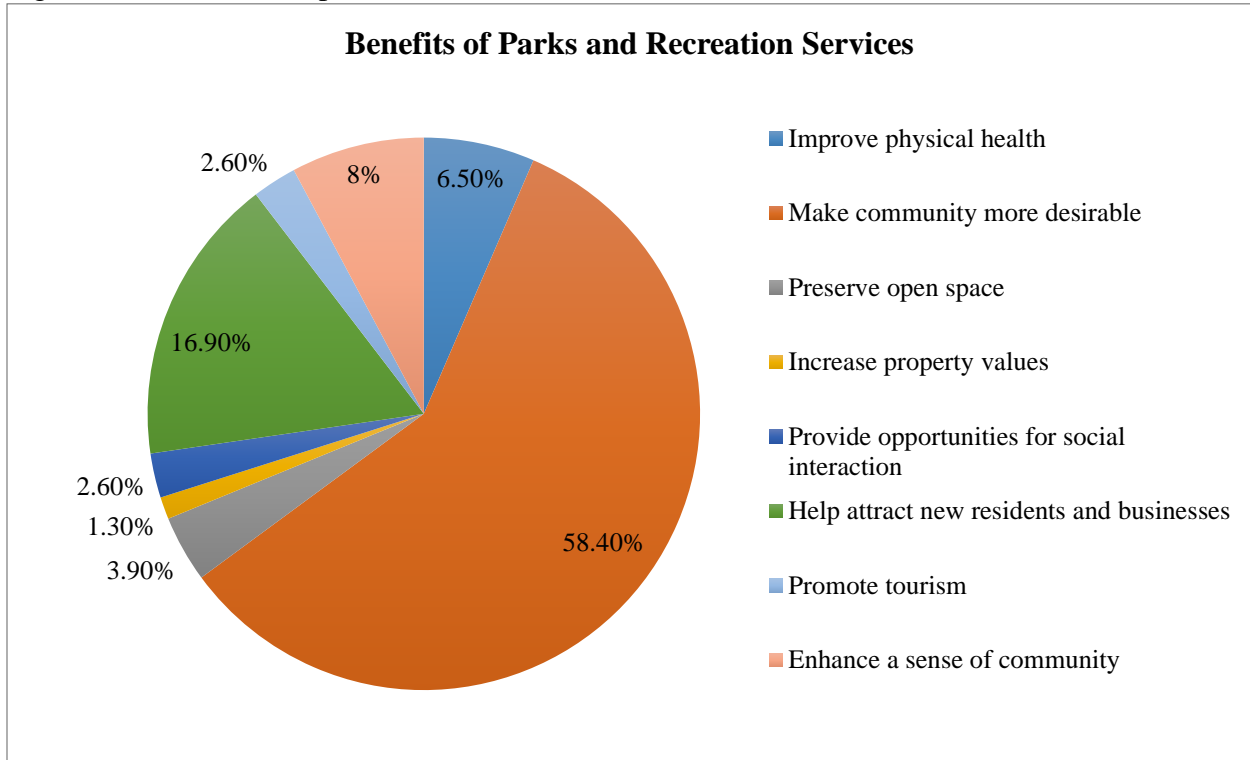
4. From the list above, please select the single most important aspect you feel your agency/organization provides to your residents and community. _____ (select from statement A to K)

This question was used to ask the providers what they feel is the most important aspect that they add to their community from the list of considerations given above (Figure 4).

- (C) Make your community a more desirable place to live: 45 responses (59.2%)
- (H) Help attract new residents and businesses: 13 responses (17.1%)

- (B), (F), and (I) were not chosen by any of the providers as most important aspect their organization provides to the community they reside within.

Figure 4 Providers' Perspective of Parks and Recreation Benefits



5. What is the level of priority that your agency places on investing in each of the following facilities? Please rate from scale: 1 = Lowest priority, 5=Highest priority.

Playgrounds were the top facility providers listed as their highest priority to invest in (61.6%). Other top facilities to invest in included swimming pools/water parks (43.8%), basketball or softball fields (43.1%), paved walking/biking trails (30.8%), and picnic areas (25.0%). Providers listed their lowest priorities as investing in lacrosse fields, mountain biking trails, mountain biking skills courses, facilities for boating, and skateboarding parks (Table 3).

Table 3 Municipal Parks and Recreation Providers' Facility Priority

	Lowest Priority				Highest Priority	Mean
Tent-camping campgrounds	26 (35.6%)	12 (16.4%)	20 (27.4%)	9 (12.3%)	6 (8.2%)	2.41
RV or trailer campgrounds	16 (21.9%)	12 (16.4%)	10 (13.7%)	23 (31.5%)	12 (16.4%)	3.04
Picnic areas	3 (4.2%)	4 (5.6%)	19 (26.4%)	28 (38.9%)	18 (25.0%)	3.75
Facilities for boating	48 (66.7%)	6 (8.3%)	6 (8.3%)	7 (9.7%)	5 (6.9%)	1.82

Swimming pool/water park	18 (24.7%)	4 (5.5%)	8 (11.0%)	11 (15.1%)	32 (43.8%)	3.48
Trails/parks for motorized vehicles	36 (49.3%)	16 (21.9%)	13 (17.8%)	6 (8.2%)	2 (2.7%)	1.93
Fishing areas	35 (47.9%)	9 (12.3%)	13 (17.8%)	9 (12.3%)	7 (9.6%)	2.23
Walking/biking trails (unpaved)	13 (18.3%)	12 (16.9%)	19 (26.8%)	17 (23.9%)	10 (14.1%)	2.99
Walking/biking trails (paved)	11 (16.9%)	8 (12.3%)	12 (18.5%)	14 (21.5%)	20 (30.8%)	3.37
Mountain biking skills course	48 (73.8%)	6 (9.2%)	8 (12.3%)	1 (1.5%)	2 (3.1%)	1.51
Mountain biking trails	54 (76.1%)	4 (5.6%)	8 (11.3%)	1 (1.4%)	4 (5.6%)	1.55
Nature areas/open space	13 (18.1%)	16 (22.2%)	23 (31.9%)	13 (18.1%)	7 (9.7%)	2.79
Outdoor festival	14 (19.4%)	11 (15.3%)	24 (33.3%)	17 (23.6%)	6 (8.3%)	2.86
Playgrounds	1 (1.4%)	2 (2.7%)	8 (11.0%)	17 (23.3%)	45 (61.6%)	4.41
Soccer fields	32 (43.8%)	6 (8.2%)	21 (28.8%)	8 (11.0%)	6 (8.2%)	2.32
Golf courses/driving ranges	34 (46.6%)	5 (6.8%)	7 (9.6%)	11 (15.1%)	16 (21.9%)	2.59
Baseball or softball fields	11 (15.3%)	0	9 (12.5%)	21 (29.2%)	31 (43.1%)	3.85
Skateboarding parks	47 (64.4%)	6 (8.2%)	11 (15.1%)	5 (6.8%)	4 (5.5%)	1.81
Disc golf courses	32 (43.8%)	7 (9.6%)	16 (21.9%)	9 (12.3%)	9 (12.3%)	2.40
Off-leash dog parks	42 (57.5%)	12 (16.4%)	10 (13.7%)	6 (8.2%)	3 (4.1%)	1.85
Outdoor education facilities	31 (43.1%)	15 (20.8%)	14 (19.4%)	10 (13.9%)	2 (2.8%)	2.13
Lacrosse fields	54 (81.8%)	6 (9.1%)	4 (6.1%)	1 (1.5%)	1 (1.5%)	1.32
Football fields	32 (48.5%)	4 (6.1%)	12 (18.2%)	6 (9.1%)	12 (18.2%)	2.42

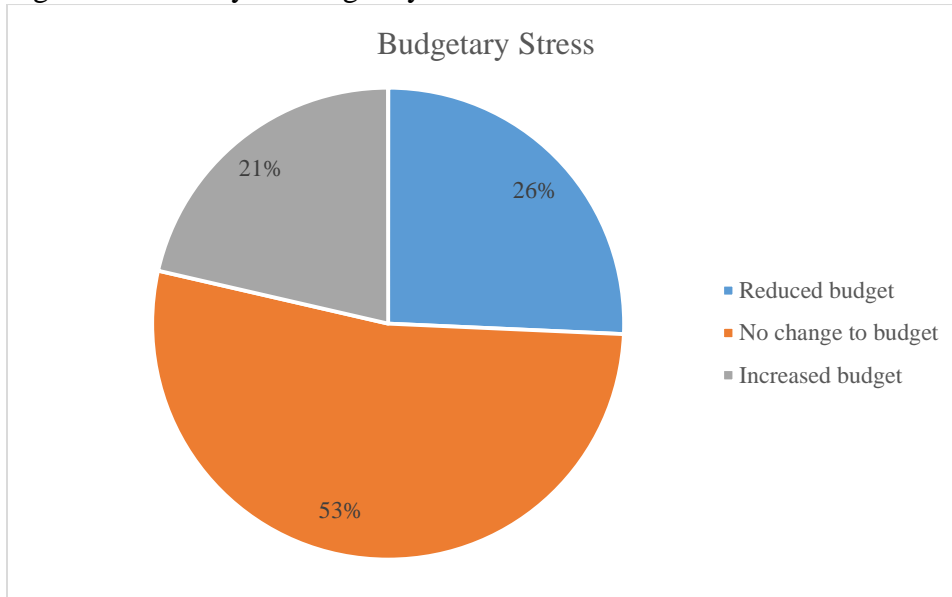
6. Are there any other types of facilities your agency/organization places a high priority on when planning outdoor recreation development?

Please see the open-ended responses in Appendix C.

Section III: Challenges in Providing Outdoor Recreation

1. During the past three years, most municipalities/counties have experienced parks and recreation budgetary stress. What has your experience been in your community or area of responsibility?

Figure 5 Summary of Budgetary Stress in South Dakota



2. The following are potential concerns outdoor recreation providers may face. How much of a challenge, if at all, are each of the following concerns? Please indicate the level of challenge/concern for that topic within your organization or community at this time, from 1 = “Not a challenge” to 5 = “Major challenge”.

Outdoor recreation providers listed creating new park and recreation facilities as a major concern providers face (50.7%). Other major concerns include developing alternative revenue for parks and recreation (47.9%), recruiting and retaining quality staff and volunteers (37.0%), budgeting or allocating funds for operation and management (38.4%), and determining how to use limited resources for various recreation needs from the public (37.0%). Providers’ also listed concerns about maintaining existing recreation infrastructure or resources as moderate to major challenges. On the other hand, South Dakota’s providers’ lowest concern was adapting to serve ethnic minorities (46.6%). Please see the detailed results in Table 4.

Table 4 Summary of Challenges of Parks and Recreation Providers

Level of Challenge	Not	Slight	Somewhat	Moderate	Major	M	SD
Maintaining existing recreation infrastructure or resources	2 (2.7%)	8 (11.0%)	16 (21.9%)	24 (32.9%)	23 (31.5%)	3.79	1.09
Creating new park and recreation facilities	4 (5.5%)	9 (12.3%)	11 (15.1%)	12 (16.4%)	37 (50.7%)	3.95	1.29
Enhancing outdoor recreation opportunities on public land	6 (8.2%)	6 (8.2%)	19 (26.0%)	22 (30.1%)	20 (27.4%)	3.60	1.21
Collaborating with other government or non-profit	11 (15.1%)	12 (16.4%)	23 (31.5%)	17 (23.3%)	10 (13.7%)	3.04	1.25

organizations for outdoor recreation services							
Recruiting and retaining quality staff and volunteers	8 (11.0%)	6 (8.2%)	17 (23.3%)	15 (20.5%)	27 (37.0%)	3.64	1.35
Building public awareness of outdoor recreation opportunities in the community or state	9 (12.3%)	15 (20.5%)	27 (37.0%)	14 (19.2%)	8 (11.0%)	2.96	1.16
Advocating the benefits and importance of outdoor recreation related public services	7 (9.6%)	15 (20.5%)	27 (37.0%)	18 (24.7%)	6 (8.2%)	3.01	1.09
Budgeting or allocating funds for operation and management	2 (2.7%)	7 (9.6%)	13 (17.8%)	23 (31.5%)	28 (38.4%)	3.93	1.10
Developing alternative revenue for parks and recreation	0	5 (6.8%)	11 (15.1%)	22 (30.1%)	35 (47.9%)	4.19	0.94
Responding to new types of outdoor recreation activities	3 (4.1%)	10 (13.7%)	17 (23.3%)	28 (38.4%)	15 (20.5%)	3.58	1.09
Adapting to serve ethnic minorities	34 (46.6%)	20 (27.4%)	13 (17.8%)	5 (6.8%)	1 (1.4%)	1.89	1.02
Adapting to serve aging population	15 (21.4%)	14 (20.0%)	23 (32.9%)	16 (22.9%)	2 (2.9%)	2.66	1.14
Determining how to use limited resources for various recreation needs from the public	0	12 (16.4%)	20 (27.4%)	14 (19.2%)	27 (37.0%)	3.77	1.12
Providing parks and recreation related facilities/services that meet the needs of people with disabilities	3 (4.1%)	8 (11.0%)	27 (37.0%)	24 (32.9%)	11 (15.1%)	3.44	1.01
Keeping up with technological changes for management and promotion	10 (13.7%)	15 (20.5%)	24 (32.9%)	14 (19.2%)	10 (13.7%)	2.99	1.23
Attracting younger generations to participate in outdoor recreation	4 (5.5%)	16 (21.9%)	26 (35.6%)	17 (23.3%)	10 (13.7%)	3.18	1.10
Improving public health and active living through providing outdoor recreation	4 (5.6%)	15 (20.8%)	22 (30.6%)	20 (27.8%)	11 (15.3%)	3.26	1.13

3. What are other challenges related to parks and recreation that your community faces in planning for the future?

Please see the open-ended responses in Appendix C.

4. What else should we consider as we develop the South Dakota outdoor recreation plan for the next five-years?

Please see the open-ended responses in Appendix C.

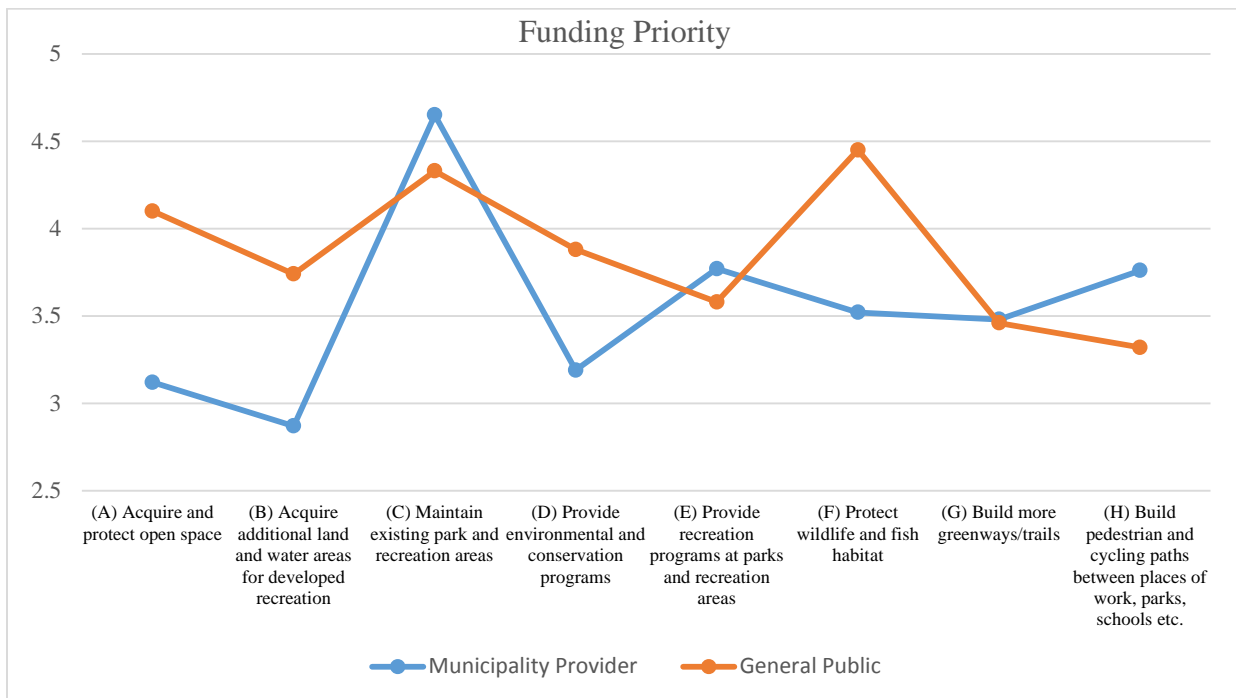
Comparison Analysis: Providers vs. the Public

This section is aimed at investigating if there is any difference between the general public and providers' perspectives in funding priorities for outdoor recreation and perceived benefits in local parks and recreation services. These questions were: (1) public survey: Section IV, Questions 1-4, (2) providers' survey: Section II, Questions 1-4. With two-group comparison, t-test, a statistical comparison technique was applied to examine if there is any statistical difference between group means and variance (Vaske, 2008). It is worth notice that the public survey had around 2,000 cases, while providers' survey targeting municipality parks and recreation managers with about 80 cases.

Funding priorities for outdoor recreation. T-tests were applied to examine if survey participants showed different perspectives and priorities in funding outdoor recreation and conservation efforts between providers and public perspectives in South Dakota. The results were summarized as follows (Figure 6):

- No statistical difference was found between municipal parks and recreation providers and general public in statements (C), (E), (G), and (H).
- The public reported a statistically higher priority in the following priorities than municipal parks and recreation providers:
 - (A) Acquire and protect open space (as undeveloped, conserved land)
 - (B) Acquire additional land and water areas for developed recreation
 - (D) Provide environmental and conservation programs
 - (F) Protect wildlife and fish habitat
- The difference between the two groups might result from the role of municipality parks and recreation providers in providing facilities and programs for local communities with less emphasis on nature resources and wildlife habitat management.

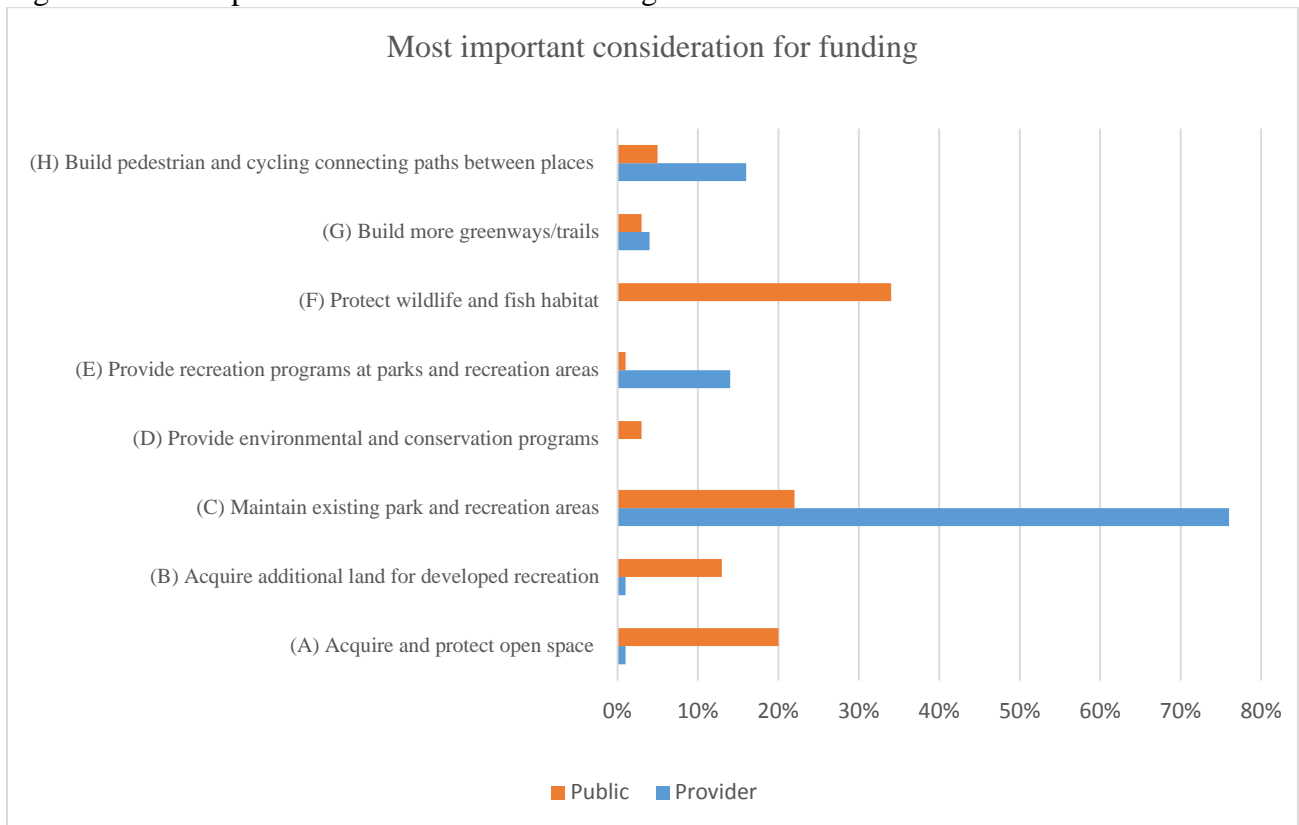
Figure 6 Providers' Priority in Funding Outdoor Recreation



The following comparison was based on both the public and municipal parks and recreation providers' perspectives in the most important consideration for funding. The percentage is the proportion of participants that selected a specific statement as the most important funding priority within their group as either provider or the public. The results show (Figure 7):

- 75% of municipal providers selected (C) “Maintain existing park and recreation areas” as the most important funding priority
- 34% of the general public selected (F) “Protect wildlife and fish habitat” as the most important funding priority, while no provider selected it as their most important funding priority.
- Municipal providers reported a more similar perspective in funding priorities than the public
- The difference between the two groups might result from the role of municipality parks and recreation in providing facilities and programs for local communities with less emphasis on nature resources and wildlife habitat management.

Figure 7 Most Important Consideration in Funding



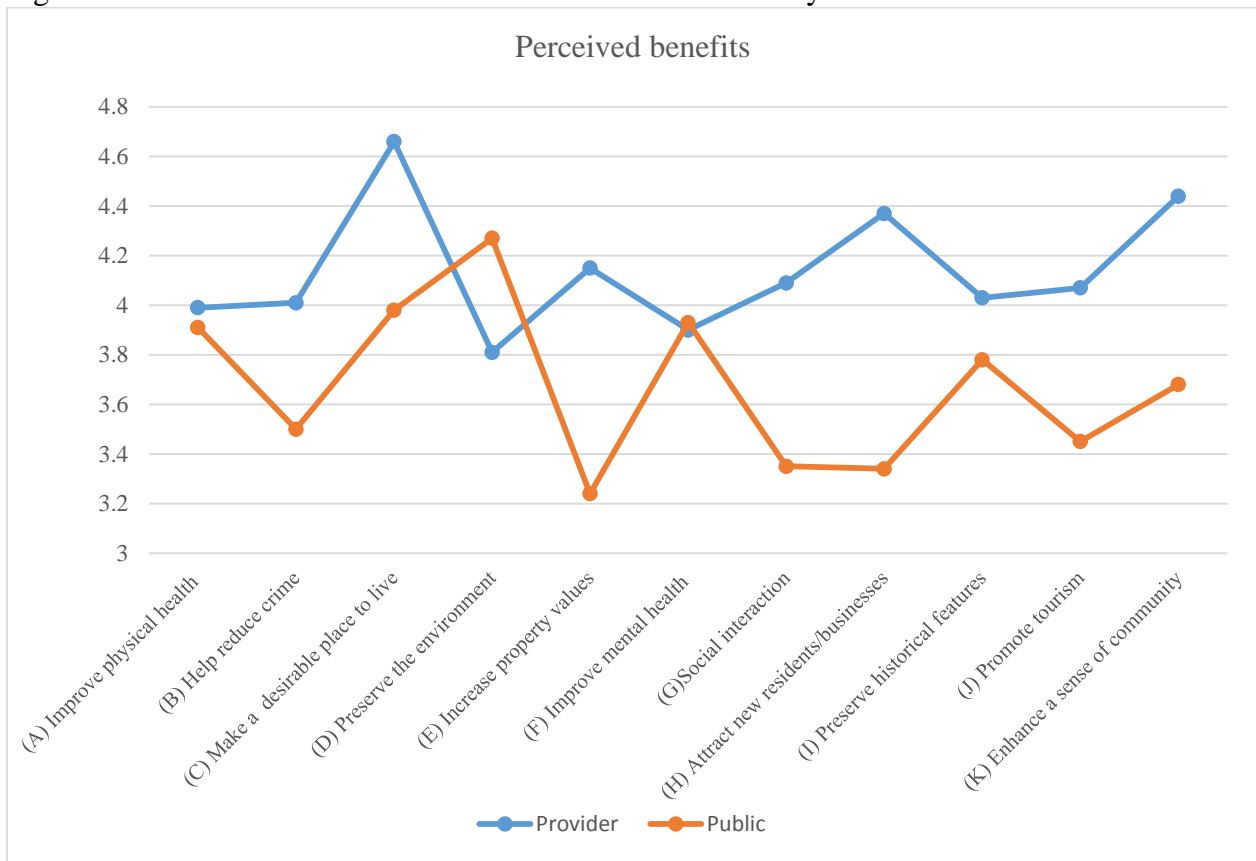
Benefits of parks and recreation. T-tests were applied to examine if survey participants showed differences in perceived benefits of parks and recreation between providers and public perspectives in South Dakota. The results were summarized as follows:

- No statistical difference was found between municipal parks and recreation providers and general public in statement (A), (F), and (I). In other words, the providers and public showed a similar perspective in the benefits of parks and recreation for improving

physical health, improving mental health and reduce stress, and preserving historical features.

- The public indicated a statistically higher benefit in “Preserving open space and nature environment” (D) than the providers.
- Overall, municipal parks and recreation providers reported a statistically higher score than the public in parks and recreation benefits, ranging from helping reduce crime, providing opportunities for social interaction, to making their community a more desirable place to live.
- The largest differences of perceived benefits in parks and recreation between providers and the public were (E) “Increase property values” and (H) “Attract new businesses and residents”.

Figure 8 Perceived Benefits of Parks and Recreation Service by Providers



The following comparison was based on both the public and municipal providers’ perspectives in perceived benefits of parks and recreation. The percentage is the proportion of participants that selected a specific statement as the most important benefits within their group as either provider or the public. The results show:

- 61% of municipal providers selected (C) “Make your community a more desirable place to live” as the most important benefits for delivering their parks and recreation services
- 46% of the general public selected (D) “Preserve open space and the environment” as the most perceived benefits of parks and recreation services

- Municipal providers reported a more homogenous perceptive in parks and recreation benefits than the public
- The difference between the two groups might result from the role of municipality parks and recreation in providing facilities and programs for local communities with less emphasis on nature resources and wildlife habitat management.

Figure 9 Most Important Benefits of Parks and Recreation

