



2013 - 2017
North Dakota
State Comprehensive
Outdoor Recreation
Plan
RECREATIONAL TRAIL NEEDS





2013 - 2017 North Dakota State Comprehensive Outdoor Recreation Plan

RECREATIONAL TRAIL NEEDS

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The mission of the North Dakota Parks and Recreation Department is to provide and enhance outdoor recreation opportunities through diverse parks and programs that conserve the state's natural diversity.

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Recreational Trail Needs

This *Recreational Trail Needs* publication is one component of the *2013-2017 North Dakota State Comprehensive Outdoor Recreation Plan* (SCORP) prepared by the North Dakota Parks and Recreation Department. It was financed in part by a planning grant from the National Park Service, U.S. Department of the Interior, under the provisions of the Land and Water Conservation Fund (LWCF) Act of 1965 (PL 88-578, as amended).

North Dakota Trails

Recreational trails are found in all areas of North Dakota and are used for a wide variety of purposes. Paved multi-use trails in cities and towns offer close-to-home recreation opportunities, such as walking, running, bicycling, and roller blading, and a few even come equipped with exercise stations. Unpaved trails are more common in state and federal parks and recreation areas, offering opportunities for hiking, mountain biking, and horseback riding. Motorized trails are also available throughout the state for both Off-Highway Vehicles (OHV), such as ATVs and dirt bikes, and snowmobiles. Less common are paddling trails for canoes and kayaks on rivers and lakes in North Dakota. Cross-country ski trails offer outdoor recreation opportunities for North Dakotans during the winter.

The availability of support facilities along trails can affect a user's interest level and are categorized as follows:

- Primitive trails have neither restrooms nor running water.
- Semi-modern trails have restrooms but no running water.
- Modern trails have permanent restrooms and running water.

North Dakota trail enthusiasts have formed a variety of trail user and advocacy groups at the state, regional, and local levels to support the development and maintenance of trail systems. Among the most active state and regional trail groups are:

- Maah Daah Hey Trail Association
- North Country Trail Association
- North Dakota Cycling Federation
- North Dakota Dirt Riders
- Snowmobile North Dakota

A survey of North Dakota households reveals 58 percent of North Dakota households are interested in using non-motorized trails of all kinds. This high level of trail interest offers the opportunity for the state's trail community to come together to develop a more comprehensive system of trails throughout North Dakota that meets the needs of the state's citizens and visitors.



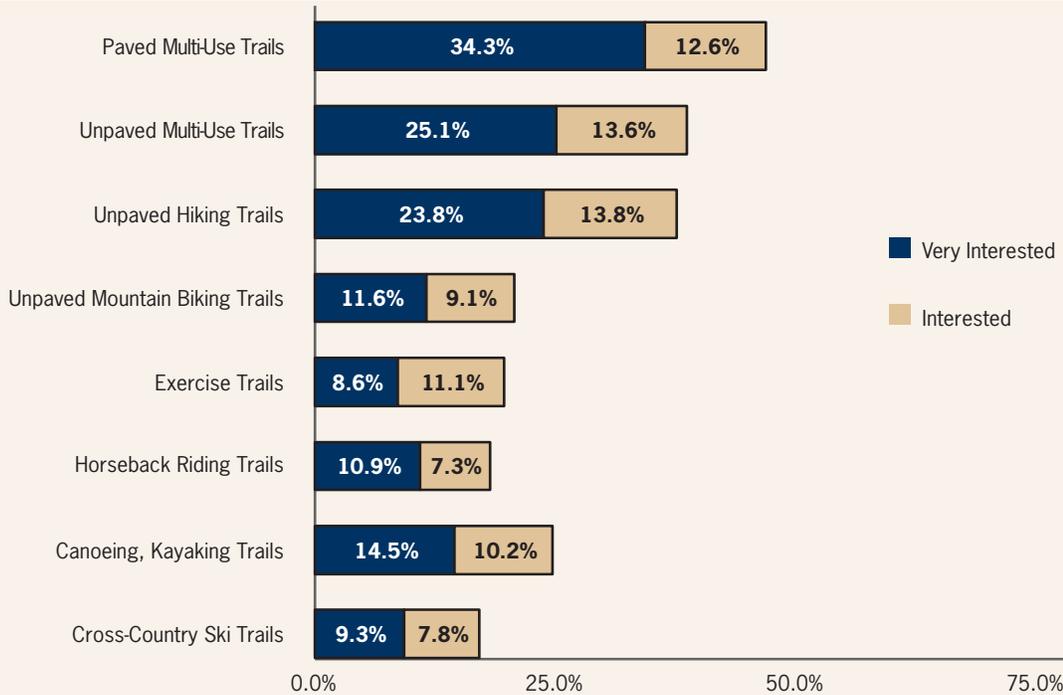
North Dakotans' Perspectives on Recreational Trails

A 2012 survey of North Dakota households was conducted to assess interest in outdoor recreation activities and to identify the perceived quantity and quality of facilities for these activities. Non-motorized trail usage is the second most popular outdoor recreation activity for North Dakota households, with 58 percent interested in using trails for walking, running, bicycling, or horseback riding.

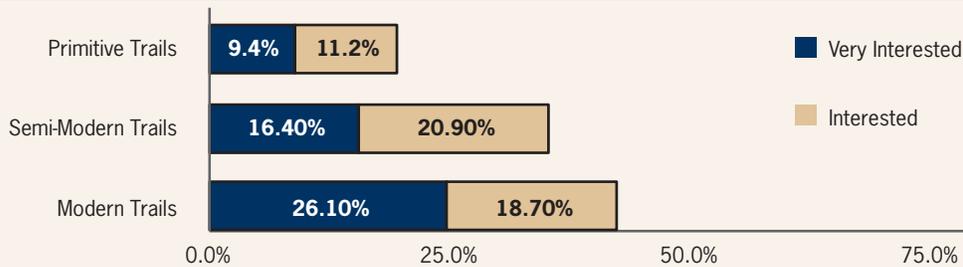
The specific trail activities that interest the most North Dakota households include:

- Using paved multi-use trails (the term “multi-use” refers to walking, jogging, or bicycling in the context of the North Dakota household survey) (47 percent).
- Using modern trails (45 percent).

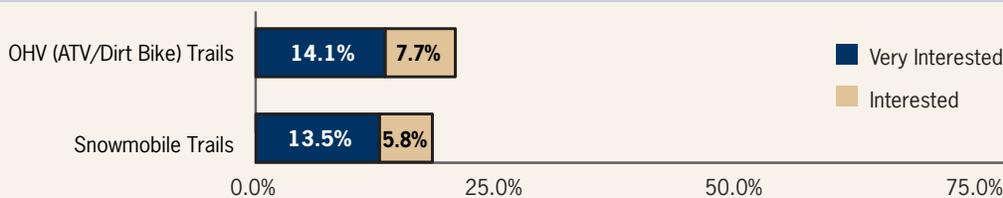
Non-Motorized Trail Usage Interest by North Dakotans



Non-Motorized Trail Usage Interest by North Dakotans Based on Amenities



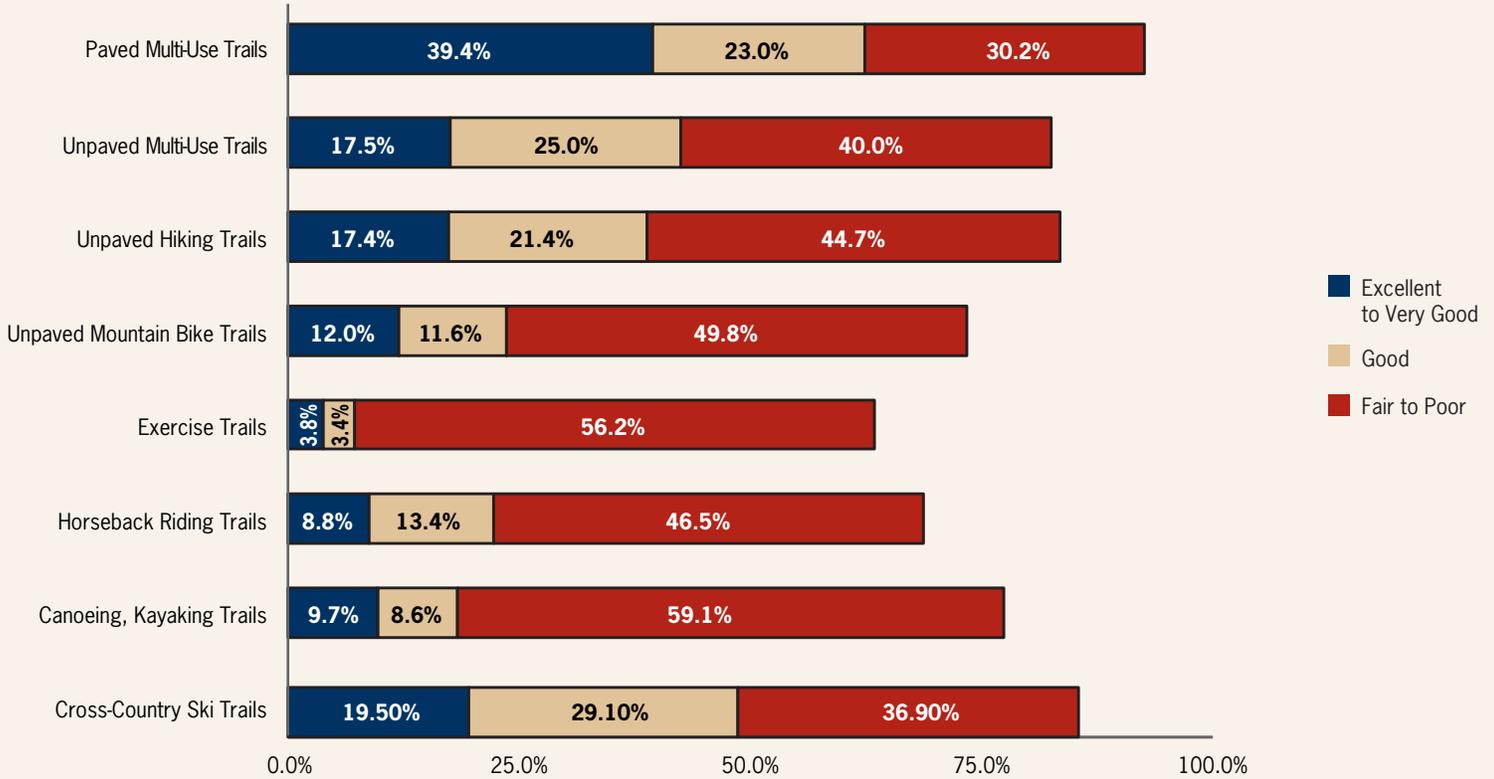
Motorized Trail Usage Interest by North Dakotans



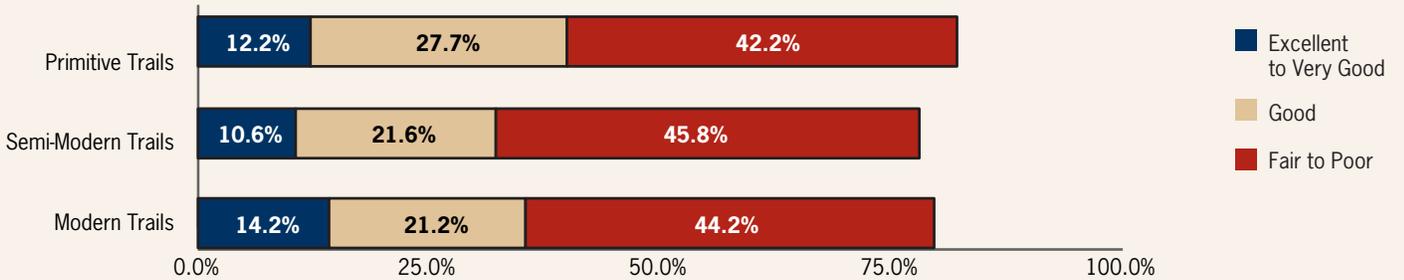
The quality and quantity of trails are critical to the recreation user's experience. North Dakota households that expressed interest in using trails were asked to rate the number of trails and the overall condition of those trails in their area on a five-point scale: excellent, very good, good, fair, or poor. Thirty-nine percent of North Dakota households rate the number and condition of paved multi-use trails as excellent or very good. In contrast, fair or poor ratings are given to:

- Paddling trails for canoeing or kayaking (59 percent).
- Exercise trails with exercise machines or equipment at stations (56 percent).

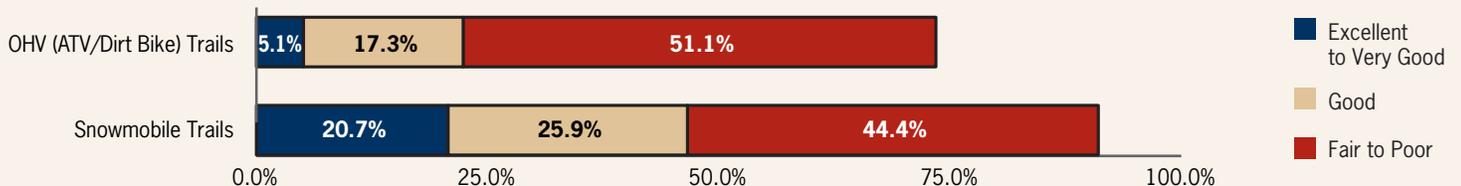
Adequate Quality and Quantity of Non-Motorized Trails in North Dakota



Adequate Quality and Quantity of Non-Motorized Trails in North Dakota Based on Amenities

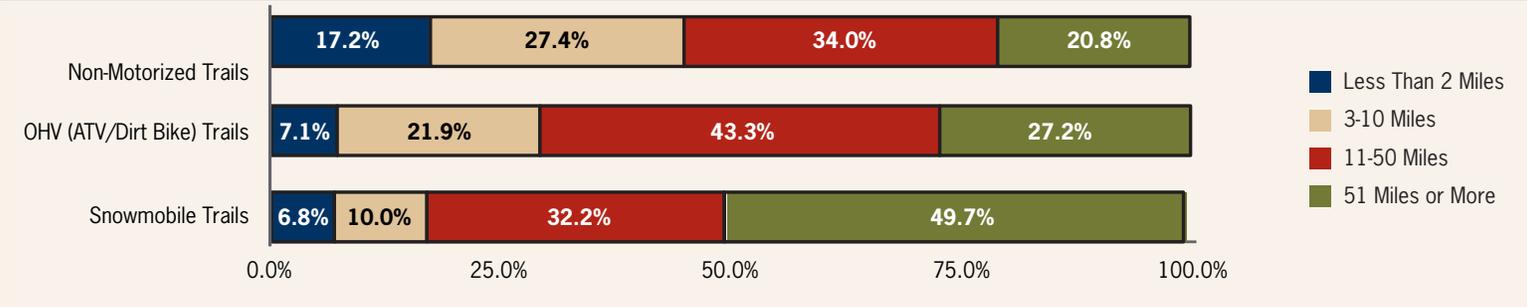


Adequate Quality and Quantity of Motorized Trails in North Dakota



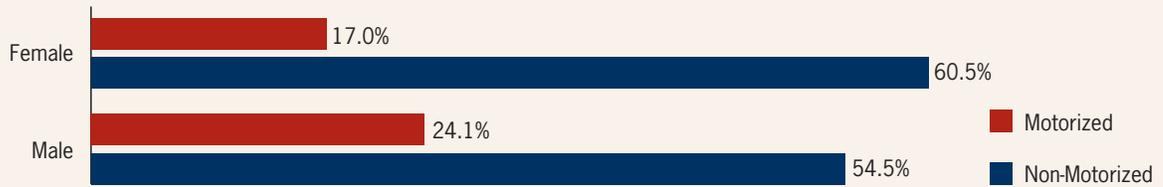
North Dakota households are willing to travel farther to use motorized trails than non-motorized trails, with half of North Dakota households interested in snowmobiling willing to drive more than 50 miles to use trails.

Farthest Distance North Dakota Trail Users Are Willing to Travel

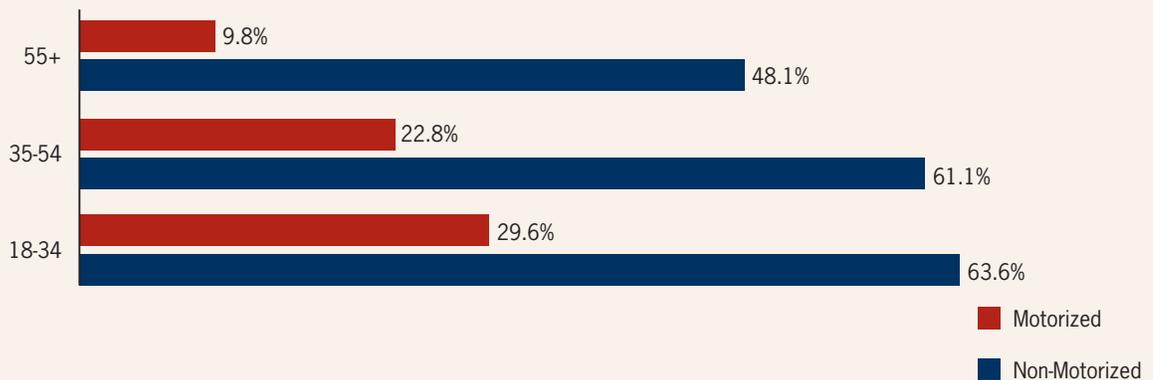


Interest in trails varies when considering the demographics of North Dakotans or North Dakota households. Women are more interested in using non-motorized trails than men. Also, interest in using trails tends to increase with higher levels of education and income.

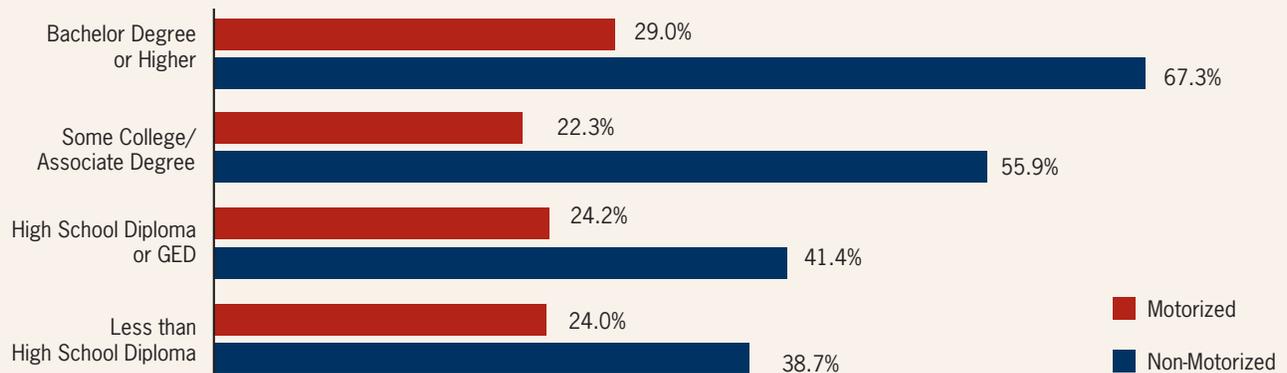
Trail Usage Interest by Gender



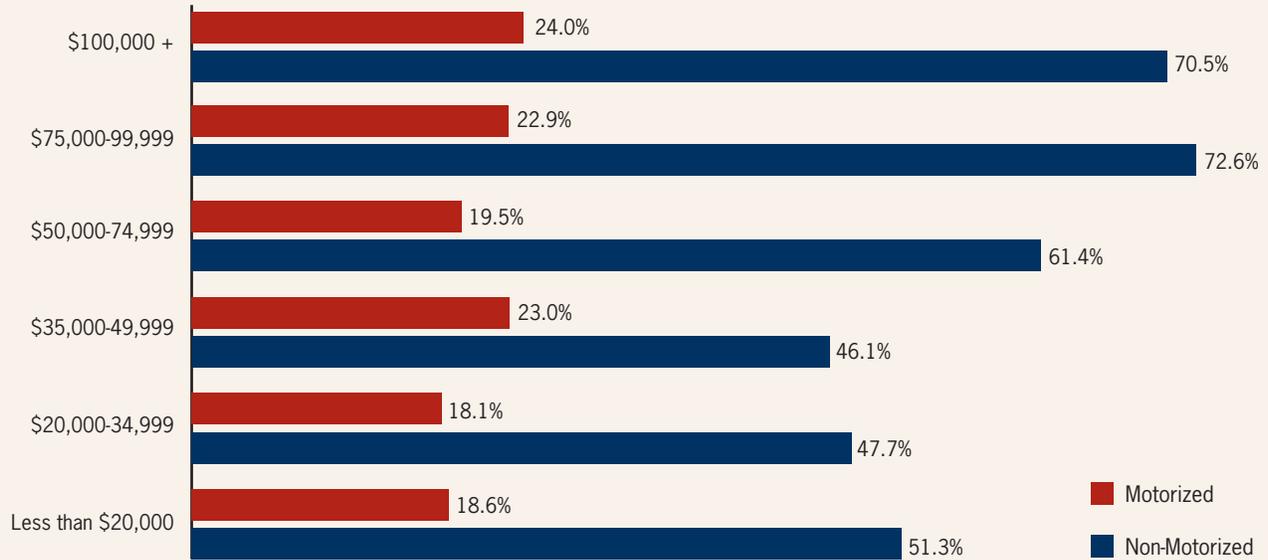
Trail Usage Interest by Age



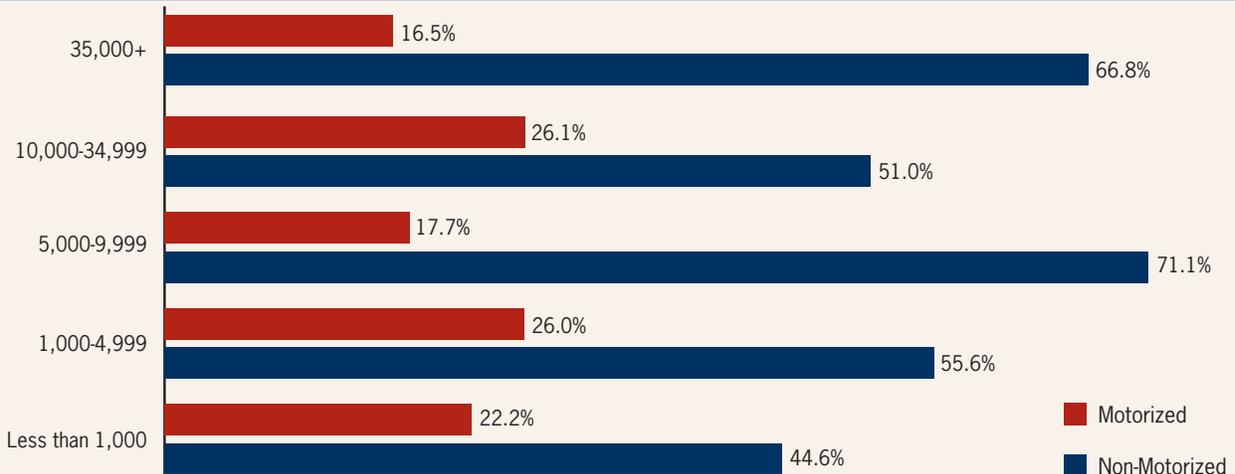
Trail Usage Interest by Education Level



Trail Usage Interest by Household Income Level



Trail Usage Interest by Community Population



When asked what outdoor activities or facilities they would like to see offered or expanded at parks, recreation areas, and outdoor sports complexes in North Dakota, the largest number of North Dakota households expressed interest in trails for non-motorized use (paved/unpaved multi-use trails; hiking trails; horseback riding trails; etc.).



Comparing North Dakota households' interest in using different types of trails with their rating of the number and condition of such trails (excellent/very good versus fair/poor) provides a strength-weakness grid. The quality/quantity percentage in the chart shows the difference between the percentage of households that rated a type of trail excellent or very good versus fair or poor.

Modern and semi-modern trails, as well as unpaved multi-use and hiking trails, are primary weaknesses throughout the state. This means there is a high level of interest in these types of trails, but the overall number and condition is rated fair or poor. In contrast, paved multi-use trails are primary strengths in North Dakota.

Strength-Weakness Trail Grid

Trail Type	Interest Level	Quality/Quantity Rating	Strength/Weakness Category
NON-MOTORIZED			
Paved Multi-Use	46.9%	9.2%	Primary Strength
Unpaved Multi-Use	38.7%	-22.5%	Primary Weakness
Unpaved Hiking	37.5%	-27.3%	Primary Weakness
Paddling for Canoeing/Kayaking	24.7%	-49.4%	Secondary Weakness
Unpaved Mountain Biking	20.7%	-37.8%	Secondary Weakness
Exercise with Stations	19.7%	-52.4%	Secondary Weakness
Horseback Riding	18.2%	-37.7%	Secondary Weakness
Cross-Country Skiing	17.1%	-17.4%	Secondary Weakness
NON-MOTORIZED AMENITIES			
Modern	44.8%	-30.0%	Primary Weakness
Semi-Modern	37.3%	-35.2%	Primary Weakness
Primitive	20.7%	-30.0%	Secondary Weakness
MOTORIZED			
OHV (ATV/Dirt Bike)	21.8%	-46.0%	Secondary Weakness
Snowmobile	19.3%	-23.7%	Secondary Weakness



North Dakota Providers' Perspectives on Recreational Trails

A 2012 survey of North Dakota outdoor recreation providers was completed to assess perceived demand for various outdoor recreation facilities, as well as inventory the quantity and condition of such facilities, and also to solicit input on future demand and needs. Almost 200 North Dakota outdoor recreation providers reported on the demand for and condition of trails under their management. The types of trails for which the highest proportion of providers say demand exceeds supply include:

- Paved multi-use trails (29 percent).
- Unpaved multi-use trails (26 percent).
- Off-Highway Vehicle (ATV/dirt bike) trails (21 percent).

Trail Demand Assessed by North Dakota Providers

Trails	Demand Greatly Exceeds Supply	Demand Slightly Exceeds Supply	Overall Demand Exceeds Supply
NON-MOTORIZED			
Paved Multi-Use	16%	13%	29%
Unpaved Multi-Use	11%	15%	26%
Unpaved Hiking Only	7%	9%	16%
Unpaved Mountain Biking Only	7%	12%	19%
Cross-Country Skiing	6%	9%	15%
Exercise with Stations	7%	6%	13%
Horseback Riding	4%	8%	12%
Paddling for Canoes/Kayaks	3%	4%	7%
NON-MOTORIZED AMENITIES			
Primitive	6%	10%	16%
Semi-Modern	5%	9%	14%
Modern	6%	7%	13%
MOTORIZED			
OHV (ATV/Dirt Bike)	15%	6%	21%
Snowmobile	7%	7%	14%

Providers with the following types of trails report some are in poor condition:

- 33 percent with Off-Highway Vehicle (ATV/dirt bike) trails.
- 30 percent with unpaved multi-use trails.
- 20 percent with unpaved mountain biking trails.

Based on overall mileage reported by North Dakota providers, the following types of trails have the highest number of miles in poor condition:

- Off-Highway Vehicle (ATV/dirt bike) trails (47 percent).
- Unpaved mountain biking trails (35 percent).
- Cross country skiing trails (17 percent).

Overall Trail Condition Assessed by North Dakota Providers

Trails	Good Condition	Adequate Condition	Poor Condition	Total Miles
NON-MOTORIZED	49.4%	41.5%	9.2%	1,773
Paved Multi-Use	62.2%	30.4%	7.5%	362
Unpaved Multi-Use	49.1%	41.1%	9.7%	853
Unpaved Hiking Only	31.7%	65.4%	3.3%	240
Unpaved Mountain Biking Only	43.1%	22.4%	34.5%	58
Cross-Country Skiing	57.0%	26.2%	16.8%	149
Exercise with Stations	100.0%	0.0%	0.0%	3
Horseback Riding	29.3%	70.7%	0.0%	58
Paddling for Canoes/Kayaks	50.0%	48.0%	2.0%	50
NON-MOTORIZED AMENITIES	50.5%	47.6%	1.9%	
Primitive	58.9%	39.0%	2.2%	
Semi-Modern	29.1%	68.4%	2.5%	
Modern	48.2%	50.9%	0.9%	
MOTORIZED	69.5%	29.3%	1.2%	2,879
OHV (ATV/Dirt Bike)	0.0%	52.8%	47.2%	72
Snowmobile	71.3%	28.7%	0.0%	2,807

Twenty-three percent of providers report non-motorized trails are among the top five categories of outdoor facilities that most need to be improved or expanded to better meet the needs of their users.



Statewide and Regional Priorities for Trails

Based on analysis of the demand for and supply of outdoor recreation facilities in North Dakota, facility needs are prioritized into three levels: primary, secondary, and tertiary. Non-motorized trails are a primary need statewide, as well as in each of the eight planning regions. Motorized trails are a tertiary need statewide, as well as in Regions One, Two, Four, Six, and Seven.

Statewide Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households are interested in using:

- Trails for walking, running, bicycling, or horseback riding (58 percent).
- Paved multi-use trails (47 percent).
- Modern trails (45 percent).

Primary weaknesses identified by households throughout the state include modern and semi-modern trails, unpaved multi-use trails, and unpaved hiking trails.

North Dakota providers report demand exceeds supply for:

- Paved multi-use trails (29 percent).
- Unpaved multi-use trails (26 percent).

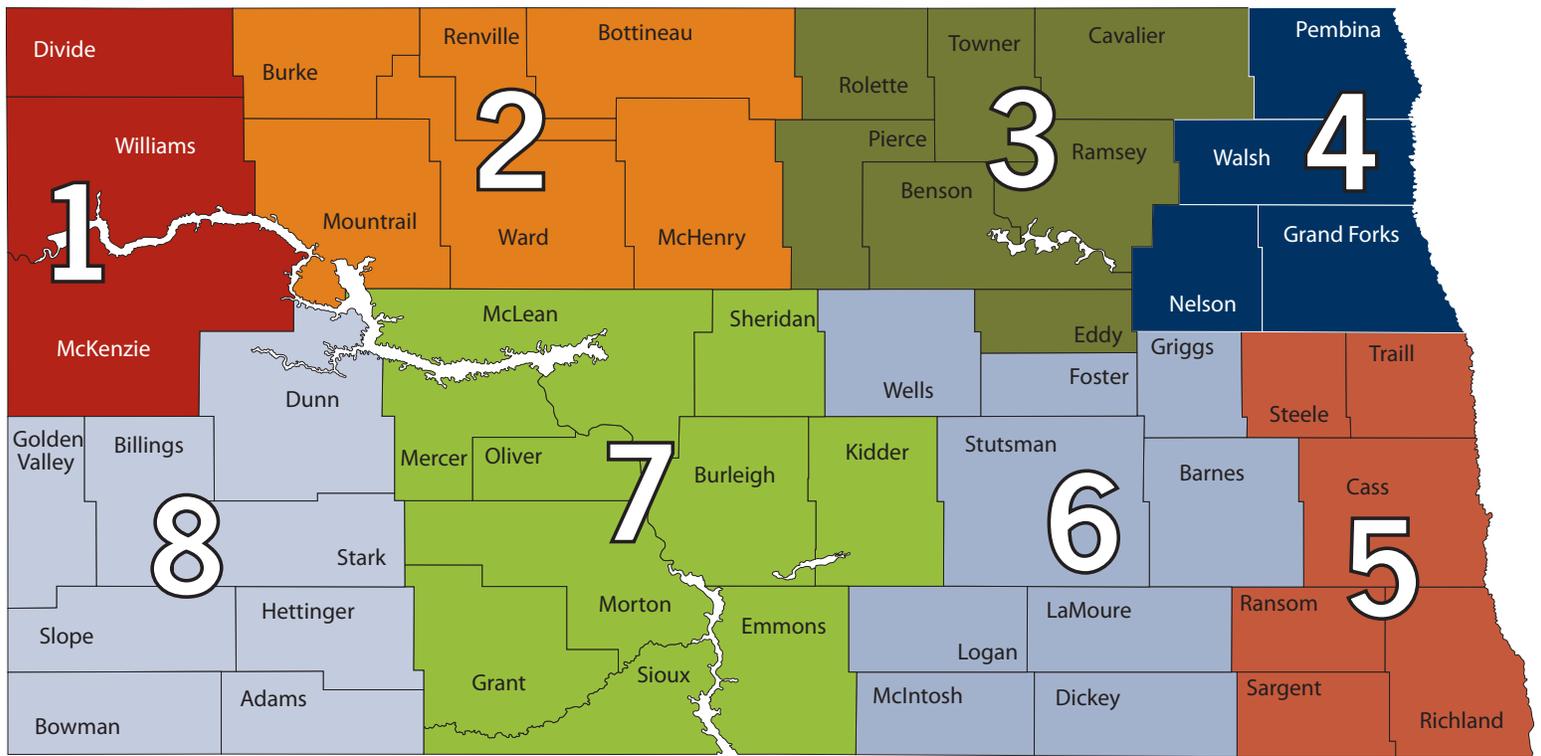
Providers with the following types of trails report some are in poor condition:

- 30 percent with unpaved multi-use trails.
- 20 percent with unpaved mountain biking trails.

Tertiary Need: Motorized Trails

Twenty-one percent of North Dakota providers report demand exceeds supply for Off-Highway Vehicle (ATV/dirt bike) trails. One in three providers with these trails report some are in poor condition.





Region One Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region One are interested in using:

- Trails for walking, running, bicycling, or horseback riding (55 percent).
- Modern trails (46 percent).
- Paved multi-use trails (46 percent).
- Unpaved hiking trails (43 percent).
- Unpaved multi-use trails (41 percent).

Primary weaknesses identified by Region One households include modern and semi-modern trails, paved and unpaved multi-use trails, and unpaved hiking trails.

Region One providers report demand exceeds supply for:

- Paved multi-use trails (31 percent).
- Unpaved multi-use trails (31 percent).
- Horseback riding trails (23 percent).

One in three providers with unpaved multi-use trails, unpaved hiking trails, and primitive trails report some are in poor condition.

Tertiary Need: Motorized Trails

Twenty-three percent of Region One providers report demand exceeds supply for Off-Highway Vehicle (ATV/dirt bike) trails.

Region Two Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region Two are interested in using:

- Trails for walking, running, bicycling, or horseback riding (68 percent).
- Modern trails (56 percent).
- Paved multi-use trails (55 percent).
- Unpaved hiking trails (52 percent).
- Unpaved multi-use trails (47 percent).
- Semi-modern trails (47 percent).

Primary weaknesses identified by Region Two households include modern and semi-modern trails, paved and unpaved multi-use trails, and unpaved hiking trails.

Region Two providers report demand exceeds supply for:

- Unpaved multi-use trails (24 percent).
- Paved multi-use trails (20 percent).

Providers with the following types of trails report some are in poor condition:

- 50 percent with unpaved mountain biking trails.
- 43 percent with unpaved multi-use trails.
- 33 percent with paved multi-use trails.
- 33 percent with unpaved hiking trails.
- 33 percent with modern trails.
- 20 percent with primitive trails.

Tertiary Need: Motorized Trails

Twenty-four percent of Region Two providers report demand exceeds supply for Off-Highway Vehicle (ATV/dirt bike) trails and 20 percent say the same for snowmobile trails.

Region Three Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region Three are interested in using:

- Trails for walking, running, bicycling, or horseback riding (61 percent).
- Paved multi-use trails (53 percent).
- Modern trails (48 percent).
- Unpaved multi-use trails (41 percent).

Primary weaknesses identified by Region Three households include modern and semi-modern trails, paved and unpaved multi-use trails, and unpaved hiking trails.

One in four Region Three providers report demand exceeds supply for paved and unpaved multi-use trails. Half of providers with semi-modern trails report some are in poor condition.

Region Four Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region Four are interested in using:

- Trails for walking, running, bicycling, or horseback riding (63 percent).
- Modern trails (56 percent).
- Paved multi-use trails (53 percent).
- Semi-modern trails (46 percent).
- Unpaved multi-use trails (45 percent).
- Unpaved hiking trails (43 percent).

Primary weaknesses identified by Region Four households include semi-modern trails and unpaved hiking trails.

Region Four providers report demand exceeds supply for:

- Paved multi-use trails (35 percent).
- Unpaved multi-use trails (30 percent).
- Unpaved hiking trails (26 percent).
- Unpaved mountain biking trails (26 percent).
- Exercise trails (22 percent).
- Semi-modern trails (22 percent).
- Modern trails (22 percent).

Providers with the following types of trails report some are in poor condition:

- 50 percent with unpaved multi-use trails.
- 50 percent with unpaved hiking trails.
- 25 percent with primitive trails.
- 22 percent with paved multi-use trails.

Tertiary Need: Motorized Trails

Twenty-six percent of providers report demand for Off-Highway Vehicle (ATV/dirt bike) trails exceeds supply.

Region Five Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region Five are interested in using:

- Trails for walking, running, bicycling, or horseback riding (58 percent).
- Paved multi-use trails (45 percent).
- Unpaved multi-use trails (43 percent).

Primary weaknesses identified by Region Five households include unpaved multi-use trails, modern and semi-modern trails, and unpaved hiking trails.

Region Five providers report demand exceeds supply for:

- Paved multi-use trails (33 percent).
- Unpaved multi-use trails (27 percent).
- Semi-modern trails (24 percent).

Region Six Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region Six are interested in using:

- Trails for walking, running, bicycling, or horseback riding (52 percent).
- Modern trails (42 percent).

Primary weaknesses identified by Region Six households include modern and semi-modern trails and paved and unpaved multi-use trails.

Region Six providers report demand exceeds supply for:

- Paved multi-use trails (29 percent).
- Unpaved mountain biking trails (21 percent).
- Primitive trails (21 percent).

One in four providers with unpaved multi-use trails report some are in poor condition.

Tertiary Need: Motorized Trails

Twenty-one percent of providers report demand for Off-Highway Vehicle (ATV/dirt bike) trails exceeds supply.



Region Seven Trail Priorities

Primary Need: Non-Motorized Trails

North Dakota households in Region Seven are interested in using:

- Trails for walking, running, bicycling, or horseback riding (52 percent).
- Paved multi-use trails (47 percent)
- Modern trails (42 percent).

Primary weaknesses identified by Region Seven households include modern and semi-modern trails.

Region Seven providers report demand exceeds supply for:

- Paved multi-use trails (41 percent).
- Unpaved multi-use trails (31 percent).
- Unpaved mountain biking trails (25 percent).

Tertiary Need: Motorized Trails

Twenty-two percent of providers in Region Seven report demand exceeds supply for Off-Highway Vehicle (ATV/dirt bike) trails and snowmobile trails. One in three providers with OHV trails report some are in poor condition.

Region Eight Trail Priorities

Primary Need: Non-Motorized Trails

Forty-five percent of North Dakota households in Region Eight are interested in using trails for walking, running, bicycling, or horseback riding.

Primary weaknesses identified by Region Eight households include modern trails.

One in three Region Eight providers with paved and unpaved multi-use trails report some are in poor condition.

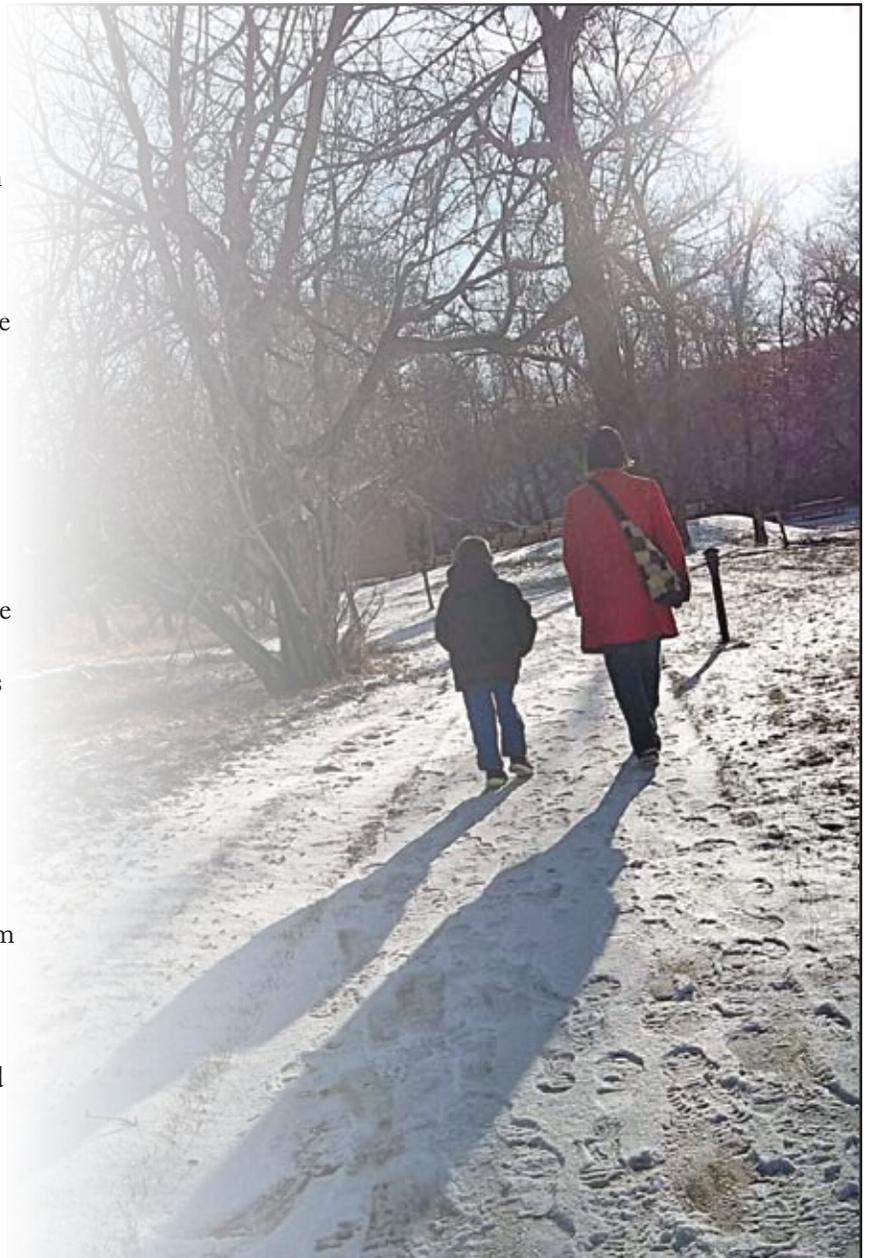


Development of *Recreational Trail Needs*

In January 2012, the North Dakota Parks and Recreation Department (NDPRD) contracted with Clearwater Communications to perform survey and planning services to develop the *2013–2017 North Dakota State Comprehensive Outdoor Recreation Plan (SCORP)*. While the 2013–2017 SCORP is the ninth publication of its kind, this is the first time a *Recreational Trail Needs* component has been included.

Clearwater Communications subcontracted with Winkelman Consulting to complete the research portion of the project, which included surveys of North Dakota households and outdoor recreation providers to determine demand for and supply of outdoor recreation facilities in the state. For the household survey, 805 North Dakotans over the age of 18 were surveyed by telephone in March and April 2012, resulting in a 95 percent confidence level with a maximum margin of error of ± 3.5 percent. For the provider survey, 63 percent of North Dakota's three hundred three outdoor recreation providers (192) completed the mail survey in March and April 2012, resulting in a 95 percent confidence level with a maximum margin of error of ± 4.3 percent.

The *Recreational Trail Needs* publication summarizes the research on the demand for and supply of non-motorized and motorized trails in North Dakota.



Additional Information

Electronic versions of the *2013–2017 North Dakota State Comprehensive Outdoor Recreation Plan*, as well as the *Recreational Trail Needs* and *Wetlands Priorities*, are available on the NDPRD website at www.parkrec.nd.gov.

Detailed information from the North Dakota household and outdoor recreation provider surveys, including regional data, is also available online.

For more information, contact the NDPRD at 701-328-5357 or parkrec@nd.gov.



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