Chapter 1: Legislative Authorization and Executive Summary

Legislative Authorization

This plan has been prepared in accordance with the Laws of Minnesota 2003, Chapter 128. Minnesota Statutes 3.197 requires that a report to the legislature contain the cost of preparing the report. The cost of preparing this report was $2,320,000.

Study of Off-Highway Vehicle Trails

"By January 15, 2005, the commissioner of natural resources must submit a report to the chairs of the legislative committees with jurisdiction over natural resources policy and finance concerning the compatibility of multiple uses of the outdoor recreation system. The report must address the current and future availability of recreational opportunities for non-motorized and motorized activities, and recommend legislative and policy changes to preserve natural resources and to assure the continued availability of outdoor recreation opportunities for all residents of this state. The report must also address cost of maintenance, operation, and enforcement for the current off-highway trails system, including, but not limited to, how many miles of trails the department's off-highway vehicle budget will support. The report must include:

(1) a detailed discussion of sources of revenue for trails;
(2) an analysis of recent and projected expenditures from the off-highway vehicle accounts;
(3) information regarding all other sources of revenue used for off-highway vehicle purposes; and
(4) a current inventory of all the state forest roads and access routes, including designated off-highway vehicle routes and all motorized and non-motorized trails."

Definitions

The terms all-terrain vehicles (ATVs), off-highway motorcycles (OHMs), off-road vehicles (ORVs) and off-highway vehicles (OHVs), are used frequently throughout this report. Following are the definitions of these terms.

ATVs (all-terrain vehicles) are motorized, flotation-tired vehicles with at least three, but no more than six low pressure tires, with an engine displacement of less than 800 cubic centimeters and total dry weight of less than 900 pounds. ATVs with a total dry weight of more than 900 pounds are classified as ORVs.

OHMs (off-highway motorcycles) are motorized, off-highway vehicles traveling on two wheels. OHMs have a seat or saddle designed to be straddled by the operator and have handlebars for steering control. Motorcycles may be legal for highway use and still considered to be OHMs if used for off-highway operation on trails or natural terrain.

ORVs (off-road vehicles) are motorized, recreational vehicles capable of cross-country travel on natural terrain, such as four-wheel drive trucks and ATVs that have an engine displacement of more than 800 cubic centimeters or total dry weight of more than 900 pounds. Vehicles NOT considered ORVs include snowmobiles, all-terrain vehicles, motorcycles, watercraft or aircraft. Farm, logging, military, emergency, law enforcement, utility, trail-grooming and construction vehicles are not considered to be ORVs when used for their intended purpose.

OHVs (off-highway vehicles) are used to describe all-terrain vehicles, off-highway motorcycles and off-road vehicles.

Executive Summary

Current Availability of Existing Non-Motorized and Motorized Trail Opportunities in the Outdoor Recreation System

There are motorized and non-motorized trail opportunities in units of the Outdoor Recreation System as defined in Minnesota Statutes 86A. These units include state parks, state recreation areas, state trails, state scientific and natural areas, state forests, state wildlife management areas and state historic sites. Wild, scenic, and recreational rivers are also units of the Outdoor Recreation System and provide canoeing opportunities. Trail opportunities provided by the federal government, local units of government, private entities and other state facilities must also be considered in understanding the comprehensive picture of trail opportunities statewide.

Inventory of State Forest Roads and Motorized and Non-Motorized Trails

In October, 2004 the DNR completed an inventory of all state forest roads and access routes, including designated off-highway vehicle routes and all motorized and non-motorized trails. The inventory was conducted on all state, county, and federal lands within the boundaries of the state forests. The total acreage inventoried was 5.7 million. The effort was conducted over a 14 month period by nearly 200 employees of the Department of Natural Resources and the Minnesota Conservation Corps. Existing data was used to the extent possible. Approximately 62,300 hours of effort and $2.3 million were expended to acquire new field data in forests where information was lacking. The results of the inventory are illustrated in the following table:

Ownership	Miles of Roads and Trails Inside State Forest Statutory Boundaries	Miles of Roads and Trails Outside State Forest Statutory Boundaries	Total Miles of Roads and Trails
DNR Forestry Administered Land	6,333	1,378	7,711
County	3,183		3,183
Federal (LUP Lands)*	250		250
TOTAL	9,766	1,378	11,144

*Land Utilization Program (federal land DNR leases from the U.S. Fish and Wildlife Service for state wildlife management purposes)

Future Availability of Motorized and Non-Motorized Trail Opportunities

There is significant demand for both motorized and non-motorized trail opportunities. The land base for providing these opportunities is becoming increasingly more limited and the processes that create them are becoming increasingly more complex. Future trails will include additional development of the legislatively authorized state trail system, additional local trails in communities and counties, designated, managed off-highway vehicle trails in state forests, 90 miles of motorized trail on Consolidated

Conservation (Con-Con) lands*, and a legislatively authorized, continuous 70-mile trail for all-terrain vehicles and off-highway motorcycles.

Sources of Revenue for Trails

The primary sources of revenue for motorized trails are the three off-highway vehicle dedicated accounts and the snowmobile account. The two major sources of revenue for these accounts are vehicle registrations for snowmobiles, all-terrain vehicles, off-highway motorcycles and off-road vehicles and a percentage of the unrefunded gas tax attributable to the use of these vehicles. Other sources of revenue for the motorized trails are the National Recreation Trail Program, which is a federal grant program, charitable gaming donations, and state motorized trail user organizations and local clubs.

The primary sources of revenue for non-motorized trails are general fund appropriations, lottery in-lieu, legislative appropriations based on recommendations of the Legislative Commission on Minnesota Resources, the National Recreational Trail Program, and federal transportation enhancement dollars. There is a dedicated account for cross-country ski trails. Funds from the sale of cross-country ski passes are deposited in this account.

Recent and Projected Expenditures from OHV Accounts

Operation and maintenance expenditures for OHV trails range from $234 to $674/mile for ATVs to $225/mile for OHMs based upon limited data gathered to date. Within its current budget, DNR could operate and maintain 1,345 to 3,870 miles of ATV trails and 435 miles of OHM trails. Operation and maintenance expenditures for grant-in-aid trails are lower because of the cost-share with local units of government and the contributions and hard work of volunteers. Expenditures for grant-in-aid OHV trails are $285/mile for ATVs and $125/mile for OHMs. The existing budget could support 1,670 miles of ATV trails and 315 miles of OHM trails. No expenditure data is available for ORVs.

Future funding needs for adequate enforcement can not be determined at this time. Implementation of the "managed use on managed trails policy" over the next several years will help to inform future enforcement needs.

Recommendations

· One of the mandates of this study was to recommend legislative and policy changes to preserve natural resources and to assure the continued availability of outdoor recreation opportunities for all residents of this state. The Department of Natural Resources' Conservation Agenda provides a framework that will move the state towards meeting this goal.

*Consolidated Conservation lands, commonly referred to as Con-Con lands, are state-owned property held in the public trust specifically for conservation purposes. The Minnesota Department of Natural Resources has been given the responsibility by law to manage these lands for the public.

Sustainable trail development

- Continue the forest classification process and trail designation process using the information provided from the inventory.

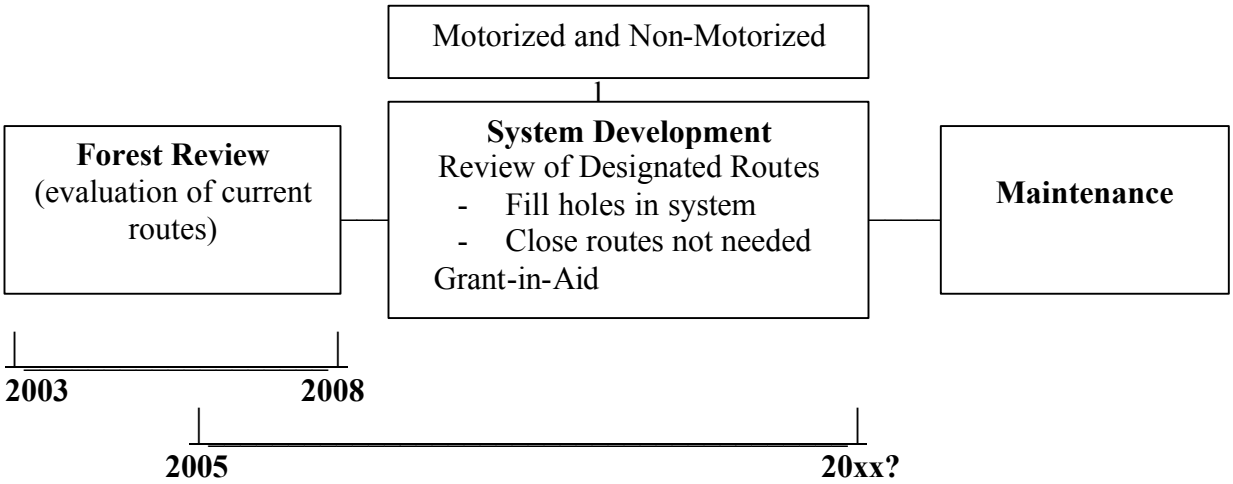
- Extend the deadline for the forest classification and trail designation process originally scheduled for completion by December 31, 2006 to December 31, 2008. Substantial progress has been made, but this effort is a technically challenging and contentious public process with many interested and affected parties who desire, and deserve the opportunity to carefully consider and comment on each proposal.

- Complete and implement the *Trail Design and Development Guidelines* document that is currently being developed. These guidelines provide state of the art information on the development of sustainable trails.

- Improve forest road and trail signage, mapping, and information distribution.

- Ensure trail development processes comply with Environmental Quality Board (EQB) Rules that are presently being developed to establish mandatory Environmental Assessment Worksheets (EAW) categories that directs when EAWs need to be prepared for recreational trail projects.

- Assure that forest-by-forest results are part of a broader effort to develop a statewide trail system that balances projected user demands (motorized and non-motorized), available funding and staff resources and the ability of the state land base to sustain this use.



· Allow for zoning of forests, i.e. quiet zones and motorized zones by granting DNR greater flexibility to classify portions of a limited forest as closed.

Trail Maintenance - Non-Motorized

- Explore new opportunities for non-motorized trail maintenance funding and reevaluate existing sources.

Trail Maintenance - Motorized

- Study the state gas tax attributed to all-terrain vehicle use. The last study was done in 1984 and the number of registered all-terrain vehicles has continued to rise. (See the table on page 33)

- Reimbursement rates for the snowmobile grant-in-aid program have not been adjusted for many years and need to be adjusted to reflect inflation costs.

Partnerships

- Continue to meet with conservation groups and recreational users (including hunters and utilitarian riders) to share information, resolve problems, and strengthen relationships.

- Develop strategies and processes to reduce the polarized interests regarding motorized uses on state lands.

- Form partnerships to foster the idea of health and trails including health professionals.

- Recruit, train, equip, and supervise volunteers to assist with information and education and reporting of problems on OHV trails.

- Managing the OHV issue in Minnesota is extremely complex due to the mixture of land ownerships, multiple levels of governments, and public, private, and corporate interests involved. The intensity and diversity of values held by multiple stakeholders increases the complexity. Continue to work with other public and private ownership and management interests to share information, coordinate actions, and problem solve relative to off-highway vehicle monitoring, marketing, research, and trail development issues.

· Develop tools to aid in the analysis of user impacts and develop policies using these tools that are aimed at reducing user conflicts.

Monitoring

- Develop a monitoring program to evaluate trail development in terms of user satisfaction and environmental impacts.

Enforcement

- Increase the level of enforcement in recently reclassified forests and designated trails to ensure compliance with rules and regulations and safety of users. Continue to monitor contacts, stops, registered users, and use of the trail system in order to assess the future level of enforcement needed.

- Provide direction and a formal structure for disbursing grant funds for the Off-Highway Vehicle Safety and Conservation Grant Program. Fund the Off-Highway Vehicle Trail Safety and Conservation Grant Program. This program will provide better education of

motorized recreation trail users in the state forests. It will also provide for additional monitoring and minor trail maintenance.

Research

· Conduct trail user satisfaction studies to ensure recreation needs are met.

· Conduct research on the effects of recreational use on the environment. One example of this type of research is being done in the Superior National Forest and on adjacent state forest lands on the effects of ATVs on forested land. Minnesota is one of eight sites selected across the nation and the only state DNR to participate. This study is addressing issues like the effect of tire design, engine size and riding style on soils and runoff. Partners in this study include the U.S. Department of Transportation, U.S. Department of Interior, Bureau of Land Management, and U.S. Forest Service.

Technology

- Update and maintain DNR's Geographic Information Systems database including the forest boundary data layer so that accurate information is available for trail development, management, and public use.

Chapter 2: Current Availability of Existing Motorized and Non-Motorized Trail Opportunities in the Outdoor Recreation System

The legislation requires that the report address the current availability of recreational opportunities for non-motorized and motorized activity in the Outdoor Recreation System. "Outdoor Recreation System" is defined in statute (Minnesota Statutes, Section 86A. 05). In addition, opportunities provided by the federal government, local units of government, private entities, and other state sponsored opportunities are considered because they play a major role in providing trail recreation in Minnesota.

The Outdoor Recreation System Defined

The Outdoor Recreation System (Minnesota Statutes Section 86A. 05)
In 1975, the Minnesota Legislature enacted the Outdoor Recreation Act (ORA) (Minnesota Statutes Section 86A. 05.) This act established an Outdoor Recreation System comprised of twelve components or units classifying all state-managed recreation lands. The twelve units are state parks, state recreation areas, state trails, state scientific and natural areas, state wilderness areas, state forests, state wildlife management areas, state water access sites, state wild, scenic and recreational rivers, state historic sites, state rest areas, and aquatic management areas. All these units provide opportunities for motorized and non-motorized recreation to varying degrees in accordance with the purposes for which they were established. The purposes of each unit are stated in the Outdoor Recreation Act. Some have a recreation emphasis and some have a resource preservation emphasis. Motorized and non-motorized trail opportunities must be consistent with the purpose for which the units were established. For example, scientific and natural areas are open to the public for nature observation and education, but are not meant for intensive recreational activities. As a general rule there are no trails, restrooms, or other facilities. They do provide opportunities for walking and hiking in a natural landscape.

Other Trail Providers
Opportunities in addition to those provided in the Outdoor Recreation System must be considered in the analysis of the availability of motorized and non-motorized recreation opportunities. These include opportunities provided by the federal government, local units of government, private entities, other state sponsored opportunities, and grant-in-aid trails.

Availability Defined

There are a number of factors that determine availability of motorized and non-motorized trails. These include mileage, acres, geographic location, proximity to population centers, and user satisfaction.

Mileage

Miles in the Outdoor Recreation System

Table 1 on page 12 lists the mileage for existing motorized and non-motorized trail opportunities in units of the Outdoor Recreation System.

Other trail mileage – not part of the Outdoor Recreation System

Trails that are not part of the state Outdoor Recreation System must be considered when looking at the statewide trail picture because they play a significant role in providing motorized and non-motorized trail opportunities and meeting user needs. These trails include grant-in-aid trails, federal, county, city, and private trails.

Grant-in-aid trails

Grant-in-aid trails are constructed by local user groups and funded by grants from DNR. A local government unit, (counties in most cases) serves as a sponsor for a local user group. The state reimburses a percentage of the acquisition, development, maintenance, and grooming costs. The following table summarizes grant-in-aid mileage.

Table 2: Grant-In-Aid Mileage

Trail Type	Miles
Snowmobile	18,250
Cross-Country Ski	1,003
All-Terrain Vehicle	601
Off-Highway Motorcycle	119

Source: MN DNR, Trails and Waterways. (2004).

Federal trails

Federal lands play an important role in providing trail recreation in Minnesota in two ways. Federal agencies develop and maintain trails on lands they administer. Federal lands in Minnesota include Voyageurs National Park, two national monuments, the Superior and Chippewa National Forests and U.S Fish and Wildlife Service lands. In addition, grant-in-aid trails have been developed on federal lands. Federal lands host 974 miles of hiking trails, 254 miles of mountain biking trails, 19 miles of paved biking trails, 591 miles of cross-country ski trails, 90 miles of dog sled trails, 111 miles of horseback riding trails, and 1,124 miles of snowmobile trails.

The North Country National Scenic Trail is planned to traverse Minnesota from west to east. This national trail will connect scenic, natural, historic, and cultural areas in several states. The plan is for the trail alignment to take advantage of existing non-motorized trails on public land when possible. Plans include the 205 mile long Superior Hiking Trail, the Kekakabic Trail and the Border Route Trail as part of the North Country Trail. When complete, the approximately four thousand mile long trail will include a variety of hikes from easy to challenging. Currently 107 miles have been certified in Minnesota.

Private Trails
There are private trails in Minnesota that provide recreation opportunities. For example, some resorts provide hiking and cross-country ski trails.

Other Water Based Trails
Other water based trails include the state's 3,400 miles of canoe and boating routes, the 155 mile Lake Superior Kayak Trail, and 252 miles of National Scenic Riverway.

Geographic Location
Trail opportunities are located throughout the state. They are in urban and rural areas and in the northern, southern, eastern, and western parts of the state. The maps on pages 13 - 17 illustrate the geographic locations of several trail opportunities. Map 1 shows the location of the state's more than 20,000 mile snowmobile trail system. This trail system includes both DNR trails and grant-in-aid trails. Map 2 shows the location of motorized trail opportunities. Map 3 shows the location of paved bicycle trails in the Outdoor Recreation System. Map 4 shows the location of horseback riding opportunities in the Outdoor Recreation System. Map 5 shows the location of cross-country ski trails (public and private) identified in a 2003 DNR survey of existing cross-country ski trails.

Proximity to Population Centers
The proximity of motorized and non-motorized trail opportunities to the population of trail users is important to the issue of accessibility. Most recreation activities take place near home. The *Outdoor Recreation Participation in Minnesota* study reports that 67% of all outdoor recreation use occurs within ½ hour drive of home. Providing trail opportunities near population centers is important.

User Satisfaction
Another consideration in assessing the availability of outdoor recreation opportunities is user satisfaction. Miles on the ground do not necessarily equal a satisfactory experience. It is necessary to determine what makes a satisfactory experience for recreationists. Trail user satisfaction studies should be conducted to ensure recreation needs are met.

Table 1: Existing Designated Motorized and Non-Motorized Trail Opportunities in the Outdoor Recreation System

	State Parks	State Recreation Areas	State Trails	State Scientific and Natural Areas	*State Forests	State Wildlife Management Areas	State Historic Sites	Total*** Mileage
# of units	***66***	***7***	***19***	***138***	***57***	***1,377***	***24***	
Total acreage	***216,000***	***15,689***	***8,800***	****184,000***	***4,236,000***	***1,257,883***	***1,237***	
Miles-								
Hiking	984	42	857	5	392	264	17	2,561
Surfaced Bike	81	6	412	1/4				499
Mountain Bike	117	29	465		65			676
Horseback	271	29	473	2	372			1,147
Cross-country Ski	526	5	103		173			807
Skate Ski	35							35
Dogsled			10	1/2				10
Snowmobile	453	49	941	2	572	65		2,082
All-Terrain Vehicle	7	17	6		236	51		317
Off-Highway Motorcycle		18			197			215
Off-Road Vehicles		19			11			30

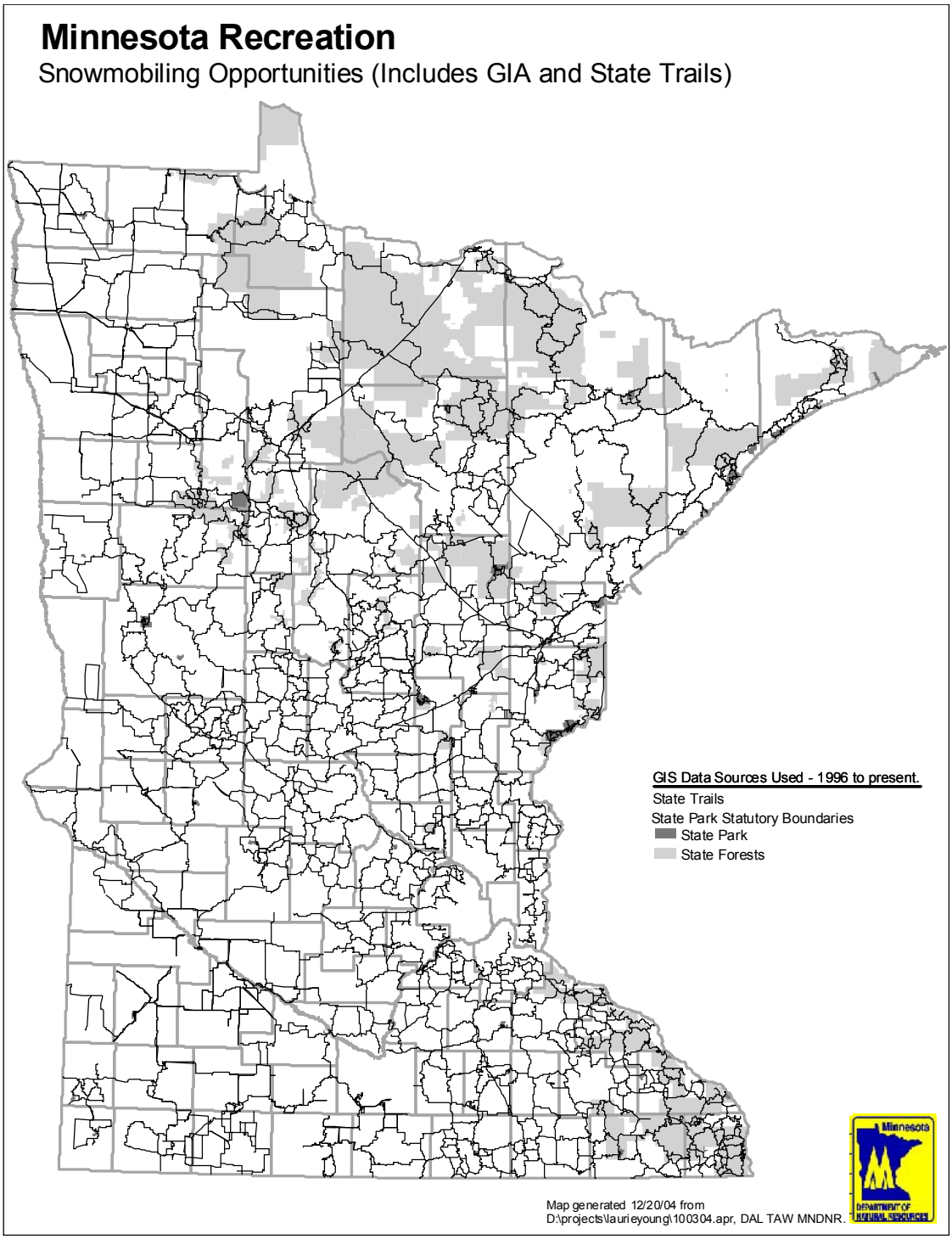
Source: MN DNR, Trails and Waterways. (2004).

* In addition to the designated trails on this table, there are 2,065 miles of state forest roads that provide off-highway vehicle riding opportunities

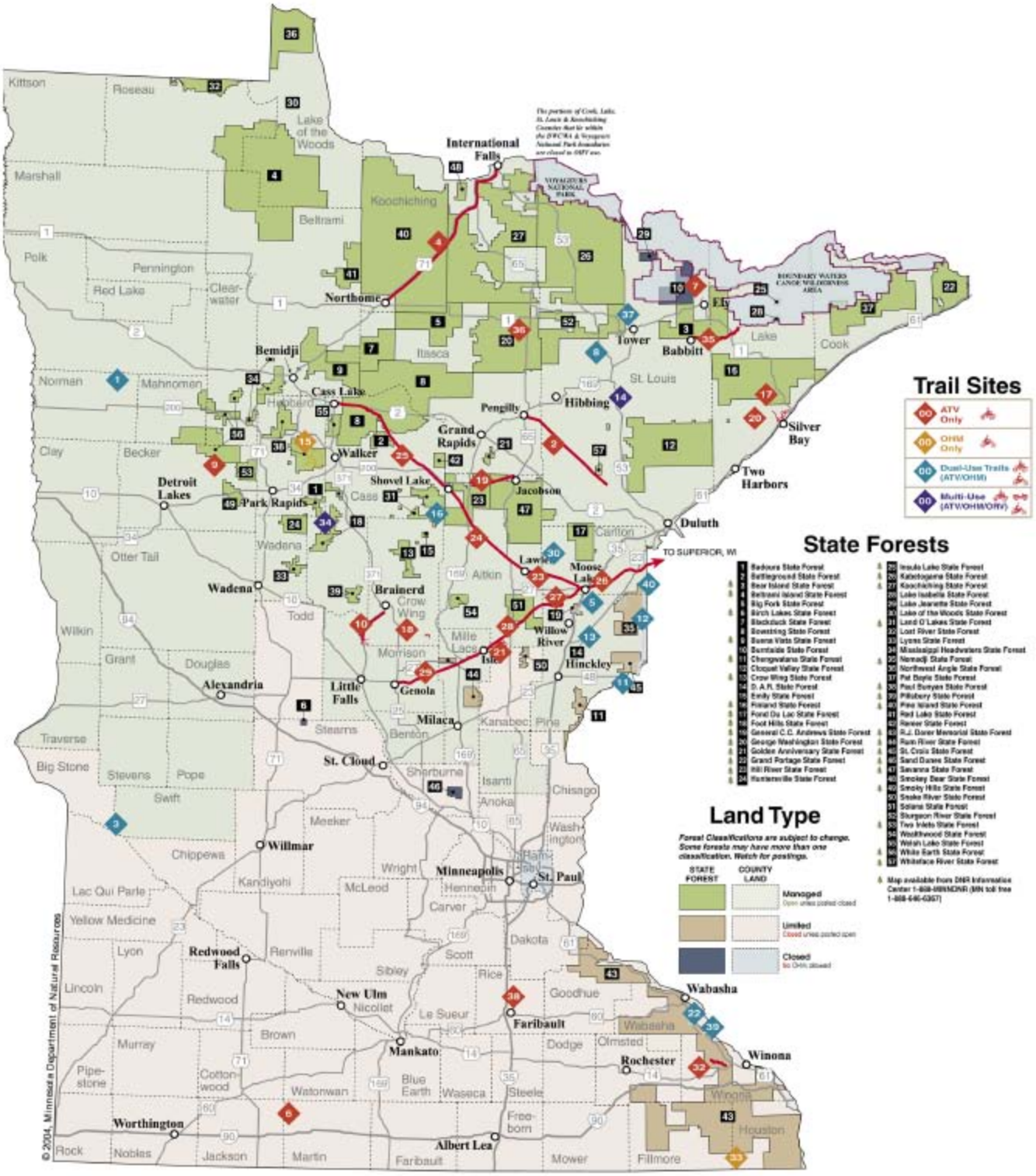
** 146,000 of this total are 18 Peatland Scientific and Natural Areas established in the Wetland Conservation Act of 1991

*** Miles of trail opportunities (hiking, biking, etc) do not equal miles of tread on the ground because one trail is often used for more than one use. A cross-country ski trail in winter may be used as a ski trail in summer

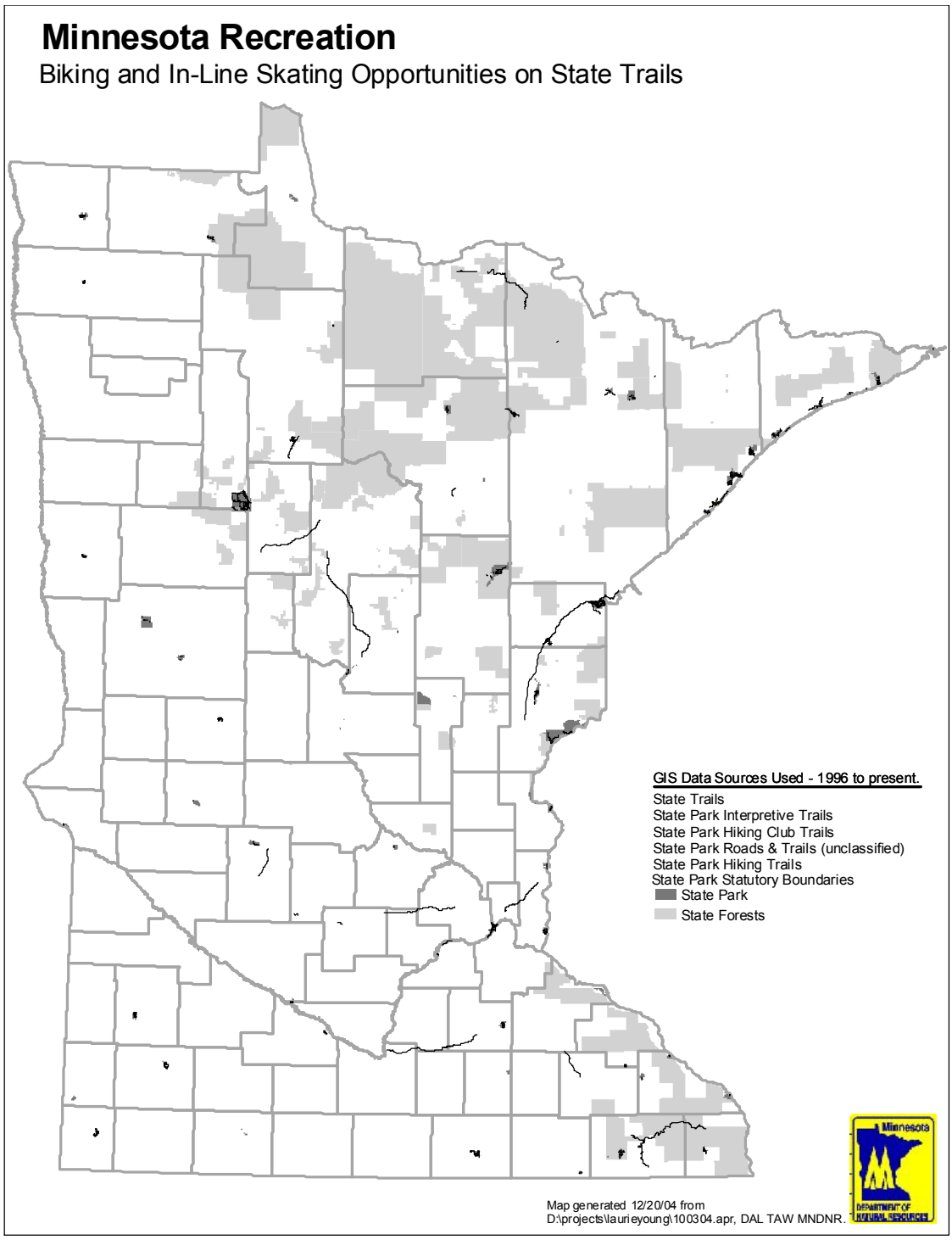
	State Wild, Scenic Recreational Rivers	Total
# of units	***6***	
Canoe	446 miles	446 miles



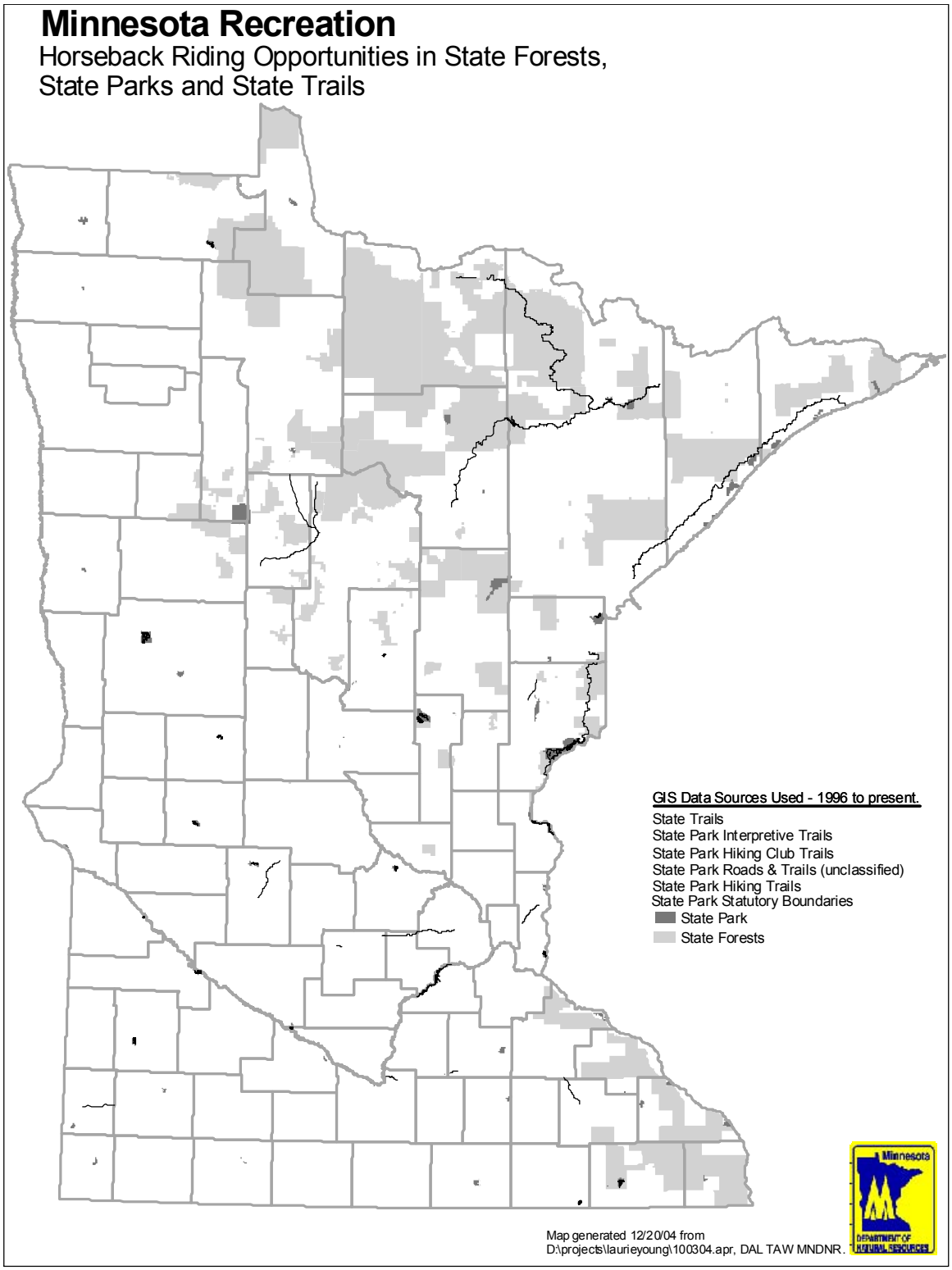
Map 1: Snowmobiling Opportunities – Includes both 18,200 miles of grant-in-aid trails (GIA) and 2,000 DNR miles



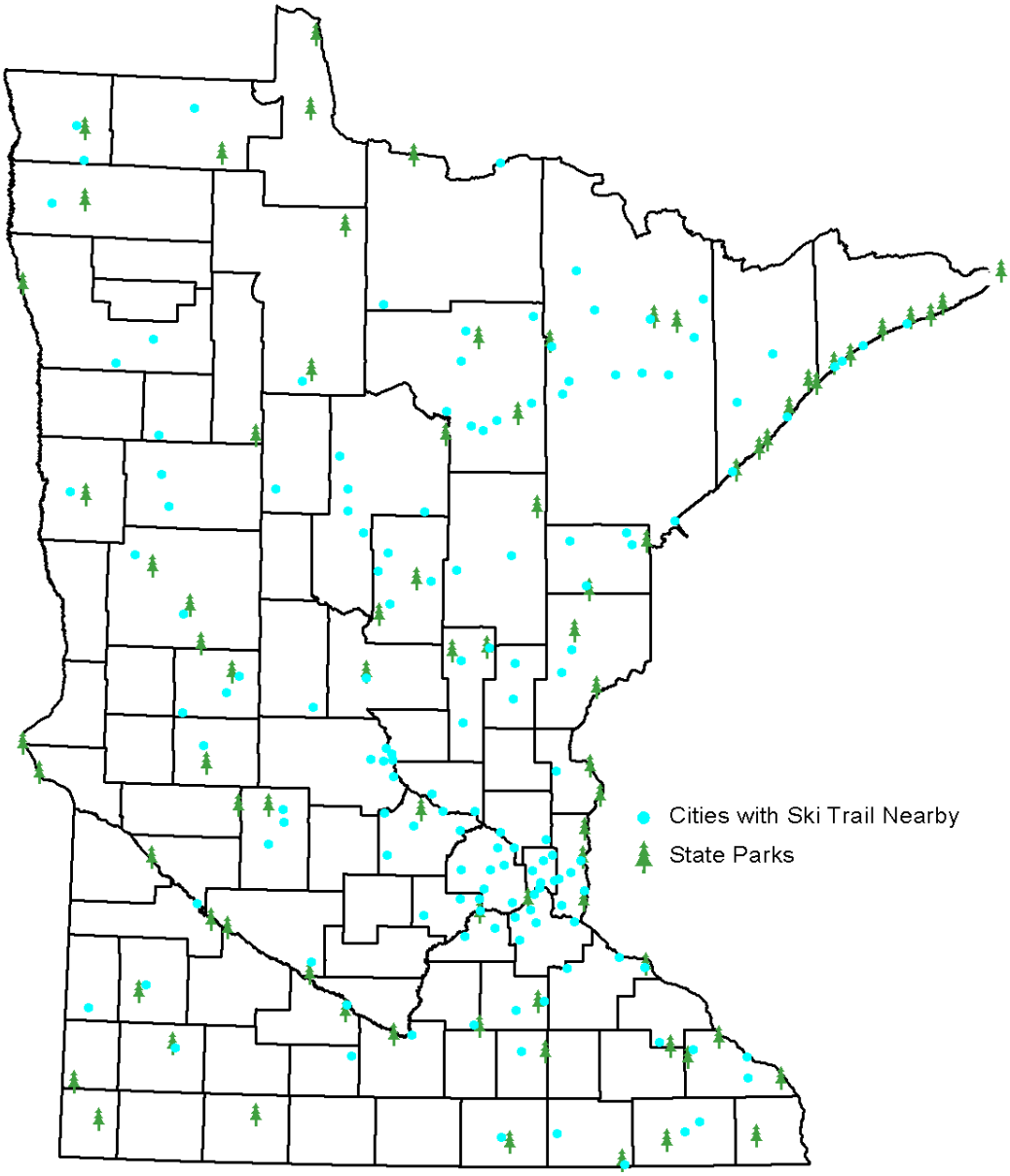
Map 2: Off-Highway Vehicle Trail Opportunities (includes grant-in-aid trails and informal and designated trails on state forest land)



Map 3: Paved Bicycle and In-line Skating Opportunities in the Outdoor Recreation System



Map 4: Horseback Riding Opportunities in the Outdoor Recreation System



Map 6: Cross-Country Ski Trails (location of public and private cross-country ski trails identified in a DNR survey of existing cross-country ski trails, 2003)

Chapter 3: Inventory of State Forest Roads and Access Routes

Purpose of the Inventory
The purpose of the inventory was to accumulate information pertaining to the motorized and non-motorized use of forestry administered lands. The inventory process itself was not an on-site field determination of the suitability of various uses. The inventory process was not used to make judgments about the future status or use of the route. Within certain limitations, if a route showed evidence of human use it was inventoried even if it was apparent to the data collector that future authorized OHV use of the route was unlikely. The recommendations on the final designation of appropriate uses will be made by the DNR through the Forest Classification Review and Trail Designation Process.

How the Inventory Was Conducted
The Off-Highway Vehicle Policy Team (OHVPC) which includes the directors of the Divisions of Wildlife, Forestry, Ecological Services, Trails and Waterways and Enforcement was responsible for giving overall guidance to the inventory process as well as the other components of the 2003 OHV law.

Under the direction of the OHVPC, a Project Implementation Team (PIT) was charged with developing and administering the procedural aspects of the inventory. The scope, parameters, schedules, and methodology of the inventory were developed by the PIT and approved by the OHVPC.

The field effort was supervised by two Regional Management Teams headquartered in Grand Rapids and Bemidji. Regional Management Teams are comprised of the various divisions of the Department. The primary responsibility for completion of the inventory was assigned to the Area Trails and Waterways and Forestry Supervisors. Inventory teams were comprised predominantly of staff from these two divisions. The Friends of the Minnesota Conservation Corps also were major contributors to the effort.

Field staff were trained and directed to record the location and characteristics of routes. The information collected was structured into defined "attributes". These attributes included route width; intensity of use; and certain significant conditions. The use of Global Positioning Satellites instruments allowed the recording of the location of these attributes. The amount of time available for this entire project limited the amount of information that field staff recorded while onsite. See Appendix 1: Field Reference Guide for the form used to record the data. The data collection was accomplished with the field teams who downloaded their information and relayed it to technical staff for editing.

What Was Inventoried

It is important to understand the significance of the terms used in discussions related to this 2003-2004 inventory. The accurate assignment of the label "trail" or "road" to the corridor being described, is difficult to do. In the forest, what appears to be a road to one person may be a trail to another person. In a field setting, roads and trails often times have the same appearance. For the purposes of this inventory, field data collectors were not asked to assign the label "road" or "trail" to the route they were inventorying. Roads and trails alike are referred to generically as "routes". A route would be defined simply as "a corridor through the woods or a path across the land, that shows evidence of ongoing human use." For many people, the routes shown in the photographs below could be considered either a road, or a trail. For the purposes of the inventory discussion, it is less confusing an more accurate to refer to "routes."

It is not always easy to determine if what was being inventoried was a road or a trail. To overcome this difficulty, the more generic term "route" was used to encompass both roads and trails.

In the early stages of the inventory, data collectors were asked to record the designated and apparent uses. This instruction was later modified. It was determined that the data collector was being asked to guess all of the uses that may occur in various times of the year. Recording this use data was discontinued because it relied too much on the judgment of the recorder. Use intensity was an attribute that was retained in the data collection. The assignment of the terms road or trail is reserved for the Road/Trail Designation process that will follow the inventory.

The Division of Forestry is charged with administering the road system on lands they administer. They have recently initiated a new system of management of this system. This system is described in Appendix 2.

Location of the Lands Inventoried

The 2003 OHV law required an inventory of all roads, trails, and routes on state forestry administered lands. This fell into two categories; the lands within the statutory boundaries of the forests (See Map 6 on page 23 for the location of the state forests) and the lands administered by the Division of Forestry outside of these boundaries. The lands within the statutory boundaries of the forests (state, county and federal) approximated 4.9 million acres. Counties and various federal agencies are major landowners within our state forest boundaries. Permission was sought to inventory lands not owned by the state. In all instances other public landowners cooperated and some even assisted in the collection of data. The total acreage of county lands within our state forests is approximately 980,000 acres and federal lands are nearly 843,000 acres. The lands administered outside of these boundaries is approximately 815,000 acres. The total of all acres inventoried was 5.7 million.

Private, tribal, and corporate lands within the project areas were another major consideration. In some instances permission was granted to inventory routes across these lands and in some instances it was denied.

The inventory process was also generally done on DNR Trails & Waterways, Fisheries, and Wildlife administered ownerships within the boundaries of the state forests. Scientific and natural areas and state park lands were not included in this effort.

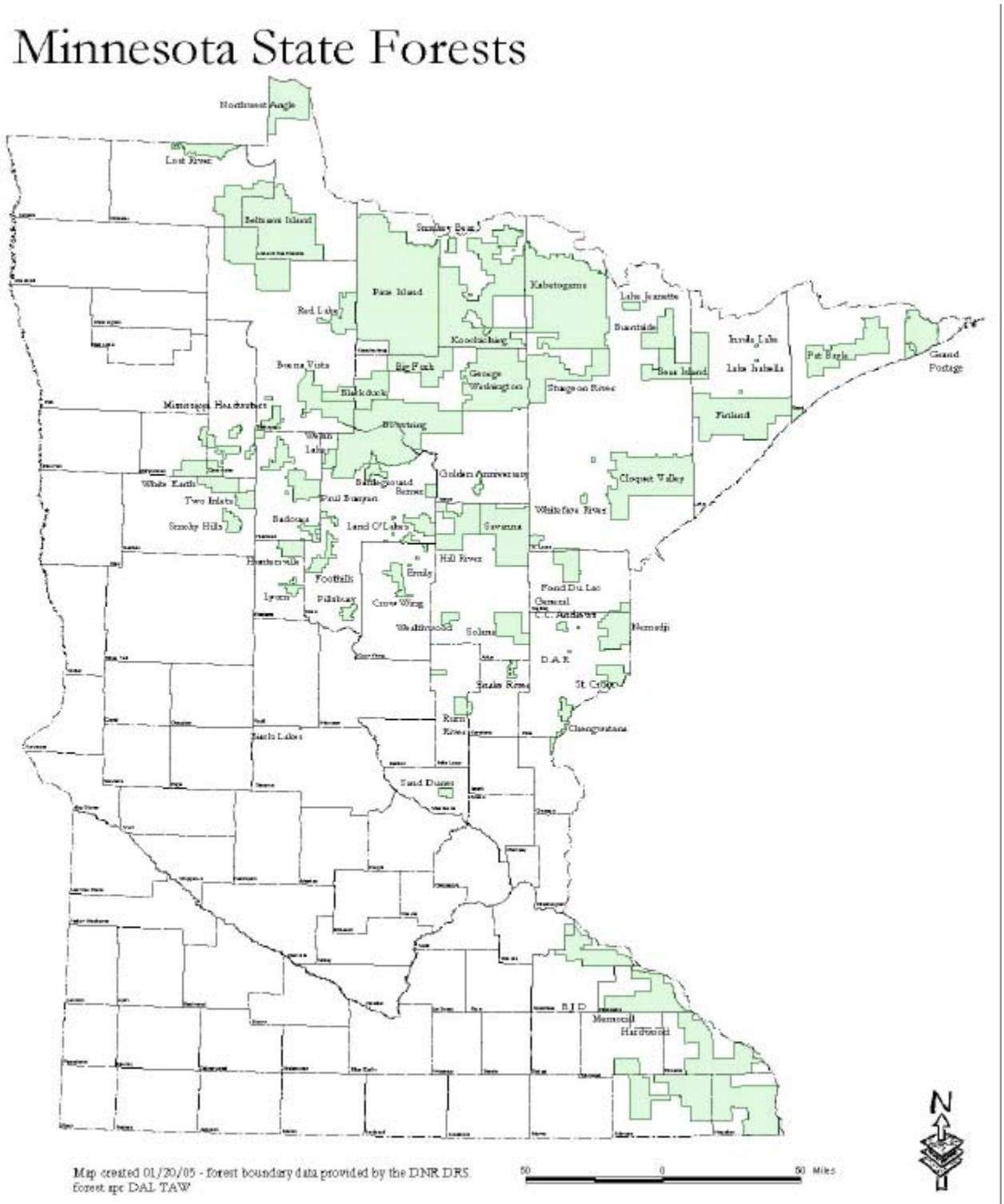
Nearly 200 staff within the DNR and MCC were directed to assist with this effort in various ways. The field data collection effort was the majority of the 62,300 hours it's estimated to have taken to complete the project. Other staff assisted by offering time in GPS instruction and training; planning and prioritization; mapping and data editing; and logistical support including loaning rolling stock and GPS equipment.

Table 3 summarizes the expenditures for salaries, supplies, and equipment over two fiscal years.

Table 3: Summary of Expenditures for Salaries and Supplies/Equipment

	Salaries	Supplies/Equipment	Total
Department of Natural Resources	$1,900,000	$200,000	$2,100,000
Minnesota Conservation Corps (MCC)*	200,000		200,000
			$2,300,000

Source: MN DNR, Trails and Waterways. (2004).
*MCC salaries are calculated at a flat rate of $20/hour total cost including all expenses



Map 6: Minnesota State Forests

Limitations of the data:
Although the inventory is the most comprehensive and thorough assessment of the access routes in our state forests, it is not an inventory of absolutely every route that exists. There is an unknown amount of mileage of routes that exist on our forestry administered lands for which we have no data. There were a number of limitations to this effort due to the varied conditions that exist in the field. The routes shown in the photos below would probably NOT have been traveled by the data collectors in the field using ATVs because of safety concerns for the data collector or a concern of enticing others to follow the route.

Examples of routes NOT traveled by data collectors

Examples of routes traveled by data collectors

The instructions given to the field data collectors were that they should record alignment and attribute data when:

- The route could be traveled safely with an ATV given their personal skill level with operating the machine. This instruction meant that if the collectors encountered steep and/or uneven terrain; impassable conditions like deep mud or water; narrow openings, or windfalls they were not to proceed. They were instructed to record the location where they stopped collecting data on that route and the reason.

Alignment and attribute data were <u>not</u> recorded for:

- Winter haul roads and snowmobile trails across bogs/swamps.

There are a certain number of miles of winter use only routes. Some of these are snowmobile trails and some are used for hauling timber under frozen conditions. In some instances, Forestry under their former road classification system may or may not have registered some of these routes as officially inventoried roads. The "winter-use" only roads that Forestry officials considered important and often-used routes were added to the inventoried roads list. If they were only created for one time use they were rarely recorded in this inventory effort or in the official inventory of forest roads.

- Private/Corporate or Tribal lands where permission was not granted to inventory**.**

In most instances permission was not given to inventory routes that crossed these lands even if the routes continued on the other side. Although they do exist and contribute to the overall use of the state lands, they will not be represented in the overall inventoried mileage totals.

- Not all the data used to compile the inventory was newly acquired. In many instances existing data was used. This existing data was gleaned from previously developed inventories such as the Forest Road Inventory and timber sale records. The older inventories were developed with another purpose in mind and normally did not have the same attributes identified as were identified in the new inventory work of 2003-2004. Attributes such as width, use intensity, and significant conditions were rarely recorded in older inventory information. Using the older inventories normally yielded little more than simple route alignment information.

Outcome

The results of the inventory indicate that there are 11,144 miles of routes located on DNR Forestry, county, and federally administered lands inside the boundaries of the state forests and the DNR Forestry administered scattered lands outside of state forest boundaries. The following tables illustrate the data collected by ownership, DNR regional boundaries, and by county.

Table 4: Inventory Mileage Summary of Forest Access Routes by Ownership

Ownership	Miles of Roads and Trails Inside State Forest Statutory Boundaries	Miles of Roads and Trails Outside State Forest Statutory Boundaries	Total Miles of Roads and Trails
DNR Forestry Administered Land	6,333	1,378	7,711
County	3,183		3,183
Federal (LUP Lands)*	250		250
TOTAL	9,766	1,378	11,144

*Land Utilization Program (federal land DNR leases from the U.S. Fish and Wildlife Service for state wildlife management purposes)

Source: MN DNR Trails and Waterways. (2005).

Table 5: Miles of Inventoried Routes By Ownership By DNR Region

Region	Ownership	Miles
Central		**215**
	County Lands	0
	DNR Forestry Admin Lands	214
Northeast		**7,244**
	County Lands	2,628
	DNR Forestry Admin Lands	4,616
Northwest		**3,446**
	County Lands	554
	DNR Forestry Admin Lands	2,642
	Land Utilization Program (LUP) Lands	250
South		**238**
	County Lands	0
	DNR Forestry Admin Lands	238
Grand Total		**11,144**

Source: MN DNR, Trails and Waterways. (2005).

Table 6: Miles Inventoried By Ownership By County

Source: MN DNR, Trails and Waterways. (2005).

Aitkin		**978**
	County Lands	91
	DNR Forestry Admin Lands	887
Anoka		**17**
	DNR Forestry Admin Lands	17
Becker		**320**
	County Lands	114
	DNR Forestry Admin Lands	206
Beltrami		**402**
	County Lands	102
	DNR Forestry Admin Lands	296
	Land Utilization Program (LUP) Lands	5
Benton		**3**
	DNR Forestry Admin Lands	3
Carlton		**176**
	County Lands	4
	DNR Forestry Admin Lands	172
Cass		**541**
	County Lands	95
	DNR Forestry Admin Lands	446
Clearwater		**146**
	County Lands	91
	DNR Forestry Admin Lands	55
Cook		**136**
	County Lands	2
	DNR Forestry Admin Lands	134
Crow Wing		**99**
	County Lands	12
	DNR Forestry Admin Lands	87
Douglas		**0**
	DNR Forestry Admin Lands	0
Fillmore		**41**
	DNR Forestry Admin Lands	41
Goodhue		**19**
	DNR Forestry Admin Lands	19
Houston		**55**
	DNR Forestry Admin Lands	55
Hubbard		**696**
	County Lands	152
	DNR Forestry Admin Lands	545
Itasca		**1,319**
	County Lands	607
	DNR Forestry Admin Lands	712
Kanabec		**86**
	County Lands	0
	DNR Forestry Admin Lands	86
Koochiching		**1,592**
	County Lands	679
	DNR Forestry Admin Lands	913
Lake		**212**
	County Lands	47
	DNR Forestry Admin Lands	165
Lake of the Woods		**541**
	County Lands	0
	DNR Forestry Admin Lands	428
	Land Utilization Program (LUP) Lands	113
Mahnomen		**25**
	County Lands	0
	DNR Forestry Admin Lands	25
Mille Lacs		**42**
	DNR Forestry Admin Lands	42
Morrison		**6**
	DNR Forestry Admin Lands	6
Olmsted		**6**
	DNR Forestry Admin Lands	6
Otter Tail		**4**
	DNR Forestry Admin Lands	4
Pine		**561**
	County Lands	3
	DNR Forestry Admin Lands	559
Roseau		**659**
	DNR Forestry Admin Lands	526
	Land Utilization Program (LUP) Lands	133
Sherburne		**50**
	DNR Forestry Admin Lands	50
St. Louis		**2,171**
	County Lands	1,183
	DNR Forestry Admin Lands	988
Stearns		**6**
	DNR Forestry Admin Lands	6
Todd		**4**
	DNR Forestry Admin Lands	4
Wabasha		**80**
	DNR Forestry Admin Lands	80
Wadena		**112**
	County Lands	0
	DNR Forestry Admin Lands	112
Winona		**37**
	County Lands	0
	DNR Forestry Admin Lands	37
Grand Total		**11,144**

Chapter 4: Future Availability of Non-motorized and Motorized Trail Opportunities

The legislation required that the future availability of recreational opportunities for non-motorized and motorized activities be addressed. There are two dimensions to future availability – demand for non-motorized and motorized opportunities and supply of those opportunities.

Demand for Non-motorized and Motorized Activities

There are several sources of information that can be used as indicators to assess future demand.

1. Minnesota's population trends
2. Results of Minnesota's recently completed survey *Outdoor Recreation Participation in Minnesota*
3. Registrations of off-highway vehicles and snowmobiles
4. Grant requests in excess of available funds

Minnesota's Population Trends

There are four population trends that will affect future recreation participation patterns.

1. ***Minnesota's population will continue to grow, but at a decreasing rate.***
2. ***Greatest growth will occur in the Twin Cities area suburban counties.***
3. ***Minnesota's population is aging.***
4. ***Minnesota is becoming increasingly more racially and ethnically diverse.***

Minnesota's population will continue to grow, but at a decreasing rate.
Minnesota's population was 4,972,294 in 2001. According to the report, *Minnesota Population Projections 2000 –2030*, the state's population is projected to reach 5,452,500 by 2010 and 6,268,200 by 2030. Two thirds of this growth will be due to natural increases (number of births over deaths). Migration from other states and from foreign countries will account for the remainder of the increase.

The state's population will not grow as fast as it has previously. Between 1990 and 2000 growth was 6.3%. It is projected to be 4.6% between 2000 and 2010 and 4% between 2010 and 2020.

Implications for recreation
Historically, population growth has been a significant determinant of recreation trends and this fact is likely to continue. In general, an increase in population has resulted in increased participation in outdoor recreation activities. There are exceptions to this generalization and the increase in participation of some activities has outpaced the rate of population growth. Examples are bicycling and kayaking. Technological innovations and improvements are the driving factors for the increased participation rates of these

activities. Improvements in the design and weights of bicycles led to an increase in participation rates of bicycling, particularly mountain bicycling.

Greatest population growth will occur in the Twin Cities area suburban counties
Minnesota's population will continue to become increasingly suburban. Growth will also occur in the St. Cloud and Rochester areas and the lakes area of north central Minnesota. Counties in western Minnesota will lose population.

Implications for recreation
Demand for non-motorized and motorized recreation will increase in these areas. These are the same geographic areas where demand for housing and businesses is occurring. Opportunities for motorized and non-motorized recreation are being lost to developing areas. For example, grant-in-aid snowmobile trails are lost in developing areas. Rural areas are looking to the development of recreation for economic development.

Minnesota's population is aging
Minnesota's population is aging and there will be significant numbers of people in the older age classes, more so than any other time in the state's history. This is due to the aging of the baby boom generation (those born between 1946 and 1964) created by the large number of births after World War II. Between 2000 and 2010 there will be significant increases in the 45 – 65 year old age range. The over 55 age group will increase by more than 2 million in the next 30 years. The median age of the state's population will rise from 35.4 in 2000 to 40.2 in 2030. The first large wave of new retirees from the baby boom generation will occur in 2008. By 2011, the majority of the baby boomers will turn 65.

Implications for recreation
Because the baby boom phenomenon is unique, historical experience is not available to suggest implications for public policy in general and outdoor recreation specifically. It is known that the unprecedented large numbers of older Minnesotans will have huge implications on the economic and social fabric of the state. Some questions relating to recreation are:
Will outdoor recreation participation rates be higher than in the past as the connection between health and outdoor recreation is promoted?
Will the volunteer base increase?

Minnesota is becoming increasingly more racially and ethnically diverse.
There has been an increase in the African American, Asian, American Indian and Hispanic population in Minnesota. Rapid growth is projected for these groups.

Implications for recreation
An increased understanding of the recreation needs of these populations is needed so that trail providers can meet growing demand and serve a broad range of people.

Results of Minnesota's recently completed survey *Outdoor Recreation Participation in Minnesota and Facility Demand Study*

The *2003 - 2008 State Comprehensive Outdoor Recreation Plan* identified the need to better understand the changing nature of outdoor recreation in Minnesota. To that end, the DNR, in cooperation with other outdoor recreation providers, conducted a study to:

1. Determine the general outdoor recreation participation of Minnesotans and establish a methodology that can be replicated every 5 years so trends can be established and short-term forecasts made.
2. Determine from providers the recreation facility needs of cities, counties, and school districts in the state. Establish a cost-effective methodology that can be replicated every 5 years so trends can be established and short-term forecasts made.
3. Determine directly the recreation facility and program needs of the general Minnesota population.

Table 7 summarizes the results of the *Outdoor Recreation Participation in Minnesota* study indicating the number of participants and percent of the population participating in 28 outdoor recreation activities. Walking was the activity that the greatest number of Minnesotans participated in with 54% of the population participating.

Table 7: Annual Outdoor Recreation Participation by Minnesotans in Minnesota and Elsewhere, 2004 (Population 20 years and older)

Activity	Number of Participants (000's)	Percent of Population
Walking/hiking (Outdoors for pleasure or exercise)	1,896	54%
Boating of all types, including fishing from a boat	1,493	43
Boating of all types, excluding fishing from a boat	1,237	36
Swimming or wading	1,423	41
Driving for pleasure on scenic roads or in a park	1,300	37
Picnicking	1,245	36
Fishing	1,054	30
Biking	1,011	29
Visiting outdoor zoos	957	27
Camping	899	26
Visiting nature centers	884	25
Nature observation, photography	844	24
Golfing	820	24
Outdoor field sports (soccer, softball/baseball, football)	737	21
Visiting historic or archaeological sites	721	21
Sledding and snow tubing	642	18
Outdoor court sports (volleyball, basketball, tennis, horseshoes)	612	18
Hunting of all types	556	16
Running or jogging	497	14
Ice skating/hockey outdoors	402	12
Inline skating, rollerblading, roller skating, roller skiing	394	11
Offroad ATV driving	357	10
Snowmobiling	342	10
Downhill skiing/snowboarding	313	9
Gather mushrooms, berries, or other wild foods	302	9
Cross country skiing	227	7
Horseback riding	157	5
Snowshoeing	146	4

Source: Minnesota Department of Natural Resources. (2005). Outdoor Recreation Participation in Minnesota

Registration of Snowmobiles and Off-Highway Vehicles 1994 – 2003[1]

The number of registrations of snowmobiles, all-terrain vehicles, off-highway motorcycles, and off-road vehicles indicates the demand for motorized recreation opportunities. Tables 8 through 11 summarize registration data for motorized use.

Table 8: Minnesota Snowmobile Registrations

FISCAL YEAR	FIRST YEAR REGISTRA-TIONS	TOTAL REGISTRATIONS
1994	37,552	216,461
1995	42,092	233,443
1996	47,800	254,510
1997	49,212	274,913
1998	39,778	277,650
1999	35,954	280,696
2000	31,039	277,290
2001	30,185	297,623
2002	25,139	285,675
2003	15,134	267,467
2004	17,159	268,988

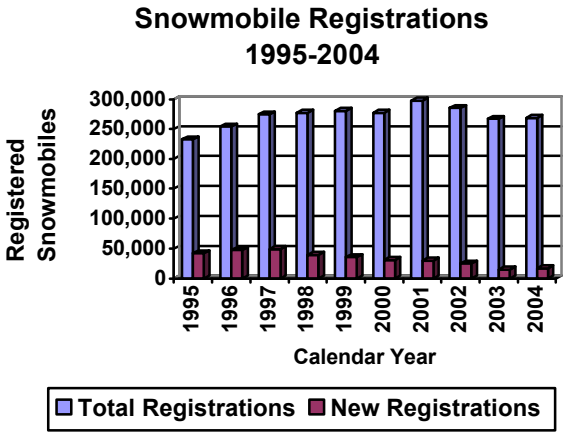
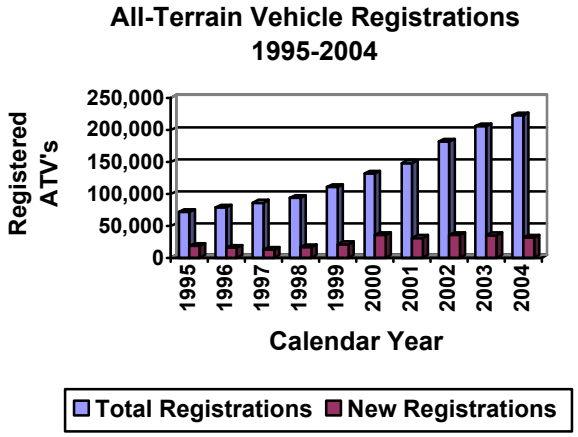


Table 9: Minnesota All-Terrain Vehicle Registrations

Begun 1984, excluding agricultural and exempt vehicles**)**

CALEN-DAR YEAR	FIRST-YEAR REGISTRA-TIONS	TOTAL REGISTRATIONS
1994	9,204	56,706
1995	18,275	71,812
1996	15,582	78,992
1997	12,548	86,184
1998	16,484	93,824
1999	21,073	110,395
2000	36,558	132,994
2001	31,233	148,172
2002	35,776	181,755
2003	35,083	205,771
2004	31,606	222,594



[1] Statutes enacted in 1984 [MS Chap. 84.92] and 1993 [MS Chap. 84.787 (OHM) and MS Chap. 84.797 (ORV)] established registration requirements for off-highway vehicles and dedicated revenues for the management and development of off-highway vehicle trails and support programs.

Table 10: Minnesota Off-Highway Motorcycle Registrations

CALENDAR YEAR ENDING DEC. 31	FIRST-YEAR REGISTRA-TIONS	TOTAL REGISTRA-TIONS
1994	181	181
1995	77	258
1996	40	298
1997	2,480	2,778
1998	342	3,120
1999	906	4,026
2000	1,945	5,078
2001	2,132	6,274
2002	2,506	7,628
2003	3,224	9,283
2004	4,604	12,163

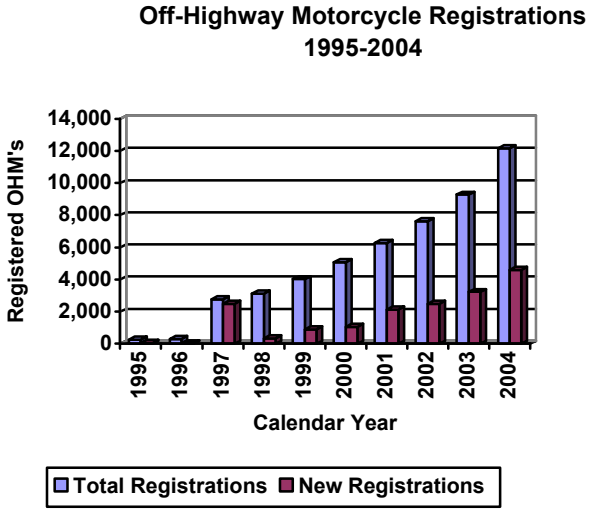
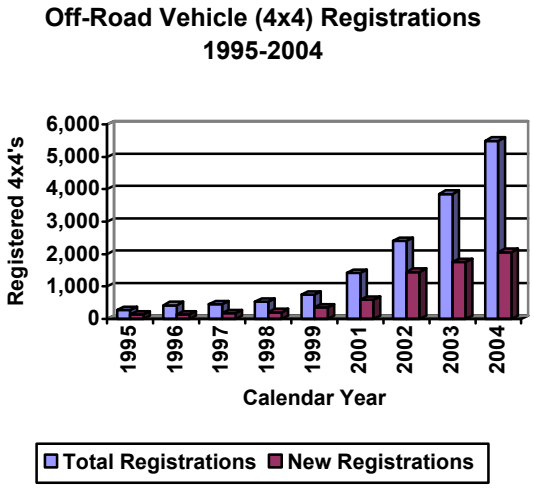


Table 11: Minnesota Off-Road Vehicle Registrations

CALENDAR YEAR ENDING DEC. 31	FIRST-YEAR REGISTRA-TIONS	TOTAL REGISTRA-TIONS
1994	148	148
1995	136	284
1996	143	427
1997	180	459
1998	209	532
1999	355	744
2000	475	1,039
2001	587	1,416
2002	1,451	2,405
2003	1,750	3,850
2004	2,061	5,497



Future Non-Motorized and Motorized Trail Opportunities

The availability of land and the development of facilities determine the amount and quality of non-motorized and motorized trail opportunities.

Availability of land for trails is becoming increasingly more constrained
There are opportunities on the existing land base for development of new facilities for motorized and non-motorized trail activities. However, the availability of land for trails is becoming more constrained for several reasons.
1. Few railroad abandonments are occurring.
2. It is difficult to put together a contiguous corridor from private landowners.
3. The federal government's new rules and regulations for National Forests results in less opportunity for motorized riding
4. New development displaces and replaces recreation opportunities
5. User groups have become more polarized and less tolerant – there is less willingness to share facilities.
6. There is an increasing environmental awareness and regulations in place to protect land from environmental damage.
7. Trail development opposition groups are more organized and active.
8. There is a trend in the forest industry to sell land for private use which can exclude future trail use.

Trails will continue to be built, but it is not possible to predict how many miles per year due to the unknown future funds for trail development and acquisition.

Future Facility Development

Legislatively authorized state trail system
Development of the legislatively authorized state trail system is likely to continue. See Map 7 for the location of undeveloped state trails that could be developed in the future.

Regional and local trails
Development of community and county trails is likely to continue. Local demand and a variety of funding sources support the continued development of local trails.

State forest designated trails
The forest classification and trail designation process will result in designated and signed OHV trails. The final mileage of OHV trails is unknown at this time. It will be determined as each forest is reclassified as required by 2003 OHV legislation.

Consolidated Conservation (Con-Con) Lands
An additional 43 miles of ATV trails will be designated to complete the 90 miles of state trails on the Con-Con Wildlife Management Areas in northwest Minnesota.

Continuous 70-mile trail system
A 70-mile trail system for ATVs and OHMs will be developed in accordance with the 2003 legislation.

Trail grant requests in excess of available funds
Requests for funding of trail projects through the three grant programs administered by the DNR, Division of Trails and Waterways can serve as an indicator of how many projects are "out there" seeking funding. This serves as both an indicator of demand and also potential future supply.

Table 12 summarizes the number of trail grant requests in excess of available funds for the three trail grant programs – local trail linkage, regional trails, and National Recreational Trail Program. The local trail linkage program is for short trail connections between where people live and desirable destinations, priority given to connections to state and regional facilities. A 50% local match is required. The purpose of the regional trail grant program is to promote development of regionally significant trails. A 50% match is required. The purpose of the National Recreation Trail Grant Program is to encourage the development and maintenance of motorized, non-motorized and diversified trails. A 50% match is required.

Table 12: Number of Trail Grant Requests in Excess of Available Funds

	Local Trail Linkage	Regional Trails	National Recreational Trail Program
1993	6		104
1994	8		
1995	7		
1996			31
1997	18		27
1998	18	13	16
1999	15	11	8
2000	16	6	11
2001	5	7	15
2002	21	6	36
2003	25	3	18
2004	36	6	19
TOTAL			285

Source: MN DNR, Trails and Waterways. (2004).

Grant-in-aid funding requests
Currently, the Minnesota Trail Assistance Program, (grant-in-aid or GIA, as it is more commonly known), for Off-Highway Vehicles (OHVs) is experiencing an increase in interest with many new proposals coming forward from local clubs each year. The following is a current assessment of projects that are being worked on and could be ready for funding this development season.

Table 13: Pending OHV Grant-in-Aid Requests

OHV Group	# of Projects	# of Miles	Project Cost
ATV	23	625	$2,200,000
OHM	7	135	240,000
ORV	7	80	1,830,000
Total	37	840	$4,270,000

Source: MN DNR, Trails and Waterways. (2004).

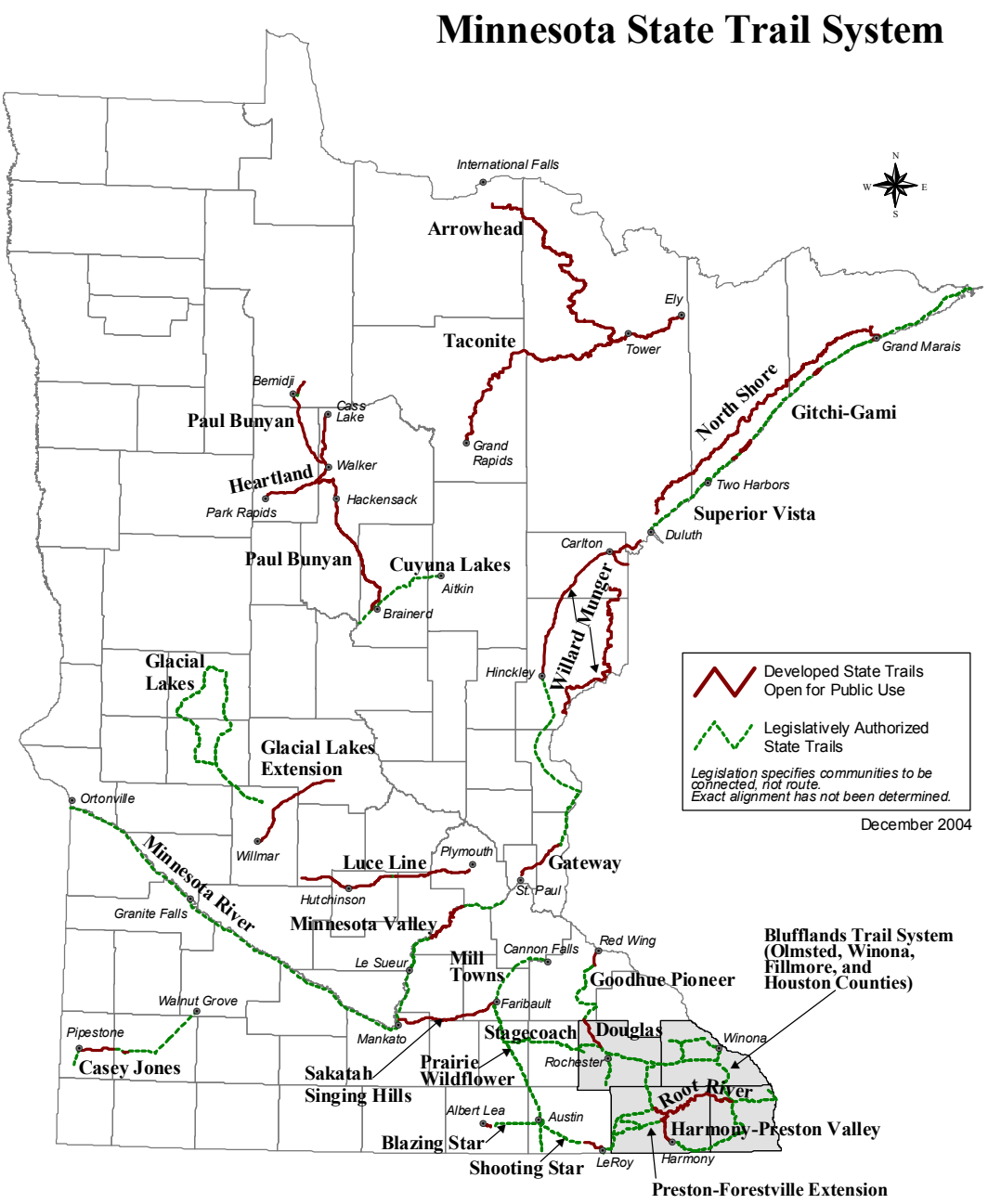
The current annual allocation for these GIA programs are, ATV - $475,000; OHM - $50,000; ORV - $100,000. An increase in GIA funding is needed to handle the existing project requests.

The *2001 Statewide Snowmobile Trail System Plan* reported that snowmobile clubs requested approximately 1,634 miles of new trails, totaling $804,225. In addition, there are two major bridge projects that are necessary to provide system integrity and safety. These two bridges total $1,500,000. Many of the new trails would enhance the existing system by creating links to neighboring trail systems. Also, some existing trails need to be relocated in the future due to development, highway expansion, or land ownership issues.

Conclusion

There is significant demand for both motorized and non-motorized trail opportunities. The land base for providing these opportunities is becoming increasingly more limited and the processes that create (provide) them are becoming increasingly more complex.

Map 7: The Minnesota State Trail System – Existing and Future Trails



Chapter 5: Sources of Revenue for Trails

Motorized Trails (Snowmobiles, All-Terrain Vehicles, Off-Road Motorcycles, and Off-Road Vehicles)

Dedicated Accounts

The major sources of funding for the acquisition, development, management, and maintenance of the motorized trail program are the dedicated accounts. Other sources of revenue in addition to the dedicated accounts include grants from the National Recreational Trail Program, charitable gambling funds, Iron Range Rehabilitation Agency, local units of government, volunteers, state organizations and local clubs.

There are four dedicated accounts – snowmobile, all-terrain vehicle, off-highway motorcycle, and off-road vehicle. The purpose of the dedicated accounts and allowable expenditures are stated in statute.

The largest sources of revenue for all accounts are the unrefunded gas tax and registrations. The unrefunded gas tax is the largest source of revenue in the off-highway motorcycle and off-road vehicle accounts. Registration is the largest source of revenue in the all-terrain vehicle account. Revenue sources include the following:

Unrefunded gas tax. A percentage of the unrefunded gas tax is deposited in each dedicated account**.** The percentage is different for each of the motorized uses and is determined by the amount of gasoline used.
Registrations. All ATVs must be registered with the DNR. All OHMs operated on public lands, frozen public waters, private lands or in track racing events must be registered with the DNR. All ORVs operated off road must be registered with the DNR. Snowmobiles must be registered as well. Registrations can be purchased at deputy registrars of motor vehicles or the DNR License Bureau in St. Paul.
Safety training. Fees are charged for safety classes, both adult and youth. Fees collected are deposited in the dedicated accounts. The fee for youth snowmobile safety training is $5.00. Instructors can charge up to $10.00 if there are additional costs to hold the class, such as room rental. Adult safety training is $10.00. All-terrain vehicle safety training is $15.00. Off-highway motorcycle training is $5.00.
Filing fees. Filing fees are charged when a vehicle is purchased, renewed, or transferred. The filing fee for a snowmobile is $2.00. The filing fee for an OHV is $4.50 if the vehicle is renewed transferred or a registration replaced. It is $7.00 for an initial registration.
Civil citations. Civil citations are penalties charged for violations.
Investment income. Investment income is the interest earned on the account.
Trail permit. (for the snowmobile account). A $16 sticker is required for snowmobiles not registered in Minnesota to operation on state or grant-in-aid trails.
Metal traction sticker. (for snowmobile account). A $13 sticker was required for snowmobiles with metal traction devices. This sticker is no longer required.

Snowmobile Account
The Snowmobile Trails and Enforcement Account was the first of the dedicated accounts, established in 1982. Revenues from snowmobile registration fees and 1% of the unrefunded state gasoline tax attributable to snowmobile use are placed in this dedicated account. Registration for a snowmobile is $48.50 for three years. Table 14 shows the amount of revenue for the snowmobile account from 1985 to 2004.

All-Terrain Vehicle Account
The all-terrain vehicle account was established in 1984, (Minnesota Statutes 84.927, Subd 2.) Registrations account for the largest source of revenue in the all-terrain vehicle account. Initially, the cost of a registration was $18 for three years. In July of 2003, it was raised to $23. On January 1, 2005 it increased to $30 for three years.

The other major source of revenue for this account is the unrefunded gas tax. The unrefunded gasoline tax attributable to all-terrain vehicle use (.15%) is deposited in the account. Table 15 shows the amount of revenue for the all-terrain vehicle account from 1984- 2004. ATV registrations and the unrefunded gas tax account for 93% of the revenue in the account.

Off-Highway Motorcycle Account
The Off-Highway Motorcycle Account was established in 1994, (Minnesota Statutes 84.794, Subd 2.) The largest sources of revenue for this account are a portion of the unrefunded gas and motorcycle registration fees. The cost of an off-highway motorcycle registration is $30 for three years. The unrefunded gasoline tax attributable to off-highway motorcycles (.046%) is deposited in the account. Table 16 shows the sources and amount of revenue for the off-highway motorcycle account from 1994 – 2004.

Off-Road Vehicle Account
The off-road vehicle account was also established in 1994 (Minnesota Statutes, 84.803, Subd 2). The cost of an off-road vehicle registration is $30 for three years. The unrefunded gasoline tax attributable to off-road vehicle use (.164%) is deposited in the account. Table 17 shows the sources and amount of revenue in the off-road vehicle account from 1994 – 2004.

The National Recreation Trail Program

The National Recreation Trail Program (NRTP) is a source of funds for motorized and non motorized trail projects. The NRTP is a federal grant program that provides 50% of project cost. The program is administered by the DNR, Trails and Waterways Division, in partnership with the Minnesota Recreational Trail User Association (MRTUA), a group of trail user representatives. Approximately $1 million has been available annually. Thirty percent of the funds available are allocated for motorized projects, 30% for non-motorized projects and 40% for multi use (motorized and non-motorized trail projects). Table 18 summarizes applications received, applications funded, and the total amount of dollars requested and funded.

Table 14: Snowmobile Revenues

Fiscal Year	Registration	Unrefunded Gas Tax	Filing Fee	Studs Civil Citations	Youth Training	Fines	Trail Permit	Metal Traction Sticker	Adult Training	Investment Income	Agency Indirect Cost	Refunds/0ther	Lic. Credit Card Service Charge	Total
1985	$928,819	$2,278,156										$(4,053)		$3,202,922
1986	1,143,174	2,206,864										(2,504)		3,347,534
1987	981,779	2,208,908										(1,764)		3,188,923
1988	1,438,161	2,374,665								$276,481		(2,296)		4,087,011
1989	1,352,421	2,720,396			$18,984					341,115		(626)		4,432,290
1990	1,021,311	2,856,790			20,103					383,365		(889)		4,280,680
1991	1,184,462	2,941,773			20,505					363,844		1,340		4,511,924
1992	2,104,380	2,868,080			29,073					271,729		15,160		5,288,422
1993	2,215,253	2,898,003			36,338					203,330		20,126		5,373,050
1994	2,493,743	2,966,517			47,800	$37,969				148,698		(4,094)		5,690,633
1995	2,661,700	3,040,637			47,537	39,807				189,189		(16,664)		5,962,206
1996	2,932,305	3,132,751			52,470	37,716				117,294		12,126		6,284,662
1997	3,108,320	3,298,649			63,043	65,190				202,828		10,767		6,748,797
1998	4,123,732	3,983,300			70,839	44,092	$28,597			186,830		11,424		8,448,814
1999	4,430,162	4,713,381	$12,657		65,883	42,026	51,130	$1,102,377		244,876			$(1,227)	10,661,265
2000	4,369,249	4,902,841	13,689	$1,650	66,295	43,895	29,893	388,870		391,954		10,167	(1,144)	10,217,359
2001	5,112,797	4,339,548	14,379	2,100	79,875	59,885	86,969	449,846	$8,960	441,918		1,544	(712)	10,597,109
2002	3,880,821	4,468,008	63,968	393	75,690	29,027	33,254	274,548	6,320	271,456	$1,813	300	133	9,105,731
2003	3,508,678	4,339,548	69,909	213	55,348	26,615	22,936	197,724	25,012	212,824	2,330	78,097	(21)	8,539,213
2004	$5,226,565	$5,286,351	$208,705	$350	$55,037	$29,234	$59,559	$335,980	$24,699	$106,988	$3,584	$3,242	$(69)	$11,340,225

Source: MN DNR, Trails and Waterways. (2004).

Table 15: All-Terrain Vehicle (ATV) Revenues

Fiscal Year	ATV Registration	Unrefunded Gas Tax	Transfers in from other dedicated accounts	ATV Safety Training	Filing Fees	Investment Income	Other	Refund	Civil Citations	Total
1985	$234,900									$234,900
1986	181,185									181,185
1987	198,079	$441,782		$5,175			$165	$190		645,011
1988	332,335	474,933		3,920			$529	(396)		811,321
1989	279,467	544,079		200				(2,368)		821,383
1990	247,331	571,358		1,076				(6,072)		813,693
1991	369,800	588,355		1,093				(8,799)		950,449
1992	319,223	573,616	$14,384	1,216				(1,218)		907,221
1993	339,669	579,601		2,100				(1,426)		919,944
1994	432,352	593,303		4,400	$40,000			(1,639)		1,068,416
1995	485,330	608,127		2,300				(2,570)		1,093,187
1996	475,331	626,550		4,331	3,026					1,109,238
1997	586,249	659,730		6,458	3,450					1,255,887
1998	699,128	678,033		6,674	5,122					1,388,957
1999	776,023	707,007	$810,000	5,697	3,670					2,302,397
2000	950,727	735,426		5,825	4,264			49		1,696,291
2001	1,181,248	748,509		5,780	4,874					1,940,411
2002	1,264,211	761,327		5,876	42,895	$186		8		2,074,503
2003	1,478,152	780,400		7,545	92,424	339		(48)		2,358,812
2004	$1,908,375	$792,953		$28,740	$170,910	$462		$(7)	$1,350	$2,902,783

Source: MN DNR, Trails and Waterways. (2004).

Table 16: Off-Highway Motorcycles Revenues

Fiscal Year	Registration	Unrefunded Gas Tax	Filing Fee	Safety Training	Investment Income	Civil Citations	License Credit Card Service Charge	Total
1994	$12,252							$12,252
1995	18,004	$97,217						115,221
1996	13,745	192,142						205,887
1997	29,945	202,317						232,262
1998	40,127	207,930						248,057
1999	45,385	216,816	$124	$430				262,755
2000	56,476	225,531	216	905				283,128
2001	80,467	229,543	228	1,170				311,408
2002	80,496	233,474	1,348	1,185	$5			316,508
2003	103,658	239,323	3,786	1,115	15			347,897
2004	$148,426	$243,172	$9,366	$1,415	$34	$500	$(4)	$402,909

Source: MN DNR, Trails and Waterways. (2004).

Table 17: **Off-Road Vehicles Revenue**

Fiscal Year	Registration	Unrefunded Gas Tax	Refunds	Filing Fee	License Credit Card Service charge	Investment Income	Civil Citations	Total
1994	$2,748							$2,748
1995	4,594							4,594
1996	4,496	$361,666						366,162
1997	4,302	721,305						725,607
1998	5,556	741,316						746,872
1999	8,598	772,994		$38				781,630
2000	11,454	804,066		34				815,554
2001	16,626	818,370		42				835,038
2002	31,838	832,384		546		$3		864,771
2003	49,972	853,238	$5	1,898		6		905,119
2004	$61,130	$866,962	$231	$5,666	$(15)	$25	$1,034	$935,033

Source: MN DNR, Trails and Waterways. (2004).

Table 18: National Recreational Trail Program

Federal Fiscal Year	Applications Submitted	Total Grant Requests	Total Project Costs	Applications Funded	Grant Requests Funded	Funded Project Costs
1993	117	$3,607,906	$7,669,874	13	$297,740	
1996	46	946,810	2,832,523	15	326,035	$1,144,473
1997	41	1,317,808	5,181,479	14	261,789	903,941
1998	32	1,397,808	5,114,725	16	496,239	1,454,755
1999	30	1,098,293	4,341,456	22	699,147	1,859,544
2000	37	1,932,934	10,518,374	26	1,059,418	4,561,095
2001	39	2,154,584	7,224,850	24	952,109	4,052,457
2002	58	3,332,752	11,618,731	22	1,224,348	5,539,431
2003	42	1,789,541	5,181,334	24	904.883	3,174,225
2004	49	2,426,805	$6,885,397	30	1,165,700	3,364,446
Totals	491	20,005,241	66,568,743	206	7,387,408	26,054,367*
Average	49	$2,000,524	$6,656,874	20.6	$738,741	$2,605,437*

* Since 1996

Source: MN DNR, Trails and Waterways. (2004)

Charitable Gambling Funds

Charitable gambling funds have been used by local clubs to raise money for motorized trails. The amount of dollars from charitable gambling sources is significant. For example, funds from charitable gambling were used to purchase 58 new groomers between 2001 and 1995. In FY 04, $108,407 of maintenance equipment was purchased with gambling funds. This source of funds has been used more for snowmobile trails than for the other type of motorized trails. It has not contributed significantly to all-terrain vehicle, off-road motorcycle or off-road vehicle trails. A project on the Red Top Trail in Aitkin County is one example of where gambling funds have been used to fund trail development.

Iron Range Rehabilitation Agency

The Iron Range Rehabilitation Agency has funded trail development and maintenance, more so in the past than at present. In the past, they funded the maintenance of snowmobile trails. They funded a bridge in the Iron Range Off-Highway Vehicle Recreation Area at Gilbert. They participated in the project linking Eveleth to the Iron Range Off-Highway Vehicle Recreation Area at Gilbert. They funded a feasibility study for an OHV/snowmobile trail from Gilbert to Biwabik.

Local Units of Government

Cities and counties use local funds to acquire, develop and maintain trails. They also sponsor grant-in-aid trails in partnership with local snowmobile and OHV clubs.

Volunteers

The work of volunteers is essential not only to the success of trail systems, but to their very existence. This is especially true for the grant-in-aid trail systems. Most volunteers work through clubs and trail user organizations. Volunteer contributions include trail maintenance (brushing, mowing), obtaining permits for the trail alignment from landowners, signing, completing the paperwork required to obtain the grant-in-aid funds, teaching safety classes, producing local maps, and trail grooming. Volunteers also donate materials, and donate the use of equipment.

State Organizations and Local Clubs

State trail user organizations play an important role in supporting and providing trails. They support clubs in a variety of ways including financially. They do public relations work and support clubs with funds. They work on legislative and policy issues that affect their activity and conduct fundraisers to support acquisition, development, and maintenance of trails.

Non-Motorized Trails

The major sources of funding for the acquisition and development of non-motorized trails in the Outdoor Recreation System are bonding and legislative appropriation based on recommendations of the Legislative Commission on Minnesota Resources (LCMR). Sources of funding for the management and maintenance of the non-motorized trail program are general fund and lottery in-lieu.

General Fund Appropriation

The legislatively authorized state trail system is maintained with funds from general fund appropriations. The following chart illustrates the funding DNR, Trails and Waterways received from 1996 – 2005 for the maintenance of the state trail system (See Map 7 for the location of the state trail system). Note that the amount currently appropriated is at the same level as it was ten years ago. While the amount of general fund appropriation has not significantly increased, the number of miles in the state trail system has grown significantly.

Table 19: General Fund Appropriation

Fiscal Year	Appropriation
1996	$1,230,000
1997	1,192,000
1998	1,615,453
1999	1,959,414
2000	2,063,417
2001	2,102,799
2002	2,084,000
2003	1,842,137
2004	1,240,000
2005	$1,234,000

Source: MN DNR, Trails and Waterways. (2004).

Lottery In-Lieu

Trails and Waterways receives lottery in-lieu funding. In-lieu sales tax on state lottery tickets sales is deposited in the state treasury and specific percentages may be appropriated as stated in Minnesota Statutes 297A.94 paragraph e. This funding has been primarily used for maintenance of state trails.

Table 20: Lottery In-Lieu Appropriation

Fiscal Year	Appropriation
2001	$1,000,000
2002	852,000
2003	852,000
2004	690,000
2005	$690,000

Source: MN DNR, Trails and Waterways. (2004).

Bonding

One of the primary sources of state revenue for acquisition and development of trails including state trails and local trails has been bonding. The table below illustrates the history of the appropriation for trail development.

Table 21: History of State Bonding Allocations for Trail Acquisition, Development, and Rehabilitation

Year	Appropriation
1985	$800,000
1987	3,700,000
1989	1,200,000
1990	3,500,000
1991	1,000,000
1992	1,000,000
1994	6,128,000
1996	4,500,000
1998	11,900,000
1999	3,350,000
2000	3,400,000
2002	900,000
2003	$475,000

Source: MN DNR, Trails and Waterways. (2004).

Legislative Commission on Minnesota Resources (LCMR)

Another source of revenue for trails has been legislative appropriation based on recommendations of the Legislative Commission on Minnesota Resources (LCMR). The table below illustrates the history of the appropriation for trail development.

Table 22: History of LCMR Projects for Trail Development

Fiscal Year	Appropriation
1996	$677,391
2000	335,000
2002	2,350,000
2004	$1,300,000

Source: MN DNR, Trails and Waterways. (2004).

Federal Enhancements

The Federal Enhancement Program under the Federal Highway Administration has been a significant source of funds for trails. Grants are available for trail development (ISTEA, TEA 21) for up to 80% of the cost of the project. The Minnesota Department of Transportation administers this program. Trail projects totaling approximately $92,000,000 have been funded under this program. The federal contribution has been more than $60,000,000.

Trail Grants

Trail grants from the National Recreational Trail Program are a source of funds for non-motorized trail development. Thirty percent of the funds available are allocated for motorized projects, 30% for non-motorized projects and 40% for multi-use (motorized and non-motorized) trail projects. (See Table 18 on page 44 for a summary of this program). In addition to the Federal Recreational Trail Program, DNR Trails and Waterways manages two other grant programs, the Regional Trail Grant Program and the Local Trail Connections Grant Program. Funding for these programs have included recommendations for funding by the Legislative Commission on Minnesota Resources (LCMR), bonding, general fund and lottery in-lieu proceeds. Tables 23 and 24 summarize the number of applications submitted and funded and the dollar amounts of the grants requested and funded.

Table 23: Regional Trail Grant Program

Fiscal Year	Applications Submitted	Total Grant Requests	Total Project Costs	Applications Funded	Grant Requests Funded	Funded Project Costs
1997	21	$2,112,987	$9,642,539	14	$1,180,000	$5,563,359
1998	16	1,813,645	8,024,280	3	3,500,000	7,000,000
1999	19	2,608,815	10,943,400	8	720,000	7,260,984
2000	11	1,298,411	5,630,666	5	665,400	3,841,515
2001	12	1,738,035	5,880,838	5	1,290,075	6,567,550
2002	8	1,237,616	4,551,633	2	172,000	566,153
2003	4	849,800	3,527,400	1	245,000	803,760
2004	7	926,680	3,779,192	1	245,000	733,292
Totals	98	12,585,989	51,979,948	39	8,017,475	32,336,613
Average	12	$1,573,249	$6,497,494	4.9	$1,002,184	$4,042,076

Source: MN DNR, Trails and Waterways. (2004).

Table 24: Local Trail Connections Program

Fiscal Year	Applications Submitted	Total Grant Requests	Total Project Costs	Applications Funded	Grant Requests Funded	Funded Project Costs
1993	26	$860,146	$3,469,828	20	$699,946	
1994	13	421,245	1,699,302	4	81,436	
1995	24	897,617	2,712,897	17	529,999	$3,039,893
1997	24	831,041	2,289,067	6	200,000	825,362
1998	43	1,750,425	8,934,585	25	975,872	4,385,021
1999	30	1,287,196	7,101,398	15	575,000	3,202,954
2000	31	1,245,274	5,364,568	15	564,100	2,404,105
2001	25	956,984	4,596,383	20	664,039	1,874,475
2002	27	1,832,657	8,044,313	6	466,000	1,250,401
2003	37	2,362,791	9,478,657	12	622,000	1,978,125
2004	42	2,580,632	10,599,889	6	306,000	956,697
Totals	322	15,026,008	64,277,990	146	5,684,392	19,917,033*
Average	29	$1,366,000	$5,843,453	13.3	$516,762	$1,810,639*

*Since 1995

Source: MN DNR, Trails and Waterways. (2004).

Dedicated Account

There is one dedicated account for non-motorized trails – the cross-country ski account. All cross-country skiers on public ski trails who are aged 16 and above must have a Minnesota Ski Pass. The cost of a daily ski pass is $3, a one-season ski pass $10, and a three-season ski pass $25. Ski passes can be purchased through the DNR's Electronic Licensing System available at 1,750 locations around the state. Daily passes can also be purchased at most state parks, but not one and three season passes.

Table 25: Cross-Country Ski Revenues

Fiscal Year	Receipts	Refunds	Transfer In	License Issuing Fee	Total Dollars
1991	$242,014	$(266)			$241,748
1992	249,686	(21)	$1,788		251,453
1993	207,342	(105)			207,237
1994	198,575	14			198561
1995	207,171				207,171
1996	189,802				189,802
1997	222,049				222,049
1998	200,000				200,000
1999	180,967				180,967
2000	283,785			$13,427	297,212
2001	357,317			13,418	370,735
2002	139,158			2,564	141,721
2003	72,868			2,308	75,176
2004	$262,616	$(56)		$6,953	$269,513

Source: MN DNR, Trails and Waterways. (2004).

Local Units of Government

Cities and counties use local sources to acquire, develop and maintain trails. They also sponsor ski clubs in the grant-in-aid program.

Volunteers

The work of volunteers is essential not only to the success of trail systems, but to their very existence. This is especially true for the grant-in-aid trail systems. Most volunteers work through clubs and trail user organizations. Volunteer contributions include trail maintenance (brushing, mowing), obtaining permits for the trail alignment from landowners, signing, completing the paperwork required to obtain the grant-in-aid funds, producing local maps, and trail grooming. Volunteers also donate materials, and donate the use of equipment.

State Organizations and Local Trail Associations

State trail user organizations play an important role in supporting and providing for trails. They work on legislative and policy issues that support their activity and conduct fundraisers to acquire, develop and maintain trails.

Chapter 6: Analysis of Recent and Projected Expenditures From the Off-Highway Vehicle Accounts

All-Terrain Vehicle, Off-Highway Motorcycle, and Off-Road Vehicle Accounts

See Tables 26 – 28 for a history of the expenditures from these accounts. Two categories of expenditures are Trails and Waterways and Enforcement. A description of what this includes follows.

Trails and Waterways
The category of Trails and Waterways includes activities by the Division of Trails and Waterways that support all-terrain vehicle, off-highway motorcycle, and off-road vehicle trails (both its grant-in-aid and state trail elements). Included are such actions as development and maintenance of trails and facilities including the Iron Range Off-Highway Vehicle Park at Gilbert, grants-in-aid program, administration, education, statewide mapping, signing, planning, program development, landowner relationships, advocacy with other agencies, mediating conflicts, ensuring regulatory requirements are met, and legal work to sustain the system. Trails and Waterways is responsible for grant administration that ensures clubs receive their funds. Some development projects such as bridges are funded out of this category. All signs used by the grant-in-aid clubs are also funded from this category.

Grants-in-aid are also included in this category of expenditures. Grants are given to local units of government for the maintenance and development of all-terrain vehicle, off-highway motorcycle, and off-road vehicle trails.

Enforcement
The DNR Enforcement Division is responsible for ensuring public safety and compliance with all-terrain vehicle, off-highway motorcycle, and off-road vehicle regulations. Major responsibilities include law enforcement, public safety and rider education in:

1. Responsible vehicle operation, especially as regards alcohol use, careless or reckless operation;
2. Protection of the state's land, water and vegetation;
3. Youth and adult safety training.

Table 26: All-Terrain Vehicle Expenditures

	Trails and Waterways	Iron Range OHV Park	Expanded OHV	Enforcement	Grants and Admin	OHV Damage Account	Engineering (1994-1998) Ops Support: Field Ops	Refunds (1985-1987) ELS (2003-2004)	MCC	Administrative Management	Statewide Indirect	Total
1985								$162				
1986	$3,200			$57,810				508		$25,776	$608	
1987	9,107			51,369				190		34,028	4,768	$99,460
1988	79,693			141,657						33,311		255,057
1989	100,205			151,000						35,185		285,246
1990	83,179			158,556						38,311		280,046
1991	303,877			162,140						41,694	3,402	511,113
1992	218,911			167,998						122,774	4,704	514,387
1993	474,558			172,392						121,761	6,408	775,119
1994	292,941			219,134			$1,000			222,670	4,648	740,393
1995	384,897			196,412			2,000			166,688	11,571	761,568
1996	533,109			225,971			2,000			153,852	6,610	921,542
1997	688,888	$156,748		265,023			2,000			158,915	9,424	1,280,998
1998	626,788	44,243		258,158			2,000			170,000	20,110	1,121,299
1999	730,703	107,171		275,842			2,000			171,999	15,101	1,302,816
2000	606,667	176,401	$156,854	284,370			2,000			167,852	20,329	1,414,473
2001	741,727	1,148,068	326,459	297,442			2,000			170,922	23,148	2,709,767
2002	1,143,981	185,621	1,517	355,241			2,000			211,194	18,890	1,918,444
2003	1,518,192	17,911		627,871			2,000	86,748		196,061	23,899	2,472,682
2004	$2,090,750	$3,840	$129,742	$922,697	$188,981	$475,000	$2,000	$123,647	$150,000	$202,403	$14,348	$4,303,408

Source: MN DNR, Trails and Waterways. (2004).

Trails and Waterways – planning, administration, and operations support for the trail system (both grant-in-aid and state trail elements) including statewide mapping, signs, grant administration, conflict resolution, interagency coordination, public involvement, environmental review. This amount also includes grant-in-aid funding. Maintenance and operation costs for the Iron Range Off-Highway Vehicle Recreation Area at Gilbert

Iron Range OHV Park – development of the Iron Range Off-Highway Vehicle Recreation Area at Gilbert

Expanded OHV – implementation of OHV System Plans

Enforcement– to ensure public safety and compliance with laws regarding snowmobiles and education including safety training

*Grants and Administration- g*rants to local law enforcement for snowmobile enforcement

OHV Damage Account – Appropriated, but not spent as of yet. for repair of OHV impacts on property closed to all-terrain vehicle activity

Engineering -facility design

ELS – operation of the Electronic Licensing System

MCC – Minnesota Conservation Corps for trail maintenance and construction

Administrative Management – operation of the license center

Statewide Indirect Cost - other state agency services that provide support to the DNR, including the Department of Finance and Department of Administration

Table 27: Off- Highway Motorcycle Expenditures

Fiscal Year	Trails and Waterways	OHV Expand Facilities (Laws of 1999)	Enforcement	OHM Enforcement Grants	Damage Account	Ops Support: ELS	Ops Support: License Center & MIS	Ops Support: FOS/MIS	Statewide Indirect Cost	Total
1995			$39,290				$24,384			$63,674
1996	$9,039		10,599					$28,572		48,210
1997	11,649		115,400				14,628	$24,463	$734	166,875
1998	24,959		60,778				39,000		1,808	126,545
1999	25,038		67,222				38,999		2,535	133,794
2000	49,321		66,993				38,715		2,803	157,832
2001	191,651		67,264				35,904		3,937	298,756
2002	237,196		66,999				38,507		2,865	345,567
2003	210,830	$77,056	84,238			$2,946	33,802		3,731	412,603
2004	$172,979	$14,552	$87,591	10,000	$20,000	$5,702	$25,121		$2,086	$338,031

Source: MN DNR, Trails and Waterways. (2004).

Trails and Waterways – planning, administration, and operations support for the trail system (both grant-in-aid and state trail elements) including statewide mapping, signs, grant administration, conflict resolution, interagency coordination, public involvement, environmental review. This amount also includes grant-in-aid funding. Maintenance and operation costs for the Iron Range Off-Highway Vehicle Recreation Area at Gilbert
OHV Expand Facilities – implementation of OHV System Plans
Enforcement - to ensure public safety and compliance with laws regarding off-highway motorcycles and education including safety training
OHM Enforcement Grants- grants to local law enforcement for snowmobile enforcement
Damage Account - for repair of OHV impacts on property closed to all-terrain vehicle activity
Ops Support ELS - business of issuing snowmobile registrations including implementation and maintenance of the electronic licensing system (ELS)
Ops Support: License Center & MIS- business of issuing snowmobile registrations and management information systems
Ops Support FOS/MIS – management information systems
Statewide Indirect Cost - other state agency services that provide support to the DNR, including the Department of Finance and Department of Administration

Table 28: Off-Road Vehicle Expenditures

Fiscal Year	Trails and Waterways	**Iron Range OHV Park**	OHV Expand Facilities	License Center/ MIS	Enforcement	Enforcement grants and admin	Ops Support ELS	Statewide Indirect Costs	Total
1996	$7,180			$17,432					$24,612
1997	5,228			40,492	$73,000			$542	119,262
1998	27,744			33,000	26,508			1,706	88,958
1999	91,250			32,997	47,492			1,937	173,676
2000	110,444			32,630	48,362			2,237	193,673
2001	597,446			35,061	54,870			4,471	691,848
2002	951,404			22,604	52,982			3,663	1,030,653
2003	721,373		`	15,893	174,632		$1,676	7,553	921,127
2004	$982,851	$14,400	$266,676	$15,966	$74,669	$1,000	$3,006	$4,908	$1,363,476

Source: MN DNR, Trails and Waterways. (2004).

Trails and Waterways- planning, administration, and operations support for the trail system (both grant-in-aid and state trail elements) including statewide mapping, signs, grant administration, conflict resolution, interagency coordination, public involvement, environmental review. This amount also includes grant-in-aid funding. Maintenance and operation costs for the Iron Range Off-Highway Vehicle Recreation Area at Gilbert
Iron Range OHV Park - development of the Iron Range Off-Highway Vehicle Recreation Area at Gilbert
OHV Expand Facilities- implementation of OHV System Plans
License Center - business of issuing snowmobile registrations
License Center/MIS – for management information system work
Enforcement - to ensure public safety and compliance with laws regarding snowmobiles and education including safety training
Enforcement grants and admin - grants to local law enforcement for off-road vehicle enforcement
Ops Support/ELS - business of issuing snowmobile registrations including implementation and maintenance of the electronic licensing system (ELS)
Statewide Indirect Costs - other state agency services that provide support to the DNR, including the Department of Finance and Department of Administration

Trail Maintenance, Operation & Enforcement Expenditures

Trail Operation and Maintenance

Pilot studies of designated OHV trail systems were conducted to provide data relating to operation and maintenance costs and to establish a reliable cost per mile benchmark for planning purposes. Data was collected for the following trails: Thistledew, Trout Valley, Snake Creek, Moosewalk/Mooserun, and the Moose River ATV Trail.

All trails were inspected regularly from April through September. Special cost codes were used to track all labor and supply and equipment expenditures. The data collected is summarized in Tables 29 and 30. A more detailed breakdown of the data can be found in Table A-1, A-2, and A-3 of Appendix 3.

Table 29: Summary of ATV/OHM Trail Operation, Maintenance & Monitoring Expenditures for Selected OHV Facilities

Facility	Trail Miles	Calendar Year	Expenditures
Thistledew ATV Trail – George Washington State Forest – ATV / OHM	30 miles	2004	$11,546
Trout Valley Trail – R.J. Dorer Mem. Hardwood State Forest – ATV / OHM	7.4 miles	2004	9,736
Trout Valley Trail – R.J. Dorer Mem. Hardwood State Forest – ATV / OHM	7.4 miles	2003	12,492
Trout Valley Trail – R.J. Dorer Mem. Hardwood State Forest – ATV / OHM	7.4 miles	2002	15,932
Snake Creek Trail – R.J. Dorer Mem. Hardwood State Forest – ATV / OHM	13.5 miles	2004	9,799
Snake Creek Trail – R.J. Dorer Mem. Hardwood State Forest – ATV / OHM	13.5 miles	2003	11,610
Snake Creek Trail – R.J. Dorer Mem. Hardwood State Forest – ATV / OHM	13.5 miles	2002	12,463
Total	93 miles	----------	$83,578
Average (ATV & OHM) =	----------	----------	$899/mile
Average / Mile ATV =	----------	----------	$674/ mile*
Average / Mile OHM =	----------	----------	$225/ mile*

Source: MN DNR, Trails and Waterways. (2004). See Tables A-1, A-2, and A-3 of Appendix 3
*The expenditures for shared ATV/OHM routes are assumed to be allocated as follows: 75% attributable to ATV use and 25% attributable to OHM use

Table 30: Summary of ATV Trail Operation, Maintenance, and Monitoring Expenditures for Selected ATV Facilities

Facility	Trail Miles	Year	Expenditure
Moosewalk/Mooserun ATV Trail – Finland State Forest	32	2005	$10,253
Moose River ATV Trail – Land O'Lakes State Forest	25	2005	3,102
Total	57		$13,355
Average Expenditure			$234/mile

Source: MN DNR, Trails and Waterways. (2004).

These pilot studies provide useful information and are a good start in helping to determine the on-going costs of trail operation and maintenance. Some of the data is highly variable and is dependent upon the intensity of use, terrain, topography, soils, and the trail's physical construction standards. The expenditure data may not be representative of expenditures statewide and may not be transferable to other trails. Additionally, changes in vehicles (larger, heavier machines), increases in the numbers of users, and improved trail design may impact future expenditures. An ongoing monitoring of expenditures is needed to develop and refine the operation and maintenance costs.

Information regarding grant-in-aid expenditures from 1995 to 2004 is provided in Table A-4 of Appendix 3. The table reflects the total grant awards to counties for the development or operation and maintenance of off-highway vehicles trails and facilities. ATV grant amounts indicate that expenditures from the dedicated accounts range from $61/mile to $2,208/mile with an average cost of $285/mile for operation and maintenance of these trails. OHM grant amounts range from $156/mile for the Martineau Trail to $173/mile for the Nemadji Trail with an average cost of $158/mile for operation and maintenance of these trails.

Off-highway vehicle trail operation and maintenance costs from Michigan and Wisconsin are provided in Table 31 and may be used as a comparison for the Minnesota data.

Table 31: Estimates for OHV Trail Development, Operation & Maintenance in Minnesota, Michigan & Wisconsin: A Comparison

Trail Type / Status	Ops & Maint. - MN	Ops & Maint. - MI	Ops & Maint. WI
ATV – DNR Trail	$234 to $674/mile	Approx. $153 / mi	$100/mile for winter routes $450/mile for summer routes
ATV – GIA Trail	$285 / mile	Approx. $153 / mi	$100/mile for winter routes $450/mile for summer routes
OHM – DNR Trail	$225 / mile	Approx. $153 / mi	No OHM Program
OHM – GIA Trail	$158 / mile	Approx. $153 / mi	No OHM Program
ORV – DNR Trail	No Data	$88 / mi	No ORV Program.
ORV – GIA Trail	No Data	Approx. $88 / mi	No ORV Program.

Source: MN DNR, Trails and Waterways. (2004).

Data collected 2001-2004 and summarized in Tables A-2 and A-3 of Appendix 3. Personal communications with Wisconsin and Michigan DNR Trail Administrators. State trail programs are not directly comparable due to differences in state land ownership, funding methods, and in OHV rules and regulations (e.g., road or ditch operation are illegal in both Michigan and Wisconsin, but permitted in Minnesota.). Both MI and WI fund new trail construction and major rehabilitation on a project basis, separately from regular Ops & Maintenance program funding. No data was provided on new trail development or rehabilitation projects.

How Many Miles of Trail Can Be Operated and Maintained?

The 2003 legislation requires that the DNR evaluate the number of miles of trail the OHV budget will support. The 2005 fiscal year annual appropriations from the dedicated off-highway vehicle accounts and their allocation are summarized in Table 32.

Table 32: Fiscal Year 2005 OHV Appropriations

Account	Appropriation	Operations	Maintenance & Development	Grant-in-Aid
All-Terrain Vehicle	$2,005,000	$623,500	$906,500	$475,000
Off-Highway Motorcycle	$250,000	$102,000	$98,000	$50,000
Off-Road Vehicle	$1,065,000	$365,000	$599,500	$100,000

Source: MN DNR, Trails and Waterways. (2004).

***Operations** includes planning, administration, OHV Recreation Area operations at Gilbert, rider education, maps and publications, signage, and grant-in-aid program administration.
****Maintenance/Development** includes monitoring, maintenance and trail development and rehabilitation.
*****Grant-in-Aid** includes funding set-aside for grant-in-aid projects.

Based on the range of expenditures per mile for trail operation and maintenance, it is estimated that the following number of DNR administered trail can be operated and maintained with the current budget.

All-Terrain Vehicle Trails: 1,345 miles to 3,870 miles
Off-Highway Motorcycle Trails: 435 miles
Off-Road Vehicle Trails: no data available

In addition, the budget can support the operation and maintenance of the following number of grant-in-aid trail miles:

All-Terrain Vehicle Trails: 1,670
Off-Highway Motorcycle Trails: 315 miles
Off-Road Vehicle Trails: no data available

Trail Development and Rehabilitation

The focus, over the next several years, will be on designating existing routes. Trail development will consist largely of simple corridor maintenance and rehabilitation. In many cases, the proposed trail is properly aligned and limited development will be required. An estimate of $250/mile is being used for signing and limited development on these trails. On other trails, more substantial development expenditures will be incurred. Expenditures were tracked on trail development and rehabilitation projects in 2002 and 2003, no new DNR administered OHV trails were constructed in FY 2004. The expenditures for 2002 and 2003 are provided in Table A-2 of Appendix 3. Expenditures for development range from $420/mile for the Thistledew ATV/OHM trail to $3,742/mile for the Moosewalk/Mooserun ATV trail. Development costs are highly variable and dependent upon level of use, topography, soils, etc. The Moosewalk/Mooserun trail impacted several wetlands resulting in higher expenditures. The DNR is applying wetland sequencing to the designation of trails which requires that the project developer first seek to avoid wetlands impacts through trail closure or realignment and to minimize impacts where those wetlands cannot be avoided. It is anticipated that the expenditures for the Moosewalk/Mooserun trail represent the high end of trail development expenditures.

Trail rehabilitation expenditures were also tracked for this same time period. Expenditures for trail rehabilitation range from $310/mile for the Trout Valley ATV/OHM trail to the $2,240/mile for Spider Lake. Again, expenditures are highly variable and dependent upon a number of factors. Expenditures at Trout Valley included the costs of replacement of a culvert and re-shaping of the trail. Expenditures at Spider Lake included further rehabilitation of the challenge hill, reshaping of the bypass around the hill, and rehabilitation of the switchback trail.

The DNR will continue to monitor expenditures to refine trail development and rehabilitation costs.

State Forest Roads
Designated state forest roads also provide access for motorized use in state forests. Designated state forest roads are generally open to use by highway-licensed vehicles and off-highway vehicles, but may be closed temporarily to address road or fire conditions. There are two classes of designated state forest roads.

System roads: These are major roads in the forest that provide ongoing access for both forest management and recreation use. They are often connected to state, county, and township public road systems and used on a daily/weekly basis. System roads are generally graveled and regularly maintained.

Minimum maintenance roads: These roads are typically used for forest management on an intermittent basis. Minimum maintenance roads are open to all motorized vehicle use, but are not maintained to a level for routine passenger car travel. They will only be graveled and graded as needed for forest management purposes. Major damage such as culvert washouts or other conditions that present a safety hazard to the public will be repaired as they are reported and funding allows.

Funding for designated state forest roads is provided through the following sources:

- Bonding for major road reconstruction and bridge/culvert replacement on designated system roads only.
- Forest management investment account for operation and maintenance of both classes of designated state forest roads.
- Unrefunded gas tax attributable to highway-licensed vehicle and off-highway vehicle use on state forest roads. Used for operation and maintenance on both classes of designated state forest roads.

Additional miles of existing undesignated routes are being identified for designation as minimum maintenance state forest roads through the forest classification review process. In many cases, these undesignated routes, are currently being used by highway-licensed vehicles. The DNR recognizes that these routes provide important access for both highway-licensed vehicles and off-highway vehicles. By designating these routes as minimum maintenance state forest roads, they will remain open for use by highway-licensed vehicles.

The most recent Forest Road Traffic Study was completed in 1989. The study found that 0.1160 percent of the unrefunded gasoline tax was attributable to motor vehicle use on forest roads. The Forest Road Traffic Study considered uses by off-highway motorcycles and off-road vehicles but did not consider use by ATVs. The most recent ATV study was completed in 1985. At that time it was estimated that there were 75,000 vehicles. Currently there are over 220,000 registered ATVs. The Governor has recommended an ATV study that would consider the use of ATVs on both trails and forest roads. The results of this study will likely provide additional funds for use on designated state forest roads.

Rehabilitation of Undesignated Routes
Another cost consideration is the expenditures associated with the rehabilitation and/or repair of undesignated routes. The results of unmanaged OHV use means that in some instances ATVs and other OHMs were being operated in areas that could not sustain their use. Issues such as soils, topography, and grade can all contribute to problems that later may result in the need for rehabilitation or repair. For example, Table A-2 of Appendix 3 illustrates the expenditures needed to repair damage caused, over several decades, on the Bemis Hill in the Beltrami Island State Forest by OHV use. The DNR will continue to provide for the repair and rehabilitation of these areas as they are identified; however these costs should decrease as the state moves towards full implementation of the "managed use on managed trails policy".

Field Enforcement Staffing and Funding

The DNR Enforcement Division is responsible for ensuring public safety and compliance with off-highway vehicle regulations. Major responsibilities include law enforcement, public safety and rider education in:

1. Responsible vehicle operation, especially as regards alcohol use, careless or reckless operation;
2. Protection of the state's land, water and vegetation;
3. Youth and adult OHV safety training.

Program Funding & Work Planning
The Division of Enforcement's operating budget for FY 2004-05 is comprised of: Game & Fish Funds (65.3%), State General Fund support (14.7%), Water Recreation Funding (8.1%), Snowmobile Funding (4.4%) and OHV Funding (7.1%). Time and dollars spent on OHV enforcement and safety training activities have increased substantially in recent years (Table A-6, Appendix 3). A summary of the violations that occurred in calendar year 2004 can be found in Tables A-7, A-8, A-9 and A-10. The trend towards increased OHV enforcement is expected to continue commensurate with increased numbers of registered machines, added trail miles and more and more recreational riders.

Work Plans are developed based upon an April – November typical riding season, and reflect geographic differences in anticipated monthly riding levels (e.g., Low, Moderate, High). For planning purposes, there is a 36-hour targeted patrol window that is used to craft work plans and determine staffing levels on a weekly basis. Work plans also reflect seasonal riding differences, and the presence of developed OHV trails or other designated riding facilities (e.g., Spider Lake Trails) where specific types and levels of activity are known to occur.

Hours spent on OHV Law Enforcement and related activities will be increased from the FY 2004 level of 14,600 hours to a statewide goal of 16,200 hours in FY 2005 and 18,200 hours in FY 2006. Efforts are being boosted commensurate with increased numbers of riders and registered vehicles in order to reduce injuries and fatalities associated with unlawful OHV operation. The Division of Enforcement will also conduct concentrated Task Force Operations to address localized enforcement problem areas.

Future Enforcement Efforts
The majority of state forest lands are located in the northern two-thirds of Minnesota. Present staffing includes 80 Conservation Officers and 10 District Supervisors. This total includes Recreational Staff Officers located in NE and NW Minnesota that specialize in motorized recreational vehicle enforcement. Work planning hours for these 90 officers include the following hourly allocations for FY 2005:

- 10,191 All-Terrain Vehicle Enforcement / Education Hours, or 127 hrs / FTE.
- 1,356 Off-Road Vehicle Enforcement / Education Hours, or 16 hrs / FTE.
- 678 Off-Highway Motorcycle Enforcement / Education Hours, or 8 hrs / FTE.

Enforcement efforts will be focused on the recently classified forests and designated trails. An increased level of enforcement will occur in these forests. As the Department moves to managed use on managed trails, it is anticipated that increased effort will be required to ensure rider compliance. As compliance is achieved, it is anticipated that the level of enforcement needed in the targeted areas will diminish over time. However, we don't know what the future enforcement needs are because we have not implemented the managed use on managed trails policy. There is a need to continue to monitor contacts, stops, registered users, and use of the trail system over time to determine future staffing needs and costs.

Local OHV Safety & Enforcement Grants
Legislation in 2003 authorized and appropriated $200,000 to the Department of Natural Resources to fund the OHV Safety Enforcement Grant Program during FY 2004 and FY 2005. Under this program, Minnesota counties are invited to apply for reimbursement grants for a variety of eligible activities and expenses; including staff time to participate in OHV safety and enforcement activities; for purchase, maintenance or repair of ATVs used in patrolling; for purchase or repair of OHV trailers; or for helmets or other protective gear needed for OHV patrol activities (not including uniforms).

Award amounts are based upon the following criteria:

- Total public acres within the county (i.e., state, federal, county).
- Public waters within the county (i.e., since they are frozen and navigable by OHVs much of the year).
- Number of registered OHVs, and number of OHVs used in the county, and:
- County participation in OHV enforcement.

Table A-5 in Appendix 3 lists the FY 2004 OHV Safety & Enforcement Grant Program allocations. Grant amounts currently range from about $3,000 to over $20,000. Not all counties have elected to participate. Grant recipients are required to track and provide proof of eligible expenditures incurred under the program. Grant applications and application instructions have been distributed to all eligible agencies via the Minnesota Sheriff's Association. This information is also posted on the DNR website.

Appendix 1: Forest Trail Inventory Field Reference Form

Trail Segments:
Name: Enter name of road or trail if applicable.
Width: *-3, 3-6, 6-9, 9+*
Designated use: (*Optional*) Primary *signed and designated* uses. If not designated, leave blank. More than one entry also allowed. (i.e. BGH)

CODE	TRAIL USE
A	Unknown
B	Hiking / hunter walking trail
C	Horseback riding
D	Bicycling
E	Mountain Biking
F	Ski Touring
G	Skate Skiing
H	Snowshoeing
I	Snowmobiling
J	Vehicle/Logging/Road Traffic
K	Hiking Club
L	Fire Break
M	Management Unit Boundary
N	ATV (all terrain vehicle)
O	ORV (off-road vehicle, 4x4)
P	OHM (off-highway motorcycle)
Q	Other
R	In-line Skating (Parks & Rec)
S	Service Rd (Parks & Rec)
T	In-line Skating
U	Winter Hiking
V,W,X,Y	Additional Local Information
Z	Proposed

Apparent use: **(*Optional*)** Enter one or more codes from the table above based on observed users, tracks, or trail signage.
Note: VWXY to be assigned by the area team to represent important local features, purposes or uses. This is additional information: a code of A-U must still be entered. For example: the area team wants to identify trails into deer stands. They assign the letter V for that purpose. Apparent use would be coded JV (Vehicle traffic - Deer stand), NV (ATV - deer stand), etc. This information is not intended for statewide use.

Use Intensity:
***Low*:** tread has vegetative cover

Medium: tread mostly devoid of vegetation, but not significantly compacted, rutted, or bermed
***High*:** tread surfaced with gravel or other non-native material or shows significant compaction or displacement of tread material

Comments: Enter short description.

Points:
Significant Conditions:
***Water*:** trail crosses or is within the riparian zone of natural water body, water course, or wetland.
***Erosion*:** Trail tread compacted or eroded to a level at least 1 foot below surface of surrounding land, or exposed rocks or roots protruding at least 6 inches above trail surface
***Erosion-water*:** Erosion causing sediment to be deposited in a water body or wetland.
Intersection*:** Intersecting trail ***that cannot accommodate ATV travel
IF: Intersecting foot path
IH: Intersecting horse trail
IM: Intersecting motorized trail (ie: motorcycle)
Rutting: Rutting on the trail
Structures and Facilities:
Water Crossing: Bridge, culvert, or constructed low-water ford
***Obstruction*:** Gate, fence, berm, or other constructed obstruction to limit trail travel by some or all users.
Parking/ Trail Head: ***Parking lot or trailhead***
***Designated Campsite*:** Signed or otherwise designated campsite
***Other*:** Specify in Comments
End:
E: Trail ends
N: Trail became too narrow for ATV travel
W: Water could not be crossed
B: Significant Blowdown
O: Ownership change

Comments: Enter short description.

Using a Garmin 76 for the Trails Inventory Project

1) Fill out an attribute form for the trail you'll be GPSing. For a naming convention, use the last name of the person running the GPS, then the month, date, and military hour you begin collecting (ie MORTON072309).
2) Power the GPS on and wait for satellites to be acquired.
3) Travel the trail, MARKING and recording waypoints when:
    a) The trail attributes change significantly. Record the new attributes on the field data form.
    b) You encounter SIGNIFICANT CONDITIONS or OBSTACLES, recording the attributes on the field data form (grey columns).
4) If you stop to read a map, talk with someone, etc., power the GPS off. (The data will be saved and will resume where you left off when you power the unit on again.)
5) At the end of a trail segment MARK an END waypoint. If you need to travel to a new location before you begin to record again, power the unit off.
6) Every evening download the data to a computer using the DNRGarmin program.
    a) In windows explorer create a file folder structure as follows: C:\PFDATA\forestname
    b) Save the downloaded data using the same name you entered on the field data form, adding "W" at the end of the waypoint file ,"T" at the end of the track file.
7) Email the digital files to Rick Jaskowiak and send him the corresponding Field Data Form(s) to process the data.
8) Delete the track file and all waypoints from the Garmin.
9) Insert fresh batteries if needed.

Field Checklist:

- Garmin 72/76 GPS
- Extra AA Batteries
- Data download cable
- Computer with email access
- Mission planning report from Shelly/Rick
- Maps/photos
- This reference sheet and field data forms
- Phone #s of contacts

Rick (218) 755-4079

Shelly (218) 755-4416

Appendix 2: State Forest Roads Administered by DNR-Forestry

Where We Have Been
Historically there have been many types of access routes developed in the forest. Loggers built most of these routes, but hunters, trappers, and recreational or utilitarian users have added routes. Government land management agencies and forest products companies have also built forest roads.

It has been a common practice among forest users to travel on any road or trail on public land that is not gated or posted closed. For example, hunters have used single lane logging roads to access their hunting areas. Many of these forest users do not know who owns the land on which they are driving but they have assumed that if the route was not open to the public, it would be gated or signed to keep trespassers out.

DNR Forestry manages the State Forest Road system of approximately 2,065 miles as directed by Minnesota Statute 89.71. The main arterial roads in the forest are System Forest Roads. These are surfaced with Class 5 gravel and maintained to accommodate highway-licensed vehicles and logging trucks as well as all-terrain vehicles, off-highway motorcycles, and off-road vehicles such as jeeps. Narrower and less traveled routes are classified as Minimum Maintenance Forest Roads, which are also open to highway-licensed vehicles, off-road vehicles such as jeeps, off-highway motorcycles, and all-terrain vehicles. Many routes which previously were not signed in any way will now be signed as Minimum Maintenance Forest Roads which will allow berry pickers, hunters, etc. to access forests with highway-licensed vehicles.

The Division of Forestry is not a road authority and technically the State Forest Road System is not a public road system. State Forest Roads can be temporarily closed to public use due to high fire danger or due to spring breakup and fragile soil conditions. The Division of Forestry receives approximately $300,000 per year in unrefunded gas tax to maintain the 2,065 miles of existing designated state forest roads.

There are many miles of low-standard access routes on state forest lands, which are not part of the State Forest Road system. Following logging and reforestation, some of the access routes are abandoned or blocked to counteract the tendency toward proliferation of roads and forest fragmentation caused by an over-abundance of roads and trails.

Changing Times
Minnesota Rules Chapter 6100.1950 establishes three forest classifications with respect to motor vehicle use:

- In MANAGED forests, State Forest Roads and trails are open to motor vehicles unless posted closed;
- In LIMITED forests, State Forest Roads are typically open to motor vehicles but trails are closed to motor vehicles unless posted open;
- In CLOSED forests, only motor vehicles that are licensed for use on public highways may be operated on State Forest Roads. This excludes ATVs from all State Forest Roads and trails in closed forests.

Legislation enacted in 2003 requires that all state forests currently classified as MANAGED be reclassified as LIMITED or CLOSED. Off-Highway Vehicles will only be allowed on forest roads or trails that are specifically designated and signed as open to OHV use.

Natural resource managers are evaluating all forest roads and trails to determine whether or not they should be open for use by various types of motor vehicles. It is anticipated that many routes will not be designated for motor vehicle use. Many roads and trails, which were built for winter access to logging sites while the soil was frozen, are not suitable for spring, summer, or fall motor vehicle use.

What is the Future of Motor Vehicle use in Minnesota's State Forests?
DNR is conducting a forest-by-forest review of the classification for motor vehicle use and proposing which roads and trails will be available for motor vehicle use. Motorized traffic will be allowed only on routes that are signed to allow specific uses. Cross-country travel will not be allowed, except that in LIMITED forests there is a hunting and trapping exemption, which allows ATVs to travel off of a forest trail while trapping, hunting big game, or constructing hunting stands (see Minnesota Rules Chapter 6100.1950).

Possible impacts of the reclassification and road/trail designation include:

Impacts on Users

- Many winter access routes will not be available for motor vehicle use, thus reducing the total mileage of access routes available. The closing of these routes will be a major culture change for hunters and other recreational and utilitarian users of the forest. Many users will be disappointed to find that the route to their hunting area is closed.
- System Forest Roads and Minimum Maintenance Forest Roads will be open to highway-licensed vehicles, off-highway vehicles, all-terrain vehicles, and off-highway motorcycles. However forest roads may not provide a quality riding experience compared to a trail that is designed for a specific motorized use.
- In some state forests there will be new recreational trails designated and designed to meet specific requirements of various users.

Environmental Impacts

- There are a growing number of motor vehicles in the forest with impacts on soil, water, and wildlife resources.
- Motor vehicle use will be confined to roads and trails that are sustainable. This will minimize the negative impacts of off-highway vehicles on wetlands or other sensitive sites.

Budget Impacts

- Foresters responsible for the maintenance of the State Forest Road System report increased traffic on forest roads.
- The initial signing of newly designated minimum maintenance and system forest roads and their ongoing operation and maintenance will result in additional expenses for the Division of Forestry.

Appendix 3: Off Highway Vehicle Trail System Study Operations, Maintenance And Monitoring Costs

Table A-1. Detailed Cost Summary for Operating Selected State OHV Facilities During the Period 05/10/04 to 12/10/04: A Pilot Study

Facility / Activity	Trail Miles	*Expenditures*	*Ave. Cost / Mile*
Spider Lake – Foothills State Forest*	28 miles		
• Monitoring		$5,350	$191
• Trail Rehabilitation		$12,880	$460
• Program Management		$3,310	$118
• Equipment Maintenance		$171	$6.00
• Facilities Maintenance		$30,865	$1,102
• Facility Development		$251	$9.00
• Fleet / Equipment		$13,282	$474
(All OHV) TOTAL=		**$68,083.00**	**$2,432 / mi.**
Martineau OHM Trail – Paul Bunyan State Forest	100 miles		
• Monitoring (DNR monitor / enforce)		$1,304	$13
• Program Management		$291	$3.00
(OHM Only-GIA Maint.) TOTAL=		**$1,595**	**$16 / mi.**
Moosewalk / Mooserun ATV Trail – Finland State Forest	32 miles		
• Monitoring		$2,669	$83
• Program Management		$4,669	$146
• Facilities Management		$1,042	$33
• Facilities Development		$1,499	$47
• Fleet / Equipment		$343	$11
(ATV Only) TOTAL=		**$10,253**	**$320 / mi.**
Thistledew ATV Trail – George Washington State Forest	30 miles		
• Planning		$237	$8.00
• Facilities Maintenance		$11,308	$377
(ATV / OHM) TOTAL=		**$11,546**	**$385 / mi.**
Moose River ATV Trail – Land O' Lakes State Forest	25 miles		
• Monitoring		$623	$25
• Facility Maintenance		$2,197	$88
• Fleet / Equipment		$280	$11
(ATV Only) TOTAL=		**$3,102**	**$124 / mi.**
Trout Valley Trail – R.J. Dorer Mem. Hardwood State Forest	7.4 miles		
• Monitoring		$3,551	$480
• Facility Maintenance		$6,183	$836
(ATV / OHM) TOTAL=		**$9,736**	**$1,316 / mi.**
Snake Creek Trail – R.J. Dorer Mem. Hardwood State Forest	13.5 miles		
• Monitoring		$1,986	$147
• Information / Education		$4,317	$320
• Facility Maintenance		$3,493	$259
(ATV / OHM) TOTAL=		**$9,799**	**$726 / mi.**
Grand Total (All 7 Units)	**235.9 miles**	**$114,116.00**	**----------**

*trail rehabilitation project

Source: MN DNR, Trails and Waterways. (2004).

Table A-2. OHV Trail Development, Maintenance & Monitoring Worksheet: Selected State Projects, 2001 – 2004.

***Source**: MN DNR, Trails & Waterways, Unpublished Data, Jan. 2004. Projects include: Moosewalk / Mooserun ATV Trail (Lake Co.), Thistledew ATV Trail (St. Louis Co.) Data is based on previous 2-3 years experience and may not accurately reflect future costs. Costs are valid for DNR-operated facilities only, not applicable to GIA or other trail development.*

I. Construction / Development

Def'n: In this case, construction / development includes the following:

- **New trail built on a new alignment.**
- **Bridges, structures, and ancillary facilities such as parking lots, rest areas, wells, and toilets.**
- **Conversion of existing roads and trails to designated OHV trails.**

Moosewalk/Mooserun – Actual costs spent to develop this 25-mile trail system were $3,742/mile, including the purchase of wetland credits. Construction costs excluding wetland credits were $2,558/mile.

Thistledew – Actual costs as spent to develop this 30-mile trail system were $420/mile.

Notes: Figures reflect real costs. When converting and designating existing forest roads or railroad grades, little more than signing may be required – or roughly $50/mile. Construction / development costs are also very dependent on facilities such as toilets, bridges, parking lots, culverts, etc.

II. Rehabilitation & Improvement

Def'n: Includes rehabilitation and redevelopment of an existing designated trail (significant work). Examples of this work would include rebuilding rolling dips and bridges, and completely rebuilding entire sections of trail.

Normally this type of work is identified by a discrete "project."

Example 1 – Spider Lake Area Trails (FY 04)

- 2 – 3 days of work, 2 people, including heavy equipment
- Average 2-3 miles of rehab / day.
- 2 people x $200 / day = $400 labor / day
- Material (average) $200 / day = $200 materials / day
- Equipment – heavy (small dozers, trucks, transporters, specialty trail work equipment) = $250 / day

Total = $850 / day for rehab.

$850 day ÷ 3 miles = $283 / mile **OR** $850 day ÷ 2 miles = $425 / mile

Rehabilitation cost range = $280 - $425 / mile

Example 2. – Bemis Hill ATV Trails, Beltrami Island State Forest (FY 05)

- Repair of two erosion sites – shaping, fabric, rocks over fabric.
- Labor @ 236 hrs x $20/hr (4 days/7 staff) = $4,720 labor costs
- Material Costs (erosion fabric, rocks, fill) = $200.00 materials
- Equipment – heavy (small dozers, trucks, transporters, specialty equip) = $2,012 equipment costs

Total = $6,932 project cost.

$850 day ÷ 3 miles = $283 / mile **OR** $850 day ÷ 2 miles = $425 / mile

Rehabilitation project total cost = $6,932

Table A-3. OHV Operations & Maintenance Worksheet: Snake Creek & Trout Valley OHV Unit Trails, 2002 – 2003 (calendar year)

***Source**: MN DNR, Trails & Waterways. Unpublished data. (2004). Annotated historical record for the Snake Creek (Wabasha Co.) and Trout Valley (Winona Co.) Unit OHV Trails. Data represents actual work records, but may not accurately reflect future costs. Costs are valid for DNR-operated facilities only, not applicable to GIA or other trail development.*

Trout Valley OHV Unit Trail – 2002 (Winona Co.)

Trout Valley is a 7.4 mile ATV / OHM Trail System on State Forest Land open for riding from May 1st – Nov. 1st annually.
Weekly visitor counts = Approx. 50 – 140 visits. (Traffic Counter Data). Project does include enforcement time.

Salaries:
300.5 hrs were coded to The 7.4-mile Trout Valley Unit Trail (218 hrs Technician + 82 hrs LTE)
Calculation = 218.5 hrs x $26.73/hr + 82 hrs x $21.69/hr = $7,620.00

300 hrs breakdown:
70.5 hrs monitoring trails and clearing debris.
78 hrs serving in enforcement capacity as Natural Resource Officer (including required training).
35 hrs mowing / trash removal.
117 hours general trail maintenance (shaping, drainage structure maintenance, signage, etc.)

Vehicle Use Summary:
Pickup truck @ 3,000 miles x $0.52/mile = $1,560.00
Dump truck w/trailer @ 500 miles x $0.75/mile = $375.00
Tractor / mower @ 12 hrs x $26.80/hr = $322.00
Backhoe @ 15 hrs x $21.00/hr = $315.00
Dozer @ 10 hrs x $30/hr = $300.00

Misc. Costs:
Contract work for shaping of top loop = $2,300.00
Materials = $500.00
Mowing (by Greenview) = $1,500.00

2002 operation and maintenance - $12,492
rehabilitation -$2,300

Trout Valley OHV Unit Trail – 2003 (Winona Co.)

Trout Valley is a 7.4 mile ATV / OHM Trail System on State Forest Land open for riding from May 1st – Nov. 1st annually.
Weekly visitor counts = Approx. 50 – 140 visits. (Traffic Counter Data). Project does include enforcement time.

Salaries:
391 hrs were coded to The 7.4-mile Trout Valley Unit Trail (245 hrs Technician + 146 hrs LTE)
Calculation = 245 hrs x $26.73/hr + 146 hrs x $21.69/hr = $9,716.00

391 hrs breakdown:
142.5 hrs monitoring trails and clearing debris.
30 hrs serving in enforcement capacity as Natural Resource Officer (including required training).
57 hrs mowing / trash removal.
161.5 hours general trail maintenance (shaping, drainage structure maintenance, signage, etc.)

Vehicle Use Summary:
Pickup truck @ 4,000 miles x $0.52/mile = $2,080.00
Dump truck w/trailer @ 600 miles x $0.75/mile = $450.00
Tractor / mower @ 20 hrs x $26.80/hr = $536.00
Dozer @ 55 hrs x $30/hr = $1,650.00

Misc. Costs:
Contract work for culvert installation = $5,410.00

Mowing (by Greenview) = $1,500.00

2003 operation and maintenance - $15,932
rehabilitation - $5,410

Snake Creek OHV Unit Trail – 2002 (Wabasha Co.)

Snake Creek is a 13.5 mile ATV / OHM Trail System on State Forest Land open for riding from May 1st – Nov. 1st annually. Weekly visitor counts = Approx. 185 – 900 visits. (Traffic Counter Data). Project does include enforcement time.

Salaries:
286 hrs were coded to the Snake Creek Trail (All LTE)
Calculation = 286 hrs x $21.69/hr = $6,203.00

286 hrs breakdown:
145 hrs rehabilitation (shaping, water bars, signing)
32 hrs serving in enforcement capacity as Natural Resource Officer (including required training).
109 hours general trail maintenance (shaping, drainage structure maintenance, signage, etc.)

Equipment / Fleet Costs:
Pickup truck, Dump truck, Crawlers, Tractors = $1150.00

Materials Costs:
Gravel, posts, geoweb, signs = $1,995.00

Misc. Costs:
Contract work for road repair = $825.00
Mowing (by Greenview) = $1,437.00

2003 Total Cost = $11,610.50 or $860.04 / mile

Snake Creek OHV Unit Trail – 2003 (Wabasha Co.)

Snake Creek is a 13.5 mile ATV / OHM Trail System on State Forest Land open for riding from May 1st – Nov. 1st annually. Weekly visitor counts = Approx. 185 – 900 visits. (Traffic Counter Data). Project does include enforcement time.

Salaries:
287 hrs were coded to the Snake Creek Trail (180 hrs Tech., 107 hrs LTE)
Calculation = 180 hrs x $26.73/hr + 107 hrs x $21.69/hr = $7,132.20

287 hrs breakdown:
95 hrs rehabilitation (shaping, water bars, signing)
67 hrs serving in enforcement capacity as Natural Resource Officer (including required training).
125 hours general trail maintenance (shaping, drainage structure maintenance, signage, mowing, clearing debris, etc.)

Equipment / Fleet Costs:
Pickup truck @ 3,200 miles x $0.52/mile = $1,664.00
Dump truck/trailer @ 500 miles x $0.75/mile = $375.00
Tractor/mower @ 15 hrs x $26.80/hr = $402.00
Dozer @ 13 hrs x $30/hr = $390.00

Fleet Total = $2,831.00

Materials Costs:
Gravel, posts, geoweb, signs = $1,500.00

Misc. Costs:
Mowing (by Greenview) = $1,000.00
2003 Total Cost = $12,463.20 or $923.20 / mile.

Table A-4: Off-Highway Vehicle Trails Grant-in-Aid Activity Summary, 1995 – 2004

County	Trail or Trail Segment I.D.	Trail Development / Maintenance Grants (in 000's of dollars for Development / Maint. per FY)										Total Miles	Avg. Cost Developmt ($ / Mile)	Avg. Cost Maintenance ($ / Mile)
		95'	96'	97'	98'	99'	00'	01'	02'	03'	04'			
Aitkin	Soo-Tamarack	0/3	0/4	0/0	0/0	0/3	0/3	0/0	0/2	0/9	0/4	11 mi.	$0/mile	$254/mile
Aitkin	Soo-Isle	0/12	0/0	0/0	0/4	0/0	0/7	0/0	0/5	0/5	0/6	24 mi.	$0/mile	$163/mile
Aitkin	Soo-Lawler	0/13	0/0	0/0	0/10	2/7	0/0	0/0	0/16	0/13	0/14	48 mi.	$5/mile	$152/mile
Aitkin	Soo-Rabey	0/10	0/0	0/0	0/4	10/10	0/0	0/0	10/10	6/12	50/10	22 mi.	$345/mile	$255/mile
Aitkin	Babbitt-Stony Spur	20/12	0/0	0/0	0/0	0/0	0/9	3/0	0/9	0/0	0/6	25 mi.	$ 92/mile	$144/mile
Carlton	Soo Line	0/0	0/10	0/10	0/10	0/0	0/0	0/0	0/0	0/0	0/15	44 mi.	$0/mile	$ 80/mile
Carlton	Soo Pits	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	10/7	6 mi.	$1670/ mi.	$1170 / mi.
Cass	Soo Line	0/0	0/0	0/0	20/8	20/6	0/3	0/0	0/0	0/4	0/5	61 mi.	$ 94/mile	$61/mile
Clearwater	Pine Tree	0/0	0/0	0/0	0/0	0/0	0/0	20/10	0/0	0/0	0/0	36 mi.	$140/mile	$ 70/mile
Clearwater	Clover Twp-2 Inlets	20/10	0/0	0/0	0/0	0/0	0/0	10/20	0/10	0/30	0/0	200 mi	$15/mile	$35/mile
Crow Wing	Central Wheelers	0/11	11/11	0/11	10/10	0/10	0/10	0/20	0/0	0/10	0/33	43 mi.	$50/mile	$286/mile
Crow Wing	Pine Center	0/0	0/0	0/0	0/10	0/12	80/13	0/10	0/0	0/10	0/10	15 mi.	$760/mile	$619/mile
Eveleth	Eveleth-Gilbert Trail	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	26/0	8 mi.	$3250/ mi.	$ 0 / mile
Greenway	Alborn - Pengilly	8/7	0/0	0/0	0/8	0/7	0/8	0/8.5	0/8	0/4	0/5	51 mi.	$16/mile	$108/mile
Hubbard	Round River	0/0	0/0	0/0	0/0	0/0	0/0	25/5	0/0	0/25	45/26	80 mi.	$218/mile	$175/mile
Hubbard	Martineau (OHM)	0/0	0/0	0/0	0/0	0/0	0/0	5/15	9/15	0/20	6/25	120 mi	$42/mile	$156/mile
Koochiching	Blue Ox	0/20	0/0	0/0	0/0	0/0	0/20	0/21	20/4	0/11	0/5	40 mi.	$50/mile	$205/mile
Lake	Red Dot	3/7	0/0	0/0	0/7	0/7	6/8	4/11	0/7	0/11	0/7	26 mi.	$50/mile	$250/mile
Lake	Moosewalk	0/0	0/0	0/0	0/0	0/0	0/0	0/0	25/0	0/3	0/4	25 mi.	$ 330/mi.	$93/mile
Martin*	Elm Creek	0/0	0/0	0/0	0/0	0/0	0/0	24/2	3/16	3/18	3/17	7 mi.	$1,375/mi.	$2,208/mile
Mille Lacs	Soo Line	0/8	0/8	0/0	0/10	0/12	0/9	0/0	0/0	0/10	0/10	22 mi.	$0/mile	$304/mile
Mille Lacs	Red Top	14/12	0/0	0/0	0/0	0/12	0/0	23/12	28/12	0/40	0/43	47 mi.	$138/mile	$280/mile
Norman	Agassiz Trail	0/0	0/0	0/0	0/0	0/0	0/0	0/25	0/20	0/22	0/25	32 mi.	$ 0/ mile	$719/ mile
Pine	Soo Line	0/8	0/0	0/0	0/8	0/7	3/7	2/7	0/3	0/7	0/7	14 mi.	$36/mile	$385/mile

Source: MN DNR, Trails & Waterways Minnesota Trails Assistance Program. (2004). Unpublished Data

*Was not used to calculate average costs per mile because it not directly comparable with other entries

Table A-4: Off-Highway Vehicle Trails Grant-in-Aid Activity Summary, 1995 – 2004 [Con't]

County	Trail or Trail Segment I.D.	Trail Development / Maintenance Grants (in 000's of dollars for Develoment / Maint. per FY) 95'	96'	97'	98'	99'	00'	01'	02'	03'	04'	Total Miles	Avg. Cost Developmt ($ / Mile)	Avg. Cost Maintenance ($ / Mile)
Pine	Nemadji	3/6	0/0	0/0	0/0	0/0	0/0	0/6	0/8	0/4	0/10	21 mi.	$15/mi.	$162/mile
Pine	Nemadji (OHM)	0/0	0/0	0/0	2/3	0/0	0/0	0/9	0/6	0/7	0/7	28 mi.	$10/mile	$173/mile
Rice	Tri-County Area	35/45	0/0	0/45	0/45	0/0	0/45	0/45	0/0	0/45	0/45	13 Ac.	$270/acre	$2,423/acre
Spring Grove	Hill Toppers Trail	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	15/9	0/8	6 mi.	$2,500/ mi.	$1,400/ mile
St. Louis	Ely – Lucky Boy	1.5/.5	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	2 mi.	$90/mile	$30/mile
Swift	Appleton Area Trails	0/0	0/0	0/0	0/0	0/0	0/0	0/0	90/0	0/32	0/24	100 acres	$1680/ac.	$280/ ac.
Winona	SE ATV	15/5	0/0	0/0	0/4	0/0	4/8	0/0	4/10	0/9	0/14	26 mi.	$ 88/mile	$192/mile

Source: MN DNR, Trails & Waterways, Minnesota Trails Assistance Program. (2004). Unpublished Data.

Table A-5: Minnesota Off-Highway Vehicle Law Enforcement & Education Local Grants Program – 2004 Awards.

Grantee	Grant Amount	Effective Date
Aitkin County	$7,106.00	07/07/04
Anoka County	$5,996.00	07/07/04
Becker County	$4,533.00	07/07/04
Beltrami County	$9,092.00	08/27/04
Blue Earth County	$3,144.00	11/08/04
Brown County	$2,932.00	07/15/04
Carlton County	$4,636.00	06/22/04
Cass County	$8,409.00	07/14/04
Chippewa County	$2,764.00	08/18/04
Clay County	$3,028.00	07/07/04
Crow Wing County	$5,508.00	08/09/04
Dakota County	$4,526.00	07/14/04
Douglas County	$3,657.00	06/22/04
Faribault County	$2,787.00	N/A
Goodhue County	$3,286.00	08/10/04
Hubbard County	$4,426.00	06/22/04
Isanti County	$3,305.00	06/22/04
Itasca County	$9,777.00	07/06/04
Koochiching County	$10,471.00	06/22/04
Lac Qui Parle County	$2,832.00	N/A
Lake County	$8,756.00	07/01/04
Lake of Woods County	$6,584.00	10/05/04
Mahnomen County	$3,008.00	08/27/04
Marshall County	$3,729.00	07/12/04
Martin County	$2,785.00	06/22/04
Meeker County	$3,120.00	06/29/04
Mille Lacs County	$4,067.00	06/22/04
Pine County	$4,868.00	09/23/04
Renville County	$2,827.00	07/16/04
Rice County	$3,293.00	07/26/04
St. Louis County	$20,422.00	06/22/04
Scott County	$3,595.00	11/18/04
SherburneCounty	$4,345.00	07/07/04
Stearns County	$5,247.00	07/07/04
Wabasha County	$3,076.00	07/14/04
Wadena County	$3,083.00	N/A
Washington County	$4,459.00	10/20/04
Watonwan County	$2,674.00	07/06/04
Winona County	$3,131.00	07/16/04
Wright County	$4,697.00	07/07/04
2004 TOTAL	**$199,981.00**	

Source: MN DNR, Division of Enforcement. (Dec. 2004). Unpublished Data

Table A-6: DNR Enforcement Activity Reports: Hours of Service Coded to Field Enforcement & Vehicle Safety Training, During the Period F.Y. 1999 – F.Y. 2005 (partial)

	FY 1999 (hrs spent)	FY 2000 (hrs spent)	FY 2001 (hrs spent)	FY 2002 (hrs spent)	FY 2003 (hrs spent)	FY 2004 (hrs spent)	FY 2005[2] (hrs spent)
ATV-Enforcement	3,273.50	5,200.25	5,916.25	9,194.75	14,424.25	13,364.34	8,137.50
ATV-Safety Training	1,213.75	633.00	672.25	1,065.25	4,069.00	1,861.23	645.50
ATV Total Hours	4,487.25	5,833.25	6,588.50	10,260.00	18,493.25	15,225.57	8,783.00
Total Cost - ATV	**$123,409.58**	**$166,176.37**	**$191,501.85**	**$304,135.24**	**$592,723.82**	**$486,761.72**	**$280,759.29**
OHM-Enforcement	255.50	327.75	351.75	530.00	1,323.25	1,078.85	561.25
OHM-Safety Training	92.50	77.00	65.50	35.50	68.50	89.00	64.50
OHM Total Hours	348.00	404.75	417.25	565.50	1,391.75	1,167.85	625.75
Total Cost - OHM	**$9,429.02**	**$11,416.50**	**$12,804.52**	**$16,756.34**	**$42,536.89**	**$37,047.36**	**$19,712.98**
ORV-Enforcement	164.00	183.75	201.50	349.25	978.25	931.28	429.00
ORV-Safety Training	43.00	12.00	3.50	0.00	13.00	15.00	15.50
ORV Total Hours	207.00	195.75	205.00	349.25	991.25	946.28	444.50
Total Cost - ORV	**$5,942.73**	**$5,628.28**	**$6,259.11**	**$10,510.01**	**$31,388.00**	**$31,123.43**	**$14,463.76**

Source: MN DNR, Division of Enforcement. (Nov. 2004). Unpublished Data.

Definitions:
F.Y. = State of Minnesota Fiscal Year, July 1-June 30th.
ATV = All-Terrain Vehicle.
OHM = Off-Highway Motorcycle.
ORV = Off-Road Vehicle (e.g., 4x4 trucks or jeeps).

[2] Fiscal Year 2005 data is incomplete and reflects only that data collected and recorded as of November 18, 2004.

Table A-7: Snowmobile Violations 2004 (01-01-04 to 12-31-04)

Violation	Grand Total	Form Type	Total	Juvenile	Non Resident	Resident
No Valid License Registration / Permit (registration, studs, non res trail sticker)	Total	SM WR CV	192 156	 9	31 24	161 123
Lic / Reg / Permit not Possessed / Displayed	Total	SM WR CV	629 411	8 38	26 19	595 354
Operate in Closed Area	Total	SM WR CV	4 11	 4	 1	4 6
Illegal Equipment / Weapon Manner	Total	SM WR	 4	 1		 3
Overlimit (passenger)	Total	SM WR				
Hunt / Operate While Intoxicated	Total	SM WR	8			8
Snowmo / ATV In Closed Hours (Deer Season)	Total	SM WR	 1	 1		
Fail to Transfer Ownership	Total	SM WR	4 11			4 11
Operate on Imp Co Road	Total	SM WR CV	26 67	2 16	 2	24 49
Operate At Night Against Traffic	Total	SM WR CV	13 63	 12	1 2	12 49
Fail to Stop At Crossing	Total	SM WR	66 125	2 24	2 5	62 96
Permit Youthful Operation	Total	SM WR	8 12			8 12
Careless / Reckless Operation / Use	Total	SM WR	6 16	 3	 2	6 11
Excessive Speed	Total	SM WR	218 191	8 25	7 8	203 158
Operate ON Designated Trail	Total	SM WR	1 6	1 1		 5
Fail to File Accident Report	Total	SM WR				
Youth Operation W/O Helmet	Total	SM WR	 2	 1		 1
Operate W / O Drivers License	Total	SM WR				
Youth operate W / O Safety Certificate	Total	SM WR	15 20	2 13		13 7
Unlawful Crossing Divided Road	Total	SM WR	3 4			3 4
Improper Lighting / Night	Total	SM WR	2 8	1 2		1 6
Exceed Legal Capacity	Total	SM WR				
No Muffler / Excess Noise / Fire	Total	SM WR	3 8			3 8

Transport Unc / Load Firearm M/V	Total	SM WR				
Trespass on Posted / Agr Land	Total	SM WR CV	3 8 2	 3		3 5 2
Trespass (Gross)	Total	SM WR				
Veh Trespass 7 Co Metro Area	Total	SM WR CV	5			5
Flee Officer / Resist Arrest	Total	SM WR	1			1
False Affidavit / Statement	Total	SM WR				
Alcohol or Drugs, Possession	Total	SM WR				
Misc Traffic Drug	Total	SM WR CV	2 3	 1		2 2
Fail to Report Abandonment	Total	SM WR	1 2			1 2
Studded Track / Asphalt Surface	Total	SM WR CV	7 18 3	 1	 1	7 17 2
Adult Operate W/O Safety Certificate	Total	SM WR	54 84			54 84
Grand Total	Total	SM WR	1277 1234	24 155	68 63	1185 1016

Source: MN DNR, Division of Enforcement. (2004).

Table A-8: ATV Violations for 2004 (01-01-04 to 12-31-04)

No Valid License Registration / Permit	Total	SM WR CV	76 121 6	1 24 1	1 6	74 91 5
Lic / Reg / Permit not Possessed / Displayed	Total	SM WR CV	322 394 8	7 30	12 16 1	303 348 7
Operate in Closed Area	Total	SM WR CV	67 111 9	2 16 1	5	65 90 8
Illegal Equipment / Weapon Manner	Total	SM WR	1 11	8		1 3
Overlimit (passenger)	Total	SM WR	2	1		1
<table><tr><th>Violation</th><th>Grand Total</th><th>Form Type</th><th>Total</th><th>Juvenile</th><th>Non Resident</th><th>Resident</th></tr></table> Hunt / Operate While Intoxicated	Total	SM WR	7			7
Snowmo / ATV In Closed Hours (Deer Season)	Total	SM WR	10 18	3	1	10 15
Fail to Transfer Ownership	Total	SM WR	7			7
Oerate on Imp Co Road	Total	SM WR CV	176 323 14	13 61 1	1 6	162 256 13
Operate At Night Against Traffic	Total	SM WR CV				
Fail to Stop At Crossing	Total	SM WR	9 15	1	2	7 14
Permit Youthful Operation	Total	SM WR CV	111 152 14	7	4 3	107 142 14
Careless / Reckless Operation / Use	Total	SM WR CV	7 59 5	3 7 3	2	12 52 2
Excessive Speed	Total	SM WR CV	4 3 1	1		3 3 1
Operate ON Designated Trail	Total	SM WR CV	12 28 2	1 2	1	11 25 2
Fail to File Accident Report	Total	SM WR				
Youth Operation W/O Helmet	Total	SM WR CV	17 101 2	6 55	1	11 45 2
Operate W / O Drivers License	Total	SM WR	12 30	2 25	1 1	9 4
Youth operate W / O Safety Certificate	Total	SM WR	3 27	2 26		1 1
Unlawful Crossing Divided Road	Total	SM WR	1			1

Improper Lighting / Night	Total	SM WR CV	 8 1			 8 1
Exceed Legal Capacity	Total	SM WR CV	27 195 3	1 20	9	26 166 3
No Muffler / Excess Noise / Fire	Total	SM WR				
Transport Unc / Load Firearm M/V	Total	SM WR	1 2	 2		1
Trespass on Posted / Agr Land	Total	SM WR CV	 10 28	 5 1	 1	 26
Trespass (Gross)	Total	SM WR	 8	 2		 6
Veh Trespass 7 Co Metro Area	Total	SM WR CV	6 10			6 10
Flee Officer / Resist Arrest	Total	SM WR	1			1
False Affidavit / Statement	Total	SM WR	1			1
Motor Vehicle In Closed Area	Total	SM WR	24 43	 7	 2	24 34
Alcohol or Drugs, Possession	Total	SM WR				
Destroy / Damage Property	Total	SM WR	2			2
Misc Traffic Drug	Total	SM WR CV	4 2			4 2
Grand Total	Total	SM WR	982 1640	46 295	25 49	911 1296

Source: MN DNR, Division of Enforcement. (2004).

Table A-9: OHM Violations for 2004 (01-01-04 to 12-31-04)

Violation	Grand Total	Form Type	Total	Juvenile	Non Resident	Resident
No Valid License Registration / Permit	Total	SM WR CV	18 78 8	2 11 2	3 9 1	13 58 5
Lic / Reg / Permit not Possessed / Displayed	Total	SM WR CV	55 46 1	1 5	 1	54 40 1
Operate in Closed Area	Total	SM WR CV	5 4 1	1 2		4 2 1
Illegal Equipment / Weapon Manner	Total	SM WR	 1			 1
Overlimit (passenger)	Total	SM WR				
Hunt / Operate While Intoxicated	Total	SM WR				
Snowmo / ATV In Closed Hours (Deer Season)	Total	SM WR				
Fail to Transfer Ownership	Total	SM WR				
Operate on Imp Co Road	Total	SM WR CV	28 77 5	6 42 3	1 2	21 33 2
Operate At Night Against Traffic	Total	SM WR CV				
Fail to Stop At Crossing	Total	SM WR	1			1
Permit Youthful Operation	Total	SM WR	10 24 1	 2	1 1	9 21 1
Careless / Reckless Operation / Use	Total	SM WR	3 1	2 1		1
Excessive Speed	Total	SM WR				
Operate ON Designated Trail	Total	SM WR	1 4	 2		1 2
Fail to File Accident Report	Total	SM WR				
Youth Operation W/O Helmet	Total	SM WR CV	1 5 1	 4 1		1 1
Operate W / O Drivers License	Total	SM WR	 4	 4		
Youth operate W / O Safety Certificate	Total	SM WR	 7	 4		 3
Unlawful Crossing Divided Road	Total	SM WR	 1			 1
Improper Lighting / Night	Total	SM				

		WR				
Exceed Legal Capacity	Total	SM WR				
No Muffler / Excess Noise / Fire	Total	SM WR				
Transport Unc / Load Firearm M/V	Total	SM WR				
Trespass on Posted / Agr Land	Total	SM WR CV	2			2
Trespass (Gross)	Total	SM WR				
Veh Trespass 7 Co Metro Area	Total	SM WR CV	1			1
Flee Officer / Resist Arrest	Total	SM WR				
False Affidavit / Statement	Total	SM WR				
Motor Vehicle In Closed Are	Total	SM WR				
Alcohol or Drugs, Possession	Total	SM WR				
Misc Traffic Drug	Total	SM WR CV				
Grand Total	Total	SM WR	141 256	18 77	6 13	117 166

Source: MN DNR, Division of Enforcement. (2004).

Table A-10: ORV Violations for 2004 (01-01-04 to 12-31-04)

Violation	Grand Total	Form Type	Total	Juvenile	Non Resident	Resident
No Valid License Registration / Permit	Total	SM WR CV	3 7	 1		3 6
Lic / Reg / Permit not Possessed / Displayed	Total	SM WR CV	2 1			2 1
Operate in Closed Area	Total	SM WR CV	8 6	 1		8 5
Illegal Equipment / Weapon Manner	Total	SM WR CV	1 1			1 1
Overlimit (passenger)	Total	SM WR				
Hunt / Operate While Intoxicated	Total	SM WR				
Snowmo / ATV In Closed Hours (Deer Season)	Total	SM WR				
Fail to Transfer Ownership	Total	SM WR				
Operate on Imp Co Road	Total	SM WR CV	2 7	 1		2 6
Operate At Night Against Traffic	Total	SM WR CV				
Fail to Stop At Crossing	Total	SM WR				
Permit Youthful Operation	Total	SM WR	1			1
Careless / Reckless Operation / Use	Total	SM WR CV	 2	 2		
Excessive Speed	Total	SM WR				
Operate ON Designated Trail	Total	SM WR CV	1 1 1	 1		1 1
Fail to File Accident Report	Total	SM WR				
Youth Operation W/O Helmet	Total	SM WR				
Operate W / O Drivers License	Total	SM WR				
Youth operate W / O Safety Certificate	Total	SM WR	1 4	 2		1 2
Unlawful Crossing Divided Road	Total	SM WR				
Improper Lighting / Night	Total	SM WR				
Exceed Legal Capacity	Total	SM				

		WR				
No Muffler / Excess Noise / Fire	Total	SM WR				
Transport Unc / Load Firearm M/V	Total	SM WR				
Trespass on Posted / Agr Land	Total	SM WR CV	7	2		5
Trespass (Gross)	Total	SM WR				
Veh Trespass 7 Co Metro Area	Total	SM WR CV	6 1			6 1
Flee Officer / Resist Arrest	Total	SM WR				
False Affidavit / Statement	Total	SM WR				
Motor Vehicle In Closed Are	Total	SM WR				
Alcohol or Drugs, Possession	Total	SM WR				
Misc Traffic Drug	Total	SM WR CV				
Destroy / Damage Property	Total	SM WR CV	4 1			4 1
Grand Total	Total	SM WR	46 23	5 5		41 18

Source: MN DNR, Division of Enforcement. (2004).