



Off-highway Vehicle Strategic Master Plans Overview December 2024

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Introduction

The Minnesota Department of Natural Resources (DNR) is charged with providing a variety of outdoor recreation opportunities for Minnesotans. Off-highway vehicle (OHV) recreation has been popular in Minnesota and continues to increase in popularity¹. Integrated planning is critical in ensuring the overall sustainability of Minnesota's natural resources as well as its multiuse recreation. The purpose of this overview document is to synthesize key elements of the individual OHV strategic master plans and to recognize the interrelationship among them amidst other recreational uses all while respecting the legislative directives to create the specific plans. The purpose of the individual plans is to provide direction and guidance to the DNR and partners in their efforts to plan, fund, maintain and develop a sustainable network of OHV trails that support outdoor recreation experiences, environmental stewardship, economic diversification, and healthy and active lifestyles.

Background

OHV Definitions

The term 'off-highway vehicle' (OHV) is a hypernym that incorporates the various motorized recreational vehicle categories under one umbrella term. Each motorized recreational vehicle type is unique in its operation, and users of each vehicle type have different preferences and needs when recreating. Because of this, it is important to have clear definitions to draw from for planning and management. In Minnesota, OHVs are defined in [M.S. 84.771](#) as including the subtypes of off-highway motorcycles (OHMs), off-road vehicles (ORVs) and all-terrain vehicles (ATVs). The three subtypes are further defined as follows:

Off-highway motorcycles (OHM): Two-wheeled vehicles with handlebars and a seat or saddle designed to be straddled by the operator ([M.S. 84.787, subdivision 7](#)).

Off-road vehicles (ORV): Larger four-wheeled vehicles capable of cross-country travel on natural terrain without benefit of a road or trail ([M.S. 84.797, subdivision 7](#)). In general, ORVs are larger than class 2 ATVs, i.e., greater than 65 inches in width.

All-terrain vehicles (ATV): Three- to six-wheeled vehicles where the rider may sit in a seat or straddle a seat. ATVs may have handlebars and a thumb throttle or a steering wheel with gas and brake pedals. ATVs are broken down into two classes ([M.S. 84.92 subdivision 8](#)):

- Class 1 is defined as having a wheelbase of 50 inches or less in width.
- Class 2 is defined as having a wheelbase between 50 to 65 inches in width.

It is important to highlight that snowmobiles are not considered to be OHVs.

OHV Program History

OHV recreation has been popular in Minnesota for decades. However, it was not until 1984 that formal recreation management of OHVs began with the adoption of vehicle registration requirements. It was at this time that the first trails were established, intended specifically for ATVs.

At the statewide level, OHV use in Minnesota is managed by the divisions of Parks and Trails and Enforcement and involves collaboration with all divisions in the DNR. The OHV program was developed

¹ See the 'OHV Registration & Trends' section.

to provide motorized recreational opportunities for all Minnesotans and to ensure the OHV trail system in Minnesota remains sustainable by balancing recreation with conservation. The OHV program is predicated on the value of “managed use on managed trails” which means the program aims to provide enjoyable opportunities for a broad spectrum of trail users in a manner that reduces trail user conflicts and increases compliance.²

Grant-in-Aid Program

The Grant-in-Aid (GIA) Program, formally known as the Minnesota OHV Trails Assistance Program, was authorized in 1984 to fund maintenance and development of ATV trails and associated facilities. The program was expanded between 1993 and 1995 to include OHM and ORV trails. Currently, over 90 trails in Minnesota receive GIA funding.

Within the GIA Program, a local unit of government typically partners with a local club to provide maintenance and development opportunities on a trail. The GIA Program requires all new trails to go through a 7-step review process that includes multiple levels of DNR evaluation as well as a public review opportunity. A part of the 7-step process is an extensive environmental review wherein a proposal is analyzed for potential impacts to natural and cultural resources and, if that potential exists, options for avoidance and mitigation are executed.

OHV Registration & Trends

In 1986, approximately 12,000 ATVs were registered for recreational use. Registration requirements and managed trail systems for ORVs and OHMs followed in the mid-1990s. As OHV numbers increased through the 1990s, use on public lands also grew considerably. Between 1994 and 2022, ATV, ORV and OHM registrations grew substantially. In 1994 there were 56,706 registered ATVs and 346,957 in 2022. In 1994 there were 148 registered ORVs and 8,994 in 2022. In 1994 there were 181 registered OHMs and 17,758 in 2022 (see Figure 1 and Figure 2). The DNR and the state legislature quickly recognized that more needed to be done to manage OHV use on public lands in a manner that ensures long-term sustainability of the state’s natural resources and reduces the potential for user conflicts. As such, an OHV Management Study was completed in 1995, which called for the creation of an OHV Coordinator position within the DNR, the creation of Regional OHV System Plans, implementation of a forest trail classification system and state forest rule revisions.

² OHV Program, 2022a

Figure 1: ATV Registrations from 1984-2022

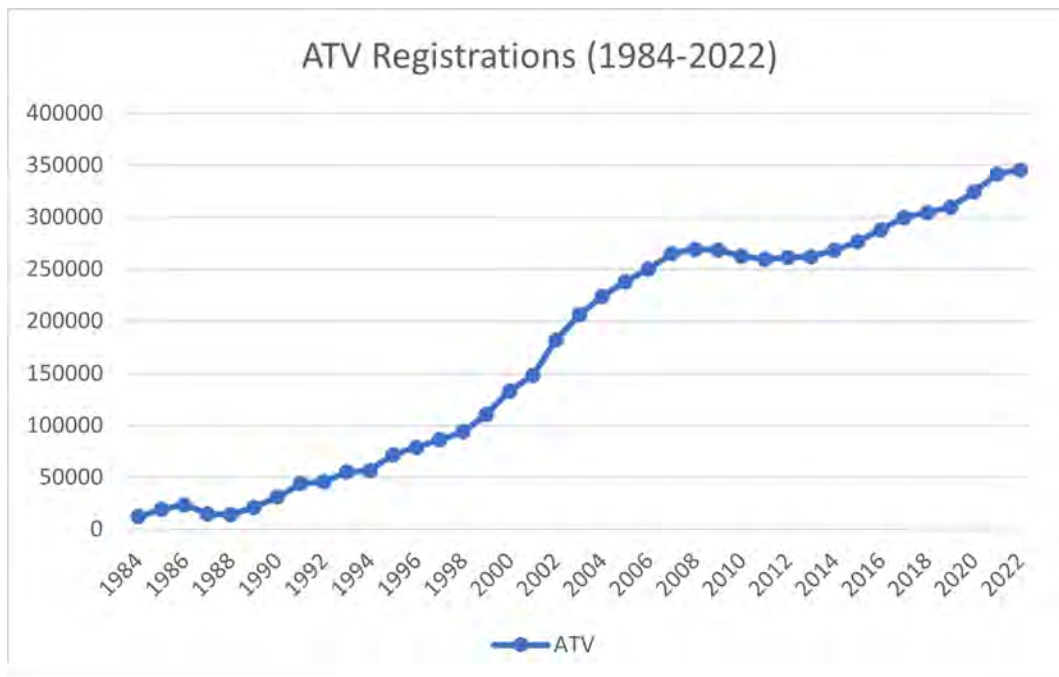
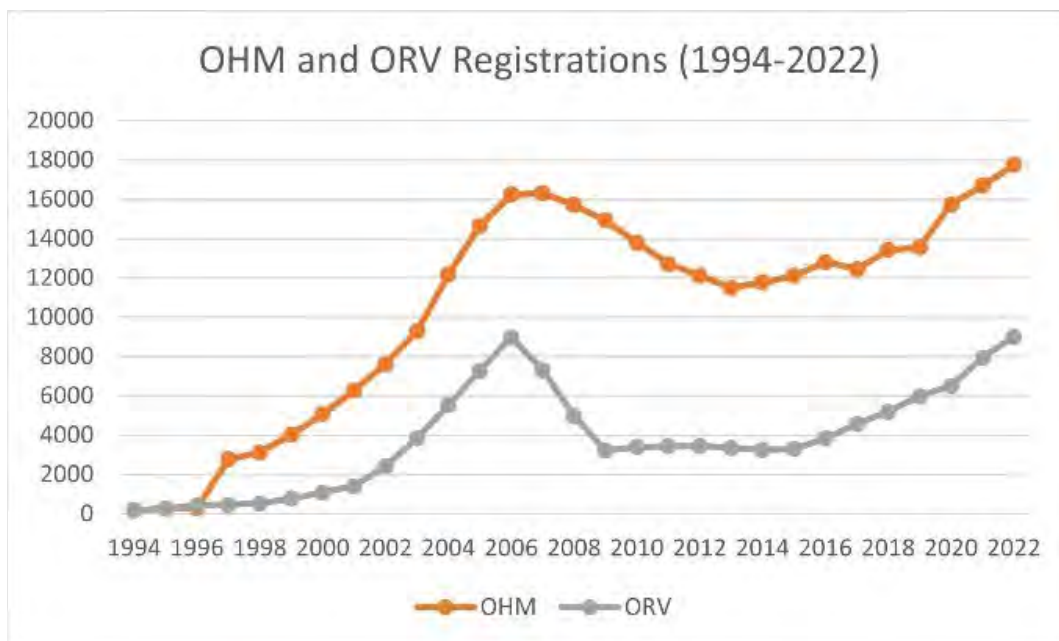


Figure 2: OHM and ORV Registrations from 1994-2022



Forest Trail Planning

In response to legislative directive, in 2003 the DNR began to evaluate all state forests and develop proposals for how each should be classified with respect to motorized use. This included determining which routes within those forests should be designated for motorized use and which routes should be changed to only allow non-motorized use. Some routes were closed altogether. The resulting proposals were refined through interdisciplinary, inter-agency and public review and were then implemented through Commissioner's Orders. This process was referred to as Phase 1 Forest Trail Planning. By 2008, all state forests had been classified as either closed, limited or managed.

- Closed: OHV use would not be allowed.
- Limited: OHV use would be allowed only on designated routes.
- Managed: OHV use would be allowed on all routes unless signed as closed.

In addition to the state forest-wide classifications, existing trails within state forests were individually reviewed and designated as either closed to all uses, designated as forest access trails (utility routes for DNR staff and/or contractors), or were designated as recreational non-motorized or motorized trails. This additional level of designation allowed the DNR to close unsustainable OHV trails where impacts to natural resources were deemed significant while also examining the overall use of existing forest trails in a given state forest. Approximately ten years after the start of the forest classification/trail designation process the DNR began to review and assess these initial trail designations and make updates. This latter process is referred to as Phase 2 Forest Trail Planning. Both phases of forest trail planning included and continue to include public review and engagement prior to any changes in state forest classification or trail designation.

The OHV program currently involves dedicated staff positions including an OHV Consultant, an OHV Enforcement Recreational Vehicle Coordinator, an OHV Planner, and four regional OHV Acquisition and Development Specialists. The OHV program is also supported by day-to-day operations of DNR staff who work in other programs and divisions across the agency that are not wholly devoted to OHV management, including conservation officers, communication specialists, and local area staff. The program is also supported externally by collaboration with partners outside of the DNR, such as local government units (LGUs), motorized recreation clubs and statewide user associations.

Funding

OHV program funding is provided through three motorized vehicle accounts (for ATVs, OHMs and ORVs, respectively) within the Natural Resources Fund (M.S. 16A.531, Subd. 2). Each account contains revenue from OHV registrations and trail passes as well as a small portion of the unrefunded gas tax – 0.27% for ATVs, 0.164% for ORVs and 0.046% for OHMs. In turn, these accounts fund OHV program management, which includes the OHV dedicated staff. The motorized accounts also fund trail maintenance and development for both GIA trails and trails maintained by the DNR, as well as enforcement which includes the trail ambassador program, conservation officers and sheriff patrols.

OHV Planning

DNR recreation planning processes take a number of forms, varying in their scope and application. All of these planning efforts focus on developing clear goals and priorities for allocation of limited resources across recreation types and facilities in an ever-changing recreational landscape. The common goal shared by all DNR plans is to provide a framework for consistent, transparent decision-making over the life of a plan and to support implementation of the goals and priorities identified in each plan, as well as the DNR's mission.

OHV planning applies the broader DNR planning framework to support riding opportunities and guide sustainable management and development of OHV trails and facilities. The process seeks to provide an OHV system that not only meets the needs of riders, but also minimizes impacts to natural and cultural resources and ensures OHV use exists sustainably with other land uses and recreation types.

Legislative Direction

As OHVs have continued to grow in popularity, the three main OHV interest groups in Minnesota—All-Terrain Vehicle Association of Minnesota (ATVMN, ATVs), Amateur Riders Motorcycle Association (ARMCA, OHMs) and Minnesota Four-Wheel Drive Association (MN4WDA, ORVs)—spearheaded advocacy that led to legislative funding for the three strategic master planning projects. Each group expressed interest in ensuring that the OHV system continues to be maintained well and further developed, where appropriate, in a sustainable manner.

Between 2019 and 2021, each organization put forward legislation to require and fund a plan for their respective OHV type. The result was three separate appropriations from the Minnesota State Legislature for three strategic master plans³. Funding and legislative direction for the [ORV plan](#)⁴ and [OHM plan](#)⁵ were passed in 2019's first special session. In 2021, language was passed for the [ATV plan](#)⁶. The DNR recognized the value of establishing formal visions of the OHV system in Minnesota through the proposed planning efforts.

The legislative language regarding the creation of the strategic master plans differs for each motorized use, and each appropriation was granted at a different time.

The OHM allocation was approved during the first special session of 2019. \$75,000 was allocated with the following information defining the project scope:

“...to complete a master plan for off-highway motorcycle trail planning and development.”

The ORV allocation was also approved during the first special session of 2019. \$200,000 was allocated for the plan and included further detail defining the project scope as:

“...for a contract and related work to prepare a comprehensive, statewide, strategic master plan for (ORV) touring routes and trails. . . At a minimum, the plan must: identify opportunities to

³ The legislative appropriation language refers to these documents as "master plans," however, this should not be confused with the development of master plans as required for units within the Outdoor Recreation Act under M.S. 86A.09. For this purpose, the documents are herein and throughout each individual plan named "strategic master plans."

⁴ MN Laws 2019, First Special Session, Chapter 4, Article 1, Sec. 3, Subd. 5, Subpart k.

⁵ MN Laws 2019, First Special Session, Chapter 4, Article 1, Sec. 3, Subd. 5, Subpart q.

⁶ MN Laws 2021, First Special Session, Chapter 6, Article 1, Sec. 3, Subd. 5. Subpart k.

develop or enhance new, high-quality, comprehensive touring routes and trails for (ORVs). . . enhance connectivity with touring routes and trails for (ORVs); provide opportunities for promoting economic development in greater Minnesota; help people connect with the outdoors in a safe and environmentally sustainable manner; create new and support existing opportunities for social, economic, and cultural benefits and meaningful and mutually beneficial relationships for users of (ORVs) and the communities that host trails for (ORVs); and promote cooperation with local, state, tribal, and federal governments; organizations; and other interested partners.”

The ATV allocation was approved in the first special session of 2021. \$250,000 was allocated for the plan, which specified the project scope as:

“...for a statewide all-terrain vehicle (ATV) trails master plan broken out by the Department of Natural Resources' administrative regions and for an ATV trails and route inventory from all cooperating agencies with available data broken out by the Department of Natural Resources' administrative regions. The ATV master plan and inventory must be completed by February 1, 2023. “

OHV Strategic Master Plans

The DNR worked with OHV groups and other public land stakeholders to develop three strategic master plans for OHMs, ORVs and ATVs. The goal of the strategic master plans is to develop a vision for OHV recreation statewide and provide guidance and recommendations for management, maintenance and development of riding facilities for all three types of motorized recreation. This strategic master plans will inform the DNR's broader efforts to establish and maintain a sustainable system of trails that provide for diverse motorized and non-motorized public recreation and access. Key questions that were explored during planning for the plans include:

- How should the Minnesota OHV trail system be managed and developed to uphold the interdependent values of natural resource conservation, a sustainable economy, and diverse outdoor recreational opportunities in Minnesota?
- What are the characteristics of an OHV trail system in Minnesota that meet the needs of users while ensuring compatibility with the natural and human environments?

The ATV, ORV and OHM strategic master plans aim to address these questions by utilizing tools ranging from mapping analysis to exploration of stakeholder comments and insights. The ultimate goal for each plan is to provide transparency around OHV system management for anyone directly or indirectly involved or interested in OHV recreation in Minnesota, and to inform the development and management of Minnesota's outdoor recreation system as a whole.

Public and Stakeholder Engagement

The planning process included extensive public input and engagement. The DNR met with and incorporated input from many individuals and groups—including conservation and environmental organizations as well as non-motorized trail user groups. The DNR facilitated public meetings, focus groups and online engagement opportunities for each of the strategic master plans.

What the Strategic Master Plans Are

The OHV strategic master plans are guiding documents for OHV recreation across all sectors and geographic areas in Minnesota. The plans are intended to be used to guide future maintenance practices as well as future OHV trail development and aim to provide an assessment of conditions that are best suited for future OHV opportunities. The plans will also help inform where future OHV trail development is not likely to be appropriate due to natural and cultural resource impacts, safety, or the potential for user conflicts.

Not all strategies and opportunities identified in the plans can be implemented by the DNR—some will need to be accomplished by partners such as clubs and local governments, and in many cases through GIA program partnerships. Other opportunities, such as for-profit racetracks, may be accomplished by private businesses. The DNR could have a partnership role in any of these situations.

What the Strategic Master Plans Are Not

The OHV strategic master plans do not contain specific project lists or details on future trails as each potential trail project is unique and requires specific planning and evaluation. Although the plans may identify areas of opportunity for trail connections or trail development, the plans do not identify specific alignments for trails. Individual project planning must always include project-specific natural resource, cultural resource, environmental and public review. The strategic master plans are also not a mandate or pledge to add more trails. Rather, they contain maintenance and development strategies considerations that are intended to be useful in the OHV project review process.

The strategic master plans are also not a commitment or charge to implement every strategy and opportunity identified. Some opportunities identified in the plans may require substantial planning and resources that may not be currently available. Other opportunities may prove not to be feasible in the future once more detailed review is completed. The plans simply identify areas where the DNR, local government units, private entities and OHV clubs could improve the OHV trail system. While portions of the plans may focus on new trail opportunities, the DNR recognizes that there are considerations and constraints to developing new trails and are important elements of the project planning and review process. There is also a limit to the department's capacity to effectively manage a trail system.

Additionally, the strategic master plans do not constitute or warrant an environmental assessment of the existing OHV trail system, as environmental assessment was not included in the scope of this project as provided by the legislature. Environmental assessment for new trails is included in the mandatory review process for both GIA trails and state-designated trails, and OHV Program staff consider environmental impact and sustainability when reviewing trails for annual maintenance funding. The plans do, however, contain recommendations for improved assessment approaches moving forward.

Guiding Principles and Documents

Minnesota DNR has a variety of principles, guiding documents and strategies that interrelate with the OHV strategic master plans. The OHV strategic master plans compliment and build upon the guidance and planning work that has already been established—such examples include:

DNR Mission:

To work with Minnesotans to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.

The DNR recognizes the responsibility to provide a diversity of outdoor recreation opportunities to meet the needs of all Minnesotans. As the types of recreation in the state are as diverse as the Minnesotans who enjoy them, it is not always possible to meet the desires of all recreationalists simultaneously in the same place. The OHV strategic master plans are therefore a lens through which OHV recreation can be considered among the myriad forms of Minnesota's outdoor recreation opportunities. OHV trails will always go through an extensive review process to identify and mitigate any natural or cultural resource impacts before any trail is altered or constructed.

DNR Conservation Agenda and 2023-2027 Strategic Plan: The DNR's 10-year Conservation Agenda helps lead long-term DNR decision making, including policy development, program implementation, and budget management (see the [Conservation Agenda](#) webpage). The 2023-2027 Strategic Plan highlights near-term priorities and our alignment with the One Minnesota approach to state government as a whole. The Conservation Agenda and the 2023-2027 Strategic Plan outline four broad goals that are structured around conservation, recreation, sustainable economies and operational excellence/continuous improvement.

The OHV strategic master plans touch on all four of the Conservation Agenda and Strategic Plan goals. For example, the OHV plans aim to guide OHV recreation opportunities in the state while avoiding and mitigating impacts on natural resources and considering benefits to local economies. The OHV plans also provide operational excellence in concert with OHV clubs and local government units by collaborating in efficient and effective ways and building relationships through the management of grant dollars, pass-through funding, and the GIA program.

DNR Division of Parks and Trails Vision Statement:

To create unforgettable park, trail and water recreation experiences that inspire people to pass along the love for the outdoors to current and future generations.

OHV recreation is one of multiple recreation types that helps connect people to the outdoors and helps people to understand the importance of keeping natural spaces available for future generations.

DNR Parks and Trails System Plan: The [Parks and Trails System Plan](#) aims to advance new approaches for managing state parks, state recreation areas, state trails, state forest recreation areas and state water recreation. Various concepts in the system plan relate to OHV recreation including goals of providing diverse recreational opportunities for Minnesotans, increasing partner support for operations and maintenance, conserving natural and cultural resources, and developing additional amenities to meet statewide needs and demands of user groups⁷.

Shared Opportunities and Strategies

While each form of OHV recreation has unique needs, there are also opportunities and strategies shared across the ATV, ORV and OHM plans. The following includes some of the overarching commonalities across the OHV strategic master plans.

Sustainability: Ensure that the development of riding opportunities is sustainable, both in terms of the long-term maintainability of the system as well as natural and cultural resource conservation while also recognizing the importance of a holistic approach among motorized recreation types and between motorized and non-motorized recreation. It is important that the DNR and our partners manage the current trail system well and ensures that any additions to trail mileage that DNR manages not result in reduced quality as a whole.

Connectivity: Where appropriate, and in conjunction with other priorities such as environmental protection, enhance connectivity in the OHV trail system both in terms of direct routes between riding areas and routes between riding areas, amenities and points of interest.

Collaboration and Coordination: Ensure ongoing planning is participatory and collaborative and that communication is clear and consistent across all sectors and among all partners and stakeholders. Emerging data collection opportunities, such as trail counters, can help inform ongoing planning.

Policy and Regulations: Increase partner and stakeholder knowledge of OHV rules and regulations by promoting regular review of policy and regulations to ensure all parties are familiar with OHV laws, rules and regulations (e.g., OHV Regulations handbook) and reinforce the DNR's "managed use on managed trails" concept.

Response to Trends: Increase understanding of trends in OHV recreation and allocate resources in a manner that recognizes those trends. This includes the need to consider emerging or newly emerged issues like climate change and extreme weather event impacts as well as changes in types of OHVs and their implications for trail design and maintenance.

Marketing and Communications: Provide information on OHV opportunities that highlights responsible OHV riding and promote safety as well as opportunities to connect with the outdoors.

Education and Stewardship: Increase OHV user implementation of safe and courteous riding practices and increase OHV user participation in and understanding of environmental stewardship. Grow rates of participation in OHV safety education and the trail ambassador program.

⁷ The Parks and Trails System Plan specifically identifies motorized user groups under this goal regarding forest recreation areas.

While the DNR has an important role implementing these strategies and opportunities, some will need to be accomplished by partners such as clubs and local governments, with and without GIA program partnerships.

Acknowledgements:

The Minnesota Department of Natural Resources would like to thank all who participated in this planning process. The plans will be available on the [DNR website](#) once finalized. For more information on the OHV strategic master plans, please call the DNR Parks and Trails division at (651) 259-5600.

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SE Group, ORV and ATV strategic master plans

Up! Outside, OHM strategic master plan