DEPARTMENT OF NATURAL RESOURCES

Off-Highway Vehicle Grant-in-Aid Program

Program Manual

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Introduction

Minnesota's Grant-in-Aid System

Off-Highway Vehicles (OHVs) have captured the interest of Minnesotans for a variety of reasons. For some, they represent an opportunity to connect with the outdoors and experience the landscape from different perspective. Others take a more utilitarian approach by using their OHVs for work or to access opportunities for other outdoor recreation such as hunting or fishing. No matter the motivation, all OHV users benefit from trails, routes, and other riding opportunities that are safe, sustainable and enjoyable.

The Grant-in-Aid (GIA) program allocates funding from OHV registration fees, as well as a portion of proceeds from the gas tax, to develop and maintain OHV trails that meet these standards. OHV clubs, in partnership with local government sponsors, provide a grant match and work directly on approved trail development and maintenance projects funded through the OHV GIA Program.

Though GIA trails are just one type among multiple kinds of OHV trails in Minnesota, they play a pronounced role in Minnesota's overall system by acting as the backbone of local trail networks and making connections between blocks of public land.

OHV Planning

Planning is the foundation of development and management of great trails. Before constructing new trails or changing management of existing trails, careful consideration of the overall vision for OHV use, management objectives, and environmental factors (human, natural and otherwise) leads to better outcomes.

Department of Natural Resources (DNR) OHV planning as it relates to GIA takes several forms:

- **Statewide**: The All-Terrain Vehicle (ATV), Off-Highway Motorcycle (OHM) and Off-Road Vehicle (ORV) Strategic Master Plans provide guidance for OHV development and management through an analysis of factors like trends in OHV recreation, gaps in the current system, environmental constraints, and insights from stakeholders. These plans help to guide GIA investment in pursuit of the broader vision and objectives for OHV recreation in Minnesota.
- **State Forests**: State Forests support a range of recreational, resource management, and commercial activities. OHV planning focuses on providing quality riding opportunities within the context of other uses, rules governing motorized use forest-wide, and the surrounding human and natural environments. GIA trails often connect to State Forest OHV trails, and in many State Forests, the DNR and local clubs work side by side to maintain trails.
- **GIA Pre-Application Planning:** Much of the work that goes into new GIA trails happens before an application is submitted. Pre-application planning includes developing a vision

for a new trail or ensuring that it furthers the vision of the existing GIA network, developing Trail Management Objectives (TMOs), compiling information on the natural and human environments, and assessing route alternatives.

The DNR planning process emphasizes stakeholder input and makes every effort to incorporate up-to-date information on developments in outdoor recreation and resource management. Early planning prevents unforeseen complications and saves time and money in the long run; therefore, the planning process extends from trail design and construction, all the way to maintenance.

The OHV Trails Assistance Manual

This manual describes the roles and responsibilities of GIA program administrators and participants as well as policies, procedures and guidelines that keep the program running smoothly. All parties must comply with the requirements in this manual and any deviations require written permission from the DNR.

Over time, the DNR may update GIA policies, procedures, and guidelines. The DNR is committed to communicating changes to the GIA program as clearly and expeditiously as possible and engaging with stakeholders as program changes are developed.

Roles and Responsibilities

A shared understanding of roles and responsibilities by program participants and administrators is crucial to the program's success. The following is an overview of the roles of the three primary participants in the GIA program.

Club

Clubs are the driving force behind GIA development projects and subsequent GIA funded maintenance. Roles and responsibilities include, but are not limited to:

- Serve as a primary contact for DNR staff for trail development and maintenance. This is particularly important during the Project Initiation phase when clubs will work with DNR staff to refine the basic elements of the GIA proposal (more on this later in the manual).
- Secure a local government sponsor. The DNR recommends that sponsors and clubs enter into an agreement that enumerates the responsibilities of each party.
- Adhere to GIA program guidelines found in this manual.

Sponsor

The OHV GIA program requires a supportive local government unit to act as the sponsor for each trail. It is ultimately the responsibility of the sponsor to ensure that trail development and maintenance activities meet program requirements. Roles and responsibilities include, but are not limited to:

- Pass a resolution[1] through the entity's governing body codifying the commitment to serve as a sponsor. Unless specified, the default term for a sponsorship resolution will be one year, however, the agreement may be valid for up to five years if specified in the resolution.
- Enter into an agreement with the State to act as the fiscal agent for grant agreements.
- Work with DNR staff to verify that the trail meets GIA program requirements.
- Ensure all permissions for use of the property underlying the trail are in place and necessary permits have been secured and properly documented.
- Ensure that trails are ready and open for use during the period specified in the funding application.

In some cases, a local government can serve as both the club and the sponsor on a project. Consult with a staff member from DNR Parks & Trails (PAT) to assess options and identify the best solution.

State (DNR Parks & Trails Division)

Minnesota DNR administers the GIA program under the authority granted by the Minnesota Legislature. The DNR is responsible for upholding the fiscal integrity of the program, reviewing and approving maintenance plans and new trail proposals, and maximizing the impact of public resources allocated through GIA. Roles and responsibilities include, but are not limited to:

- Provide clubs and sponsors with assistance and guidance on planning, development, and maintenance of GIA trails.
- Respond to applications and, if the project meets program requirements and funds are available, enter into a grant agreement with the sponsor.
- Disburse funds for development and maintenance as appropriate.
- Conduct grant reviews and, if needed, assist clubs and sponsors with grant compliance and implementation of best practices.

GIA Project Priorities

GIA program priorities are ranked as follows:

1) Maintenance of existing approved trails and trail systems
2) Improvements to existing trails and facilities
3) Development of substantially new trails, trail systems, riding areas or support facilities for OHV trail users
4) Addition of new visitor facilities (picnic tables, shelters, etc)

[1] An example of a sponsor resolution can be found in Appendix 1.

The GIA 7-Step Process

The steps outlined in this section follow a typical proposal for a new trail from its inception to its construction. The seven steps[2] are as follows. Each step is described in detail below.

- Step 0: Project Initiation
- Step 1: DNR Parks & Trails Review
- Step 2: DNR Interdisciplinary Review
- Step 3: DNR Regional Review
- Step 4: Public Review & Environmental Review
- Step 5: Project Approval and Release of Funds
- Step 6: Project Permitting & Construction
- Step 7: Maintenance

Step 0: Project Initiation

Much of the critical work that goes into a successful GIA project happens before an application for a new trail is even submitted to the DNR. During Project Initiation, clubs and sponsors will work with the DNR and other stakeholders to develop a vision, refine project fundamentals, and work through challenges.

In practice, Project Initiation is a time and labor-intensive process. The fundamental elements of a project are often interrelated and may evolve as more information is gathered. This is expected and is the reason so much emphasis is placed on Project Initiation.

Clubs Approach DNR Parks & Trails Staff

After a club has identified a potential new riding opportunity, a representative from the club should reach out to local DNR PAT staff (referred to as Area Staff) to discuss the idea. Staff will provide initial feedback, relevant history of the trail system, and help to identify potential issues and information gaps. DNR staff will provide the club and sponsor with resources and guidance as needed throughout the GIA process.

Identify Fundamental Elements of Project Proposal

At the initial meeting, DNR staff and the club will discuss the fundamental elements of the proposal. Clubs should, to the best of their ability, come to the initial meeting prepared to discuss the following topics:

- What would a future rider experience while on the trail? How difficult is the trail? What challenges or obstacles would be on the trail? What opportunities would this trail create? Does it fill a need that other local trails are not?

[2] A quick reference graphic showing the 7-Step process can be found in Appendix 2.

- Who is the target user? How experienced are they? Are they riding long distances or seeking a technical challenge?
- How much and what kind of maintenance is anticipated? Who would do the work? Are there any areas or segments that may require intensive or specialized maintenance?
- How is the surrounding land managed? Does the proposed OHV use align with management goals? Will private lands need to be considered?
- What route might the trail take? Are there multiple routes that would accomplish the same goals? Would it connect to other OHV trails? Does the route currently allow OHV traffic? Would substantially new trail need to be constructed, or would the trail utilize an existing footprint?
- How would the terrain along the route best be described? Is it flat, rolling, or steep? A mix? Are there segments that are low and wet?
- Who owns or manages the land underlying the trail route? Are they willing and able to enter into an agreement to host the trail?
- What is known about natural resources along the route? What additional information needs to be gathered? Would the route require wetland crossings, stream crossings, or tree clearing?

Many of these topics have direct correlation to development of trail management objectives[3] and the new project application that clubs and sponsors must complete. If the club cannot answer all these questions when first approaching the DNR, PAT staff can assist in answering questions to make your application as complete as possible. Gathering as much information as possible will make the review process more efficient.

Club Identifies Sponsor

Clubs are often in communication with potential sponsors from a project's inception. If this isn't the case, clubs should secure a commitment from a local government sponsor as soon as possible. Prior to submitting a GIA application, the sponsor's governing body must pass a resolution committing to serve as the sponsor for the trail.

The DNR strongly urges sponsors to enter into agreements with their clubs to define clear roles and responsibilities for both parties. Clubs that receive GIA funds are also encouraged to register with the State as a nonprofit organization.

Prepare Landowner Agreements

The club and sponsor are responsible for securing permissions for all lands and roads that the trail will cross.

[3] Worksheet 2 – TMO Development will help clubs develop trail management objectives, which can help outline the vision for a trail and are an important part of trail management. Resources from the Minnesota DNR and the National Forest Service are also available to help develop these ideas. Resources can be found in Appendices 3-5.

- Private Lands: Private landowners may grant permission for trail crossings verbally or in writing. Verbal permission must be documented by recording and submitting the landowner's name, the date, and the time that permission was granted. Written permission can be documented in the form of a letter or agreement signed by the landowner.
- Non-DNR Public Lands: Mangers typically require a permit to cross the lands in their jurisdiction. Examples include National Forests, county forests, municipal lands, and local roads.
- DNR-Managed Public Lands: DNR approval to cross state lands is granted by the execution of the GIA grant. A no-cost GIA permit will be issued to the club and sponsor formalizing permission to have the trail on DNR-managed land. Area Staff can facilitate early conversations with other DNR divisions.
- Public Roads: Permission must be granted from the local road authority in order to utilize the road as part of a trail, even if the road already allows OHV use. Different procedures may be required by different road authorities to allow road use and sponsors may be a valuable resource in navigating this process.

In special circumstances, fee title land purchases, easements, or leases may be required. For more information, check with DNR staff. It is highly recommended that formal permission is granted before the new project application is submitted. Permission must be granted before a GIA proposal goes out for public review (Step 4).

Trail Design and Layout

Sustainable OHV trails are designed to match the intended use, difficulty, and physical environment in the project area. Factors like slope, soil type, soil moisture and vegetation must be accounted for. DNR staff will provide trail design guidance[4] as needed.

Draft and Submit Project Proposal

Once the fundamental elements of the project have been established, the club will submit application materials to the project sponsor. Upon the sponsor's approval, they will submit a final application[5] to the Area Supervisor.

New project applications must be complete and detailed before submission. The required information below directly correlates to the new project application.

- **Sponsor Information**: Contact information for the project sponsor and the primary employee contact for this project

[4] Trail design resources, as well as resources for statewide user advocacy groups who may be of assistance, can be found in Appendices 6 and 7.
[5] An example of Form 2 – New Project Application, as well as a guide for use of other forms and a GIA program timeline, can be found in Appendices 8-10.

- **Trail Location and Land Ownership**: Physical location and land use permissions
- **Trail Surface Type**: Current and proposed uses as well as the type of trail corridor
- **Project Description:** A description of the trail including vision, Trail Management Objectives, natural resource impacts and avoidance measures
- **Projected Costs**: Estimated costs for administration, acquisition & development, facilities, liability insurance, maintenance, new trail construction, trail system maps, toilets, and winter maintenance (if applicable)
- **Supplemental Information**: Maps, sponsor resolution, worksheets, etc

DNR Assistance

Each DNR region has OHV Acquisition & Development Specialists and Area Staff[6] to assist clubs and local government sponsors. These specialists can assist with creating maps[7], connecting the club to potential sponsors and landowners, guiding clubs and sponsors through securing landowner permissions, providing trail layout and design recommendations, and answering technical questions. The DNR can also offer options and resources to assist with trail maintenance and rehabilitation[8].

Step 1: DNR Parks & Trails Review

Upon receiving the application from the sponsor, PAT staff will review the application and request additional information if needed.

Step 2: DNR Interdisciplinary Review

PAT staff will provide a copy of the application to staff from the Fish and Wildlife, Forestry, Ecological and Water Resources, Enforcement, and Lands and Minerals divisions for comment. The purpose of interdisciplinary review is to solicit feedback from a variety of disciplines. At this point, comments may need to be addressed or the project application modified to accommodate unforeseen considerations before proceeding.

Step 3: DNR Regional Review

PAT staff will review the proposal with the Regional Management Team (RMT), which is comprised of managers and leaders from across divisions. At this point, comments may need to be addressed or the project application modified to accommodate unforeseen considerations before proceeding.

[6] Contact information for these staff can be found in Appendix 11.

[7] The DNR can also provide resources to help clubs learn how to produce their own maps. See more resources in Appendices 12 and 13.

[8] The DNR employs a team of equipment operators that only work on off-highway vehicle trails. This team can be requested to execute or assist in execution of projects on GIA trails. More information can be found in Appendix 14.

Step 4: Public Review/Environmental Review

Environmental Review

To begin this process, PAT staff will submit an overview of the project to the Environmental Review unit in the DNR Ecological and Water Resources (EWR) Division. Their staff will determine whether formal Environmental Review[9] in the form of an Environmental Assessment Worksheet (EAW) is required. This is called an Environmental Review Needs Determination.

Projects do not always require an EAW, however if it is required, this process can take up to 12 months to complete. The most common project characteristics that trigger EAW are:

- **Length:** the project proposes construction of 25 miles or more of new trail over forested or vegetated land
- **New Motorized Use:** the project proposes OHV use where it currently isn't allowed on 25 miles or more of existing trail
- **Wetlands:** trail construction resulting in public waters wetland impacts in excess of 1 acre

The need for an EAW should not discourage a club and sponsor from completing a trail project. Clubs should also not try to avoid an EAW by adjusting the length of their trail or routing it through an unfavorable area. Doing so may make future trail development or maintenance difficult. Work with DNR staff to identify the appropriate action to take.

If formal Environmental Review is not required, the project can move on to Step 5 once the public comment requirement is satisfied.

Public Review

Either the DNR or the sponsor must provide an opportunity for the public to comment on the project. If the DNR is managing the public review, the review will consist of a 30-day comment period announced through a news release. Comments will be received by local PAT staff who will then organize the comments and work with the club and sponsor to address any concerns raised. No public meetings or hearings are required for GIA projects, but a club or sponsor may elect to complete one if they feel it would benefit the project.

If they so choose, sponsors may complete Public Review prior to Step 4. Sponsors should discuss program requirements with DNR staff prior to soliciting comments.

Step 5: Project Approval and Release of Funds

If the sponsor completed the public review, results may already have been reviewed by RMT and therefore this step may be optional. If the DNR completed the public review, the project and all comments will be reviewed one last time by the RMT (similar to Step 3).

[9] An overview of Minnesota's formal Environmental Review process and policies can be found in Appendix 15.

Upon final approval, grant agreements will be provided to the sponsor for signature and execution. Funds will then be made available for distribution and construction may commence.

Step 6: Project Permitting and Construction

All federal, state, and local permits must be in place prior to construction. It is the sponsor's responsibility to ensure permitting requirements are met. The DNR recommends coordinating with permitting agencies well in advance of construction to avoid delays.

Permits and approvals[10] that are commonly required include:

- **Wetlands and Federal Public Waterways:** Federal US Army Corps of Engineers (USACOE) permits for wetlands and impacts to public waterways; State wetland permits required by the Minnesota Board of Water and Soil Resources (BWSR). These permits share an application and are reviewed simultaneously.
- **State Public Waters:** Minnesota DNR Public Waters Work Permits to construct crossings over public waters
- **Minnesota Stormwater:** Water quality permits required by the Minnesota Pollution Control Agency (MPCS) Storm Water Management Program to move earth materials or install culvert crossings.
- **Non-DNR Land Use:** Permits to cross lands not managed by the DNR. Road right-of-way limited use permission from the appropriate state, county or local road authority.

Permit documentation, including a record of emails, phone calls, and other communications, must be part of the sponsor's records. DNR PAT staff are available to provide guidance on permitting processes. Ultimately, the sponsor and club are responsible for securing permits.

Step 7: Maintenance

After the initial construction is complete, the club and sponsor will apply for maintenance grants annually. Established trails also need to apply for maintenance grants[11] annually. Applications must be submitted to Area Staff by **November 30** or as stated on the DNR OHV GIA web page. DNR staff will then determine the appropriate allocation for your trail and provide grant agreements to the sponsor for signature no later than **March 31.** Reimbursable maintenance activities may begin once the grant is approved, however, requests for reimbursement cannot be submitted until a final copy of the grant agreement is signed and executed by both the sponsor and Area Staff. This should happen no later than April 30.

Maintenance grants are valid from the time they are executed until the close of the following fiscal year. The DNR operates on a fiscal year of July 1 - June 30, so funding awarded in the spring can be spent through the following summer. For example, grants awarded in the spring of 2023 are valid until June 30, 2024 as long as funds remain in the grant. If there are funds remaining in the grant at the end of the following fiscal year, those funds will be forfeited.

[10] More information on each of these permits and best practices can be found in Appendices 16 and 17.

[11] Form 1 – Maintenance Application will be used to communicate work expected to be performed and anticipated costs for next season. An example of this application can be found in Appendix 18.

Fiscal Management

Accounting and Audit

The sponsor, acting as the fiscal agent for their grants, is responsible for ensuring that relevant financial information is recorded accurately and maintained in accordance with DNR policy and other applicable rules and regulations. This includes:

- Maintaining records, documents, and other evidence relevant to the grant
- Using Generally Accepted Accounting Principles[12] (GAAP)
- Retaining records for six years after each grant ends

The State, its representative, or the legislative auditor have the right to examine this evidence at all reasonable times during the record retention period. Records must be sufficient, as defined in this manual, to reflect costs incurred and volunteer donation of time, equipment, and/or materials in execution of this grant.

Program Reviews

DNR PAT staff may conduct random grant reviews at any time. This review may include, but is not limited to the following:

- Assessment of routine trail monitoring or maintenance activities
- Complaint management and follow-up

The DNR will work with the sponsor and club to identify solutions to issues that may arise during an audit. The sponsor is responsible for implementation of any stipulations or mutually agreed-upon changes that result from this process.

Fiscal Reviews

DNR PAT staff may conduct random fiscal reviews assessing club and sponsor performance at any time. This review may include, but is not limited to the following areas:

- Contract administration
- Record keeping
- Expenditures

The sponsor is responsible for implementation of any stipulations or agreed-upon changes that result from this process.

[12] GAAP Resources can be found in Appendix 19.

Cost Sharing

The GIA program operates on a cost-sharing basis. This means that clubs and sponsors must provide a match to the funding provided by the state, whether that is in cash or in-kind labor. The state reimburses specific activities, detailed later in this manual, at 65%, 75%, or 90%. Therefore, the club and sponsor must provide a 35%, 25%, or 10% match for those activities. For example, if the total cost of a project is estimated to be $10,000 and only involves activities reimbursed at 90%, the state will fund up to $9,000 of that project and the club and sponsor must provide either $1,000 in funding or $1,000 worth of labor. In practice, most clubs utilize both options.

Some clubs find the cost sharing to be difficult, especially for activities reimbursed at the 65% and 75% rates. The DNR can provide resources to aid in solutions for this dilemma.[13]

Reimbursement Process

In order to be reimbursed for any goods purchased, any services paid for, or any labor performed, clubs and sponsors must submit a request for reimbursement (RFR). The club and sponsor must submit this form, at minimum, every 90 days after purchasing of goods and services begins, or after eligible expenses reach $5,000, whichever comes first. For purchases of goods and services exceeding $100, the sponsor must submit original receipts. Reimbursement can be requested for all eligible expenses incurred up to the amount of the grant award. Expenses eligible for reimbursement and their corresponding reimbursement rates are detailed in the following sections.

While purchasing goods and services, it is important to note that any form of rewards programs, like store rewards accounts or funds acquired back via rebate, are not allowed and cannot be used when servicing GIA trails.

Eligible Expenses

Eligible expenses are grouped into categories that are reimbursed at a specific rate. These categories are utilized when requesting reimbursement for expenses incurred in the pursuit of the following activities.

Administration

This category includes, but is not limited to bookkeeping, preparation of GIA applications and forms, travel to and from project area, travel to purchase or transport materials and supplies, soliciting bids for contractors or equipment rental, and attendance of necessary meetings. This category also includes purchase of postage and office supplies, such as paper, ink and copying charges, as well as telephone charges. Additionally, costs associated

[13] Resources for grants and other funding opportunities can be found in Appendix 20.

with preparing, printing, and/or duplicating maps required by the DNR for GIA forms and applications, obtaining permits, or gaining landowner permission fall under this category.

No more than four (4) individuals may receive reimbursement for a trail committee meeting, and no more than two (2) individuals may be reimbursed for attending a governmental meeting. Rental of office space or meeting rooms is not an allowable or reimbursable expense.

Administrative costs are reimbursed up to 65%, however this activity may not exceed 15% of the total grant amount, unless agreed upon in advanced by the DNR, club, and sponsor.

Acquisition & Development

This category includes, but is not limited to determining trail alignments, checking land ownership records, contacting landowners, lease fees, and payment for easement or land acquisition.

Landowner permissions for most GIA projects are secured via a permit from a public land manager, written permission from a private landowner, or documented verbal permission from a private landowner. However, in certain circumstances, the sponsor may acquire interest in land that the trail will cross in the form of a lease, easement, or fee title acquisition. Check with DNR staff for more details about leasing or acquiring fee interest in property as it is a complicated process and often not an ideal solution. Acquisition & Development costs are reimbursed up to 65%.

Facilities

This category includes construction and maintenance of support structures such as trail shelters, picnic areas, and trail heads. This category also includes construction of permanent, ADA-compliant[14] restrooms, but does not include cleaning and maintenance of portable or permanent toilets, which are reimbursed at a higher rate. This category can also include mowing, if the primary function on the trip is to mow around facilities on the trail. Facilities are reimbursed up to 65%.

Insurance

The State requires clubs to obtain and carry $1 million of liability insurance coverage. Project sponsors may request additional policies or protections. Obtaining appropriate insurance protects the interests of the club as well as the sponsor. Comprehensive and/or collision insurance on equipment used on the trail is not an allowable expense. Insurance is reimbursed up to 90% with a maximum of $1,500.

The State limits liability for person injuries or property loss involving the use or operation of a recreational motor vehicle or for a loss arising from the construction, operation,

[14] Americans with Disabilities Act (ADA) compliance guidelines can be found in Appendix 21.

maintenance, or administration of GIA trails, except for conduct that would entitle a trespasser to damages against a private person.

Maintenance

This category includes labor, materials, and equipment for routine trail inspection[15] and maintenance. This includes reimbursement for miles traveled on trail in the pursuit of maintenance, as well as equipment rental[16] or use of club-owned equipment, and payment to contractors performing contracted services. Examples of maintenance include, but are not limited to trail surface repairs, minor trail infrastructure repairs, addressing erosion or persistently wet conditions, brushing, mowing, bridge repair, maintaining appropriate signage[17], and storm clean up. This category can also include mowing, if the primary function of the trip is to mow the trail itself.

To receive full reimbursement for this category, this trail must be open to the public for the majority of the summer riding season (Memorial Day through Labor Day) unless there are extenuating circumstances. If the trail will not be open for the majority of the season, talk to Area Staff as soon as possible to discuss options. Maintenance is reimbursed up to 90%.

New Trail Construction

This category includes, but is not limited to labor, materials, and equipment for initial construction of trails and major reroute projects (>1 mile), or contracting a third party[1] for the above activities. This also includes reimbursement for miles traveled on trail while construction is occurring. New trail construction is reimbursed up to 75%.

Toilets

This category includes costs associated with the procurement, cleaning, and maintenance of ADA compliant portable toilets as well as cleaning and maintenance of ADA compliant permanent restrooms. Toilets are reimbursed up to 90%.

[15] A trail inspection schedule can be found in Appendix 22.
[16] Use of heavy equipment and power equipment is a reimbursable expense, as is outsourcing projects to a contractor. Reimbursement rates for specific pieces of equipment are specified in “Reimbursement Rates”. If equipment rental or contracting expenses fall above the reimbursement rates, bids must be solicited. The Competitive Bid Process, found in Appendix 23, must be followed during the bid solicitation process.
[17] A signage guide can be found in Appendix 24.

Trail System Maps

This category includes costs associated with preparing, printing, and producing maps for public distribution. Maps[18] must be available to the public free of charge for full reimbursement.

DNR PAT staff or the project sponsor may be able to assist with trail mapping needs. You must contact Area Staff prior to developing, purchasing, or printing maps in order to receive reimbursement. The DNR provides print and electronic trail maps and web information for OHV trails at no charge. Trail system maps are reimbursed up to 65%.

Winter Maintenance

This category includes costs associated with winter trail maintenance and trail conditioning, including grooming or surface modification. Winter maintenance is reimbursed up to 90%.

[18] Maps developed with GIA funds must state "Funded through the Minnesota Trails Assistance Program". If advertising sales were used to raise matching funds, the map must prominently state "This publication is partially funded through advertising revenue. The State of Minnesota and the Department of Natural resources can neither endorse the products or services advertised nor accept any lability arising from the use of these products or services."

Allocation of Funds

GIA funds are separated into “pools” to provide adequate resources for trail maintenance and new trail development. If appropriation amounts change, the funding pool amounts will change based on the current ratio. PAT staff will review the pools after each biennium and make adjustments as needed. The table below represents funding amounts for FY 2024.

Pool	ATV	OHM	ORV
Total Allocation	$1,960,000	$150,000	325,000
Maintenance	$1,085,000 (55%)	$90,000 (60%)	$30,000 (9%)
New Trail Construction	$200,000 (10%)	$25,000 (16%)	$196,000 (60%)
Capital Improvement	$300,000 (15%)	$10,000 (7%)	$10,000 (3%)
Step 0 Funding	$100,000 (5%)	$5,000 (3%)	$75,000 (23%)
Emergency Amendments	$100,000 (5%)	$10,000 (7%)	$10,000 (3%)
Winter Maintenance	$100,000 (5%)	$0	$0
School Trust Payments and Signs	$75,000 (5%)	$10,000 (7%)	$4,000 (1%)

Eligible Expenses by Allocation Pool

Maintenance

This table represents the maintenance allocation pool and corresponds with the following eligible expense categories as described in the "Eligible Expenses" section. This funding must be applied for using Form 1 – Maintenance Application.

Eligible Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)
Facilities	65%
Insurance	90%
Maintenance	90%
Toilets	90%
Trail System Maps	65%

Spring Trail Opening

Each spring, clubs will receive an initial payment to prepare their trails for the upcoming season. The amount is determined by standard, per-mile rates for different trail types, detailed below. Rates will be reviewed after each 2-year funding cycle to reflect cost increases due to inflation and other factors. This payment will be made automatically as soon as the project sponsor executes the grant agreement. It does not require a request for reimbursement to receive funds, however, clubs and sponsors must verify that the trail is open by the agreed upon date. This funding comes from the Maintenance pool and will be included in the calculations on the maintenance application.

Trail Type	Rate (per mile)
Natural surface trail	$50
Shared MMR	$45
Railroad bed	$45
Shared SFR	$30
Shared local road	$30
Road ditch/ROW	$30

Regular Seasonal Maintenance

Once Spring trail opening has occurred, clubs and sponsors must submit requests for reimbursement[19] for eligible expenses in order to be reimbursed.

New Trail Construction

This table represents the new trail construction allocation pool and corresponds with the following eligible expense categories as described in the "Eligible Expenses" section. This funding must be applied for using Form 2 – New Project Application.

Applicable Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)
Acquisition	65%
Facilities	65%
Insurance	90%

[19] An example of Worksheet 1 – Worklog/RFR can be found in Appendix 25.

Applicable Expense Category	Reimbursement Rate
New Trail Construction	75%
Toilets	90%
Trail System Maps	65%

Capital Improvement

This table represents the capital improvement allocation pool and corresponds with the following eligible expense categories as described in the "Eligible Expenses" section. This funding must be applied for using Form 3 – Capital Improvement Application.

Capital improvement requests are requests for larger rehab projects that are far above and beyond normal maintenance. Capital projects may take multiple years to complete but should be “one off” projects and should be used to enhance the trail. Some capital projects may require review through the 7-Step process (e.g. reroutes) or require permits prior to construction. Examples of capital improvement projects include:

- Bridge/boardwalk replacement
- Major trail resurfacing
- Raising trail treadway
- Trail reroutes in excess of one mile

Applicable Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)
Acquisition & Development	65%
Insurance	90%
New Trail Construction	100%
Toilets	90%
Trail System Maps	65%

Step 0 Funding

This table represents the Step 0 funding allocation pool and corresponds with the following eligible expense categories as described in the "Eligible Expenses" section. This funding must be applied for using Form 4 – Step 0 Funding Application.

Many new clubs and sponsors have a difficult time finding funding to properly layout their trail and complete the necessary paperwork, leases, and agreements that are necessary before applying for a new project grant and officially entering the 7-Step

process. This small amount would assist clubs early in their trail planning process. Examples of eligible expenses include:

- Identify potential trail route.
- Work with DNR Area Staff to conduct a high-level review of trail route and find potential alternative routes, if needed.
- Time spent working with property owners to obtain permission.
- Working on leases/agreements.
- Upfront costs associated with leases/agreements.

It is important to note that receiving Step 0 Funding does not approve a full project. This funding is intended to make project planning easier for a new club or sponsor who may incur expenses prior to receiving funding via the 7-Step process. All projects must subsequently undergo the normal 7-Step process, including the new project application, and may be subject to disapproval at any point in that process.

Applicable Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)
Acquisition & Development	65%

Emergency Amendments

This table represents the emergency amendments allocation pool and corresponds with the following eligible expense categories as described in the "Eligible Expenses" section. This funding must be applied for using Form 5 – Emergency Amendment Application.

Emergency amendments are used when an unexpected event occurs that was not planned for during the grant application period. Examples of amendment requests include:

- Severe weather events (flooding, windstorms, tornadoes)
- Fire
- Unexpected expenses due to substantial increase in costs or supply issues

Clubs must begin planning and preparing for an emergency amendment prior to their grant balance reaching zero, otherwise an emergency amendment cannot be utilized. Clubs and sponsors **must** contact the DNR prior to expending any additional funds if they wish to be reimbursed, as the DNR cannot reimburse any and all expenses that did not receive prior approval. This category cannot be utilized in the event of poor financial planning.

Applicable Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)

Applicable Expense Category	Reimbursement Rate
Facilities	65%
Maintenance	90%
Toilets	90%

Winter Maintenance

This table represents the winter maintenance allocation pool and corresponds with the following eligible expense categories as described in the "Eligible Expenses" section. This funding must be applied for using Form 6 – Winter Maintenance Application.

Applicable Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)
Facilities	65%
Insurance	90%
Toilets	90%
Trail System Maps	65%
Winter Maintenance	90%

School Trust Payments and Signs

Funding to lease school trust lands and purchase new signs comes from motorized dedicated accounts. The DNR pays for these items directly and therefore these items do not require an application, nor are they reimbursed. However, they do incur an expense and therefore they still must be budgeted for and have a specific allocation pool.

The DNR will solicit sign orders once per year (typically in the fall). If signage is needed outside of this timeframe, Area Staff may have some signs on hand to provide to clubs.

End of Biennium Funds

GIA funds are available on a two-year cycle, referred to as the biennium. An appropriation is disbursed each year of the cycle. There may be funding that is not used in the first year, funding held by the DNR to fund new projects, or lack of emergency amendments needed. Money left over from the first year is still available the second year. In the second year, the pools will be adjusted proportionately to include any left-over funds. In March of the second year, PAT staff will know how much money is left over after funding new projects and maintenance grants. The division will then accept applications for supplemental projects with priority going to those that were not

awarded their full amount during the normal grant cycle. End of biennium funds can be used to accomplish any project which did not receive any funding or only received partial funding during the course of the summer grant cycle, or projects that would be nice to accomplish but are not necessary for the safety and sustainability of the trail (i.e. selfie stations or picnic areas). This funding must be applied for using Form 7 – End of Biennium Funds Application.

Applicable Expense Category	Reimbursement Rate
Administration	65% (up to 15% of total grant)
Acquisition & Development	65%
Facilities	65%
Insurance	90%
Maintenance	90%
New Trail Construction	75%
Toilets	90%
Trail System Maps	65%
Winter Maintenance	90%

Reimbursement Rates

Volunteer time

- Per hour volunteered: $25

Vehicles

Vehicle	Rate (per mile)
Car, pickup, ATV, OHM, ORV	IRS standard mileage rate for business
1-2 ton truck	IRS rate x 1.5
2 ½-10 ton truck	IRS rate x 2
10 + tons truck (including semis and dump trucks)	IRS rate x 4
Trailer: single axle	25 ¢
Trailer: tandem axle	35 ¢
Trailer: triple axle	45 ¢

Equipment

The rates below represent standard reimbursement rates. If local equipment rental rates fall outside of these parameters, clubs may follow the Competitive Bid Process Guidelines to source equipment rental at an increased cost.

Equipment	Rate (per hour)
Small equipment (pole pruner saw, loppers, push/riding/pull behind mowers, etc)	$5.00
Handheld electric equipment (chainsaw, weed whip, trimmers, etc)	$5.00
Handheld gas-powered equipment (chainsaw, weed whip, trimmers, etc)	$7.20
Small generator (≤3,000 watts)	$6.20
Large generator (>3,000 watts)	$8.80
Non-powered attachments	$18.75
Power take-off or hydraulic attachments	$24.00
Other equipment 25 HP or less	$25.00
Other equipment 26-50 HP	$43.75
Other equipment 51-80 HP	$62.50
Other equipment 81-105 HP	$81.25
Other equipment 106-157 HP	$100.00
Other equipment 158-205 HP	$112.50
Other equipment 206-250 HP	$125.00
Other equipment over 250 HP	$150.00

Dump Boxes on Trucks/Trailers

Dump Box Size	Rate (per mile or hour)
3 cubic yards or less	$6.30
4-8 cubic yards	$7.50
9-12 cubic yards	$10.05
13+ cubic yards	$12.56

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Appendix 1

Sponsor Resolution Example

In this appendix, you will find an example of a sponsor resolution. This is not a template. Please work with your sponsor to draft an agreement specific to their agency.

CERTIFIED COPY OF RESOLUTION OF COUNTY BOARD OF AITKIN COUNTY, MINNESOTA

ADOPTED November 22, 2022

By Commissioner: Marcotte **20221122-144**

2023 - ALL TERRAIN VEHICLE TRAIL FUNDING

WHEREAS, Local units of government can apply for State aide for trail development, maintenance, grooming and administration from the Minnesota Department of Natural Resources at the rate of 90% reimbursement of costs of grooming and maintenance, and

WHEREAS, Aitkin County does not have the facilities to maintain the entire trail system in Aitkin County, and

WHEREAS, Clubs wish to contract with the County for maintaining these trails, and

WHEREAS, These trails benefit the recreation, resort, tourism, industry, and economy of Aitkin County,

NOW THEREFORE, BE IT RESOLVED, That the Aitkin County Trail Administrator be authorized to apply for Grants-in-Aid assistance funds for All Terrain Vehicle Trail maintenance and grooming for the following trail:

Northwoods Regional ATV trail which consists of the following segments: South Soo Line, North Soo Line, Axtell ATV technical riding area, Rabey Line, Blind Lake, Redtop, Moose River Connector, Lawler, Blind Lake Connector Trail, Rat Lake Connector Trail, Hill City Connector Trail and Solana ATV Trails.

BE IT FURTHER RESOLVED, That the Aitkin County Trail Administrator be authorized to contract for the development, maintenance and grooming of the aforementioned trails with qualified, interested clubs.

Commissioner Napstad moved the adoption of the resolution and it was declared adopted upon the following vote

FIVE MEMBERS PRESENT All Members Voting Yes

STATE OF MINNESOTA}
COUNTY OF AITKIN}

I, Jessica Seibert, County Administrator, Aitkin County, Minnesota do hereby certify that I have compared the foregoing with the original resolution filed in the Administration Office of Aitkin County in Aitkin, Minnesota as stated in the minutes of the proceedings of said Board on the 22nd day of November 2022, and that the same is a true and correct copy of the whole thereof.

Witness my hand and seal this 22nd day of November 2022

Jessica Seibert

Jessica Seibert
County Administrator

Doc ID: 24ed0d6e83803673a417dfb610501ac00c3906a7

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Appendix 2

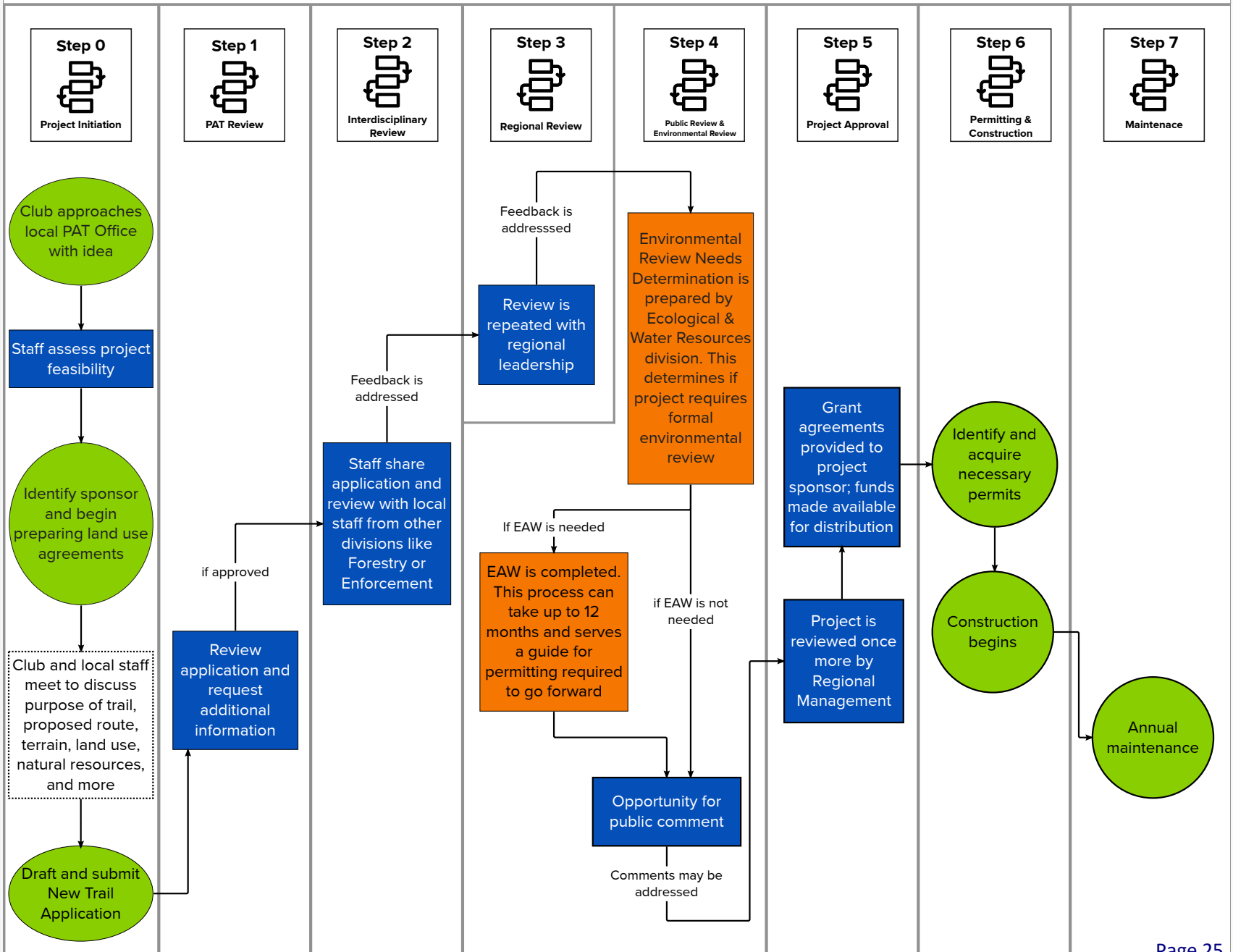
GIA Process Flowchart

In this appendix, you will find a flowchart that shows a simplified version of the GIA 7-step process. This is meant to be a quick reference and does not account for every scenario, complication, or delay in the process.

7 Step Process Flowchart

This chart demonstrates the 7-step process for new trail initiation in the Minnesota Department of Natural Resources Off-Highway Vehicle Grant-in-Aid process.

The Off-Highway Vehicle (OHV) Grant-in-Aid (GIA) program consists of seven formal steps in addition to one informal step, called step zero. The chart below shows how a proposed trail progresses through each step of the GIA process and provides details about what happens in each step. For more detail about each step of the process, please see the OHV GIA Program Manual.



Key

- black — Club actions and responsibilities
- white — DNR Staff actions and responsibilities
- black — Environmental review process
- black (dotted) — Collaboration
- → Process progression

Abbreviations

DNR - Department of Natural Resources
PAT - Parks & Trails
OHV - Off-Highway Vehicle
GIA - Grant-in-Aid
EAW - Environmental Assessment Worksheet

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Appendix 3

Trail Development Guidance for Minnesota's OHV Trails

This appendix contains trail development guidance developed by OHV Program staff. This resource can help clubs determine the appropriate level and associated characteristics for the scale of development on their trail.

All-Terrain Vehicle Trails

	Least Developed	Moderately Developed	Most Developed
Width	50”-72”	60”-84”	72”-96”
Grade	15% max sustained, short sections (≤12’) may be up to 50%.	12% max sustained, short sections (≤15’) may be up to 35%.	8% max sustained, short sections (≤25’) may be up to 25%.
Surface type	Relatively rough with short sections very rough, sand, gravel and mud are common, protrusions up to 6” are common.	Some sections of trail rough with some loose sand and gravel. Rocks and roots less than 3” may be common.	Relatively smooth and solid with few rocks and roots protruding less than 3”. Trail may share the same corridor as minimum maintenance and system forest roads. These roads should be maintained to ATV standards.
Imported Materials	Imported materials only used in soft/muddy areas where resource protection is a concern.	Imported materials used in soft/muddy areas where other challenges exist.	Imported material used frequently in soft/muddy areas to harden trail bottom and provide a smooth experience.
Water crossings	Water crossings may be wet or dry depending on other trail factors.	Most water crossings are dry with a shorter lead-up. Small water crossing may be wet with a dry option.	Water crossings are dry and have a long lead-up.
Signage	Directional signage is infrequent and may be found only on major trail heads and sporadic “You Are Here” posts. Users should expect a challenging trail experience and cautionary signage may not be used.	Directional signage is placed at major intersections. If an area is heavily used, cautionary signage may be placed. Maps indicating major intersections should be placed at trailheads.	Directional signage is placed at intersections and in areas where direction is not completely clear. Cautionary signage is placed in more challenging areas of trail. Maps indicating major intersections and more challenging areas are placed at trailheads.

	Least Developed	Moderately Developed	Most Developed
Monitoring/ maintenance	Trails should be monitored at the beginning of the season and infrequently during the riding season by DNR staff and Trail Ambassadors. The Parks and Trails area phone number should be posted at parking areas for visitors to call to report problems. If a problem is identified, staff should determine if the problem could be converted into a new trail feature or need fixed. If it cannot be converted into a new trail feature, the problem should be immediately fixed. The trail should only be closed if the problem causes eminent risk to the environment or human life. Trails should be brushed infrequently to allow riders to feel as if part of nature.	Trails should be monitored at the beginning of the season and monthly during the riding season by DNR staff and Trail Ambassadors. Problem areas should be fixed as soon as identified. If a problem cannot be immediately fixed, warning should be placed along the trail. If a major problem, the trail may temporarily be closed until it can be fixed. Trails should be brushed yearly to allow ample sight lines. Short sections of trail may be brushed less often to increase challenge and allow riders to feel as if part of nature.	Trails should be monitored at the beginning of the season and then on a periodic basis by DNR staff and Trail Ambassadors. Problems should be fixed as soon as identified. If a problem cannot be immediately repaired, the trail should be temporarily closed until it can be fixed. Trails should be brushed yearly and as needed after that to allow ample sight lines.

Off-Highway Motorcycle Trails

	Least Developed	Moderately Developed	Most Developed
Width	8”-24”	18”-36”	24”-48”
Grade	15% max sustained, short sections (≤12’) may be up to 50%.	12% max sustained, short sections (≤15’) may be up to 35%.	8% max sustained, short sections (≤25’) may be up to 25%.
Surface type	Relatively rough with short sections very rough, sand, gravel and mud are common, protrusions up to 6” are common.	Some sections of trail rough with some loose sand and gravel. Rocks and roots less than 3” may be common.	Relatively smooth and solid with few rocks and roots protruding less than 3”. Trail may share the same corridor as minimum maintenance and system forest roads. These roads should be maintained to OHM standards.
Imported Materials	Imported materials only used in soft/muddy areas where resource protection is a concern.	Imported materials used in soft/muddy areas where other challenges exist.	Imported material used frequently in soft/muddy areas to harden trail bottom and provide a smooth experience.
Water crossings	Water crossings may be wet or dry depending on other trail factors.	Most water crossings are dry with a shorter lead-up. Small water crossing may be wet with a dry option.	Water crossings are dry and have a long lead-up.
Signage	Directional signage is infrequent and may be found only on major trail heads and sporadic “You Are Here” posts. Users should expect a challenging trail experience and cautionary signage may not be used.	Directional signage is placed at major intersections. If an area is heavily used, cautionary signage may be placed. Maps indicating major intersections should be placed at trailheads.	Directional signage is placed at intersections and in areas where direction is not completely clear. Cautionary signage is placed in more challenging areas of trail. Maps indicating major intersections and more challenging areas are placed at trailheads.

	Least Developed	Moderately Developed	Most Developed
Monitoring/ maintenance	Trails should be monitored at the beginning of the season and infrequently during the riding season by DNR staff and Trail Ambassadors. The Parks and Trails area phone number should be posted at parking areas for visitors to call to report problems. If a problem is identified, staff should determine if the problem could be converted into a new trail feature or need fixed. If it cannot be converted into a new trail feature, the problem should be immediately fixed. The trail should only be closed if the problem causes eminent risk to the environment or human life. Trails should be brushed infrequently to allow riders to feel as if part of nature.	Trails should be monitored at the beginning of the season and monthly during the riding season by DNR staff and Trail Ambassadors. Problem areas should be fixed as soon as identified. If a problem cannot be immediately fixed, warning should be placed along the trail. If a major problem, the trail may temporarily be closed until it can be fixed. Trails should be brushed yearly to allow ample sight lines. Short sections of trail may be brushed less often to increase challenge and allow riders to feel as if part of nature.	Trails should be monitored at the beginning of the season and then on a periodic basis by DNR staff and Trail Ambassadors. Problems should be fixed as soon as identified. If a problem cannot be immediately repaired, the trail should be temporarily closed until it can be fixed. Trails should be brushed yearly and as needed after that to allow ample sight lines.

Off-Road Vehicles

	Least Developed	Moderately Developed	Most Developed
Width	50”-72”	60”-84”	72”-96”
Grade	15% max sustained, short sections (≤12’) may be up to 50%.	12% max sustained, short sections (≤15’) may be up to 35%.	8% max sustained, short sections (≤25’) may be up to 25%.
Surface type	Relatively rough with short sections very rough, sand, gravel and mud are common, protrusions up to 6” are common.	Some sections of trail rough with some loose sand and gravel. Rocks and roots less than 3” may be common.	Relatively smooth and solid with few rocks and roots protruding less than 3”. Trail may share the same corridor as minimum maintenance and system forest roads. These roads should be maintained to ORV standards.
Imported Materials	Imported materials only used in soft/muddy areas where resource protection is a concern.	Imported materials used in soft/muddy areas where other challenges exist.	Imported material used frequently in soft/muddy areas to harden trail bottom and provide a smooth experience.
Water crossings	Water crossings may be wet or dry depending on other trail factors.	Most water crossings are dry with a shorter lead-up. Small water crossing may be wet with a dry option.	Water crossings are dry and have a long lead-up.
Signage	Directional signage is infrequent and may be found only on major trail heads and sporadic “You Are Here” posts. Users should expect a challenging trail experience and cautionary signage may not be used.	Directional signage is placed at major intersections. If an area is heavily used, cautionary signage may be placed. Maps indicating major intersections should be placed at trailheads.	Directional signage is placed at intersections and in areas where direction is not completely clear. Cautionary signage is placed in more challenging areas of trail. Maps indicating major intersections and more challenging areas are placed at trailheads.

	Least Developed	Moderately Developed	Most Developed
Monitoring/ maintenance	Trails should be monitored at the beginning of the season and infrequently during the riding season by DNR staff and Trail Ambassadors. The Parks and Trails area phone number should be posted at parking areas for visitors to call to report problems. If a problem is identified, staff should determine if the problem could be converted into a new trail feature or need fixed. If it cannot be converted into a new trail feature, the problem should be immediately fixed. The trail should only be closed if the problem causes eminent risk to the environment or human life. Trails should be brushed infrequently to allow riders to feel as if part of nature.	Trails should be monitored at the beginning of the season and monthly during the riding season by DNR staff and Trail Ambassadors. Problem areas should be fixed as soon as identified. If a problem cannot be immediately fixed, warning should be placed along the trail. If a major problem, the trail may temporarily be closed until it can be fixed. Trails should be brushed yearly to allow ample sight lines. Short sections of trail may be brushed less often to increase challenge and allow riders to feel as if part of nature.	Trails should be monitored at the beginning of the season and then on a periodic basis by DNR staff and Trail Ambassadors. Problems should be fixed as soon as identified. If a problem cannot be immediately repaired, the trail should be temporarily closed until it can be fixed. Trails should be brushed yearly and as needed after that to allow ample sight lines.

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Appendix 4

US Forest Service Trail Difficulty Ratings

This appendix contains a section of "Trail Fundamentals", a trail design publication provided by the United States Forest Service. This resource can assist and provide guidance in determining the difficulty ratings appropriate for a trail.

A.6.3 Difficulty Ratings

Difficulty ratings for the Rowher Flat/ Drinkwater Flat OHV Area Trail System will be assessed after annual maintenance cycles. The following guidelines will be used in determining difficulty ratings for all trail segments:

Table 3: OHV Trail Difficulty Rating Guide

OHV Trail Guide			
	Easiest	**More Difficult**	**Most difficult**
Grade			
Max sustained	10%	15%	20%+
Length	300’	400’	500’
Max Pitch	15%	30%	30%+
Clearing (1-Way Traffic)			
Downhill side	2’	1.5’	1.0’
Uphill	3’	3’	3’
Level	3.0’	2.5’	2.5’
	Each Side	Each Side	Each Side
Height	8’	6’	5’
Tread			
Width	4’	4.5’	4’
Surface:	Relatively smooth, no roots or rocks protruding more than 3”, tread plane flat, sweeping curves, no holes wider than 24” nor deeper than 6”, loose, sand is ok.	Sections of relatively rough surface, no roots or rocks protruding more than 3”, tread plane can be insloped 5% max., climbing turns, no holes wider than 6”, loose sand is okay.	Relatively rough with very rough short sections, no protruding rocks 3”, tread plane can be insloped or outsloped 10% max., switchbacks, few holes with holes wider than 36” and deeper than 6”.
Obstacles	**Easiest**	**More Difficult**	**Most difficult**
	Wet X-ings 6’ deep, 10’ long max., drain dips ok, no waterbars.	Wet X-ings 10” deep, 25’ long, waterbars downhill ok.	Same as more difficult except waterbars may be uphill & downhill.
		Few small logs less than 8” diameter.	

Difficulty Rating Signs – Individual trail segments should be marked at start points or intersections with a change in trail difficulty rating. The National Trail Difficulty Rating System (Green Circle – Easy, More Difficult – Blue Square, Most Difficult – Black Diamond) should be displayed on proposed reassurance markers (Carsonite Posts) and at the trailheads.

Table 4: Difficulty Ratings

Easiest	**Easiest** - This classification is used to identify the easiest trails that are suitable for beginning trail users and those who don't have the skill or desire to ride more challenging trails. These trails have a low level of risk for the user and consequently offer less variety than those of greater difficulty. These routes are appropriate for novice through advanced users. They generally follow obvious, well-marked trails and roads. Grades are gentle, and few obstacles will be encountered. This requires little skill and entails little physical challenge. Tread is smooth, level, and wide, with generous clearing of trees, limbs, and other vegetation above and to each side of the trail to permit easy passage. Elevation gain or loss is minimal.
More Difficult	**More Difficult** - Trails in this rating category are designed to meet the expectations of the majority of trail users. They require skills beyond that of a novice and at times will challenge the average trail user. These routes are appropriate for intermediate through advanced users. Terrain may be steeper, trails narrower, and some obstacles may be encountered. This requires a minimal skill level and provides a minimal physical challenge. Tread surface contains roots and embedded rocks. Clearing of trees, limbs, and other vegetation above and to each side of the trail may result in occasional contact by the users. Elevation gain or loss is moderate.
Most difficult	**Most Difficult** - These trails are designed for trail users with advanced skill, who are seeking a higher risk level. These routes are recommended for advanced to expert users only. The terrain is steep, and routes are not well marked. Trail users should have considerable skill in their chosen activity, as well as knowledge of navigation and survival before attempting these trails. This requires a high degree of skill and provides a definite physical challenge. Tread is seldom graded except on steep side slopes for safety and prevention of soil erosion. Minimal clearing of trees, limbs, and other vegetation results in hampering the progress of the user. Elevation gain or loss is usually severe.

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Appendix 5

US Forest Service Trail Class Matrix & Design Parameters

This appendix contains a section of "Trail Fundamentals", a trail design publication provided by the United States Forest Service. This resource can assist and provide guidance in determining the scale of development appropriate for a trail, with photo examples. This appendix also includes design parameters for trails associated with each motorized user group.

Trail Class Matrix (FSH 2353.142, Exhibit 01)

Trail Classes are general categories reflecting trail development scale, arranged along a continuum. The Trail Class identified for a National Forest System (NFS) trail prescribes its development scale, representing its intended design and management standards.[1] Local deviations from any Trail Class descriptor may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

Identify the appropriate Trail Class for each NFS trail or trail segment based on the management intent in the applicable land management plan, travel management decisions, trail-specific decisions, and other related direction. Apply the Trail Class that most closely reflects the management intent for the trail or trail segment, which may or may not reflect the current condition of the trail.

Trail Attributes	Trail Class 1 Minimally Developed	Trail Class 2 Moderately Developed	Trail Class 3 Developed	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Tread & Traffic Flow	◆ Tread intermittent and often indistinct. ◆ May require route finding. ◆ Single lane, with no allowances constructed for passing. ◆ Predominantly native materials.	◆ Tread continuous and discernible, but narrow and rough. ◆ Single lane, with minor allowances constructed for passing. ◆ Typically native materials.	◆ Tread continuous and obvious. ◆ Single lane, with allowances constructed for passing where required by traffic volume in places where there is no reasonable opportunity to pass. ◆ Native or imported materials.	◆ Tread wide and relatively smooth, with few irregularities. ◆ Single lane, with allowances constructed for passing where required by traffic volume in places where there is no reasonable opportunity to pass. ◆ Double lane where traffic volume is high and passing is frequent. ◆ Native or imported materials. ◆ May be hardened.	◆ Tread wide, firm, stable, and generally uniform. ◆ Single lane, with frequent turnouts where traffic volume is low to moderate. ◆ Double lane where traffic volume is moderate to high. ◆ Commonly hardened with asphalt or other imported material.
Obstacles	◆ Obstacles common, naturally ocurring, often substantial, and intended to provide increased challenge. ◆ Narrow passages; brush, steep grades, rocks and logs present.	◆ Obstacles may be common, substantial, and intended to provide increased challenge. ◆ Blockages cleared to define route and protect resources. ◆ Vegetation may encroach into trailway.	◆ Obstacles may be common, but not substantial or intended to provide challenge. ◆ Vegetation cleared outside of trailway.	◆ Obstacles infrequent and insubstantial. ◆ Vegetation cleared outside of trailway.	◆ Obstacles not present. ◆ Grades typically < 8%.

Trail Attributes	Trail Class 1 Minimally Developed	Trail Class 2 Moderately Developed	Trail Class 3 Developed	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Constructed Features & Trail Elements	◆ Structures minimal to non-existent. ◆ Drainage typically provided without structures. ◆ Natural fords. ◆ Typically no bridges.	◆ Structures of limited size, scale, and quantity; typically constructed of native materials. ◆ Structures adequate to protect trail infrastructure and resources. ◆ Natural fords. ◆ Bridges as needed for resource protection and appropriate access.	◆ Structures may be common and substantial; constructed of imported or native materials. ◆ Natural or constructed fords. ◆ Bridges as needed for resource protection and appropriate access.	◆ Structures frequent and substantial; typically constructed of imported materials. ◆ Contructed or natural fords. ◆ Bridges as needed for resource protection and user convenience. ◆ Trailside amenities may be present.	◆ Structures frequent or continuous; typically constructed of imported materials. ◆ May include bridges, boardwalks, curbs, handrails, trailside amenities, and similar features.
Signs[2]	◆ Route identification signing limited to junctions. ◆ Route markers present when trail location is not evident. ◆ Regulatory and resource protection signing infrequent. ◆ Destination signing, unless required, generally not present. ◆ Information and interpretive signing generally not present.	◆ Route identification signing limited to junctions. ◆ Route markers present when trail location is not evident. ◆ Regulatory and resource protection signing infrequent. ◆ Destination signing typically infrequent outside wilderness areas; generally not present in wilderness areas. ◆ Information and interpretive signing uncommon.	◆ Route identification signing at junctions and as needed for user reassurance. ◆ Route markers as needed for user reassurance. ◆ Regulatory and resource protection signing may be common. ◆ Destination signing likely outside wilderness areas; generally not present in wilderness areas. ◆ Information and interpretive signs may be present outside wilderness areas.	◆ Route identification signing at junctions and as needed for user reassurance. ◆ Route markers as needed for user reassurance. ◆ Regulatory and resource protection signing common. ◆ Destination signing common outside wilderness areas; generally not present in wilderness areas. ◆ Information and interpretive signs may be common outside wilderness areas. ◆ Accessibility information likely displayed at trailhead.	◆ Route identification signing at junctions and for user reassurance. ◆ Route markers as needed for user reassurance. ◆ Regulatory and resource protection signing common. ◆ Destination signing common. ◆ Information and interpretive signs common. ◆ Accessibility information likely displayed at trailhead.
Typical Recreation Environs & Experience[3]	◆ Natural and unmodified. ◆ ROS: Typically Primitive to Roaded Natural. ◆ WROS: Typically Primitive to Semi-Primitive.	◆ Natural and essentially unmodified. ◆ ROS: Typically Primitive to Roaded Natural. ◆ WROS: Typically Primitive to Semi-Primitive.	◆ Natural and primarily unmodified. ◆ ROS: Typically Primitive to Roaded Natural. ◆ WROS: Typically Semi-Primitive to Transition.	◆ May be modified. ◆ ROS: Typically Semi-Primitive to Rural ◆ WROS: Typically Portal or Transition.	◆ May be highly modified. ◆ Commonly associated with visitor centers or high-use recreation sites. ◆ ROS: Typically Roaded Natural to Urban. ◆ Generally not present in Wilderness areas.

[1] For National Quality Standards for Trails, Potential Appropriateness of Trail Classes for Managed Uses, Design Parameters, and other related guidance, refer to FSM 2353 and FSH 2309.18.

[2] For standards and guidelines on the use of signs and posters on trails, refer to the Sign and Poster Guidelines for the Forest Service (EM-7100-15).

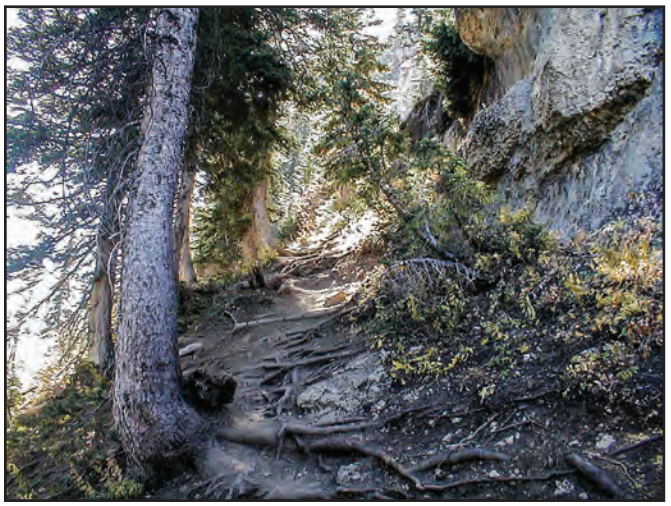
[3] The Trail Class Matrix shows combinations of Trail Class and Recreation Opportunity Spectrum (ROS) or Wilderness Recreation Opportunity Spectrum (WROS) settings that commonly occur, although trails in all Trail Classes may and do occur in all settings. For guidance on the application of the ROS and WROS, refer to FSM 2310 and 2353 and FSH 2309.18.

USFS Trail Class Photo Examples

The following photos provide visual examples of typical Trail Class scenarios. Remember that Trail Classes are general categories reflecting development scale, arranged along a continuum, with no hard and fast lines drawn between the classes. Use the photos as visual aids to assist in consistent application of trail classification.

Trail Class 1

Trail Class 1: Tread—The tread is intermittent and indistinct.



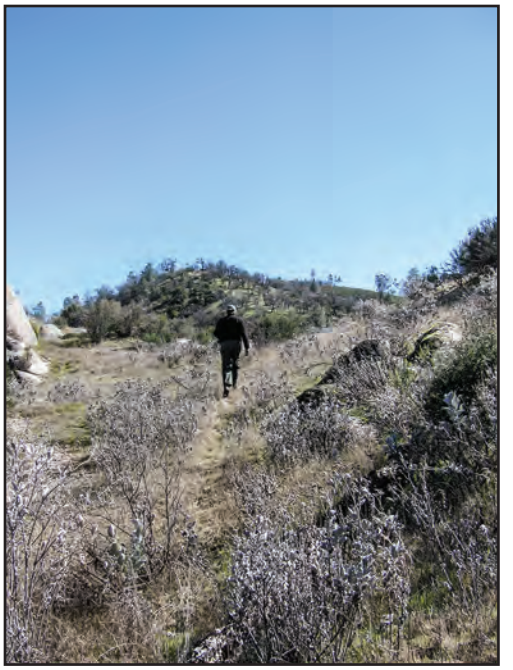
Trail Class 1: Obstacles—Obstacles are common, naturally occurring, and often substantial.

Trail Class 1: Constructed Features—Constructed features are minimal to nonexistent.

Trail Class 1: Signs—Route identification signing is limited to junctions. Route markers are present when the trail location is not evident.

Trail Class 1: Typical Recreation Environment/Experience—The typical recreation environment/experience is natural and unmodified.

Trail Class 2



Trail Class 2: Tread—The tread is continuous and discernible, but narrow and rough.

Trail Class 2: Obstacles—Obstacles may be common and substantial. Blockages are cleared to define the route and protect resources. Vegetation may encroach into the trailway.

Trail Class 2: Constructed Features—Constructed features are of limited size, scale, and quantity.

Trail Class 2: Signs—Route identification signing is limited to junctions. Route markers are present when the trail location is not evident.

Trail Class 2: Typical Recreation Environment/Experience—The typical recreation environment/experience is natural and essentially unmodified.

Trail Class 3

Trail Class 3: Tread—The tread is continuous and obvious.

Trail Class 3: Obstacles—Obstacles may be common. Vegetation is cleared outside of the trailway.

Trail Class 3: Constructed Features—Constructed features such as walls, steps drainage, and raised trail, may be common and substantial.

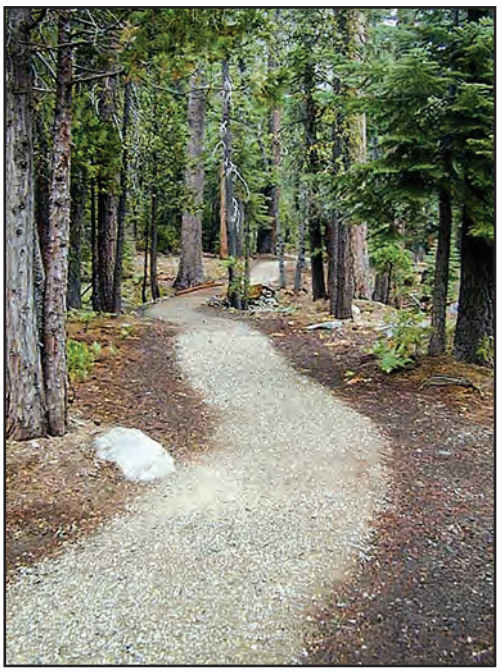
Trail Class 3: Signs—Route identification signing is present at junctions and as needed for user reassurance. Destination signing is likely outside of wilderness areas.

Trail Class 3: Typical Recreation Environment/Experience—The recreation environment/experience is natural and primarily unmodified.

Trail Class 4

Trail Class 4: Tread—The tread is wide and relatively smooth, with few irregularities.

Trail Class 4: Obstacles—Obstacles are infrequent and insubstantial. Vegetation is cleared outside of the trailway.



Trail Class 4: Constructed Features—Constructed features are frequent and substantial. Trailside amenities may be present.

Trail Class 4: Signs—A wide variety of signing is likely present. Informational signs are likely and interpretive signs are possible.

Trail Class 4: Typical Recreation Environment/Experience—The recreation environment/experience may be modified.

Trail Class 5

Trail Class 5: Tread—The tread is wide, firm, stable, and generally uniform. Trails are commonly hardened with asphalt or other imported material.

Trail Class 5: Obstacles—Obstacles are not present. Grades are typically less than 8 percent.

Trail Class 5: Constructed Features—Constructed features are frequent or continuous. Structures may include bridges, boardwalks, curbs, handrails, trailside amenities, and similar features.

Trail Class 5: Signs—A wide variety of signing is present. Informational and interpretive signs are common.

Trail Class 5: Typical Recreation Environment/Experience—The recreation environment/experience may be highly modified.

Design Parameters (FSH 2309.18, Section 23.21, Exhibit 01)

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of National Forest System trails, based on their Designed Use and Trail Class and consistent with their management intent[1]. Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

Designed Use MOTORCYCLE		**Trail Class 1**	**Trail Class 2**	**Trail Class 3**	**Trail Class 4**	**Trail Class 5**
Design Tread Width	**Single Lane**	Typically not designed or actively managed for motorcycles, although use may be allowed	8" – 24"	18" – 36"	24" – 48"	Typically not designed or actively managed for motorcycles, although use may be allowed
	Double Lane		48"	48 " – 60"	60" – 72"	
	Structures (Minimum Width)		36"	48"	48"	
Design Surface[2]	**Type**		Native, with limited grading May be continuously rough Sections of soft or unstable tread on grades < 5% may be common and continuous	Native, with some onsite borrow or imported material where needed for stabilization and occasional grading Intermittently rough Sections of soft or unstable tread on grades < 5% may be present	Native, with imported materials for tread stabilization likely and routine grading Minor roughness Sections of soft tread not common	
	Protrusions		≤ 6" May be common and continuous	≤ 3" May be common, but not continuous	≤ 3" Uncommon and not continuous	
	Obstacles (Maximum Height)		18" May be common or placed for increased challenge	12" Common and left for increased challenge	3" Uncommon	
Design Grade[2]	**Target Grade**		10% – 25%	5% – 20%	3% – 10%	
	Short Pitch Maximum		40%	25%	15%	
	Maximum Pitch Density		20% – 40% of trail	15% – 30% of trail	10% – 20% of trail	

Designed Use MOTORCYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Cross Slope	**Target Cross Slope**		5% – 10%	5% – 8%	3% – 5%	
	Maximum Cross Slope		15%	10%	10%	
Design Clearing	**Height**		6’ – 7’	6’ - 8’	8’ - 10’	
	Width (On steep side-hills, increase clearing on uphill side by 6” – 12”)		36” – 48” Some light vegetation may encroach into clearing area	48” – 60”	60” - 72”	
	Shoulder Clearance		6” – 12”	12” – 18”	12” – 24”	
Design Turn	**Radius**		3’ – 4’	4’ – 6’	5’ – 8’	

[1] For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

[2] The determination of trail-specific Design Grade, Design Surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall trail sustainability.

Design Parameters (FSH 2309.18, Section 23.22, Exhibit 01)

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of National Forest System trails, based on their Designed Use and Trail Class and consistent with their management intent[1]. Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

Designed Use **ALL-TERRAIN VEHICLE**		**Trail Class 1**	**Trail Class 2**	**Trail Class 3**	**Trail Class 4**	**Trail Class 5**
Design Tread Width	**Single Lane**	Typically not designed or actively managed for ATVs, although use may be allowed	48” – 60”	60”	60” – 72”	Typically not designed or actively managed for ATVs, although use may be allowed
	Double Lane		96”	96” – 108”	96” – 120”	
	Structures (Minimum Width)		60”	60”	60”	
Design Surface[2]	**Type**		Native, with limited grading May be continuously rough Sections of soft or unstable tread on grades < 5% may be common and continuous	Native, with some onsite borrow or imported material where needed for stabilization and occasional grading Intermittently rough Sections of soft or unstable tread on grades < 5% may be present	Native, with imported materials for tread stabilization likely and routine grading Minor roughness Sections of soft tread uncommon	
	Protrusions		≤ 6” May be common and continuous	≤ 3” May be common, but not continuous	≤ 3” Uncommon and not continuous	
	Obstacles (Maximum Height)		12” May be common or placed for increased challenge	6” May be common and left for increased challenge	3” Uncommon	
Design Grade[2]	**Target Grade**		10% – 25%	5% – 15%	3% – 10%	
	Short Pitch Maximum		35%	25%	15%	
	Maximum Pitch Density		20% – 40% of trail	15% – 30% of trail	10% – 20% of trail	

Designed Use ALL-TERRAIN VEHICLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Cross Slope	**Target Cross Slope**		5% – 10%	3% – 8%	3% – 5%	
	Maximum Cross Slope		15%	10%	8%	
Design Clearing	**Height**		6’ – 7’	6’ – 8’	8’ – 10’	
	Width (On steep side hills, increase clearing on uphill side by 6” – 12”)		60” Some light vegetation may encroach into clearing area	60” – 72”	72” – 96”	
	Shoulder Clearance		0” – 6”	6” – 12”	12” – 18”	
Design Turn	**Radius**		6’ – 8’	8’ – 10’	8’ – 12’	

[1] For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

[2] The determination of trail-specific Design Grade, Design Surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

Design Parameters (FSH 2309.18, Section 23.23, Exhibit 01)

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of National Forest System trails, based on their Designed Use and Trail Class and consistent with their management intent[1]. Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

Designed Use **FOUR-WHEEL DRIVE VEHICLE > 50"**		**Trail Class 1**	**Trail Class 2**	**Trail Class 3**	**Trail Class 4**	**Trail Class 5**
Design Tread Width	**Single Lane**	Typically not designed or actively managed for 4WD Vehicles > 50", although use may be allowed	72" – 84"	72" – 96"	96" – 120"	Typically not designed or actively managed for 4WD Vehicles > 50", although use may be allowed
	Double Lane		16'	16'	16'	
	Structures (Minimum Width)		96"	96"	96"	
Design Surface[2]	**Type**		Native, with limited grading May be continuously rough Sections of soft or unstable tread on grades < 5% may be common and continuous	Native, with some on-site borrow or imported material where needed for stabilization and occasional grading Intermittently rough Sections of soft or unstable tread on grades < 5% may be present	Native, with imported materials for tread stabilization likely and routine grading Minor roughness Sections of soft tread uncommon	
	Protrusions		≤ 12" May be common and continuous	≤ 8" May be common and continuous	≤ 4" May be common and continuous	
	Obstacles (Maximum Height)		36" May be common or placed for increased challenge	24" Common and left for increased challenge	12" Uncommon	
Design Grade[2]	**Target Grade**		10% – 21%	5% – 18%	5% – 12%	
	Short Pitch Maximum		25%	20%	15%	
	Maximum Pitch Density		20% – 30% of trail	10% – 20% of trail	5% – 10% of trail	

Designed Use FOUR WHEEL DRIVE VEHICLE > 50"		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Cross Slope	**Target Cross Slope**		8% – 15%	5% – 12%	5% – 8%	
	Maximum Cross Slope		15%	12%	8%	
Design Clearing	**Height**		6’ – 8’	6’ – 8’	8’ – 10’	
	Width		72” – 84” Some light vegetation may encroach into clearing area	72” – 96”	96” – 144”	
	Shoulder Clearance		0” – 6”	6” – 12”	12” – 18”	
Design Turn	**Radius**		10’ – 15’	15’ – 20’	20’ – 30’	

[1] For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

[2] The determination of trail-specific Design Grade, Design Surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

Appendix C

Glossary

All-Terrain Vehicle (ATV). A type of off-highway vehicle that travels on three or more low-pressure tires; has handle-bar steering; is less than or equal to 50 inches in width; and has a seat designed to be straddled by the operator.

Annual Maintenance. Preventative and/or cyclic maintenance performed in the year it is scheduled (maintenance schedules are identified on TMOs and in Infra).

Bicycle. A pedal-driven, human-powered device with two wheels attached to a frame, one behind the other.

Capital Improvement. The construction of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset to accommodate a change of purpose.

Capital Improvement includes trail alteration, expansion or new construction.

NOTE: Capital improvement (CI) does not include deferred maintenance. Do not confuse capital improvement with the Capital Investment Program (CIP), which may include capital improvement and/or deferred maintenance.

a. Alteration. Work to change the function of an existing fixed asset. The capacity or size of the fixed asset is not significantly changed. Deferred maintenance of the original fixed asset may be reduced or eliminated by an alteration.
b. Expansion. Increasing the capacity or size of an existing fixed asset to serve needs different from, or significantly greater than, those originally intended.
c. New Construction. The erection, construction, installation, or assembly of a new fixed asset.

Clearing Limit. The area over and beside the trail tread that is cleared of trees, limbs, and other obstructions.

a. Clearing Height. The height of the clearing limit measured vertically from the trail tread.
b. Clearing Width. The width of the clearing limit measured perpendicular to the trail.

Climbing Turn. A reverse in direction of the trail grade without a level landing that is used to change elevation on a steep slope.

Cross-Country Skiing. Skiing on unmarked routes or marked trails that may be packed and groomed with set tracks.

Cross Slope. The percentage of rise to length when measuring the trail tread from edge to edge perpendicular to the direction of travel.

Deferred Maintenance. Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period.

Deferred maintenance includes repair, replace or decommission.

a. Repair. Work to restore a damaged, broken, or worn-out fixed asset or component to normal operating condition.

b. Replace. Substitution or exchange of an existing asset or component with one having essentially the same capacity and purpose.

c. Decommission. Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work.

Design Clearing. The clearing limit determined to be appropriate to accommodate the Managed Uses of a trail.

a. Design Clearing Height. The minimum clearing height determined to be appropriate to accommodate the Managed Uses of a trail.

b. Design Clearing Width. The minimum clearing width determined to be appropriate to accommodate the Managed Uses of a trail.

c. Design Shoulder Clearance. The minimum horizontal and vertical clearance of obstructions (for example, removal of bicycle pedal or motorcycle peg bumpers) immediately adjacent to the trail tread that is determined to be appropriate to accommodate the Manages Uses of a trail.

Design Cross Slope. The cross slope determined to be appropriate to accommodate the Managed Uses of a trail.

a. Target Cross Slope. The cross slope that is determined to be appropriate over most of a trail to accommodate its Managed Uses.

b. Maximum Cross Slope. The steepest cross slope that is determined to be appropriate based on the Managed Uses of a trail and that exceeds the target cross slope of the trail.

Design Grade. The trail grade determined to be appropriate to accommodate the Managed Uses of a trail.

a. Target Grade. The trail grade that is determined to be appropriate over most of a trail to accommodate its Managed Uses.

b. Short Pitch Maximum. The steepest grade that is determined to be appropriate based on the Managed Uses of a trail, that generally occurs for a distance of no more than 200 feet, and that does not exceed the maximum pitch density.

c. Maximum Pitch Density. The maximum percentage of a trail with grades that exceed the Target Grade and that are less than or equal to the short pitch maximum, which is determined to be appropriate based on the Managed Uses of the trail.

Design Parameters. Technical guidelines for the survey, design, construction, maintenance, and assessment of a trail, based on its Designed Use and Trail Class.

Design Surface. The trail tread surface, defined in terms of surface type, surface protrusions, and surface obstacles, that is determined to be appropriate to accommodate the Managed Uses of a trail.

a. Surface Type. A characteristic of the design surface expressed in terms of material type, grading, compaction, and roughness of the trail tread.

   1) Native. A surface composed of soil, rock or other naturally occurring materials found on or near the trail.

   2) Firm. A surface that is not noticeably distorted or compressed during the seasons for which it is managed, under normally occurring weather conditions, by the passage of a device that simulates a trail user in a wheelchair.

   3) Stable. A surface that is not permanently affected by normally occurring weather conditions and able to sustain normal wear and tear caused by the uses for which the trail is managed between planned maintenance cycles.

b. Surface Protrusions. Trail tread imperfections, such as rock, roots, holes, stumps, steps, and structures, that are within the acceptable range of tread roughness and challenge level for the trail and that do not obstruct the Managed Uses of the trail.

c. Surface Obstacles. Trail tread imperfections, such as rocks, roots, holes, stumps, steps, downed logs, and structures, that are beyond the acceptable range of tread roughness and challenge level for the trail and that obstruct one or more Managed Uses of the trail.

Design Tread Width. The tread width determined to be appropriate to accommodate the Managed Uses of a trail.

Design Turn Radius. The minimum horizontal radius required for a Managed Use to negotiate a curve (for example, a switchback, climbing turn, or horizontal turn) in a single maneuver.

Designed Use. The Managed Use of a trail that requires the most demanding design, construction, and maintenance parameters and that, in conjunction with the applicable Trail Class, determines which Design Parameters will apply to a trail.

Four-Wheel Drive Vehicle Greater Than 50 Inches in Width. An off-highway vehicle greater than 50 inches in width that operates on four wheels and with a drive train that allows all four wheels to receive power from the engine simultaneously.

Full Bench. A trailbed constructed entirely on undisturbed material.

Infra Trails. US Forest Service corporate database for National Forest System Trail inventory and management information.

Managed Use. A mode of travel that is actively managed and appropriate on a trail, based on its design and management.

Motorcycle. A two-wheeled motor vehicle on which the wheels are situated in a line, rather than side by side.

Motor Vehicle. Any vehicle which is self-propelled, other than:

a. A vehicle operated on rails; and

b. Any wheelchair or mobility device, including one that is battery-powered, that is designed solely for use by a mobility-impaired person for locomotion, and that is suitable for use in an indoor pedestrian area (36 CFR 212.1).

National Quality Standards for Trails. National criteria that establish the level of quality in terms of health and cleanliness, resource setting, safety and security, responsiveness, and condition of facilities for National Forest System trails managed at a full-service level.

Off-Highway Vehicle (OHV). Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain (36 CFR 212.1).

Pack Clearance. The area on either side of the center line of a trail, measured 30 inches above the trail tread, that is cleared of trees, limbs, and other obstructions that would interfere with passage by a loaded pack animal.

Side Slope. The natural slope of the ground, usually expressed as a percentage.

Snowmobile. An over-snow vehicle that operates on a track, uses one or more skis for steering, and has handle-bar steering and a seat designed to be straddled by the operator.

Switchback. A reverse in direction of the trail grade with a level landing that is used to change elevation on a steep slope and that usually involves special treatment of approaches, barriers, and drainages.

Trail – US Forest Service Definitions: (36 CFR 212.1)

a. Trail. A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

b. Forest Trail. A trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

c. National Forest System Trail. A forest trail, other than a trail which has been authorized by a legally documented right-of-way held by a state, county, or other local public road authority.

Trail – Federal Trail Data Standard Definition: Defined by the Federal Trail Data Standards, the interagency definition is based on and encompasses individual agency definitions of a trail, and includes “standard” trails, National Scenic Trails and National Historic Trails:

Trail. A linear route managed for human-powered, stock, or off-highway vehicle (OHV) forms of transportation or for historic or heritage values.

Clarifier: Trails provide public access for opportunities of outdoor recreation as well as access to many significant prehistoric and historic sites.

Some portions of historic trails are accessible today, and provide recreational and other benefits, while others, more 'virtual' in nature, provide a cultural and/or historic experience, but are not physically capable of being traversed or accessed. Historic trails can consist of a path, a route, a corridor, a road, a river/stream, etc.

Appendix C

Trail Assessment and Condition Surveys (TRACS). The US Forest Service's approach for the field collection of trail inventory and condition assessment information, and the documentation of tasks needed to meet standard.

Trail Class. The prescribed scale of development for a trail, representing its intended design and management standards.

Trail Fundamentals. The five concepts that are the cornerstones of Forest Service trail management, including Trail Type, Trail Class, Managed Use, Designed Use, and Design Parameters.

Trail Grade. The ascent or descent of a trail segment expressed as a percentage of its length.

Trail Management Objective (TMO). Documentation of the intended purpose and management of a National Forest System trail based on management direction, including access objectives.

Trail Type. A category that reflects the predominant trail surface and general mode of travel accommodated by a trail.

a. Standard Terra Trail. A trail that has a surface consisting predominantly of the ground and that is designed and managed to accommodate use on that surface.

b. Snow Trail. A trail that has a surface consisting predominantly of snow or ice and that is designed and managed to accommodate use on that surface.

c. Water Trail. A trail that has a surface consisting predominantly of water (but may include land-based portages) and that is designed and managed to accommodate use on that surface.

Trailhead. The transfer point between a trail and a road, water body, or airfield, which may have developments that facilitate transfer from one mode of transportation to another.

For purposes of the FSTAG (FSM 2353.27), a trailhead is a site designed and developed to provide staging for trail use and does not include:

a. Junctions between trails where there is no other access; or

b. Intersections where a trail crosses a road or users have developed an access point, but no improvements have been provided beyond minimal signage for public safety.

Trailway. The portion of a trail within the limits of the excavation and embankment.

a. Trailbed. The surface on which the base course or surfacing may be constructed and which for trails without surfacing serves as the trail tread.

b. Trail Tread. The portion of a trail upon which traffic moves.

Wheelchair or Mobility Device. A device, including one that is battery-powered, that is designed solely for use by a mobility-impaired person for locomotion; that is suitable for use in an indoor pedestrian area; and that may be used by a person whose disability requires its use anywhere that foot travel is permitted (Title V, sec. 507c, of the Americans With Disabilities Act and 36 CFR 212.1).

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Appendix 6

Trail Design Resources

The following links are excellent resources for trail design, planning, development, construction, operating, management, and maintenance.

- National Off-Highway Vehicle Conservation Council Online Resource Hub: https://nohvcc.org/assistance/manager-assistance/online-resource-hub/
- Trail Planning, Design, and Development Guidelines (MN DNR): https://www.dnr.state.mn.us/publications/trails_waterways/tgmanual/index.html
- American Trails Resource Library: https://www.americantrails.org/resources/query/p1?keywords=&resources%5B%5D=188679

Additionally, the following links lead to interactive mapping applications that can help clubs better understand the local natural resources like wetlands, public water bodies, trout streams, native plant communities, topography, soils, etc.

- Minnesota Natural Resource Atlas: https://mnatlas.org/gis-tool/
- National Wetlands Inventory Wetland Finder: https://arcgis.dnr.state.mn.us/ewr/wetlandfinder/

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Appendix 7

Statewide User Group Resources

ARMCA: Amateur Riders Motorcycle Association

We seek to support and promote all forms of motorcycling, recognizing that each type of activity is of great importance to the overall motorcycling community. We also realize that public trail systems are crucial to the long-term future of off-road motorcycling, and that rider involvement through organized clubs is essential to the development and maintenance of public trails.

https://www.armca.org/

ATVMN: All-Terrain Vehicle Association of Minnesota

ATV MN is the State Association representing 70 ATV clubs and ATV riding families across Minnesota. It promotes safe, responsible ATV riding, and provides ATV clubs with the "tools" they need to build ATV trails for the riding public that are fun and sustainable, while protecting natural resources.

https://atvmn.org/

MN4WDA: Minnesota 4 Wheel Drive Association

The MN4WDA is a non-profit dedicated to creating new trail opportunities for off-road vehicles, educating the public about off-road recreation, and fighting anti-ORV legislation. We are actively working within the MN legislature to protect current off-road attractions and simultaneously create new opportunities to go off-road.

https://mn4wda.org/

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Appendix 8

Example Form 2

This appendix contains an example of Form 2 – New Project Application. This example is based on an application that resulted in successful project implementation. All personal or identifying information has been removed.

DEPARTMENT OF NATURAL RESOURCES

Off-Highway Vehicle Grant-in-Aid Program
Form 2 - New Project Application

This application should be used to apply for funding for new trails not yet enrolled the Grant-in-Aid (GIA) program, additions to currently enrolled GIA trails, and GIA trail reroutes over 1 mile long.

New project applications can be submitted to Area Supervisor at any time. Any funding granted for a given project is subject to the discretion of DNR Staff and requests may not be funded in full. This application does not guarantee how much funding a project will receive.

Please fill out this application in full. Boxes outlined in red are required. Boxes outlined in green are dropdown menus with pre-set options. Boxes outlined in blue will be automatically calculated and filled. Please enter all dates in MM/DD/YYYY format.

1. Club Information

Please attach Worksheet 3 – Trail Contact Information to this application.

Club: Example ATV Club
Does the club have any trails currently enrolled in the GIA program? Yes ☐ No ☑
Person submitting application: John Smith
Authorized signature of submitter:
Date: 08/03/2023

2. Sponsor Information

Local government unit as sponsor: Itasca county
Representative Name: Jane Doe
Address: 1234 Main Street, Grand Rapids, MN 55744

3. Proposed Trail Information

Trail or Trail System Name:	Example ATV Trail
Length in miles:	13.25
Will this trail connect to a currently enrolled GIA trail? ☒ Yes ☐ No	
If yes, what trail?	Little Moose, B&B Connection

Proposed Uses: If your trail will be multi-use, please include the miles open to each class.		**Miles:**
Primary Use:	ATV Class 1	13.25
Secondary Use:	ATV Class 2	13.25
Secondary Use:	OHM	13.25
Secondary Use:		

4. Trail Surface Type

Trail corridor type (county/township road, forest/minimum maintenance road, existing non-road trail*, new non-road trail, rail road bed, road ditch, etc)	**Approximate miles**	**Current use**	**Proposed use**
Existing non-road trail	5.50	Snowmobile	ATV/OHM
Forest access trails	5.00	Logging roads	ATV/OHM
County road right-of-way (county road 10)	2.75	County road	ATV/OHM ROW access

*If this is an existing trail, please describe its current state. Is it a social trail, or do local land managers know and approve of it? Does it allow motorized use? If so, what uses are allowed?

5. Trail Location/Land Ownership

Where will the trail be located? List all cities/counties/townships the proposed trail will cross. Range section, coordinates, or other identifying information is helpful. Please be as specific as possible.

Itasca county
Section 36 of T60N R25W
Sections 31 & 33 of T60N R24W
Sections 4, 5, 6, 9, 10, 14 15, 23, 24, 25 of T59N R24W
Sections 19, 20, 29, 30 of T59N R23W

Have the club and sponsor received landowner or land manager permissions for all trail segments enrolling in the GIA program? This includes both DNR and non-DNR public land managers, local public road authorities (even if the county already allows OHV use on roads), and private landowners.

☐ Yes ☒ No (explain how you plan to secure permissions below)

Club has approval for snowmobile corridor and forest access trails. Working with local road authority to get right-of-way access permission on County Roads.

6. Project Description

Describe your project. What is the long-term vision for the trail? Will it connect to other trails? What kind of facilities will the trail have? Will it be open year-round or will it open and close seasonally? How will it impact local natural resources? What are the trail management objectives (TMOs)?

If this is a new trail, attach Worksheet 2 – TMO Development to this application. If this is an addition or re-reroute and this section will have different TMOs than the rest of your trail.

This information will be used to inform DNR staff about your overall vision and will assist in soliciting public comments.

This proposal establishes additional Grant-In-Aid All ATV/OHM trail miles in the George Washington State Forest in Itasca County. The trail will utilize portions of the Example Snowmobile Trail and the Example 2 Snowmobile trail, existing State and County forest access trails and roads, and County roads.
This proposed trail connects the B & B Connection ATV/OHM Trail and the Little Moose ATV/OHM that will provide a loop system trail of approximately 40 miles. It will provide connections to local businesses and campgrounds along the route. Portions of this system follows through the Rat Lake Seasonally Non-Motorized area. Collaboration with the MNDNR has provided opportunity to form new non-motorized/hunter-walking opportunities for hikers and grouse hunters while providing access for ATV's on the snowmobile trail.
This trail will be open year-round and because it is shared with snowmobiles, any maintenance or improvements will need to meet snowmobile trail specifications.
Trail improvement or maintenance will involve water control measures, trail resurfacing, trail hardening, trail grading, brushing, and erosion prevention measures.
The club and select contractors will be responsible for construction with oversight and technical assistance from the MN DNR parks and trails and the Itasca county land use department.

7. Projected Costs

Refer to the OHV GIA Manual for additional information about which activities fit into which categories. Fill in the approximate cost of expenses, prior to any reimbursements or matching funds. Calculations will be performed automatically by the form.

A. 65% Requests:

The state will reimburse the following categories at a rate of 65%.

1. **ADMINISTRATION** (includes equipment, labor, materials, and mileage for preparation of paperwork, bookkeeping, travel to and from project area, soliciting bids for contracting or rental equipment)

Amount requested: $	1,500.00
Description:	Paperwork for GIA program and permits, travel to and from trail

2. **ACQUISITION** (includes equipment, labor, materials, and mileage for trail alignment work, checking land ownership records, contacting landowners, leases or fee acquisitions)

Amount requested: $	0.00
Description:	

3. **FACILITIES** (includes equipment, labor, materials, and mileage to construct trail shelters, picnic tables, trail heads, and ADA compliant permanent restroom facilities. This category does not include cleaning and maintenance of permanent or portable toilets.)

Amount requested: $	0.00
Description:	

4. **TRAIL SYSTEM MAP PRINTING** (includes production and printing of publicly available maps)

Amount requested: $	0.00
Description:	

Total amount requested from section 7A: $	1,500.00
65% of above: $	975.00

B. 75% Requests:

The state will reimburse the following categories up to 75% (for new projects only; this does not apply to trails already enrolled in the GIA program).

1. **CONSTRUCTION** (includes equipment, labor, materials, and mileage for initial construction)

Amount requested: $	46,350.00
Description:	Approximately 1750 yards of material at $15/yd for trail surface improvement. Approx 160 hours of: labor, rental of 70 HP skid steer, rental of 100 HP backhoe, and blade attachment.

Total amount requested from section 7B: $	46,350.00
75% of above: $	34,762.50

C. 90% Requests:

The state will reimburse the following categories up to 90%.

1. **LIABILITY INSURANCE** (maximum state allowed $1,500 per year)

Amount requested: $	100.00
Description:	Insurance payment

2. **TOILETS** (includes equipment, labor, materials, and mileage to clean and maintain permanent ADA compliant restrooms and/or secure contracts for portable toilets)

Amount requested: $	0.00
Description:	

Total amount requested from section 7C: $	100.00
90% of above: $	75.00

D. Project Totals

Total project cost: $	47,950.00
Total grant request: $	35,812.50

8. Supplemental Information

Please attach the following to your application:

- Map of proposed route (preferably in SHP or KMZ format)
- Resolution from local government unit supporting sponsorship
- Worksheet 2 - Trail Management Objectives
- Worksheet 3 - Trail Contact Information
- Permit documentation (if necessary)
- Environmental Review Needs Determination or Environmental Assessment Worksheet (if completed)
- Public comments and responses (if completed)

9. Sponsor Review and Approval – FOR SPONSOR USE ONLY

Does the club have a resolution from your agency? ☐ Yes ☐ No
Has the club communicated with you about landowner permissions? ☐ Yes ☐ No
Do you know of any permits needed? If so, check all that apply: ☐ State lands access ☐ MnDOT ☐ Local road authority ☐ Wetlands ☐ Public waters ☐ Storm Water Pollution Prevention Permit ☐ Other (specify)
Name:
Title:
Email:
Phone Number:
Authorized Signature:
Date:

10. DNR Review and Approval – FOR DNR STAFF USE ONLY

Step 1: Application received

Received by/title:
Date:
Minnesota Conservation Explorer Review completion date and findings:

Step 2: Area team review

Division	**Contact Name/Title**	**Date:**
Ecological and Water Resources		
Enforcement		
Fisheries		
Forestry		
Lands and Minerals		
Wildlife		
Other		

Attach comments to application for RMT Review

Step 3: RMT Review

Support project? Yes ☐ No ☐	Date:
PAT Regional Manager's signature: (if necessary before public comment)	Date:

Step 4: Environmental/Public Reviews

Environmental Review Needs Determination Result:	Date:
Public Review:	Dates:

Attach comments for RMT Review

Step 5: Project approvals

Staff Note: this form utilizes digital signatures which eliminates the need to print off this form, sign it, and scan it back in order to obtain secure signatures. For security purposes, this form cannot be changed in some ways once signatures are present, or all signatures will be erased. This form cannot be edited in the following ways, all using Adobe Acrobat Pro:

- Extract, insert, or delete pages using organize pages tool
- Combine files

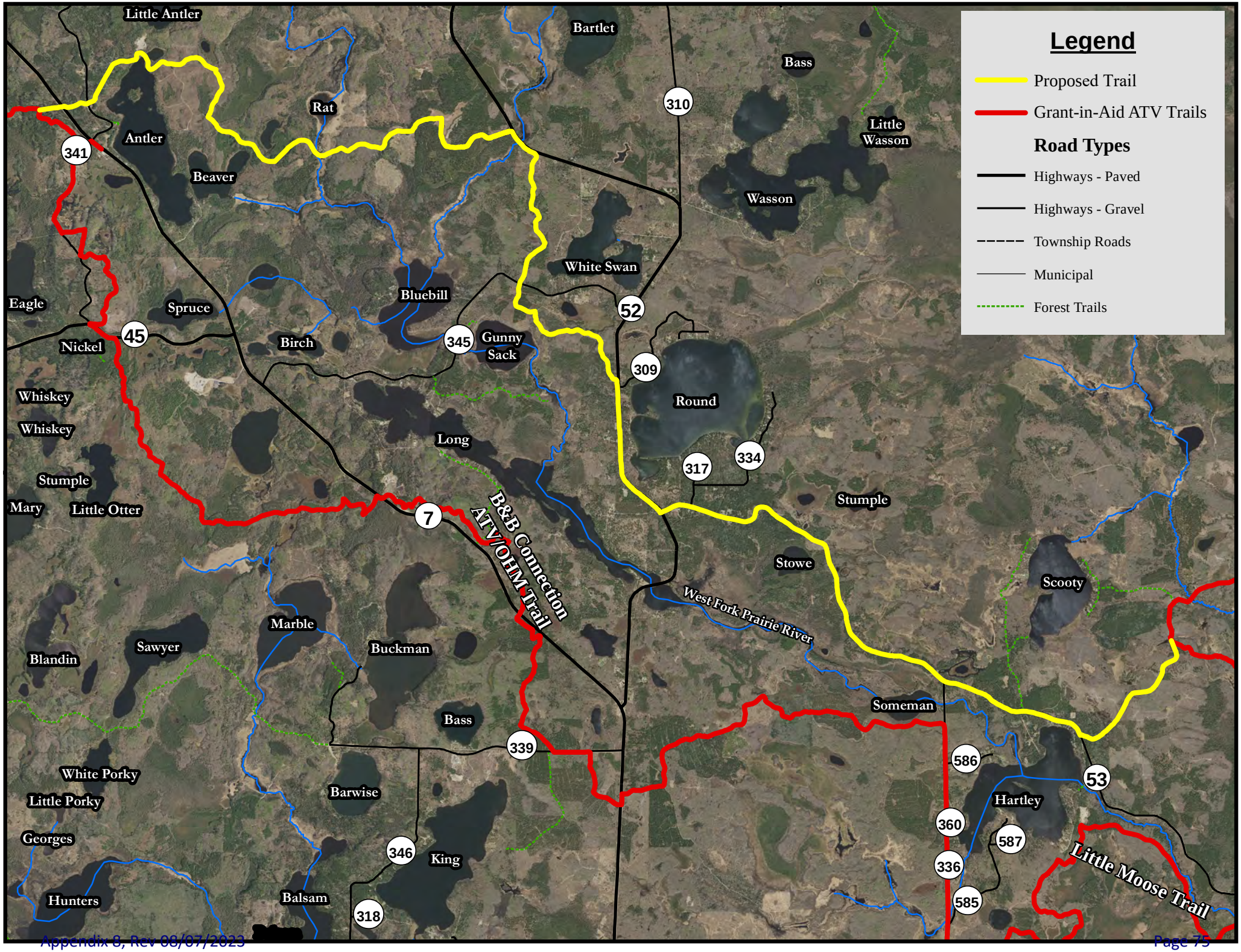
However, the form can be changed in the following ways:

- Errors can be corrected using the fill and sign tool
- This file can be copied and pasted in file explorer and remain unchanged
- This form can be printed to PDF if specific pages need to be saved outside of the original file

RMT (if necessary after public comment)
Support project? Yes ☐ No ☐
Date

PAT Regional Manager
Signature
Date

Central Office
Findings of grant review
Approval? Yes ☐ No ☐
Approved grant amount
Signature
Date


Legend
Proposed Trail
Grant-in-Aid ATV Trails
Road Types
Highways - Paved
Highways - Gravel
Township Roads
Municipal
Forest Trails
Little Antler
Bartlet
Bass
Rat
310
Little Wasson
Antler
341
Beaver
Wasson
White Swan
Bluebill
52
Eagle
Spruce
45
Nickel
Birch
345
Gunny Sack
309
Round
Whiskey
Whiskey
Long
317
334
Stumple
Mary
Little Otter
7
B&B Connection ATV/OHM Trail
Stumple
Stowe
Scooty
West Fork Prairie River
Marble
Sawyer
Buckman
Blandin
Someman
Bass
339
586
53
White Porky
Barwise
Hartley
Little Porky
360
Georges
587
346
King
336
Little Moose Trail
Hunters
Balsam
585
318

Scenic Range
NewsForum

314 2nd Street, Bovey, MN 55709
Mailing Address: P.O. Box 70, Bovey, MN 55709
Phone: 218-245-1422 • Fax: 218-245-1698
E-Mail: Copy@ScenicRangeNewsForum.com

NOTICE OF PUBLIC INFORMATIONAL MEETING PROPOSED ATV/OHM TRAIL CONNECTION

The [redacted] ATV Club and the Itasca County Land Department will be holding a public informational meeting to discuss a newly proposed ATV/OHM Trail. The meeting will be held at the **Swampsiders Snowmobile Clubhouse (County 52) on Thursday, November 21st, 2019 at 6:00 p.m.** This proposal would be utilizing portions of the Herb Brandstrom and Cameron Lake Snowmobile Trail. This trail will provide a loop connection from the B & B Connection ATV/OHM Trail near Antler Lake to the Little Moose ATV/OHM trail. This trail would be open to Class I, Class II, and OHM.

If you have any questions, please contact the Land Department at 218-327-2855 or [redacted] Club President at [redacted]

AFFIDAVIT OF PUBLICATION

STATE OF MINNESOTA }
} ss.
COUNTY OF ITASCA }

Mary Beth Bily or Ronald A. Brochu, being first duly sworn, on oath states as follows:

1. I am the publisher of the Scenic Range NewsForum, or the publisher's designated agent. I have personal knowledge of the facts stated in this Affidavit, which is made pursuant to Minnesota Statutes §331A.07.

2. The newspaper has complied with all of the requirements to constitute a qualified newspaper under Minnesota law, including those requirements found in Minnesota Statutes §331A.02.

3. The dates of the month and the year and day of the week upon which the public notice attached/copied was published in the newspaper are as follows:

   Thursday, November 14, 2019
   Thursday, November 21, 2019

4. The publisher's lowest classified rate paid by commercial users for comparable space, as determined pursuant to § 331A.06, is as follows: $10.00 per column inch.

5. Mortgage Foreclosure Notices. Pursuant to Minnesota Statutes §580.033 relating to the publication of mortgage foreclosure notices: The newspaper's known office of issue is located in Itasca County. The newspaper complies with the conditions described in §580.033, subd. 1, clause (1) or (2). If the newspaper's known office of issue is located in a county adjoining the county where the mortgaged premises or some part of the mortgaged premises described in the notice are located, a substantial portion of the newspaper's circulation is in the latter county.

Mary Beth Bily, Publisher or
Ronald A. Brochu, Business Manager

Subscribed and sworn to before me by Mary Beth Bily on this
21ST Day of NOVEMBER, 2019.

(Notary Public)

CYNTHIA L TRBOYEVICH
NOTARY PUBLIC
MINNESOTA
My Comm. Exp. Jan. 31, 2023

ITASCA COUNTY
BOARD OF COMMISSIONERS

Itasca County Courthouse
123 NE 4th Street
Grand Rapids, MN 55744

Tuesday, January 25, 2022

RESOLUTION 2022-8

RE: SPONSORSHIP OF THE GRANT-IN-AID (GIA) HERB BRANDSTROM ATV/OHM TRAIL

WHEREAS, the State of Minnesota has made funding available through the Minnesota Trails Assistance Program for the purpose of construction and maintaining Off Highway Vehicle trails for All terrain Vehicles (ATV) and Off Highway Motorcycles (OHM), and

WHEREAS, Minnesota Trails Assistance Program applications have been prepared for the approval of Itasca County as sponsor for the following ATV/OHM trail:

Trail: Herb Brandstrom ATV/OHM Trail
Club: Balsam Trailblazers ATV Club,

and therefore be it

RESOLVED, that Itasca County act as the legal sponsor for an application for funding to the State of Minnesota Department of Natural Resources for acquisition, construction, maintenance of the above ATV/OHM trail, and be it further

RESOLVED, that upon approval of its application by the State of Minnesota, Itasca County may enter into an agreement with the State of Minnesota for the above referenced project and that it will comply with all applicable laws and regulations as stated in the agreement, and be it further

RESOLVED, that Itasca County Board Chairperson is authorized to sign such agreement with the State of Minnesota, and be it further

RESOLVED, that the County Auditor is hereby authorized to serve as the fiscal agent, on behalf of Itasca County, for the above reference project, and be it further

RESOLVED, that notwithstanding the financial assistance provided for in the state contract, Itasca County shall not be liable for such costs as are incurred by the club because state funds are depleted.

RESULT:	**APPROVED (5 TO 0)**
MOVER:	Commissioner Davin Tinquist
SECONDER:	Commissioner Ben DeNucci
AYES:	Davin Tinquist, Terry Snyder, Leo Trunt, Burl Ives, Ben DeNucci

STATE OF MINNESOTA
Office of County Administrator
ss. County of Itasca

I, BRETT SKYLES, Administrator of the County of Itasca, do hereby certify that I have compared the foregoing with the original resolution filed in my office on the 25th day of January A.D. 2022 and that the same is a true and correct copy of the whole thereof.

WITNESS MY HAND AND SEAL OF OFFICE at Grand Rapids, Minnesota, this 25th day of January A.D. 2022.

Administrator

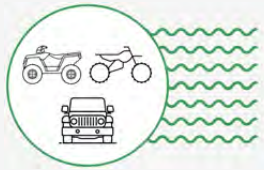
DEPARTMENT OF NATURAL RESOURCES

Off-Highway Vehicle Grant-in-Aid Program Manual

GIA Forms Flowchart

Appendix 9

In this appendix, you will find a flowchart that shows which forms are appropriate to use in specific scenarios, as well as share important deadlines and companion worksheets.



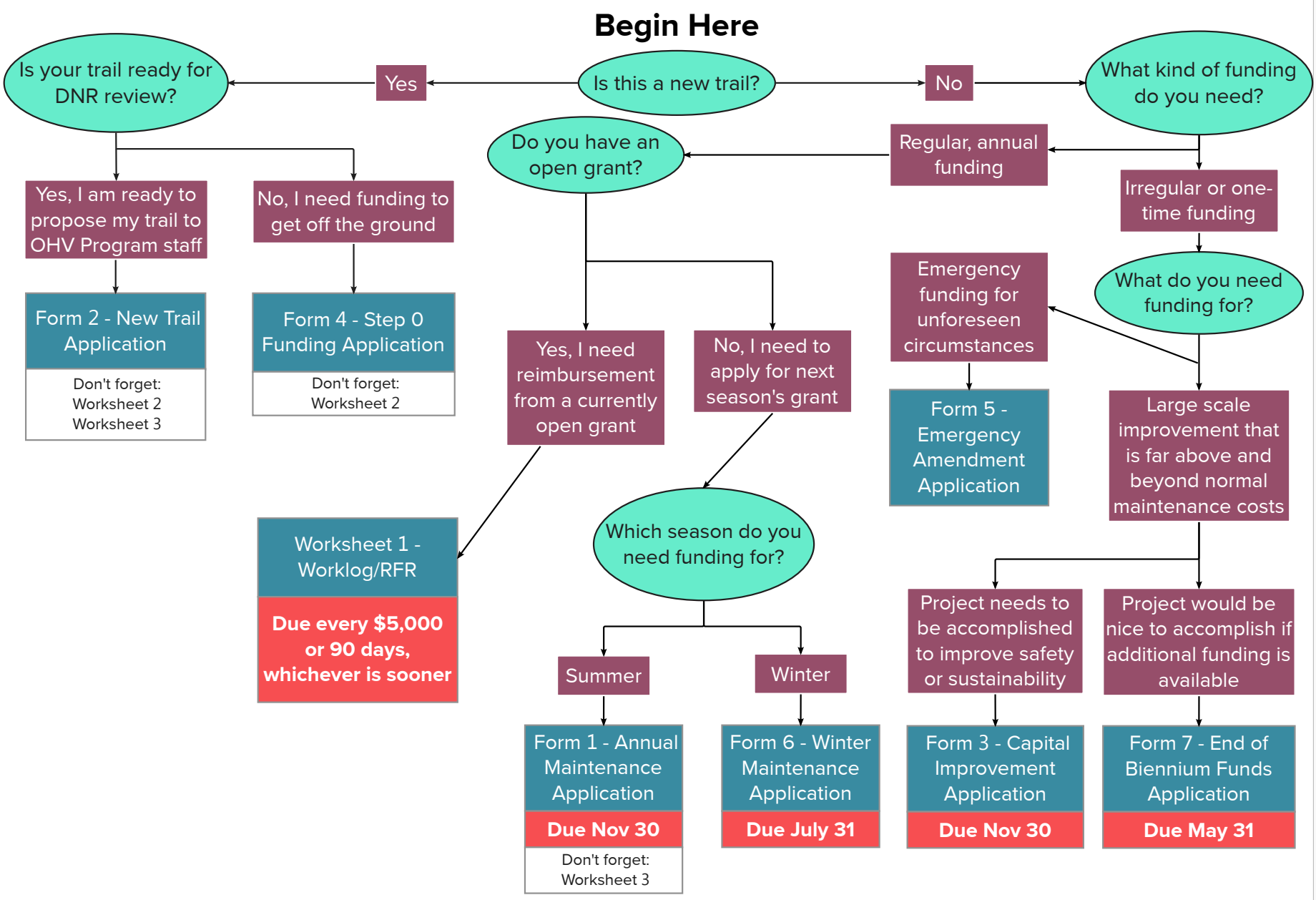
Form Flowchart

This flowchart will help participants navigate the Minnesota Department of Natural Resources Off-Highway Vehicle Grant-in-Aid Program forms.

Which form do I need? When is it due?

Use this chart to determine the appropriate form to use for your specific circumstances and be reminded of important deadlines.

DEPARTMENT OF NATURAL RESOURCES



DEPARTMENT OF NATURAL RESOURCES

Off-Highway Vehicle Grant-in-Aid Program Manual

Appendix 10

GIA Timeline

In this appendix, you will find a demonstration of timelines for various GIA processes. This is meant to be a quick reference and does not account for every scenario, complication, or delay in the process.

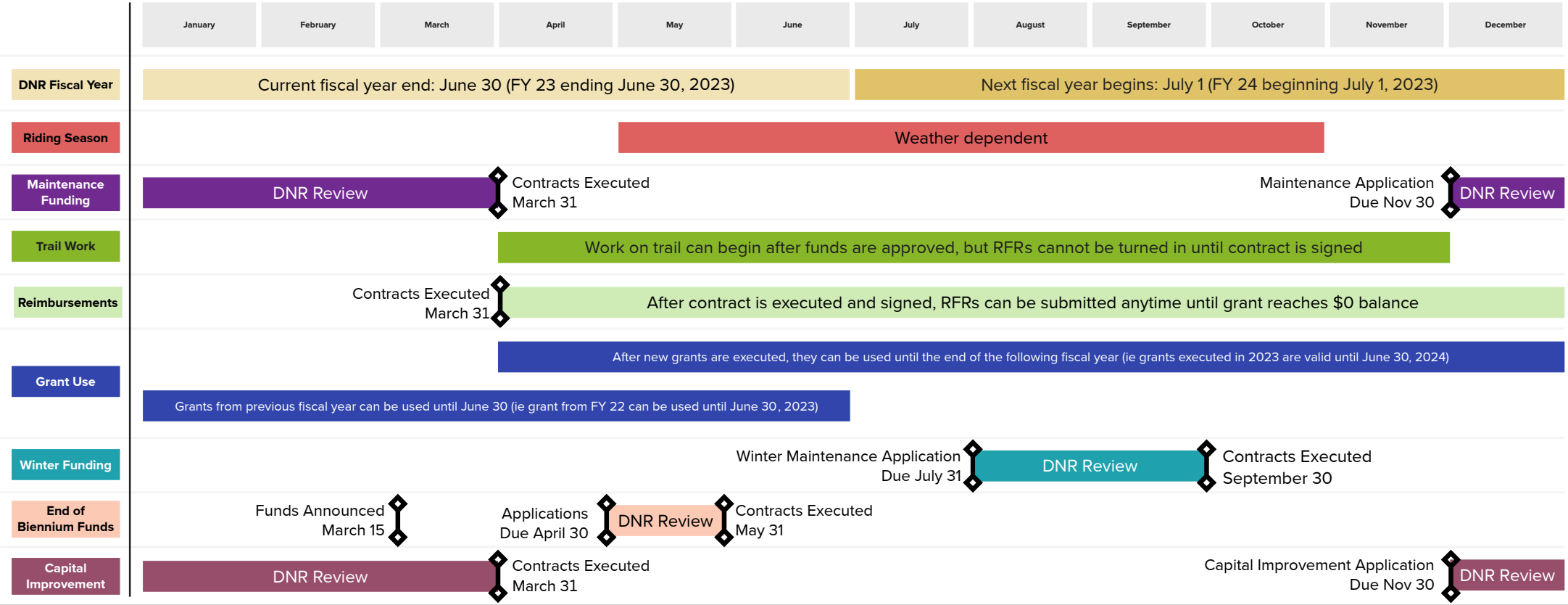
Minnesota Department of Natural Resources Off-Highway Vehicle Grant-in-Aid Program

Timeline

This chart shows the timeline for various processes within the GIA Program.

DEPARTMENT OF NATURAL RESOURCES

The chart below shows the timeline for various facets of the Off-Highway Vehicle Grant-in-Aid Program. For more detail about timelines and processes, see the OHV GIA Program Manual. These dates are not exact and may be subject to change.

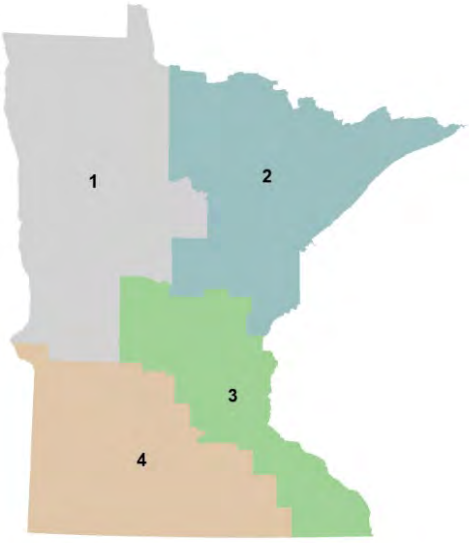


Off-Highway Vehicle Grant-in-Aid Program Manual

Appendix 11

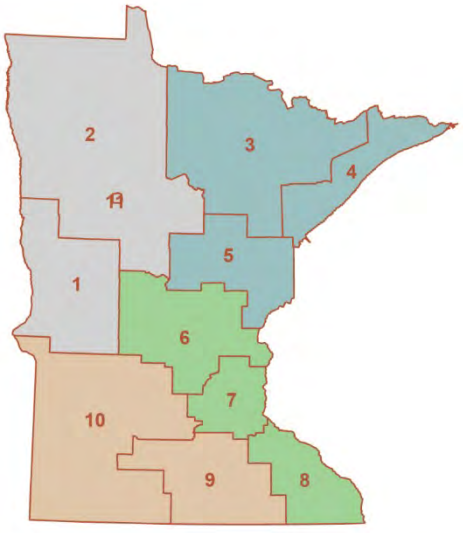
Staff Contact Information

The DNR is structured into regions, districts, and areas. Regions are the largest level of organization and each region has a manager and assistant manager. These individuals comprise the Regional Management Team (RMT), who review projects at a regional level.

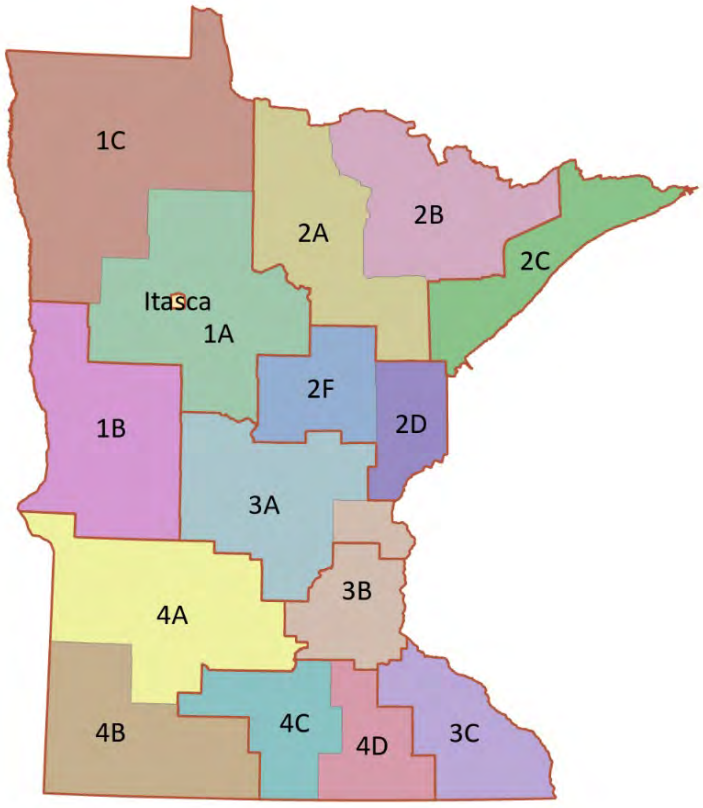


Region	Office Location	Phone
1	Bemidji	218-308-2372
2	Grand Rapids	218-328-8980
3	St. Paul	651-259-5748
4	New Ulm	507-233-1200

Regions are then broken down into divisions. Each division has a dedicated manager that oversees the projects at a high level, but they are not extensively involved in the GIA process.



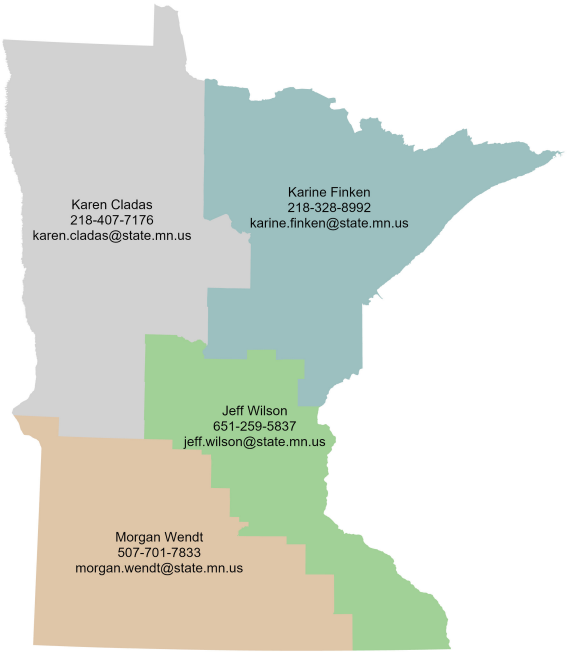
Divisions are then further broken down into areas. Area Staff have the most knowledge about the local landscape and dynamics. Area Staff should be the first point of contact when clubs are initiating projects and should remain in close contact as projects materialize.



Area	Location	Phone
1A	Bemidji	218-308-2372
1B	Fergus Falls	218-671-7930
1C	Hayes Lake	218-425-7504
2A	Grand Rapids	218-328-8980
2B	Tower	218-300-7800
2C	Two Harbors	218-834-1430
2D	Moose Lake	218-460-7020
2F	Brainerd	218-203-4300
3A	Sauk Rapids	320-223-7841
3B	St. Paul	651-259-5748
3C	Rochester	507-206-2847
4A	Spicer	320-409-2051
4B	Windom	507-832-6030
4C	New Ulm	507-233-1200
4D	Rice Lake	507-414-6191

Last but certainly not least, the OHV Program has staff who are dedicated to working only on OHV projects. There are four OHV Acquisition & Development Specialists who work at a regional level:

- Region 1: Karen Cladas karen.cladas@state.mn.us, 218-308-2369
- Region 2: Karine Finken karine.finken@state.mn.us, 218-328-8992
- Region 3: Jeff Wilson jeff.wilson@state.mn.us, 651-259-5837
- Region 4: Morgan Wendt morgan.wendt@state.mn.us, 507-701-7833



There are also two full-time staff who are based out of the central office in St. Paul:

- OHV Consultant: Joe Unger joe.unger@state.mn.us, 651-259-5279
- OHV Planner: Molly Lou Pintok mollylou.pintok@state.mn.us, 651-259-5095

DEPARTMENT OF NATURAL RESOURCES

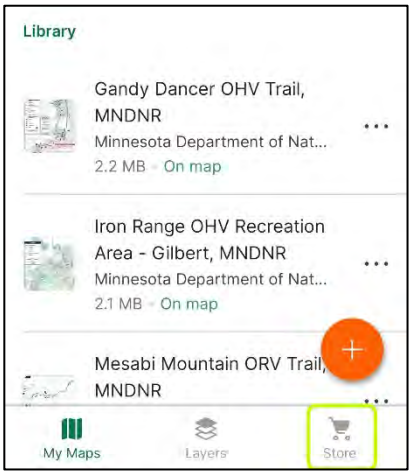
Off-Highway Vehicle Grant-in-Aid Program Manual

Appendix 12

How to Create KML Files Using Avenza

Getting Started

1. Download the Avenza app from the App Store on Apple devices or Play Store on Android devices.



2. To download maps, click the "Store" tab in the lower right-hand corner of the screen. This will bring you to the map store. You can search for maps using the name of a location, like a city, or you can search using keywords. You can see more information for each map by clicking on it. To download a map, click the green button in the lower right-hand corner of that map's section of the screen. Once you download a map, it will appear in the "My Maps" tab of the app.
    - The DNR produces maps for all GIA trails and all state recreation areas, state forests, state parks, and state trails. All of these maps are free to download on the map store.
    - If the DNR has produced a map for your specific trail, you can search "MNDNR" plus the name of the park or trail in the map store. Most DNR maps also have a QR code on the map that can be scanned to take you directly to that map within Avenza.
    - If you do not know of any maps (produced by the DNR or otherwise), you may be able to find maps available on the map store from a variety of sources like the United States Geological Survey, the US Forest Service, or from local governments like counties and townships. Any of these maps will be sufficient for our purposes in this guide. Some maps not produced by the DNR may require you to pay for the product.
    - You can also import maps that have been downloaded to your device. The maps must be georeferenced in order to display your location on the map, which is a very useful feature. Beware that the Avenza only allows 3 imported maps (i.e. maps not downloaded from the map store) to be stored in the app. If you wish to store more than 3 imported maps in the app, you will need to upgrade your account.
    - If you cannot find a map containing your area of interest, please contact staff from the OHV Program. They may be able to assist in creating a map for you to use temporarily.
3. Once you have a map of your area of interest and that map has been added to the "My Maps" tab, click on the map to open it.

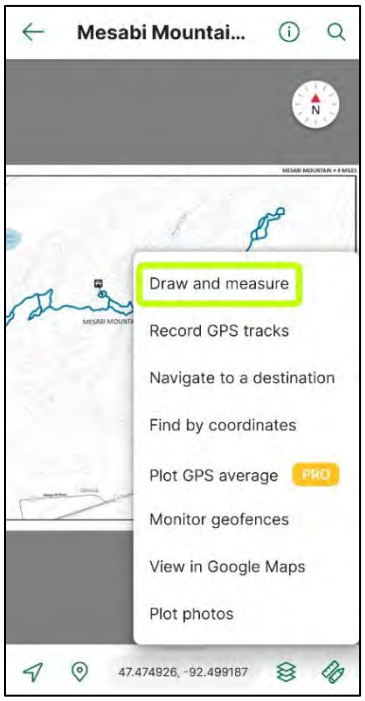
Creating Features

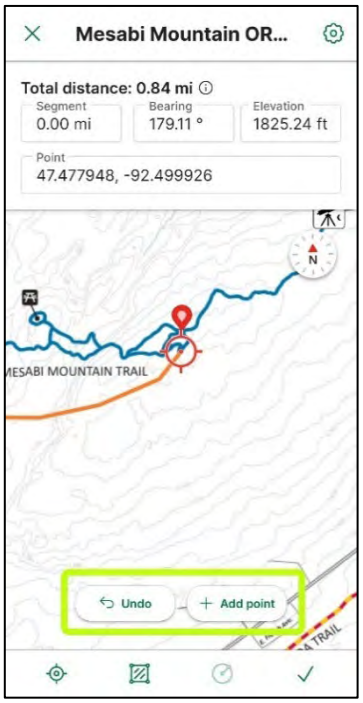
1. Once you have opened the map, you can record data in a number of ways:
   a. The red crosshairs is similar to a cursor in the respect that you can move the map around and the crosshairs indicate where a feature will be placed.

   b. If you are within the extent of the map, your location will show as a blue dot. By clicking the arrow in the lower left-hand corner of the screen, you can overlap the crosshairs and your location so you can precisely place features wherever you are. The map will default to being oriented North. By clicking the arrow a second time, the map will now be oriented in the direction you are facing, which can be very helpful for navigation.

   c. To mark a specific location, click the map pin icon in the lower right-hand corner in between the arrow and the bar containing location coordinates. This feature you have created is called a placemark. In the Add Placemark menu that pops up after clicking the map pin icon, you can enter a name for the placemark, change what symbol represents it in the map, add photos, and add a description. The app will record your location, elevation, time, and date that the placemark was created. Click the check mark in the upper right-hand corner of the screen to save the placemark or click the X in the upper left-hand corner of the screen to delete the placemark. Points are ideal to show things like the locations of facilities, a spot on your trail in need of maintenance, the locations of washouts or ruts, etc. Points are best used to demonstrate things that are not long or large in size. For longer things, like boardwalks or trail routes, lines are better equipped.

   d. To create a line, click the pencil and ruler icon in the lower right-hand corner of the screen. A menu will then appear with several options. To draw a line manually, click "Draw and measure". Use the "Add point" button to begin your line and add additional points. The "Undo" button can be used to undo actions, like creating the most recent point. The circle with crosshairs icon in the lower left-hand corner of the screen will bring the crosshairs to your current location if you are on the map.

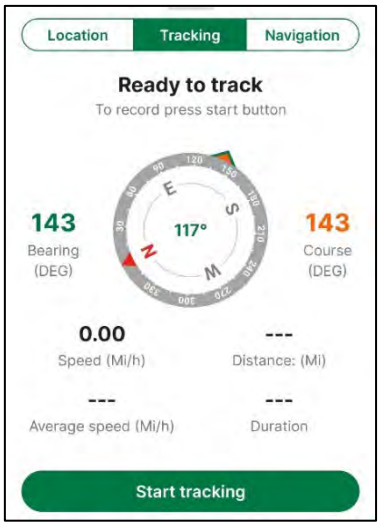




e. You can edit the appearance of the line by clicking the gear icon in the upper right-hand corner. Once you are satisfied, click the check mark in the lower right-hand corner of the screen. Lines are best used to capture things that extend a distance, like the proposed route of your trail, a potential connection to another trail, a boardwalk or bridge, etc. To demonstrate things that do not cover a distance but are larger than can be usefully demonstrated by a point, shapes can be helpful.

f. Once you have more than three points, you can select the square icon in the lower left-hand corner of the screen to create a shape defined by your points. While creating a shape, you can click the line icon that has taken place of the square icon in order to return to creating a line instead of a shape. Once you are satisfied, click the check mark in the lower right-hand corner of the screen. Shapes can be useful to demonstrate things like a parking lots or trail head, or an area on the trail where you performed maintenance.

g. You can also create a line that records your location automatically as you move. Again, click the pencil and ruler icon in the lower left-hand corner of the screen. Select "Record GPS tracks", which will bring up the menu for location, tracking, and navigation. Ensure "Tracking" is highlighted in green at the top of the menu, then select the green "Start tracking" button. Once you begin tracking, you can pause and subsequently resume recording if needed. To stop recording, select the "Stop" button, which will save your recording. You can click on this track after it has been saved to edit much of the same data you can edit with placemarks. You can also select "Show graph" to display data such as the average speed, top speed, time spent recording, elevation changes, etc.



2. One other feature Avenza offers is the option to plot photos. This can be helpful if you forgot to mark the location a specific photo was taken or want to easily add a large amount of photos. When you capture a photo with your phone, metadata is collected like the time and date the photo was taken, as well as the location the photo was taken at. Avenza can use that data to automatically place your photos on the map as placemarks. To do this, select the pencil and ruler icon in the lower right-hand corner of the screen, then select "Plot photos". You can select all the photos you would like to plot, then select "Import" in the lower left-hand corner of the screen. This can be done both in real time or after the fact when you are no longer on the trail.

Exporting Data

1. To export the data, click the layers icon the in lower right-hand corner of the screen, between the pencil and ruler icon and the bar containing location coordinates. This will bring you to a screen that shows all of the layers on your map. To export all layers, click the icon of a square with an upwards arrow in the top right-hand corner of the screen. You can also export a single layer by clicking the layer and following the same process. You can change several settings of the layer here if you desire, but it is important that you pay attention to the "Format" section and choose KML format if you will be sending this data to the DNR.

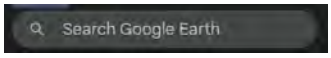
2. Once you are satisfied with the settings, click the orange circular button in the lower right-hand corner of the screen. Once the file has been exported by the app, you will see a pop-up window with options to share this data. If the file is small enough, it can be sent via email. If it is too large to be shared as an email attachment, you may have to upload the file to a cloud storage space, like OneDrive, and provide DNR staff with a link to that location. Please keep in mind the DNR staff cannot access Google sites like Google Drive, so that storage location cannot be used.

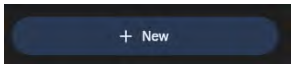
Off-Highway Vehicle Grant-in-Aid Program Manual

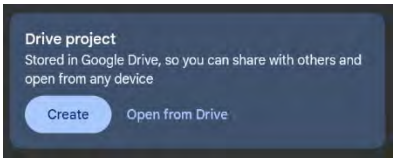
Appendix 13

How to Create KML/KMZ Files Using Google Earth

Getting Started

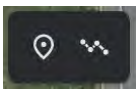
1. Launch Google Earth from your browser: https://earth.google.com/web
2. Navigate to your project site. You can use the Search bar 

to type in an address or a nearby landmark to get started. You can pan around the by clicking and holding (do not release) the button on the left-hand side of your mouse. You can zoom in and out using the scroll wheel on your mouse, by pinching on your trackpad, or by using the + and – buttons in the lower right-hand corner of your screen. You can orient your screen so North is at the top of the screen by clicking the compass icon in the lower right-hand corner of your screen. You can switch between 2D and 3D view using the 3D button in the lower right-hand corner of your screen.
3. Once you have found your project site, first create a new project to store this data (if this is a new project). To do this, select the + New button. 

4. Next, create this project in Google Drive. 

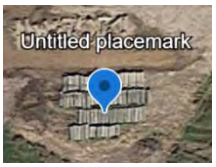
5. Create a title and description for the project by clicking the pencil icon. 
6. Projects in Google Earth will automatically save, so you do not need to manually save your edits.

Creating Features

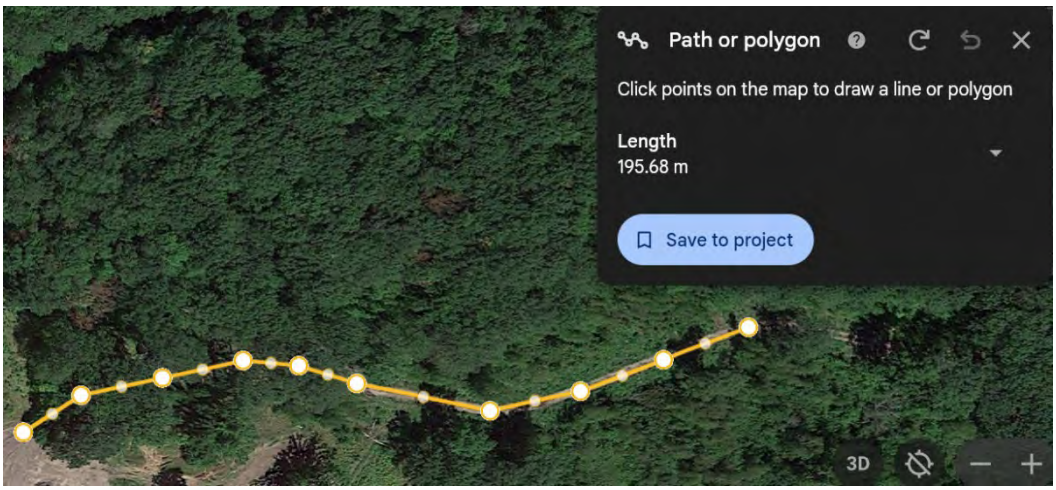
1. In Google Earth, things you create like points and lines are referred to as Features. To create new features, use the Add placemark button or Add path or polygon 

button in upper left-hand corner of the screen, next to the search bar. The figure on the left will create a point and the figure on the right will create a line.

2. To create a point, select the left-hand figure on the shortcut button. Your cursor will turn into a crosshair symbol. Simply left-click once to create a point. Points are ideal to show things like the locations of facilities, a spot on your trail in need of maintenance, the locations of washouts or ruts, etc. Points are best used to demonstrate things that are not long or large in size. For longer things, like boardwalks or trail routes, lines are better equipped.



3. To create a line, select the right-hand figure on the shortcut button. Again, your cursor will turn into a crosshair symbol. A line is just a series of points connected together, so you will start your line by left-clicking once. To continue your line, move your cursor and left-click again. Another point in your line will be created and the points will connect together to form a line. Create as many points as you need to form the rest of your line. When you are satisfied, you can double-click with the left-hand button of your mouse to finish the line. You must then save the line to your project by clicking the Save to project button.

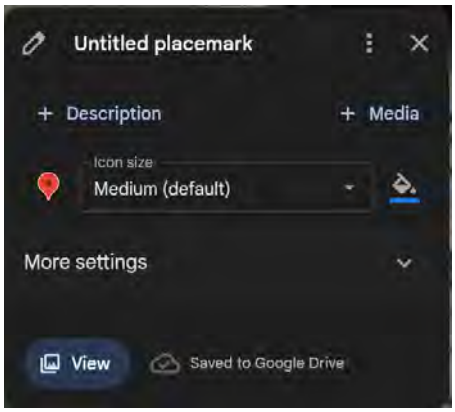


If you need to move the map while creating your line, you can click and hold (do not release) the left-hand button on your mouse. This will allow you to shift your view without interrupting your line. Once you are satisfied with your view, you can go back to creating a line as normal. Lines are best used to capture things that extend a distance, like the proposed route of your trail, a potential connection to another trail, a boardwalk or bridge, etc. To demonstrate things that do not cover a distance but are larger than can be usefully demonstrated by a point, shapes can be helpful.

4. You can also use lines to create shapes. You can create shapes using the same mechanisms as lines. To close your shape, simply connect the end of one line back to the beginning of another, then save to your project.

Shapes can be useful to demonstrate things like a parking lots or trail heads, or an area on the trail where you performed maintenance.

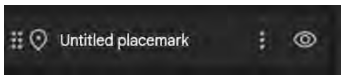
5. Each time you create a feature, you will be prompted to provide additional information once the feature is completed. On the left-hand side of the screen, a black column will appear to capture information. You can give the feature a title, a description, and change the symbology of the feature. Symbology describes how the feature appears – things like color, thickness, size, or the icon being used to represent this feature in your project. You can also add photos to your feature. This can be helpful for documentation of maintenance or to look back at this photo at a later date. **Note:** when the file is exported and shared with the DNR, some of this information will not be carried over due to how Google exports this data. These files do not support storage of data like photos, and they do not store information about the symbology of your features. When the file is exported, it will bring the bare bones – the locations of your points, lines, and shapes, as well as the name you have given the feature. Any other information you want to share with the DNR will have to be shared another way (see: Sharing Your Project). This does not mean you should not upload photos or change symbology if



that is helpful for you. This project will be saved to your Google account and it can be helpful to reference this data as things change year to year, or as your trail system grows and additional data needs to be sent to the DNR. The project you are creating can also be a very helpful trail management and communication tool.

Editing & Deleting Features

1. If you need to edit or delete a feature you have created, you can do so by going to the list of features in the black column at the left-hand side of your screen. Each feature will have it's own item in the list. When you hover over a feature, several options become available.



   A. To change the order of the items in your list, you can click and hold (do not release) the rectangle composed of six dots at the left-hand end of the bar. After clicking, drag the item to its desired location in the list, then release. This could be helpful for organization if you have a large number of features. For example, if you have features that are nearby each other in the real world, like a parking lot and a bathroom, you may want to list the features next to each other in your project.

   B. The three dots at the right-hand side of the bar can be used to edit the additional information you captured about your feature, like in Step 5 of the previous section. To do this, simply left-click the three dots, then select Edit. This button also gives you the option to fly to the selected point, begin a slideshow of all features in the project, or delete the feature entirely.

   C. The eye icon can be used to make a feature invisible on the map. This can be helpful if you have lots of features nearby each other, but you are trying to focus on one specific feature. This can be difficult to do if the project is very busy or cluttered with features. By making the feature invisible, you can remove the feature from your view without deleting the data itself. To make a feature invisible, simply left-hand click the eye icon. To view the feature again, repeat that action.

   D. All of these operations can also be performed by right-clicking the feature's title, which will summon a list of all options.

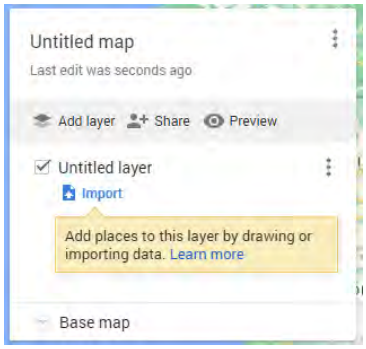
Sharing Your Project

1. The DNR will often ask for data to be shared in a KML or KMZ format when beginning project planning. To download your project in a KML file, left-click the three dots in the upper right-hand corner of the black column at the left side of your screen; a file will download to your computer. Unfortunately, the process does not stop here; it is not as easy as simply emailing this KML file. When shared directly (without additional steps), this KML file cannot be easily used by DNR staff as some the data does not translate well into the GIS (geographic information systems) program that state employees use.

2. The next step is to convert the KML file into a KMZ file, which works much better with the GIS program the DNR uses. To do this, first go to Google My Maps: https://www.google.com/maps/d/u/0/?hl=en. There will likely not be any maps here unless you have created maps before. You can also access My Maps by going to Google Maps https://www.google.com/maps and selecting the Saved icon in the white column at the left-hand side of the screen. This will open another panel; left-click on the "Maps" tab at the far right-hand side of this panel. Select "Open My Maps". 

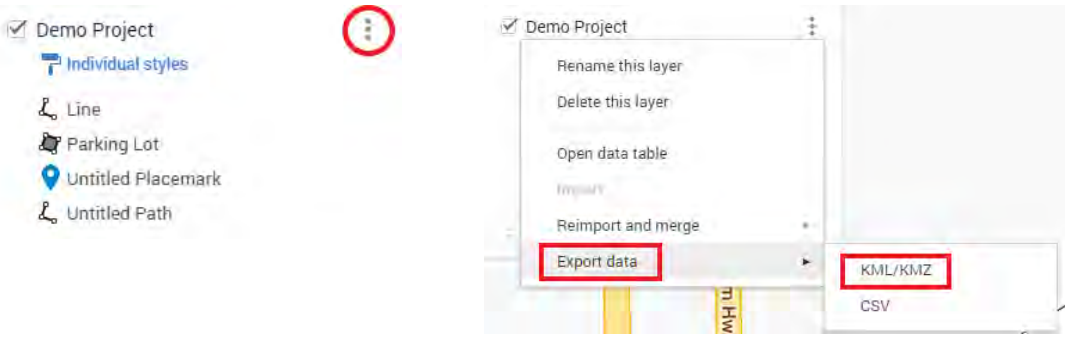
3. Once on the My Maps screen, select "Create a New Map". 

4. There will be nothing in the map upon creation, so the data needs to be imported. In the upper left-hand corner of the screen is a white box with information about the map. You do not need to worry about adding a title or naming the layers. Left-click on the blue text that says Import.



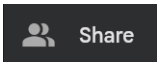
5. On the next screen, select the blue "Browse" button. This will open up your file explorer, where you can select the KML file you just exported from Google Earth. Next, select Open. Your data will be added to the current map. Take note of how the symbology did not carry over from Google Earth, but the points, lines, and shapes are all still present.

6. It is finally time to convert your data to its final form. Next to the new layer you just created are 3 dots; left-click the dots, then select Export Data. Select KML/KMZ. Leave both boxes unchecked on the following pop-up, then left-click the blue Download button.



7. A file will download to your desktop. This file can be emailed to DNR staff and other parties requesting a digital file of your proposed trail. If the file is too large to be shared as an email attachment, you may have to upload the file to a cloud storage space, like OneDrive, and provide DNR staff with a link to that location. Please keep in mind the DNR staff cannot access Google sites like Google Drive, so that storage location cannot be used.

BONUS

If you would like to share the project in its entirety, including photos you have added and symbology you have created, select the three dots to the right of your project's title, then select Share. 

You can then add the email addresses of people you would like to share the project with. You can make them an editor, so they can modify the features, or a viewer, so they can only see the project and cannot modify it at all. This is how your project can be used as a communication tool. You can share this project with club members performing maintenance on your trail or share it with your trail adminsitrator so they can use it to document your location and submit requests for reimbursement. A picture speaks a thousand words and can share information more easily than describing what needs to be maintained and where it is located.

Off-Highway Vehicle Grant-in-Aid Program Manual

Appendix 14

DNR Roving Crew Information

The DNR employs a team of equipment operators that only work on off-highway vehicle trails. This team can be requested to execute or assist in execution of projects on GIA trails. Annual applications for the Roving Crew are due by March 31 each year. A cost is associated with use of the Roving Crew, but that cost can be shared with your area office. Please communicate with your Area Supervisor to request the Roving Crew.

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Appendix 15

Citizen's Guide to Environmental Review

"A Citizen's Guide: An Introduction to Environmental Review" can be found here:

https://www.eqb.state.mn.us/sites/default/files/documents/Introduction.pdf

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Appendix 16

Permitting Resources

The most common permits and approvals required in the OHV program include:

- Federal and State Public Waterways and Wetlands:
    - Ensures compliance with sections 401 and 404 of the Clean Waters Act and the Minnesota Wetland Conservation Act.
    - Administered by the St. Paul District of the US Army Corps of Engineers
    - Joint application: https://www.pca.state.mn.us/business-with-us/clean-water-act-section-401-water-quality-certifications under "Joint Application"
- State Public Waters:
    - Regulates development activities below the ordinary high water level in public waters and public waters wetlands.
    - Administrated by MN DNR Ecological & Water Resources Division.
    - More info: https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/index.html
- New construction stormwater:
    - Ensures that Minnesota's water resources are protected from stormwater pollution during and after construction
    - Administered by the Minnesota Pollution Control Agency (MPCS) Storm Water Management Program
    - More info: https://www.pca.state.mn.us/business-with-us/construction-stormwater
- Non-DNR Land Use:
    - Permits to cross lands not managed by DNR. This may include road right-of-way limited use permission from the appropriate state, county, or local road authority.

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Appendix 17

Invasive Species Guide

The following links lead to DNR webpages describing the various facets of both terrestrial and aquatic invasive species prevention and management.

- Invasive Species in Minnesota

  https://www.dnr.state.mn.us/invasives/index.html

- A Minnesota Management Plan for Invasive Species

  https://files.dnr.state.mn.us/natural_resources/invasives/state_invasive_species_plan.pdf

- Guidelines for Managing and Restoring Natural Plant Communities along Trails and Waterways

  https://www.dnr.state.mn.us/trails_plantcommunities/index.html

- Contract, grant and permit requirements

  https://www.dnr.state.mn.us/invasives/dnrlands.html

- Invasive Terrestrial Plants

  https://www.dnr.state.mn.us/invasives/terrestrialplants/index.html

- Prevent the spread of invasive species on land

  https://www.dnr.state.mn.us/invasives/terrestrial/prevent_the_spread.html

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Appendix 18

Example Form 1

This appendix contains an example of Form 1 – Maintenance Application. This example is based on an application that resulted in successful funding. All personal or identifying information has been removed.

DEPARTMENT OF NATURAL RESOURCES

Off-Highway Vehicle Grant-in-Aid Program
Form 1 – Trail Maintenance Application

This application should be used to apply for funding for maintenance of trails currently enrolled in the Grant-in-Aid (GIA) system.

Trail maintenance applications must be submitted to Area Supervisor by November 30th of each year to obtain funding for the following year. Any funding granted for a given project is subject to the discretion of DNR Staff and requests may not be funded in full. This application does not guarantee how much funding a project will receive.

Please fill out this application in full. Boxes outlined in red are required. Boxes outlined in green are dropdown menus with pre-set options. Boxes outlined in blue will be automatically calculated and filled. Please enter all dates in MM/DD/YYYY format.

Worksheet 3 - Trail Contact Information must be submitted with this application on an annual basis, even if the information within has not changed.

1. Trail Information

Trail name:	Example ATV Trail
Club name:	Example ATV Club
Local government unit sponsor:	Aitkin county
Miles of trail in GIA system:	23.00

2. Spring Opening Funds

This table will determine how much funding your trail receives for spring opening. This payment will be issued automatically as soon as the grant agreement is executed (no later than April 30) and does not require an RFR.

Trail Type	Miles of Type of Trail	Cost Per Mile	Amount (miles x cost)
OHM single track		$50	0.00
ORV		$50	0.00
ATV Class 1		$50	0.00
ATV Class 1 & 2	18.00	$45	810.00
Railroad bed		$45	0.00
Shared MMR[1]	4.00	$45	180.00
Shared SFR[2]		$30	0.00
Shared local road	1.00	$30	30.00
Road ditch/ROW[3]		$30	0.00
		Total:	$ 1,020.00

[1] Minimum maintenance road, [2] State forest road, [3] Right of way

3. Grant Balance

If you are unsure of your grant balance, please contact your sponsor.

List the total amount of the latest grant awarded for this trail:	$ 30,000.00
List the current remaining balance of that grant:	$ 5,424.79

4. Projected Costs

Refer to the OHV GIA Manual for additional information about which activities fit into which categories. Fill in the approximate cost of expenses, prior to any reimbursements or matching funds. Calculations will be performed automatically by the form.

A. 65% Requests:

The state will reimburse the following categories at a rate of 65%.

1. **ADMINISTRATION** (includes equipment, labor, materials, and mileage for preparation of paperwork, bookkeeping, travel to and from project area, soliciting bids for contracting or rental equipment)

Amount requested:	1,500.00
Description:	
Paperwork for GIA program and permits, travel to and from trail	

2. **ACQUISITION** (includes equipment, labor, materials, and mileage for trail alignment work, checking land ownership records, contacting landowners, leases or fee acquisitions)

Amount requested:	$ 0.00
Description:	

3. **FACILITIES** (includes equipment, labor, materials, and mileage to construct trail shelters, picnic tables, trail heads, and ADA compliant permanent restroom facilities. This category does not include cleaning and maintenance of permanent or portable toilets.)

Amount requested:	$ 1,000.00
Description:	

4. **TRAIL SYSTEM MAP PRINTING** (includes production and printing of publicly available maps)

Amount requested:	0.00
Description:	

Total amount requested from section 4A:	$ 2,500.00
65% of above:	975.00

B. 90% Requests:

The state will reimburse the following categories at a rate of 90%.

1. **MAINTENANCE** (includes equipment, labor, materials, and mileage used for trail conditioning)

Amount requested:	$ 32,367.45
Description:	

1. Project filling in low spots in trail MM1-2, 4-8, 15-16 and parking lot
2. Brushing/mowing 10 miles of trail from MM1-MM10 annually and throughout season
3. Dust coating township road as agreed for access.
4. Grading entire trail annually to level corner berms and sand wash outs.
5. Regular maintenance: storm clean up, tree trimming/removal, mowing, and monitoring

2. **LIABILITY INSURANCE** (maximum state allowed $1,500 per year)

Amount requested:	100.00
Description:	

Insurance payment

3. **TOILETS** (includes equipment, labor, materials, and mileage to clean and maintain permanent ADA compliant restrooms and/or secure contracts for portable toilets)

Amount requested:	0.00
Description:	

Total amount requested from section 4B:	$ 32,467.45
90% of above:	75.00

C. Project Total

Project cost (before reimbursement rates):	47,950.00
Grant request (after reimbursement rates):	$ 1,050.00
Spring opening:	$ 1,020.00
Total grant request:	35,812.50

5. Maintenance Needs

Describe maintenance work the trail will need over the riding season, including the locations where maintenance will be performed. Attach additional sheets if necessary.

To fix low spots and wash outs from MM1-2, 4-8, 15-16, we will bring in 356 yds of red rock @ $12 per yard plus 200 yds of class 5 @ $16 per yard for parking lot. We will load material with tractor and haul material to trail using 13+ cubic yard dump trailer hauled with SXS. We will spread out material with 92 HP bulldozer, 67 HP tractor, and box blade. Bulldozer time estimated to be 25 hrs @ 81.25/hr. Total tractor time and box blade estimated to be 60 hrs (tractor 62.50/hr, box blade 18.75/hr). Labor time estimated to be 57 hrs. Estimated mileage for SXS and trailer is 70 miles (65.5 cents/mile for SXS, $12.56/mile for trailer). Total for this project is $21,267.45.

Brushing/mowing 10 miles of trail from MM1-MM10 annually: $3,000

Dust coating township road as agreed for access: 1 mile @ $2,600

Grading entire trail annually to level corner berms and sand wash outs: $3,500

Regular maintenance: storm clean up, tree trimming/removal, mowing, and monitoring: $2,000

Describe how this work will be accomplished:

Brushing, mowing, and general maintenance will be performed by club members with club equipment. Bulldozer, tractor, and box blade will be rented. SXS and dump trailer provided by club member. Material will be purchased from local supplier. Township will assist with dust coating on township road. Some work like trail monitoring will be done during the week by club members but most large projects will be done on weekends when several club members can meet and work together.

Check in with your Trail Management Objectives (TMOs). Do you feel the trail is in alignment with or is making progress toward the current TMOs? If not, please describe how you will change the maintenance/management of the trail or how you will change the TMOs to align more closely with each other. If you have not yet developed TMOs or need guidance, please see Worksheet 2 – TMO Development.

We will be filling in low spots to make the riding experience easier as TMOs specify an easy riding trail with little standing water. Other than that trail is aligned with TMOs.

6. Supplemental Information

Please attach the following to your application:

- Map of maintenance areas (preferably in SHP or KMZ format)
- Worksheet 2 – Trail Management Objectives (if applicable)
- Worksheet 3 – Trail Contact Information

7. Club Review

Name: John Smith
Email address: john.smith@example.com
Signature: John Smith Digitally signed by John Smith Date: 2023.08.23 09:27:46 -05'00'
Date: 08/23/2023

8. Sponsor Review – FOR SPONSOR USE ONLY

Sponsor Representative
Name: Jane Doe
Title:
Email address:
Signature:
Date:

9. DNR Review and Approval – FOR DNR STAFF USE ONLY

Area Supervisor
Signature:
Date:

Central Office
Findings of grant review:
Approval? Yes ☐ No ☐
Is Worksheet 3 - Trail Contact Information attached? Yes ☐ No ☐
Approved grant amount: $
Signature:
Date:

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Appendix 19

GAAP Resources

GAAP standards for Generally Accepted Accounting Principles.

Resources:

Financial Accounting Standards Board

Office of Justice Programs' GAAP Guide Sheet

Accounting.com - What is GAAP?

Forbes Business Advisor GAAP Guide

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Appendix 20

Grant & Fundraising Opportunities

Industry grants:
Each of these grant programs has different requirements and goals. Please see each link for more information and to see if it would be a good fit for your project.
https://treadlightly.org/bfg-ot/
https://treadlightly.org/stewardship-programs/#submit
https://www.extremeterrain.com/clean-trail-initiative-program.html
https://trailtrust.com/
https://www.polaris.com/en-us/trails-application/
https://yamahaoai.com/
https://www.riderfund.org/ApplyForFunding.aspx
https://www.quadratec.com/page/quadratec-cares-grant-program
https://www.onxmaps.com/onx-access-initiatives/outdoor-recreation-access-stewardship-grants
https://www.lccmr.mn.gov/index.html
https://www.americantrails.org/the-trail-fund
https://www.wildernessalliance.org/trail_funding?blm_aid=1733635073

State Department Grants:
Some of these grants may require partnership with a sponsor to carry the grant.
https://mn.gov/tourism-industry/industry-opportunities/grant-programs/new-events.jsp
https://mn.gov/irrrb/grant-resources/
https://www.dnr.state.mn.us/grants/recreation/index.html
https://www.lccmr.mn.gov/index.html

Federal grants:
Federal Recreational Trails Program (FRTP)
This program requires a match, which can be monetary or in-kind donations. The application is administered through the DNR. Contact Dan Golner with questions or issues:
Daniel.Golner@state.mn.us
https://www.dnr.state.mn.us/grants/recreation/trails_federal.html#:~:text=The%20minimum%20grant%20request%20is,require%20a%2025%25%20secured%20match.

Support & resources for grant applications

Resources for learning/support:
https://www.grants.gov/web/grants/learn-grants.html
https://mn.gov/admin/government/grants/
https://www.nps.gov/orgs/rtca/apply.htm

Best Practices for Grant Applications:

- Ensure your project matches the qualifications for the grant. If your project is not a good match for the grant or the grant specifies that it will not fund parts of your project or all of your project, do not spend your valuable time and effort applying for a grant you may not get. For example, if the grant qualifications state that the grant seeks to maintain or revitalize trails, do not apply for the grant if you're looking to fund new trail construction.
- Carefully follow the formatting that the grant application has asked for. Incorrect formatting, submitting the wrong file type (pdf vs docx format), submitting the incorrect documents (EIN status vs establishment document), or missing important documentation are all common mistakes that may contribute to your grant application being denied. Automatic application systems may filter out your application if it doesn't have the correct formatting or is missing uploaded documents. This means that your application may not even be seen by a human who is evaluating projects for grant funding. The ability to follow directions and match specifications may contribute to your application being denied if your project is closely matched and equally qualified compared to another.
- Diversify your funding. Companies or organizations offering grants want to see that you have more than one source of income and are not relying solely on grants to fund your activities. They may ask to see financial documents or for proof of other income sources as part of the application process. If their grant or another grant (like the MN DNR grant-in-aid program) is your only funding, it may contribute to your application being denied. Grants are not a steady source of income and may vary in cost, or may even be denied, from year to year. A financially healthy organization will have more than one source of income, and should have a steady funding stream. This could be accomplished with a variety of fundraisers or club business.
- Secure non-profit status for your club. Non-profit status is high encouraged, but not required, to receive funding from the grant-in-aid program. Other grants, especially from organizations that are not in the motorized recreation industry, may require non-profit status in order to receive funding. Application for non-profit status is not always a quick process and your club may not be able to get it in time to submit your application if the grant is due in a short time frame.
- Be prepared for grants asking for a match. Some grants will ask that their contribution be matched with funding directly from your club, funding from another source (like employer match), or with in-kind donations like labor.

Fundraising Opportunities

Club business:

- Begin collecting dues from your members or increase current dues
- Host events with a fee like group rides, car show, skills challenge, etc
- Charitable or philanthropic giving from your employer – direct donations
- Employer donation matching or fundraiser matching – to add to money already being raised

Fundraisers:

- Raffle for prizes, 50/50 raffle, or silent auction – many prizes can be donated to your club by larger corporations. This works well at the end of an event or group ride.
- Sell merchandise: clothing, calendars, coffee mugs, stickers, hats, outerwear, etc
- Local restaurants
- Chain restaurants: Chipotle, Chick-fil-a, Panda Express, Panera, Little Caesars Pizza, Buffalo Wild Wings, etc
- Make and sell goods (ATV accessories, recovery gear, etc)
- Car wash
- Gerten's flowers
- Online shopping
- Candle sales
- Events centered around food: bake sale, chili cook off, pancake breakfast, pig roast, BBQ dinner
- Food sales: buy food from wholesale provider and resell (chocolate bars/candy, cookie dough, coffee beans, popcorn, beef jerky), JoMomma's Salsa, Jo coffee, Krispy Kreme doughnuts

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Appendix 21

ADA Compliance Resources

ADA is short for the Americans with Disabilities act, which became law in 1990 and prohibits discrimination against individuals with disabilities in places open to the general public. The ADA Standards for Accessible Design were released in 1991. In 2009, the Americans with Disabilities Amendments Act was signed into law, which broadened the scope of the definition of disability and included more individuals whose rights were not protected by ADA regulations prior to the act's passing. An updated version of the ADA Standards for Accessible Design was published in 2010 and currently remains the standard.

Both versions of the Standards publications can be found here: https://www.ada.gov/law-and-regs/design-standards/

While it is recommended to read all sections applicable to your project site and planned structure or facilities, sections of particular interest may be:

- Chapter 4: Accessible Routes
- Chapter 5: General Site and Building Elements
- Chapter 6: Plumbing Elements and Facilities

For more information about the Americans with Disabilities Act, go here: https://www.ada.gov/law-and-regs/design-standards/

For an ADA checklist, go here: https://www.adachecklist.org/doc/fullchecklist/ada-checklist.pdf

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Appendix 22

Trail Inspection Schedule

Trail monitoring/inspection should include observing trail conditions and making note of immediate and future maintenance needs as well as noting evidence of irresponsible or illegal user behavior. Please document and report any issues or incidents to the trail administrator, Parks and Trails Area staff, DNR enforcement, and/or the county sheriff's office.

Most trails that do not remain open in the winter have an approximate season of May 1 – November 1.

During the summer season, the trail should be inspected:

- At the beginning of the season prior to trail opening.
- As ground begins to thaw and snow melts, inspect frequently for damages from OHV traffic while ground is soft. Close trail as needed to prevent damage to resources.
- Once trail conditions are persistently dry, inspect trail every 2-4 weeks depending on weather and soils present on trail. If soil is fine or sandy and tends to displace easily, you may visit more often. If soil is rocky and well-compacted, you may visit less often.
- After storms, windy days, and excessively rainy events.
- As snow begins to fall, inspect frequently for damages from OHV traffic while ground is soft. Close trail as needed to prevent damage to resources.
- If your trail closes for deer hunting season, inspect trails before and after that window to post and remove closure warnings.

If your trail is open in winter and is a shared-use trail:

- Inspect often, every 1-2 weeks, depending on snow conditions and recent weather.
- Inspect after large snowstorms or ice storms, especially if large amounts of either accumulate, as branches may break and trees may fall from snow or ice load.
- Visit after warm, sunny days where the temperature is above 30° to inspect for damages caused by OHV traffic.
- Close OHV portions of trail if conditions become muddy or sloppy, especially as ground thaws and snow melts in spring

If your trail is open in winter and is not a shared-use trail:

- Inspect after large snowstorms or ice storms, especially if large amounts of either accumulate, as branches may break and trees may fall from snow or ice load.
- If you groom or condition the trail surface, inspect as often as snow conditions and recent weather call for. You may inspect more often if there are frequent snow storms or you may inspect less often if conditions are relatively stable.
- Close trail if conditions become muddy or sloppy, especially as ground thaws and snow melts in spring

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Appendix 23

Competitive Bid Process Guidelines

In the process of building and maintaining Grant-in-Aid trails, clubs may find a need to contract out services or purchase large amounts of specific materials. This document reviews when it is appropriate to source external bids, the DNR guidelines for bid solicitation, and why this competitive bid process occurs.

When is it appropriate to solicit bids?

- A project is beyond the scope of what the club can reasonably and safely accomplish
- Special equipment or skilled labor is required
- Equipment rental rates exceed the allowable costs for that piece of equipment (refer to OHV GIA Program Manual)
- A project requires materials that cannot reasonably be sourced from retailers like hardware stores and home improvement stores or needs large quantities of specific materials

Competitive Bid Process

Your sponsor may have a different procedure for bid solicitation. If local policy differs from the policy outlined below, the club must follow the policy of the sponsor over the policy of the DNR.

The MN DNR's process is as follows:

1. Develop your request for bid. The information in the request must be provided to all vendors so each can accurately assess the project and provide a quote or estimate based upon the same set of criteria. Include specifics such as:
    a. Material price per item or per yard
    b. Service price per hour or per mile
    c. Costs for labor and equipment
    d. What date/time the product or service is needed*

* Season-long contracts are allowed within the GIA program, as long as the solicitation of the contract follows competitive bid process guidelines.

e. If being delivered, where product should be dropped off

f. Other services you may need, like spreading of gravel

g. Additional fees that may be included (delivery fees, disposal fees, etc)

2. Solicit bids from vendors local to the project area. Bids can be solicited via email or phone. A minimum of three bids must be solicited before the work for the project begins. Each of these bids must be attached to the Request for Reimbursement (RFR) form when it is sent to your sponsor.

    a. It can be considered a bid if a vendor:

        i. Does not respond

        ii. Responds that they do not have the appropriate equipment or supplies

        iii. Responds that your project is outside their service area

        iv. Responds that they cannot provide materials or services at the specified date/time

        v. Responds that they are not interested

        vi. Responds, but the response does not address the specifics noted in your request

    b. To use the above as bids, document the specifics provided in your bid request and the vendors response, or lack thereof. This documentation must be submitted with your RFR.

3. The club must use the vendor that provides the lowest bid.

Why is the competitive bid process required?

Minnesota statute 471.345, Uniform Municipal Contracting Law

DNR Roving Crew

The DNR employs a team of equipment operators that only work on off-highway vehicle trails. This team can be requested to execute or assist in execution of projects on GIA trails. Annual applications for the Roving Crew are due by March 30 each year. A cost is associated with use of the Roving Crew, but that cost can be shared with your area office. Please communicate with your Area Supervisor to request the Roving Crew.

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Off-Highway Vehicle Grant-in-Aid Program Manual

Appendix 24

Signage Guide

This appendix contains guidelines for signage of trails and signs applicable to motorized recreation that are available to order through your local DNR office.

Objectives

In similar fashion to the GIA program, the DNR also has priorities and objectives for recreation signage across the state. Some of these objectives include easy understanding and recognition by the user, comprehensive and effective management by field personnel and volunteers, and cost-effective sign production methods and materials.

To facilitate easy understanding and recognition, international symbols have been incorporated into the sign system. These symbols are visual statements of recreational facilities and/or opportunities. They are useful because they are communicated and comprehended quickly and are universally understood by users of diverse ethnic backgrounds and foreign visitors.

To improve management, the signs outlined in this system are adaptable to different situations, thus becoming multipurpose. Through the use of approved decals, these signs become even more adaptable. On the whole, these signs form a broader and more and flexible system of signing.

Additionally, the DNR strives to maintain a sign program that encourages the use of recycled materials and the recycling of obsolete signs. This includes specifying post-consumer recycled aluminum and No. 2 plastics. Materials being utilized are only those that perform the best when considering cost, production, durability, longevity, and function of the sign.

Sign Assessment

There are five steps during an effective sign assessment:

- Identify the total need for all signs based on the visitor/user's perspective.
- Identify any problem area where a sign might solve the problem.
- Prepare an inventory of all existing signs and their condition. (Maps could be used for plotting various existing sign locations and for sighting locations where new signs are needed.)
- Make recommendations for routine inspection and maintenance.
- Develop priorities for ordering and installation of new signs.

Sign Standards

Silkscreened signs are standard for motorized use trails. Silkscreened signs are divided into two groups: permanent (aluminum or poly) material and temporary (cardboard or plastic) material. There are several aspects of signage that are often forgotten when signing a trail or maintaining an existing signage system. Implementing a standard method of signage will make sign management and maintenance easier, will inform rider expectations, and will provide riders with consistent direction all the way through a trail.

Placement

Sign placement is critical to a sign's effectiveness. The amount and type of users will, to a large extent, determine the sign's location. A sign should be positioned with respect to the point, object, or situation to which it applies so that the user has an adequate amount of time to respond appropriately. It should be located so that it will command attention. In addition, signs should be placed in a uniform and consistent manner so that the user can respond to the sign message based on having encountered similar situations.

To be effective, a sign should meet five criteria:

1. Fulfill a need
2. Command attention
3. Convey a clear, concise, and simple message
4. Demand respect of the user
5. Give adequate time for proper response

Specific questions can help clarify the proper placement of a sign:

- Is this the best location for the sign?
- How good are the sight lines? Users travelling at higher speeds need increased sight lines.
- Will vegetation and snow cover obstruct the sign? If so, removing these obstructions should become part of the regular maintenance for the area.
- How will this sign affect the existing traffic patterns?
- Are there many signs are in close proximity to this location? If so, consider which signs are necessary and which could be removed.

Where a potential hazard exists for the user, signs should be erected as a warning. Once an area has been signed with a warning or hazard sign, it must continuously be signed that way (unless the hazard or danger no longer exists).

Aside from providing information, sign content directly influences the user's impressions of the area and can affect the user's behavior. Improper terminology, conflicting messages, grammatical errors, inappropriateness of color combinations, and bad location can inhibit the sign's effectiveness and create dangerous circumstances. Such misuse of signs can result in both intentional and unintentional noncompliance at those locations.

Additionally, over-signing can result in visual competition for the user's attention which can be hazardous as well as environmentally obtrusive. Conservative use of regulatory/warning signs is

desirable, as these signs lose their effectiveness if used in excess. Over-signing or improper signing can be just as bad as inadequate signing.

Height

It is recommended that signs be placed at least 48 inches above the ground, measured from the bottom of the sign. Signs can be placed higher if the situation is appropriate.

Distance

Distance of signs from intersections or distance between signs should loosely follow these guidelines:

Speed (mph)	Distance (ft)
20	100
30	150
40	300
50	500

Visibility

Reflective signs should be used where there are requisites for regulatory control or concern for personal safety, such as restricted areas or area of low light visibility.

Multiple Messages

When more than one message is being communicated by the same post or in the same space, the primary message should be at the top.

Classes

All DNR signs are devised into broad categories. Through this categorization, signs receive design emphasis, layout refinement, and assigned colors according to their function. This allows the sign system to be implemented consistently across the state, regardless of who maintains the signage.

1. Boundary Signs: Series NRM 8.1

Series Color: Black on Yellow (or Black on White as specified by law).

These signs are used to delineate lands owned or areas managed by the Department and to delineate statutory boundaries where the majority of land is under Department ownership.

2. Information and Rule Signs: Series NRM 8.2

Series Color: White on Brown (or in special cases, Brown on White).

These signs describe specific permitted uses or certain prohibited activities within specific DNR administered units. These signs further inform the user of the parameters of use for that unit as mandated by public law. These signs provide information to the user and describe an area where permitted uses, specific events, or particular conditions exist.

3. Regulatory/Warning Signs: Series NRM 8.3

Series Color: Generally Black on Orange or Brown on White.

These signs inform the user of a controlled or limited use of a particular area.

4. Trail/Vehicular Signs: Series NRM 8.4

Series Color: Variable.

These signs are intended to control, assist, or guide varying modes of user traffic. While some of these signs conform to national and international standards, others have originated to control a specific type of activity encountered only by DNR units.

5. Special Sign Categories: Series NRM 8.5

Series Color: Variable.

The signs in this category are broad, diverse or often very specialized. These signs identify Department facilities, equipment, or specific use(s). Also included are signs derived from Federal origins which are prescribed by law (i.e., Occupational Health and Safety Act) or where facilities and/or products are associated with the receipt of Federal monies, or both.

6. Temporary Signs: Series NRM 8.6

Series Color: Red on White.

These signs are used to meet seasonal or temporary situational needs (1-180 day duration).

Elements

Silkscreened signs contain six elements that are used to describe and order signs, which corresponds with information in the sign index:

- Size
- Color
- Design
- Symbols
- Adaptability
- Materials
- Reflectorization

Information and Rule Signs

Series NRM 8.2

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12”
- ☐ 8” x 8”
- ☐ other

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ■ brown on white

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ☐ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2”
- ☐ 3”
- ☐ other

9-10

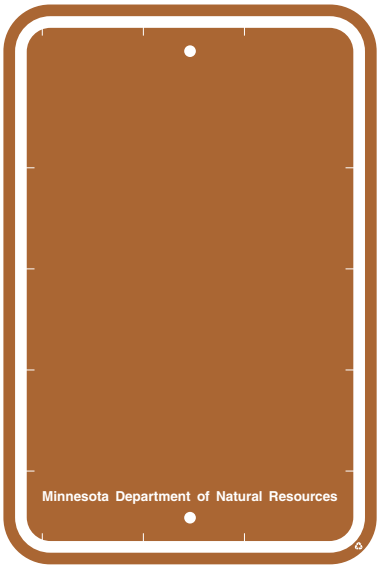
NOTES:

- 3M Transparent Brown on 3M 3290 White Engineer Grade Reflective Sheeting.

NRM 8.2.20 *Stay on Trail*

NRM 8.2.25A
8” x 8”
(1-4 symbols)

NRM 8.2.25B
12” x 12”
(5-6 symbols)



NRM 8.2.25C
12” x 18”
(7-12 symbols)

EXAMPLE
showing applied decals

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ■ 12” x 12”
- ■ 8” x 8”
- ❑ other

COLOR
- ■ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ■ brown on tan

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ■ 1/4” (8” x 8”)
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ■ 1” (8” x 8”)

9-10

NOTES:
- NRM 8.2.25A - Federal Highway Brown (PMS 731) on Tan: PMS 468.
- NRM 8.2.25B and NRM 8.2.25C - White on Federal Highway Brown (PMS 731).
- Vendor to print “tick marks” on stock sign.
- To apply decals, align **Bottom** and **Left** edges with tick marks.
- To be used in conjunction with **Recreation Symbol** decals **NRM 8.2.26** and **Trail Use Symbol** decals **NRM 8.4.22** and **NRM 8.4.24**.

Recreation Use Sign Blanks NRM 8.2.25

Regulatory/Warning Signs

Series NRM 8.3

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ■ 14” x 18”

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ■ orange on white

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

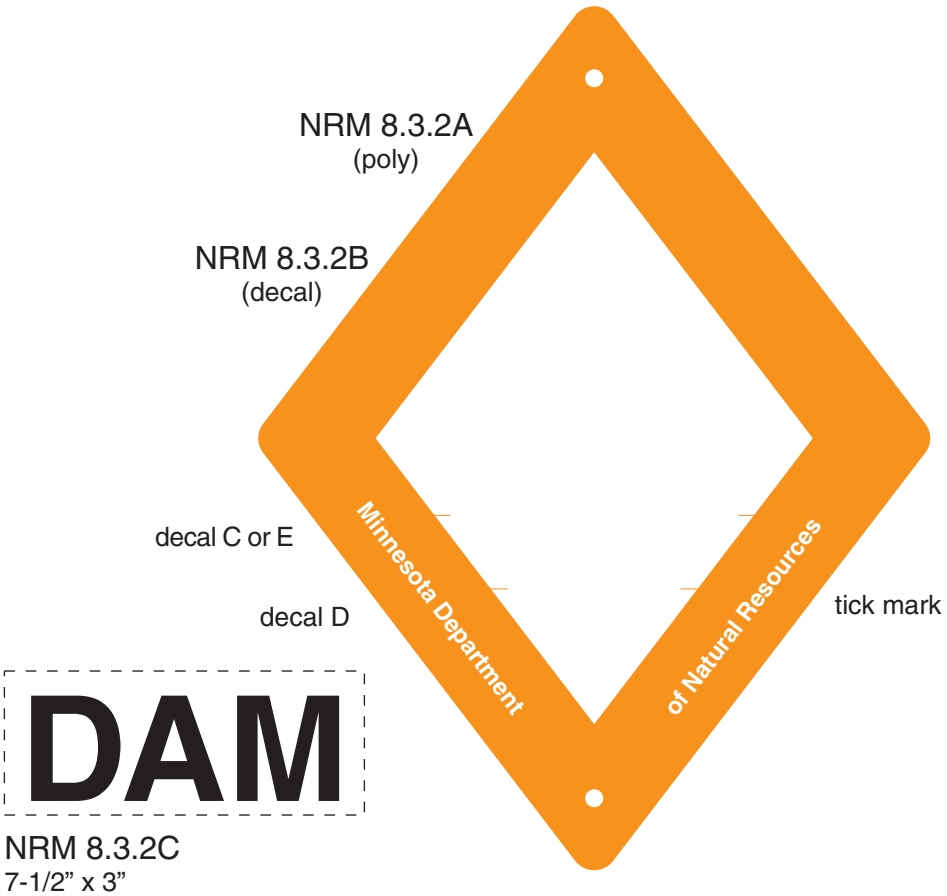
MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ☐ 1-1/2”
- ☐ 3”
- ■ 1/2”

9-10



DAM

NRM 8.3.2C
7-1/2” x 3”

THIN ICE

NRM 8.3.2D
7” x 5”

NET

NRM 8.3.2E
7-1/2” x 3”

NOTES:
- Federal Highway Orange (PMS 165) on 3M Scotchlite CW 80.
- Decals: black on clear; 3M Controltac #180C-114.
- To apply decal, align bottom edge of decal with tick marks.
- To be used on all Fisheries operations where open water may be created.
- Vendor to print “tick marks” on stock sign.

NRM 8.3.2 *Warning Blazer (Dam, Thin Ice, Net)*

SIZE
- ■ 18” x 12”
- ❑ 24” x 18”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ❑ white on brown
- ❑ red on white
- ■ black on orange
- ❑ black on yellow
- ❑ other

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .050”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:
- The sign shop will add the “prohibited activities” that you specify with vinyl letters.
- Orange: PMS 152.

NRM 8.3.12 *Prohibited Activities*

Trail/Vehicular Signs

Series NRM 8.4

NRM 8.4.1A
12” x 12”
.075” poly

NRM 8.4.1B
18” x 18”
.063” aluminum

SIZE
- ❑ 12” x 18”
- ❑ 18” x 24”
- ■ 12” x 12” - A
- ■ 18” x 18” - B
- ❑ other

COLOR
- ❑ white on brown
- ■ red on white
- ❑ black on orange
- ❑ black on yellow
- ❑ other

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ■ .063” - B
- ■ .075” - A
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ■ aluminum - B
- ■ poly-plastic - A
- ❑ cardboard
- ❑ decal

REFLECT.
- ■ yes
- ❑ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ❑ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:

A. • Federal Highway Red (PMS 200) on 3M Scotchlite CW 80.

B. • Sheeting/Ink: Must use White Reflective Sheeting 3M-3930 (10-year warranty)
Must use red ink appropriate to sheeting product, 882i.
• Grade: High Intensity Reflective.

Stop Sign NRM 8.4.1

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12”
- ☐ 8” x 8”
- ☐ other

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ■ black on yellow
- ☐ black on clear

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ☐ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ☐ 1-1/2”
- ☐ 3”
- ■ 5/8”

9-10

NOTES:
- To be used on trails only. To be used only when trail conditions warrant an advance notice of a stop sign
- Black on 3M CW 81 (Yellow).

NRM 8.4.2 *Stop Ahead*

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ■ 12” x 12” x 12”

COLOR
- ☐ white on brown
- ■ red on white
- ☐ black on orange
- ☐ black on yellow
- ☐ other

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ☐ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ☐ 1-1/2”
- ☐ 3”
- ■ 5/8”

NOTES:
- This sign can be used on trails only.
- Federal Highway Red (PMS 200) on 3M CW 80 (White).

Yield **NRM 8.4.3**

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12”
- ☐ 8” x 8”
- ☐ other

COLOR
- ☐ white on brown
- ■ red on white
- ☐ black on orange
- ☐ black on yellow
- ☐ black on clear

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2”
- ☐ 3”
- ☐ other

9-10

Decals →

NRM 8.4.4A

OPTIONAL DECALS

NRM 8.4.4B **ONE WAY**

NRM 8.4.4C **ROAD CLOSED**

NRM 8.4.4D **TRAIL CLOSED**

NRM 8.4.4E **BRIDGE OUT**

NOTES:
- This size sign is to be used on trails only.
- Federal Highway Red (PMS 200) on 3M CW 80 (White).
- Decals: 9-1/2” x 2”; red on clear; 3M Controltac #180C-114.

NRM 8.4.4 *Do Not Enter*

NRM 8.4.5A

NRM 8.4.5B

NRM 8.4.5C

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12”
- ☐ 8” x 8”
- ☐ other

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ■ black on yellow
- ☐ other

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ☐ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ☐ 1-1/2”
- ☐ 3”
- ■ 5/8”

9-10

NOTES:

- This sign can be used on trails only.
- Black on 3M CW 81 (Yellow).

Caution **NRM 8.4.5**

SIZE
- ❑ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ■ 8” x 8”
- ❑ other

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ■ see notes

THICKNESS
- ❑ .023”
- ❑ .035”
- ■ .055”
- ❑ .063”
- ❑ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

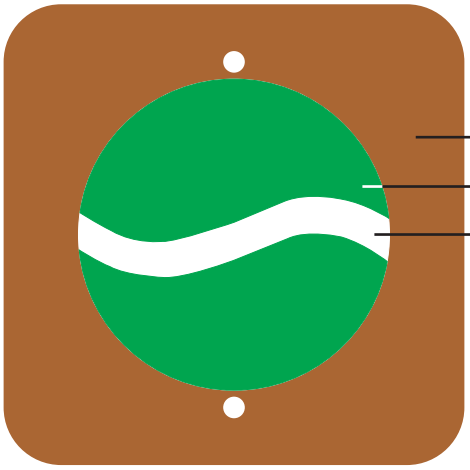
MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

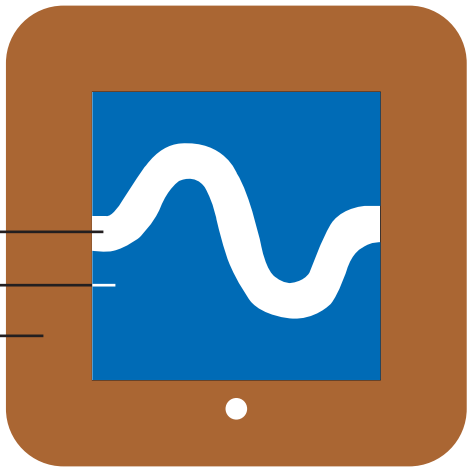
HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ❑ 1-1/2”
- ❑ 3”
- ■ 1”

9-10



NRM 8.4.6A
(easy)
- brown
- green
- opaque white

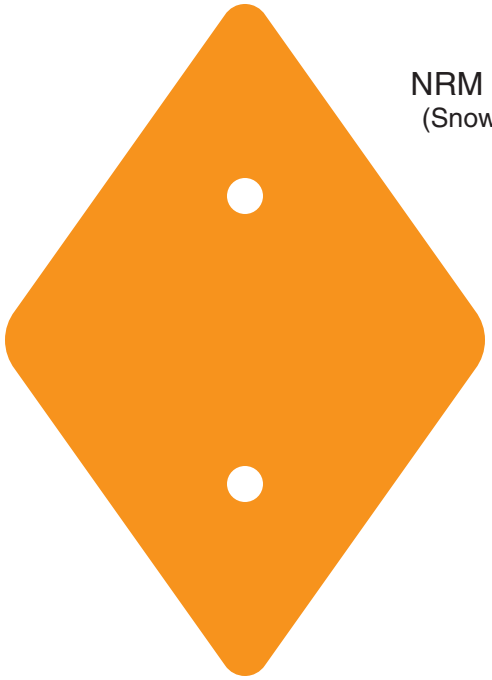


NRM 8.4.6B
(more difficult)
- opaque white
- blue
- brown

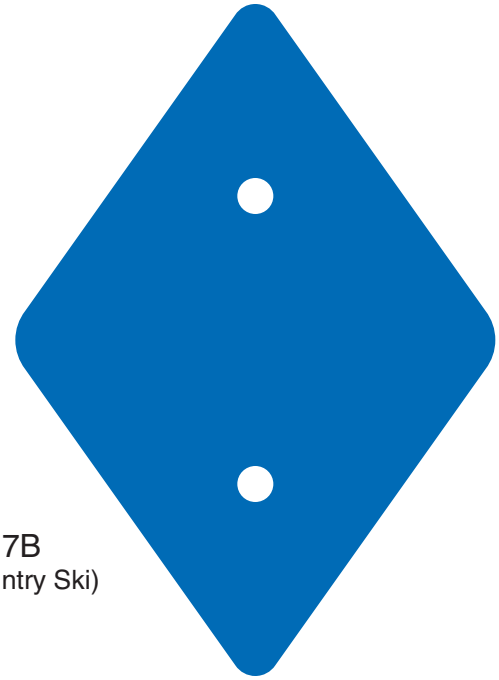
NRM 8.4.6C
(most difficult)
- opaque white
- brown
- black

NOTES:
- Federal Highway Brown (PMS 731).
- Federal Highway Green (PMS 3415).
- Federal Highway Blue (PMS 301).

NRM 8.4.6 *Universal Trail Difficulty Rating*



NRM 8.4.7A
(Snowmobile)



NRM 8.4.7B
(Cross Country Ski)

SIZE
- ❑ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ■ 5” x 7”

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ■ orange
- ■ blue

THICKNESS
- ❑ .023”
- ❑ .035”
- ■ .055”
- ❑ .063”
- ❑ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ■ yes - orange
- ■ no - blue

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ❑ 1-1/2”
- ❑ 3”
- ■ 1/4” & 1/2”

9-10

NOTES:

- NRM 8.4.7A: 3M CW 84 (orange); **snowmobile** trails; reflectorized.
- NRM 8.4.7B: federal highway blue (PMS 301); ski trails (non-reflectorized.)
- Radius: sides = 1/2”; top & bottom = 1/4”.

Reassuring Blazer **NRM 8.4.7**

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ■ 9” x 12”

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ■ see notes

THICKNESS
- ❑ .023”
- ❑ .035”
- ■ .055” (9” x 12”s)
- ❑ .063”
- ■ .075” (12” x 18”s)
- ❑ .080”
- ❑ .100”
- ❑ .125”

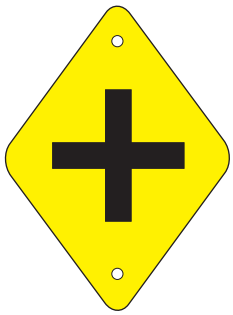
MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ■ yes
- ❑ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ❑ 1-1/2”
- ❑ 3”
- ■ see notes

9-10



NRM 8.4.8A
Intersection

NRM 8.4.8E
"Y" Junction
(left)

NRM 8.4.8B
"T" Junction

NRM 8.4.8F
Curve
(right)

NRM 8.4.8C
Directional Arrow
(right or left)

NRM 8.4.8G
Curve
(left)

NRM 8.4.8D
"Y" Junction
(right)

NRM 8.4.8H
Winding

NOTES:
- **SNOWMOBILE TRAILS:** Black on 3M CW84 (Orange).
- **ALL OTHER TRAILS (motorized and non-motorized):** Black on 3M CW81 (Yellow).
- Radius: **9” x 12”** signs; sides - 1”; top, bottom - 1/2”, **12” x 18”** signs; sides - 1-1/2”; top, bottom - 3/4”.
- Please specify both **size** and **color** when ordering signs.

NRM 8.4.8 *Trail Directionals*

NRM 8.4.9A
12” x 12”

NRM 8.4.9B
24” x 24”

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12”
- ☐ 8” x 8”
- ■ 24” x 24”

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ■ black on yellow
- ☐ other

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ■ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ☐ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 7/8”
- ■ 1-1/2”
- ☐ 3”

9-10

NOTES:

- Black on 3M CW81 (Yellow).

Trucks Hauling **NRM 8.4.9**

SIZE
- ■ 12” x 18”
- ☐ 18” x 24”
- ☐ 12” x 12”
- ■ 10” x 10”
- ■ 10” x 3”

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ■ brown/red on white

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ■ .063”
- ☐ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ■ aluminum
- ☐ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2”
- ☐ 3”
- ☐ other

9-10

NRM 8.4.10A

NRM 8.4.10B
10” x 10”

decal B

decals C-J

Decals C - I: 10” x 3”

NRM 8.4.10C	No Parking
NRM 8.4.10D	Except in Designated Areas
NRM 8.4.10E	Beyond this Point
NRM 8.4.10F	Along Roadway
NRM 8.4.10G	This Side
NRM 8.4.10H	On the Grass
NRM 8.4.10I	Fire Lane
NRM 8.4.10J	In Front of Gate

refer to NRM 8.5.13F for Arrow Decal placement shown above (right or left)

NOTES:
- Decals: Federal Highway Brown (PMS 731) on White; 3M Scotchlite CW 80.
- To apply decal, align bottom edge of decal with tick marks.
- Circle/slash to be printed in Federal Highway Red (PMS 200).
- The border, “P” and text in 3M Transparent Brown on 3M 3290 White Engineer Grade Reflective Sheeting.

NRM 8.4.10 *No Parking*

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ■ white/red on brown

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ■ .063”
- ❑ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ■ aluminum
- ❑ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:
- Federal Highway Brown (PMS 731).
- Federal Highway Red (PMS 200).

NRM 8.4.12 *No OHVs Beyond this Point*

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ■ brown on white

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

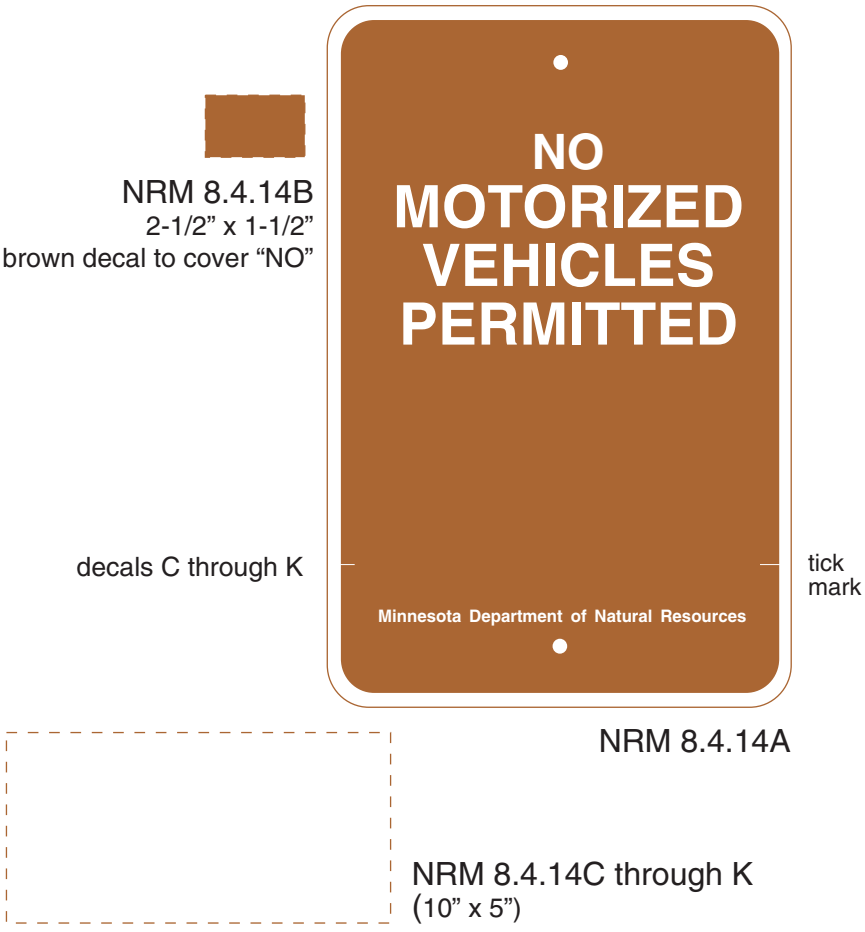
MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ■ decal

REFLECT.
- ■ yes
- ❑ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10



NRM 8.4.14C: Beyond this point
NRM 8.4.14D: On this route
NRM 8.4.14E: Except ATVs
NRM 8.4.14F: Except Snowmobiles
NRM 8.4.14G: Except ATVs and Snowmobiles
NRM 8.4.14H: In this bicycle campground
NRM 8.4.14I: Except Motorcycles
NRM 8.4.14J: Except ORVs and Trucks
NRM 8.4.14K: except ATVs for deer hunting & trapping

NOTES:
- 3M Transparent Brown on 3M CW 80 (White).
- Decals: various sizes; 3M Transparent Brown on 3M CW80 (White).
- To apply decal, align bottom edge of decal with tick marks.
- Vendor to print “tick marks” on stock sign.

NRM 8.4.14 *(No) Motorized Vehicles Permitted*

Refer to
NRM 8.2.22
for motorized trail use decals
and
NRM 8.4.24
for non-motorized trail use decals

SIZE
- ☐ 12” x 18”
- ■ 24” x 18”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ☐ other

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ■ brown on tan

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ☐ .075”
- ■ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ■ aluminum
- ☐ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2”
- ☐ 3”
- ☐ other

9-10

NOTES:

- Federal Highway Brown (PMS 731) on Tan: PMS 468.
- For **3” x 3” trail use symbol decals** refer to **NRM 8.4.22** and **NRM 8.4.24**.
- To apply decal, align **left** and **bottom** edges of each decal with tick marks.
- Vendor to print “tick marks” on stock sign.

Road open to... **NRM 8.4.17**

NRM 8.4.21A
12” x 18”

NRM 8.4.21B
18” x 24”

SIZE
- ■ 12” x 18”
- ■ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ■ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ❑ other

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ■ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:

- Federal Highway Brown (PMS 731).

Forest Closed for Off-Highway Vehicles NRM 8.4.21

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12” signs
- ■ 3” x 3” decals
- ☐ other

COLOR
- ☐ white on brown
- ■ red on white
- ■ black on orange
- ☐ black on yellow
- ☐ other

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ■ yes - signs
- ■ no - decals

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2” on signs
- ☐ 3”
- ☐ other

9-10

NRM 8.4.22A

NRM 8.4.22AX

SNOWMOBILE

NRM 8.4.22BI

NRM 8.4.22BII

NRM 8.4.22BX

A.T.V.
All-terrain Vehicle

NRM 8.4.22C

NRM 8.4.22CX

O.H.M.
Off-highway motorcycle

NRM 8.4.22D

NRM 8.4.22DX

O.R.V.
Off-road Vehicle

NRM 8.4.22E

HIGHWAY
LICENSED
VEHICLE

NOTES:

- SIGNS: **Snowmobile:** Black on Avery T1504 Engineer Grade Reflective Sheeting (Orange).
  All other Vehicles Red on 3M CW80 (White).
- DECALS: **Snowmobile:** Black on Federal Highway Orange (PMS 165) on 3M Controltac #180C-10.
  All other Vehicles White on Federal Highway Red (PMS 200) on 3M Controltac #180C-10.

NRM 8.4.22 *Motorized Trail Use Symbols*

tick mark

tick mark

NRM 8.4.23A

Name of Trail

NRM 8.4.23B (10" x 1")

Date - Date
(3" x 1/2")

NRM 8.4.23C	May 1 - Nov. 1
NRM 8.4.23D	May 1 - Nov. 30
NRM 8.4.23E	Apr. 1 - Nov. 30
NRM 8.4.23F	Dec 1 - Mar. 31

SIZE
- ■ 12" x 18"
- ☐ 18" x 24"
- ☐ 12" x 12"
- ☐ 8" x 8"
- ☐ other

COLOR
- ■ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ☐ other

THICKNESS
- ☐ .023"
- ☐ .035"
- ☐ .055"
- ■ .063"
- ■ .075"
- ☐ .080"
- ☐ .100"
- ☐ .125"

MATERIAL
- ■ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4"
- ☐ 5/16"
- ■ 3/8"
- ☐ 3/4"

RADIUS
- ■ 1-1/2"
- ☐ 3"
- ☐ other

9-10

NOTES:

- Federal Highway Brown (PMS 731).
- For 3" x 3" **Trail Use Symbol** decals, refer to **NRM 8.4.22**.
- Trail Name and Date decals; white on clear; 3M Controltac #180C-114.
- To apply decal, align edge of decal with "tick marks".

Permitted Motorized Uses **NRM 8.4.23**

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ■ 12” x 12” signs
- ☐ 8” x 8”
- ■ 3” x 3” decals

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ■ blue on white

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2” - signs
- ☐ 3”
- ☐ other

9-10

NRM 8.4.24A
Hiking

NRM 8.4.24AX
No Hiking

NRM 8.4.24B
Horseback

NRM 8.4.24BX
No Horseback

NRM 8.4.24C
Bicycle

NRM 8.4.24CX
No Bicycle

NRM 8.4.24D
Mountain Bike

NRM 8.4.24DX
No Mt. Bike

NRM 8.4.24E
In-line Skating

NRM 8.4.24EX
No In-line Skating

NRM 8.4.24F
Snowshoeing

NRM 8.4.24FX
No Snowshoeing

NRM 8.4.24G
Cross Country Skiing

NRM 8.4.24GX
No Cross Country Skiing

NRM 8.4.24H
Dog Sledding

NRM 8.4.24HX
No Dog Sledding

NOTES:
- SIGNS: White on Federal Highway Blue (PMS 301).
- DECALS: Federal Highway Blue (PMS 301) on 3M Controltac #180C-10.

NRM 8.4.24 *Non-motorized Trail Use Symbols*

tick mark

tick mark

NRM 8.4.25

Name of Trail

NRM 8.4.23B (10" x 1")

Date - Date
(3" x 1/2")

NRM 8.4.23C	May 1 - Nov. 1
NRM 8.4.23D	May 1 - Nov. 30
NRM 8.4.23E	Apr. 1 - Nov. 30
NRM 8.4.23F	Dec 1 - Mar. 31

SIZE
- ■ 12" x 18"
- ☐ 18" x 24"
- ☐ 12" x 12"
- ☐ 8" x 8"
- ☐ other

COLOR
- ■ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ☐ other

THICKNESS
- ☐ .023"
- ☐ .035"
- ☐ .055"
- ■ .063"
- ■ .075"
- ☐ .080"
- ☐ .100"
- ☐ .125"

MATERIAL
- ■ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4"
- ☐ 5/16"
- ■ 3/8"
- ☐ 3/4"

RADIUS
- ■ 1-1/2"
- ☐ 3"
- ☐ other

9-10

NOTES:
- Federal Highway Brown (PMS 731).
- For 3" x 3" **Trail Use Symbol** decals, refer to **NRM 8.4.24**.
- Trail Name and Date decals; white on clear; 3M Controltac #180C-114.
- To apply decal, align edge of decal with "tick marks".

Non-motorized Trail Uses **NRM 8.4.25**

SIZE
- ■ 12” x 18”
- ☐ 18” x 24”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ☐ other

COLOR
- ■ white on brown
- ☐ red on white
- ☐ black on orange
- ☐ black on yellow
- ☐ other

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ■ .063”
- ■ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ■ aluminum
- ■ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2” - signs
- ☐ 3”
- ☐ other

9-10

tick mark

tick mark

NRM 8.4.26

Name of Trail

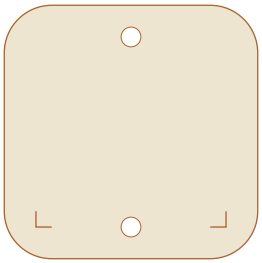
NRM 8.4.23B (10” x 1”)

Date - Date
(3 x 1/2”)

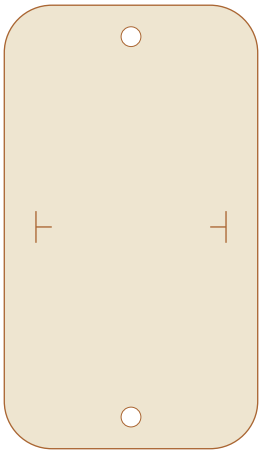
NRM 8.4.23C	May 1 - Nov. 1
NRM 8.4.23D	May 1 - Nov. 30
NRM 8.4.23E	Apr. 1 - Nov. 30
NRM 8.4.23F	Dec 1 - Mar. 31

NOTES:
- Federal Highway Brown (PMS 731).
- For 3” x 3” **Trail Use Symbol** decals, refer to **NRM 8.4.22** and **NRM 8.4.24**.
- Trail Name and Date decals; white on clear; 3M Controltac #180C-114.
- To apply decal, align edge of decal with “tick marks”.

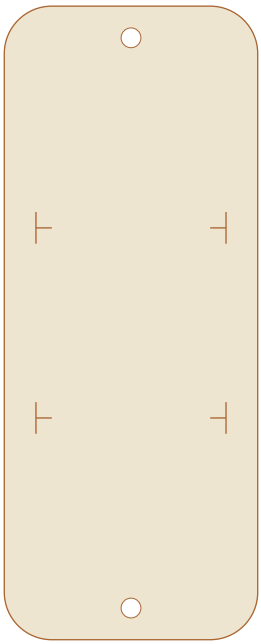
NRM 8.4.26 *Multiple Use Trail*



NRM 8.4.29A
4” x 4”
(1 decal)



NRM 8.4.29B
4” x 7”
(2 decals)



NRM 8.4.29C
4” x 10”
(3 decals)

EXAMPLE
showing
applied
decal

SIZE
- ❑ 18” x 12”
- ❑ 24” x 18”
- ■ 4” x 10”
- ■ 4” x 7”
- ■ 4” x 4”

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ red and white
- ■ brown on tan

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ■ 5/16”
- ❑ 3/8”
- ❑ 3/4”

RADIUS
- ❑ 1-1/2”
- ❑ 3”
- ■ 3/4”

9-10

NOTES:

- Tan: PMS 468.
- Tick marks to be printed in Federal Highway Brown (PMS 731).
- For 3” x 3” **Trail Use Symbol** decals refer to **NRM 8.4.22** and **NRM 8.4.24**.

Trail Use Blanks NRM 8.4.29

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ■ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ❑ other

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:

- Federal Highway Brown (PMS 731).

NRM 8.4.34 *Stay on Marked Routes*

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ■ black on yellow
- ❑ other

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:

- Federal Highway Yellow (PMS 123).

ORV Registration Required **NRM 8.4.35**

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ■ 18” x 18”

COLOR
- ■ black ink on yellow sheeting and red ink on white sheeting

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ■ .063”
- ☐ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

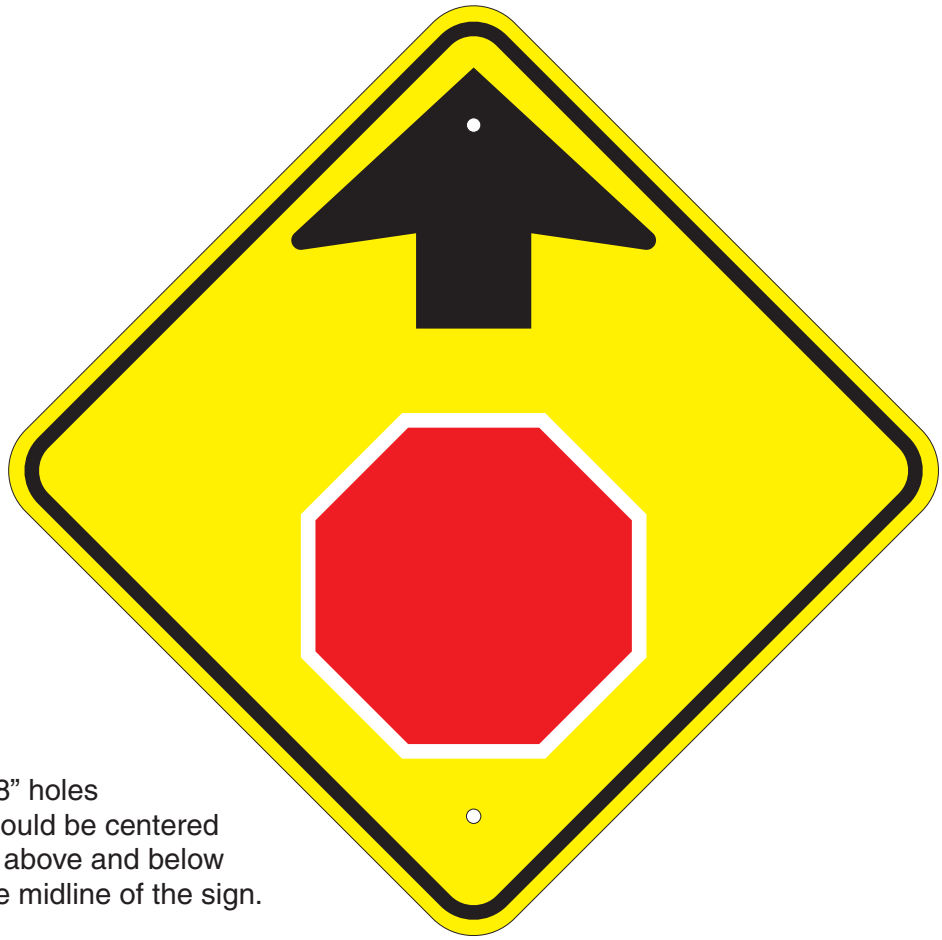
MATERIAL
- ■ aluminum
- ☐ poly-plastic
- ☐ cardboard
- ☐ decal

REFLECT.
- ■ yes
- ☐ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ■ 3/8”
- ☐ 3/4”

RADIUS
- ■ 1-1/2”
- ☐ 3”
- ☐ other

11-10



3/8” holes should be centered 9” above and below the midline of the sign.

NOTES:
- Grade: High Intensity Prismatic Reflective.
- Sheeting/Ink: Must use Yellow High Intensity Prismatic Reflective sheeting 3M-3931, plus high intensity prismatic reflective white 3M-3930 overlaid for the stop octagon (10 year warranty). Must use inks appropriate/recommended with sheeting product, red 882i and black 885i. Inks must be screen printed.

NRM 8.4.38 *Stop Ahead with Arrow*

Special Sign Categories

Series NRM 8.5

SIZE
- ■ 12” x 18”
- ❑ 18” x 24”
- ❑ 12” x 12”
- ❑ 8” x 8”
- ❑ other

COLOR
- ❑ white on brown
- ❑ red on white
- ❑ black on orange
- ❑ black on yellow
- ■ green on white

THICKNESS
- ❑ .023”
- ❑ .035”
- ❑ .055”
- ❑ .063”
- ■ .075”
- ❑ .080”
- ❑ .100”
- ❑ .125”

MATERIAL
- ❑ aluminum
- ■ poly-plastic
- ❑ cardboard
- ❑ decal

REFLECT.
- ❑ yes
- ■ no

HOLE SIZE
- ❑ 1/4”
- ❑ 5/16”
- ■ 3/8”
- ❑ 3/4”

RADIUS
- ■ 1-1/2”
- ❑ 3”
- ❑ other

9-10

NOTES:

- Care should be taken by vendor so that drawing is produced clear and sharp.
- Federal Highway Green (PMS 3415).

Grant-In-Aid Trail **NRM 8.5.7**

SIZE
- ☐ 18” x 12”
- ☐ 24” x 18”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ■ see illustrations

COLOR
- ☐ white on brown
- ☐ red on white
- ☐ black on orange
- ■ red on clear
- ■ black on clear

THICKNESS
- ☐ .023”
- ☐ .035”
- ☐ .055”
- ☐ .063”
- ☐ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

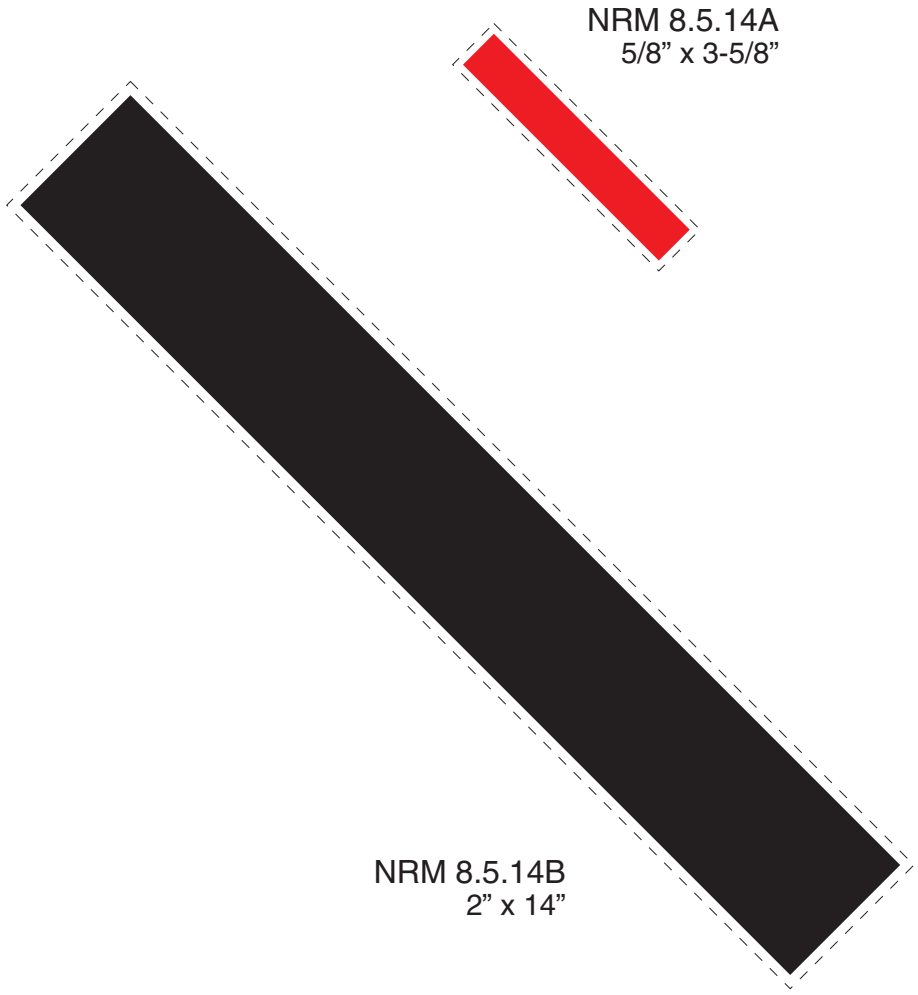
MATERIAL
- ☐ aluminum
- ☐ poly-plastic
- ☐ cardboard
- ■ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ☐ 3/8”
- ☐ 3/4”

RADIUS
- ☐ 1-1/2”
- ☐ 3”
- ☐ other

9-10



NOTES:
- NRM 8.5.14A: Federal Highway Red (PMS 200) on Clear; 3M Controltac #180C-114.
- NRM 8.5.14B: Black on Clear; 3M Controltac #180C-114.

NRM 8.5.14 *Slashes*

Temporary Signs

Series NRM 8.6

SIZE
- ☐ 12” x 18”
- ☐ 18” x 24”
- ☐ 12” x 12”
- ☐ 8” x 8”
- ■ 11” x 14”

COLOR
- ☐ white on brown
- ■ red on white
- ☐ black on orange
- ☐ black on yellow
- ☐ other

THICKNESS
- ☐ .023”
- ☐ .050”
- ■ .056”
- ☐ .063”
- ☐ .075”
- ☐ .080”
- ☐ .100”
- ☐ .125”

MATERIAL
- ☐ aluminum
- ☐ poly-plastic
- ■ posterboard
- ☐ decal

REFLECT.
- ☐ yes
- ■ no

HOLE SIZE
- ☐ 1/4”
- ☐ 5/16”
- ☐ 3/8”
- ☐ 3/4”

RADIUS
- ☐ 1-1/2”
- ☐ 3”
- ☐ other

9-10

Trail/Road Temporarily Closed for Repairs

For Information Call:

Minnesota Department of Natural Resources

NOTES:

- Federal Highway Red (PMS 200) on .056” White Beverage Coat Posterboard.

NRM 8.6.18 ***Trail/Road Temporarily Closed***

Off-Highway Vehicle Grant-in-Aid Program

Appendix 25

Example Worksheet 1

This appendix contains an example of Worksheet 1 – Worklog/RFR. This example is based on an application that resulted in successful funding. All personal or identifying information has been removed.

Off-Highway Vehicle Grant-in-Aid Program
Worksheet 1 – Worklog & Request for Reimbursement

DEPARTMENT OF NATURAL RESOURCES

This worksheet should be used to document work performed on trails enrolled in the GIA program and to request reimbursement for expenses incurred while doing so. This worksheet must be submitted, at minimum, every 90 days after purchasing of goods and services begins, or after eligible expenses reach $5,000, whichever comes first. With this worksheet, please submit all invoices/receipts for purchases and services over $100 and proof of compliance with competitive bid process guidelines, if applicable. All accompanying documentation can be submitted via email with this worksheet.

Please fill out one entry per expense per date. To create space for additional entries of mileage, labor, equipment, or attachments, click the "Add Entries" button at the bottom of any page. To create space for entry of invoices, click the "Add Invoices" button at the bottom of any page. If multiple pieces of equipment were used on the same day or multiple activities were performed by the same operator, please ensure you are documenting the number of labor hours spent performing the activity described in that entry, not the total number of labor hours in the work day.

Boxes outlined in red are required. Boxes outlined in green are dropdown menus with pre-set options. Boxes outlined in blue are automatically calculated. Please enter all dates in MM/DD/YYYY format. To turn on autocomplete, which will remember frequently entered information like operator names, click "Edit" in the ribbon at the top of the window, then select "Preferences". Click "Forms" in the menu at the left-hand side, then turn on "Basic" or "Advanced" under the Auto-Complete heading.

This worksheet will display and function best when downloaded and saved to your computer, then filled out using Adobe Acrobat Reader. All buttons and calculations will not work otherwise. The latest version can be downloaded from Adobe's website.

Trail Name	Example ATV Trail	Year	2023
Sponsor	Itasca county	Club	Example ATV Club

NEW ENTRY

Operator name:	Jane Doe	Date:	06/29/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	6	0.655	3.93
Labor			
Equipment			
Attachments			
		Total:	3.93

NEW ENTRY

Operator name:	Jane Doe	Date:	06/29/2023
Describe work performed & location:	Grade hill and trail with 39HP tractor and box blade to prepare for cement planks MM13-15	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation			
Labor	6	25.00	150.00
Equipment	4.5	43.75	196.88
Attachments	4.5	18.75	84.38
		Total:	431.25

Add Invoices

NEW ENTRY

Operator name:	Steve Johnson	Date:	06/29/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	15	0.655	9.83
Labor			
Equipment			
Attachments			
			Total: 9.83

NEW ENTRY

Operator name:	Steve Johnson	Date:	
Describe work performed & location:	Shovel and rake hill to prepare for cement planks, put up detour signs MM14-15, traveled with SXS	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	5.5	0.655	3.60
Labor	6.5	25	162.50
Equipment			
Attachments			
			Total: 166.10

NEW ENTRY

Operator name:	John Smith	Date:	06/29/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	10	0.655	6.55
Labor			
Equipment			
Attachments			
			Total: 6.55

NEW ENTRY

Operator name:	John Smith	Date:	06/29/2023
Describe work performed & location:	Shovel, rake, brush, and cut with chainsaw to MM 14-15, traveled with SXS	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	6.5	0.655	4.26
Labor	6	25	150.00
Equipment	.3	7.20	2.16
Attachments			
			Total: 156.42

Add Invoices Reset Form

NEW ENTRY

Operator name:	Joe Jones	Date:	06/29/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	29	0.655	19.00
Labor			
Equipment			
Attachments			
			Total: 19.00

NEW ENTRY

Operator name:	Joe Jones	Date:	06/29/2023
Describe work performed & location:	Shovel, rake, brush, and put up detour signs MM14-15, traveled with SXS	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	5.5	0.655	3.60
Labor	4.5	25	112.50
Equipment			
Attachments			
			Total: 116.10

NEW ENTRY

Operator name:	Bill Williams	Date:	06/29/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	24	0.655	15.72
Labor			
Equipment			
Attachments			
			Total: 15.72

NEW ENTRY

Operator name:	Bill Williams	Date:	06/29/2023
Describe work performed & location:	Shovel and rake MM14-15, traveled with SXS	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	2	0.655	1.31
Labor	2	25	50.00
Equipment			
Attachments			
			Total: 51.31

Add Invoices Reset Form

NEW ENTRY

Operator name:	Fred Miller	Date:	06/30/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	148	0.655	96.94
Labor			
Equipment			
Attachments	148	0.25	37.00
			Total: 133.94

NEW ENTRY

Operator name:	Fred Miller	Date:	06/29/2023
Describe work performed & location:	Moved and placed 36 cement planks with 55HP skid steer MM14-15	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation			
Labor	10	25	250.00
Equipment	5	62.50	312.50
Attachments			
			Total: 562.50

NEW ENTRY

Operator name:	Jane Doe	Date:	06/30/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	6	0.655	3.93
Labor			
Equipment			
Attachments			
			Total: 3.93

NEW ENTRY

Operator name:	Jane Doe	Date:	06/30/2023
Describe work performed & location:	Helped place cement planks and graded trail with 39HP tractor and box blade MM14-15	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation			
Labor	7	25	175.00
Equipment	5.7	43.75	249.38
Attachments	5.7	18.75	106.88
			Total: 531.25

Add Invoices | Reset Form

NEW ENTRY

Operator name:	Steve Johnson	Date:	06/30/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	20	0.655	13.10
Labor			
Equipment			
Attachments			
		Total:	13.10

NEW ENTRY

Operator name:	Steve Johnson	Date:	06/30/2023
Describe work performed & location:	Shoveled and raked in between cement planks, traveled with SXS	Expense Category:	Maintenance

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	3	0.655	1.97
Labor	7	25	175.00
Equipment			
Attachments			
		Total:	176.97

NEW ENTRY

Operator name:	Jane Doe	Date:	07/13/2023
Describe work performed & location:	Travel to and from trail	Expense Category:	Administration

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation	6	0.655	3.93
Labor			
Equipment			
Attachments			
		Total:	3.93

NEW ENTRY

Operator name:	Jane Doe	Date:	07/13/2023
Describe work performed & location:	Mowed parking lot and Cook Lake picnic area with 39 HP tractor and brush mower, MM12-14	Expense Category:	Facilities

	Amount (hours, miles, etc)	Item being reimbursed (mileage, labor, equipment, etc) & reimbursement rate	Cost (autofill)
Transportation			
Labor	5	25	125.00
Equipment	3.4	43.75	148.75
Attachments	3.4	24.00	81.60
		Total:	355.35

Add Entries

Reset Form

Please submit invoices/receipts for all purchases and services over $100 and bids following competitive bid process guidelines for materials and/or services provided by third-party vendors

NEW INVOICE

Date:	05/25/2023
Category:	Maintenance
Cost:	1540.00
Describe expense:	Cat work done MM14.5-15.5 to prepare for cement planks, MM15.5-18 reshaped trail for water runoff

NEW INVOICE

Date:	
Category:	
Cost:	
Describe expense:	

NEW INVOICE

Date:	
Category:	
Cost:	
Describe expense:	

NEW INVOICE

Date:	
Category:	
Cost:	
Describe:	

Please submit invoices/receipts for all purchases and services over $100 and bids following competitive bid process guidelines for materials and/or services provided by third-party vendors

Add Invoices Reset Form

Project Totals

Total acquisition/development expenses:	0.00	x	65%	=	0.00
Total administration expenses:	209.93	x	65%	=	136.45
Total capital improvement expenses:	0.00	x	100%	=	0.00
Total facilities expenses:	355.35	x	65%	=	230.98
Total insurance expenses:	0.00	x	90%	=	0.00
Total maintenance expenses:	3,731.90	x	90%	=	3,358.71
Total new trail construction expenses:	0.00	x	75%	=	0.00
Total toilet expenses:	0.00	x	90%	=	0.00
Total trail system maps expenses:	0.00	x	65%	=	0.00
Total winter maintenance expenses:	0.00	x	90%	=	0.00
Total expenses:	$ 4,297.18			Net request:	$ 3,726.14

Grant Balance

If you are unsure of these details, please contact your sponsor.

Which grant are you requesting reimbursement from?

- ☐ Previous fiscal year
- ☒ Current fiscal year

Total grant amount awarded $8,454.79

Remaining balance (prior to submitting this worksheet) $ 4,728.65

Club and Sponsor Approval

Please attach invoices/receipts for purchases and services over $100 and bids following competitive bid process guidelines for materials and/or services provided by third-party vendors.

By signing this document, I hereby certify that the materials and/or services shown above have been delivered or fulfilled, have been used for the above specified Grant-in-Aid trail, and that attached invoices/receipts are original copies, are correct and just, and have not been previously reimbursed.

Authorized Signature of Trail Administrator	John Smith Digitally signed by John Smith Date: 2023.08.23 09:27:46 -05'00'	Date	08/23/2023
Authorized Signature of Sponsor		Date	

DNR Approval – DNR STAFF USE ONLY

Fiscal Year: / Partial Payment ☐ Final Payment ☐

Grant amount: prior to payment / after payment

Contract #: / Purchase Order #:

PO Line		Amount		Receipt #	
PO Line		Amount		Receipt #	
PO Line		Amount		Receipt #	
PO Line		Amount		Receipt #	

Vendor Number	
Vendor Name	
Vendor Address	

This invoice is approved for payment by

Parks and Trails Area Supervisor

OK TO PAY

Staff Note: this form utilizes digital signatures which eliminates the need to print off this form, sign it, and scan it back in order to obtain secure signatures. For security purposes, this form cannot be changed in some ways once signatures are present, or all signatures will be erased. This form cannot be edited in the following ways, all using Adobe Acrobat Pro:

- Extract, insert, or delete pages using organize pages tool
- Combine files

However, the form can be changed in the following ways:

- Errors can be corrected using the fill and sign tool
- This file can be copied and pasted in file explorer and remain unchanged
- This form can be printed to PDF if specific pages need to be saved outside of the original file