

Minnesota Department of Natural Resources  
500 Lafayette Road  
St. Paul, Minnesota 55155

Date: December 14, 2001

To: Parties on the EAW Distribution List  
Other Interested Parties

From: Donald W. Buckhout  
Office of Management and Budget Services

Re: Moosewalk/Mooserun All-Terrain Vehicle Trail Designation  
Environmental Assessment Worksheet and North Shore State Trail Plan  
Amendment Notice and Meeting

The Department of Natural Resources (DNR) has prepared the attached Environmental Assessment Worksheet (EAW) for the proposed Moosewalk/Mooserun All-Terrain Vehicle Trail Designation. This document has been prepared as a Mandatory EAW pursuant to Minnesota Rules Part 4410.4300, subpart 30. The DNIR is the Responsible Governmental Unit for the environmental review of this project.

The project is the proposed designation of two contiguous snowmobile trails and a 6.6-mile portion of the North Shore State Corridor Trail in southern Lake County for All-Terrain Vehicle (ATV) use. With designation the snowmobile trails will be eligible for grant-in-aid program funding for management, maintenance and repair. These trails have been used by ATVs for many years. The EAW describes the project and the potential environmental effects.

Simultaneous with the EAW review the DNR is receiving comments on a proposed amendment to the Management Plan for the North Shore State Trail to allow ATV use on a 6.6-mile segment which will become part of a designated 35-mile ATV trail system along with the Moosewalk and Mooserun Trails. In July 2001 the DNR issued a public notice for a trail plan amendment for 1.1-miles of this segment of state trail to be designated for ATV use. Subsequent planning has resulted in a proposed extension of the ATV use segment and so an additional public comment opportunity is being offered.

In accordance with the trail plan amendment process there will be a public information meeting on Tuesday, January 15, 2002 beginning at 7:00 p.m. at the Finland Recreation Center on County Highway 7, one mile northeast of Finland. The meeting will provide the public with an opportunity to obtain information about the proposed designation and submit comments.

A 30-day public review and comment period will begin on December 24, 2001, with the publication of the notice of availability of this EAW in the EOB Monitor.

Written comments on the EAW and on the state trail plan amendment must be received by Wednesday, January 23, 2002, and should be sent to:

Minnesota Department of Natural Resources  
Office of Management and Budget Services

ATTN: Donald W. Buckhout  
500 Lafayette Road  
St. Paul, Minnesota 55155-4010.

Signed comment letters may be sent via facsimile, but no e-mail comments will be accepted.

Please call (651) 296-8212 if you have questions about this EAW.

Attachment

## ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form is available at [www.mnplan.state.mn.us](http://www.mnplan.state.mn.us). EAW Guidelines will be available in

Spring 1999 at the web site. The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for but should not complete – the final worksheet. If a complete answer does not fit in the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

**Note to reviewers:** Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the EQB Monitor. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title** Moosewalk/Mooserun ATV Trail Designation

2. **Proposer Lake County**

Contact person Tom Martinson  
Title County Land Commissioner  
Address 601 3rd Ave.  
Two Harbors, MN 55616  
Phone 218-834-8340

3. **RGU** Department of Natural Resources

Contact person Donald Buckhout  
Title Environmental Planner  
Address 500 Lafayette Road  
St. Paul MN 55155-4010  
Phone 651-296-8212  
Fax 651-296-6047

4. **Reason for EAW preparation** (check one)

EIS scoping  Mandatory EAW  Citizen petition RGU discretion  
Proposer volunteered

*If EAW or EIS is mandatory give EQB rule category subpart number  
Subpart 30 and subpart name: Natural Areas (Minnesota Rules Part  
4410.4300, subpart 30)*

5. **Project location**

County Lake City/Township Beaver Bay, Crystal Bay Twps.

¼ ¼ Section Townships/Ranges 56N8W, 57N7W, 57N8W, 58N8W

Attach each of the following to the EAW

- County map showing the general location of the project;
- US. Geological Survey 7.5 minute, 1 :24,000 scale map indicating project boundaries (photocopy acceptable);
- Site plan showing all significant project and natural features.

6. **Description**

a. *Provide a project summary of 50 words or less to be published in the EQB Monitor.*

Designation of an existing grant-in-aid snowmobile trail and a 6.6-mile segment of the North Shore State Trail for all terrain vehicle use.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

#### General Information

This project involves the designation of approximately 28 miles of existing grant-in-aid (GIA) snowmobile trail and 6.6 miles of state corridor trail near Finland in southern Lake County for use by all terrain vehicles (ATVs). The majority of the trail is on state and county administered forest land. A segment of the Mooserun Trail on the east side of State Highway 1 is on private land. Off-highway motorcycles and large off-highway vehicles, such as four-wheel drive trucks, will not be permitted to use the trail, except for one 1.2-mile segment where the ATV trail will share the Beaver River forest road, which is open to all types of vehicle traffic. ATV use is already permitted and has been occurring on the GIA trail for many years even though the trail has not been formally designated as an ATV trail.

#### Existing Use

The Moosewalk Trail and the segment of the Mooserun Trail west of State Highway 1 have been used by snowmobilers for more than 30 years and by ATVs for 25 years. The Mooserun Trail east of State Highway 1 was constructed in 1993 and has received snowmobile and ATV traffic since then. The Moosewalk/Mooserun Trail loop connects to the existing Red Dot ATV/Snowmobile Trail to the south. The total trail system proposed for ATV designation will provide about 64 miles of ATV trail riding opportunity. Several miles of existing spur trails are used to provide access to the trail from forest roads at various points. (See Figures 1 and 2.)

#### Trail Management

The designated trail will use 33 miles of existing snowmobile trail. An additional 1.1 miles of trail corridor will be cleared on an old forest road and another 1.2 miles of ATV use will be routed onto an existing forest road. As the trail designation will be done under the grant-in-aid program, the actual effect of designation will be to make funds available from the Department of Natural Resources through Lake County to the local trail club for trail enhancements, maintenance, signing, and repairs. The trail will be open for ATV use from June 1 through November 30. Favorable weather conditions may allow slight extensions of either end of the open season to be determined on a year-by-year basis by the local trail club in consultation with the Department of Natural Resources (DNR) and Lake County.

#### North Shore State Trail

The project includes the designation of 6.6 miles of the North Shore State Trail (NSST) for ATV use from where it is concurrent with the existing Moosewalk snowmobile trail and then eastward

to the parking area at the Finland Recreation Center on County Highway 7. At present, the NSST is not open to motorized traffic, except for snowmobiles. The designation of this stretch of the NSST for ATVs will require an amendment to the trail plan and a formal order by the DNR Commissioner. The DNR issued a public notice announcement on July 19, 2001 for an amendment to the trail plan designating ATV use on a shorter section (1.2 miles) of this reach of trail. Since then, further planning has resulted in a proposal to extend the ATV designated use portion of the NSST for an additional 5.4 miles to the parking area at the Finland Recreation Center. This terminus will provide managed access and parking for trail users, a trail loop riding opportunity, and a logical end point for users of the Mooserun Trail. The only other impact to the NSST occurs at the point where the connecting trail between the Moosewalk and Red Dot Trails crosses the NSST north of Forest Highway 11. There will be no ATV access to the NSST at this crossing location.

#### Trail Construction

The 1.1-mile section of trail corridor to be cleared on an old forest road on the west side of the Moosewalk loop will be developed in order to avoid a wet area on the existing snowmobile trail that is not suitable for ATV traffic. The new trail corridor will be developed by removal of small trees and understory vegetation on an old forest road to a width of approximately 8 feet. The vegetative clearing will be done using powered hand tools (e.g., brush saw). This new corridor will connect with the Beaver River forest road where ATV traffic will share the road right-of-way for approximately 1.2 miles until it intersects with the existing Moosewalk Trail again.

Three areas, totaling 1000 feet in length, where the existing snowmobile trail traverses wetlands will be modified to accommodate ATV traffic. Through these wet areas the ATV trail will be narrowed from 20 feet to 10 feet and placed on fill composed of corduroy (i.e., small logs laid parallel to each other and perpendicular to the direction of travel) or wooden boardwalk to make a firm trail surface for ATVs and to minimize impact to the wetland soils and vegetation. ATV traffic will be routed onto the corduroy by placement of temporary snow fence across the trail. Wetland alteration will be regulated by federal and county permits.

The existing bridges at stream crossings used by snowmobilers will also be used by ATV riders. Two new bridges will be constructed in the spring of 2002. All bridges are constructed of steel frame with lumber decking. All bridge materials are purchased from suppliers and hauled to the construction site. In order to accommodate ATV use, numerous intermittent drainageways will have culverts or rock rip-rap crossings installed to allow traffic to cross the drainageway above the bed, thereby protecting the bed and banks from erosion. Approximately 50 culverts of various sizes will be installed at these locations. Established Best Management Practices (Sustaining Minnesota Forest Resources, Minnesota Forest Resources Council, February 1999) will be followed in the construction of all stream and intermittent drainageway crossings.

The local trail club has already implemented several erosion control measures on trail sections with steep slopes subject to erosion on the existing trail alignment. This work consists primarily of using a small

bulldozer to construct drainage ditches to route water away from the trail surface in order to prevent trail erosion from occurring. A total of approximately 300 cubic yards of additional grading spread out over several locations remains to be done. Finally, approximately 200 cubic yards of gravel will be added to the trail surface at various locations where soils are subject to rutting by ATVs. The gravel provides a hardened surface that minimizes rutting and puddles in the trail. The total length of such hardened areas is approximately 1 mile.

On-going maintenance will also be a feature of the trail designation. Grant-in-aid funds will be used to maintain the trail surface and repair any areas showing excessive wear or erosion. Maintenance will be the responsibility of the local trail club on the grant-in-aid trail sections and of the DNR on the designated section of the NSST.

There are six existing log shelters along the trail currently used by trail riders. They will continue to be maintained by the local trail club and the DNR.

Lake County is in the process of re-routing the 1-mile section of the Mooserun Trail which runs along State Highway 1 north of Finland. The trail is being moved to a new alignment approximately 0.25 mile back away from the highway to improve the riding experience and to move snowmobile and ATV traffic away from homes and cabins. The ATV trail designation will follow this new alignment, which is not shown on the attached maps. The re-routing will be completed in the spring of 2002.

*c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.*

The purpose of the project is to accommodate and manage ATV use by providing a continuing source of funding for trail enhancements, maintenance and management of existing and future ATV use through the grant-in-aid trail designation.

*d. Are future stages of this development including development on any outlots planned or likely to happen? Yes X No  
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.*

There is a possibility that other sections of the North Shore State Trail may be considered for designation to accommodate ATV traffic. However, any such proposal would require public notice, preparation of an EAW, public review and amendment of the trail management plan prior to final approval and implementation.

*e. Is this project a subsequent stage of an earlier project? \_\_Yes X No  
If yes, briefly describe the past development, timeline and any past environmental review.*

The Moosewalk/Mooserun and Red Dot Trails have been in existence for many years and have been used by both snowmobiles and ATVs.

#### **7. Project magnitude data**

Total project acreage length **35.3 miles**

Number of residential units: unattached attached maximum units per building Commercial, industrial or institutional building area (gross floor space): total square feet

Indicate areas of specific uses (in square feet):

Office	Manufacturing
Retail	Other industrial
Warehouse	Institutional
Light industrial	Agricultural
Other commercial (specify)	

Building height If over 2 stories, compare to heights of nearby buildings

8. Permits and approvals required-List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

Unit of government	Type of application	Status
U.S. Corps of Engineers	Section 404 Permit	App. to be filed
Dept. of Natural Resources	State Trail Plan Amendment	Pending
Dept. of Natural Resources	Prot. waters permit: bridges	Issued
Dept. of Natural Resources	Grant-in-Aid Permit	App. to be filed
Lake County	Conditional Use permit	Issued
Lake County	Land Use permit	App. to be filed
Lake County	GIA Approval	Annual application

9. **Land use.** Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

The majority (90 percent) of the trail corridor is on state forest land. The state forest land is classified as "managed" which means OHV use is permitted in accordance with state regulations controlling the use of recreational motor vehicles. Other uses of the forest land include timber production and hunting. Most of the remainder of the trail is on county forest land managed by the Lake County Land Department. A 2-mile portion of the Mooserun Trail east of State Highway 1 is on private land. Permits from private land owners are necessary to route the trail on their property. No U.S. Forest Service Land is crossed by this trail.

The use of snowmobiles and ATVs on the proposed designated trail, except for ATV use on the 6.6-mile segment of the North Shore State Trail, has been well established for many years. While there may be potential conflicts with other, particularly non-motorized, recreational uses of the public forest land in this area, these conflicts have likely existed for many years and use and avoidance patterns have also become well established.

The Wildhurst Resort, including a private campground, is located approximately 0.25 mile east of the point where the Mooserun Trail crosses State Highway 1. The trail runs very close to the resort and the resort has catered to snowmobile and ATV riders over the years. The designation for ATV use is consistent with the intended commercial purpose of this facility.

There are no known environmental hazards due to past site uses along the trail corridor.

10. **Cover types.** Estimate the acreage of the site with each of the following cover types before and after development:

	<b>Before</b>	<b>After</b>		<b>Before</b>	<b>After</b>
Types 1-8 wetlands	0.2*	0.0*	Lawn/landscaping	0.0*	0.2*
Wooded/forest	35.1*	35.1*	Impervious surfaces		
Brush/Grassland			Other (describe)		
Cropland					
		<b>TOTAL</b>		<b>35.3*</b>	<b>35.3*</b>

\*Figures given are miles of trail corridor rather than acres. Trail corridor varies from 8 to 20 feet wide.

In order to give a more detailed description of the vegetative environment through which the trail passes, the various forest vegetation types along the trail corridor and their estimated extent are listed as follows:

Aspen-Birch 61%

This type consists of aspen or birch timber types. Though the brush understory may vary quite a bit it includes mostly hazel and mountain maple.

Upland Conifer 22.1%

This type consists of white spruce, balsam fir and red pine timber types. They are both natural types and plantations. The brush understory is similar to the aspen-birch type.

Northern Hardwoods 10.9%

This type consists mostly of sugar maple with yellow birch and red maple being associated hardwoods. The brush understory may be similar to the other upland types but, also may have very little brush with mostly younger sugar maple in the understory.

Lowland Brush 2.4%

This type consists mostly of alder with some willow and other assorted brush species. Many of the types contain scattered lowland conifers.

Lowland Conifer 1.9%

This type consists of black spruce, cedar and some tamarack. Alder is the main brush species in this type though some areas have little brush with sphagnum moss (and other mosses) and Labrador tea.

Upland Brush 0.8%

This type consists of mostly hazel and other associated species. Some scattered upland timber.

Flowage 0.5%

This type includes beaver flowage and wide stream crossings that could have lowland brush species or just lowland grass.

Lowland hardwoods 0.4%

This type consists of mostly black ash, balm of Gilead and could include lowland conifers. Alder and some willow are the main brush species in this type.

#### **11. Fish, wildlife and ecologically sensitive resources**

*a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.*

##### **Stream Habitat and Fisheries**

Within the area of the proposed trail there are several designated trout streams and their tributaries. These include: Crown Creek, Fry Creek, Heffelfinger Creek, Hockamin Creek; Oliver Creek, Tikkanen Creek, and West Branch Baptism River. There are also several other designated trout streams and their tributaries that are just outside the proposed trail area. They include: East Branch Beaver River, East and West Branch Fortythree Creek, and Ekbeck Creek.

These designated trout streams support wild brook trout populations. The most sensitive time of year for any brook trout stream is the period from September 15 to May 15, when brook trout eggs lie in spawning gravels through the winter, and siltation that occurs during that time can smother eggs. Consequently, any stream crossing construction activity will be restricted to summer with appropriate erosion control measures implemented to prevent stream sedimentation and siltation.

The proposed Moosewalk/Mooserun ATV Trail use will have only minor impacts on the designated trout streams and their tributaries because the stream crossings will have the proper bridges and culverts in place. The installation of additional culverts with trail designation will result in improved protection for downstream habitat as compared with existing conditions.

If trail users leave designated trails and cross streams through the beds there would likely be adverse effects on stream habitat and fish populations because of bank erosion and stream bed degradation. However, operating an OHV in a stream is a violation of state rules and is subject to enforcement action. There are no locations on state forest land in the vicinity of the project where such streambed impacts are currently known to occur due to ATV traffic.

##### **Wildlife Resources**

The proposed ATV trail is routed through a variety of cover types that provide wildlife habitat. The major types include aspen-birch, upland conifer, northern hardwoods, lowland brush and lowland conifer. A majority of the lands adjacent to the proposed trail route are actively managed for forest products. The proposed trail is routed on existing snowmobile trail corridor with minor amounts of rerouting onto forest roads to avoid wetlands. As a result, very little direct loss or

adverse impacts to wildlife resources will occur as a result of new trail construction.

No onsite wildlife species inventory has been conducted. However, given the cover types, wildlife habitat on the site is likely typical of that found in southern Lake County. Wildlife species likely to inhabit the site would be those found in similar habitat types throughout northeastern Minnesota. Wildlife species present are those considered common to this area (e.g., moose, grey wolf, fisher, marten, ruffed grouse and white tailed deer) and are those types which often rely upon, or thrive in, areas characterized by multiple forest types and age classes. Most species already tolerate some measure of human activity onsite.

While trail corridor development impacts will be negligible, any increased trail usage by recreationists could alter the use profile by wildlife species, depending on its extent. It is assumed that wildlife populations and behaviors have become adjusted to many years of ATV use at existing levels. Substantial increased use would likely displace wildlife through a variety of factors, including: human intrusion above individual species tolerances, sensitivity to noise generated by vehicle operation, and intra-specific competition. Displacement may result in mortality, due to intra-specific competition. Higher mortality can be expected for those species that do not tolerate disturbance. Lesser mortality can be expected for those species more tolerant of human activity. An assessment of quantitative impacts to individual species is not practicable without extensive field work. Such an assessment has not been conducted.

Given the current habitat conditions adjacent to the proposed ATV trail, there are not likely any species that will be affected on a population level by this project. Habitat connectivity, biodiversity and forest fragmentation effects are also not expected to result from this project.

b. *Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site?  Yes No*

*If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: 20020447. Describe measures to minimize or avoid adverse impacts.*

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within an approximately one-mile radius of the proposed designated trail. Based on this review, seven plant species of Special Concern and three Threatened plant species were found in the general project area during the last two years. Habitat information for each of these species is listed below.

Coastal Sedge (*Carex exilis*)-Special Concern  
peatlands, spring fens

English Sundew (*Drosera anglica*)-Special Concern

wet, sunny habitats that are weakly acidic or sometimes calcareous in nature, and typically dominated by low-growing sedges and mosses; minerotrophic water tracks in patterned peatlands (ribbed or spring fens)

Boa Rush (*Juncus stygius* var. *americanus*)-Special Concern

patterned peatlands, specifically, flark formations and shallow pools that form in minerotrophic water tracks; wet, sunny, weakly acidic habitats that are usually dominated by sedges

Sooty-Colored Beak-Rush (*Rhynchospora fusca*)-Special Concern

patterned water tracks within large peatland complexes, specifically in flark formations and in the margins of shallow pools; wet, sunny, weakly acidic habitat that is typically dominated by low-growing sedges

Michaux's Sedge (*Carex michauxiana*)-Special Concern

saturated peat substrate

Torrey's Manna-grass (*Torreochloa pallida*)-Special Concern

wetland grass

Black Hawthorn (*Crataegus douglasii*)-Threatened

upland woodlands and wetland margins

Triangle Moonwort (*Botrychium lanceolatum*)-Threatened

upland woodland mesic habitats with deep soil

Large-Leaved Sandwort (*Moehria macrophylla*)-Threatened

small rock crevices where organic debris accumulates or where moss mats provide a suitable substrate; dry, sheltered, north-facing cliffs of slate and diabase

Torrey's Manna-grass and Large-Leaved Sandwort were identified in the immediate vicinity of the Moosewalk Trail. Triangle Moonwort was found within 150 feet of the North Shore State Trail south of the Moosewalk Trail along a part of the trail which will remain closed to ATV use. The other species were located in areas that will not be affected by trail development or use.

Large-Leaved Sandwort was documented on cliff ledges along Hockamin Creek. The existing Moosewalk Trail runs adjacent to this cliff in close proximity to this species. However, there is no ATV or other access from the trail over the cliff to where the plants are located because of the extremely steep terrain.

While species of Special Concern are not protected under the state endangered species law, they are worthy of conservation because they are rare on a state-wide or regional scale, and are important components of the state's native biological diversity. In addition, species of Special Concern have the potential to become threatened or endangered in the future if they are not adequately protected from disturbance. To protect these rare plant species, a botanist skilled in

identification of the listed plant species will be consulted prior to any new trail clearing or construction in areas with habitat suitable for the listed species.

**12. Physical impacts on water resources.** *Will the project involve the physical or hydrologic alteration – dredging filling, stream diversion, outfall structure, diking and impoundment– of any surface waters such as a lake, pond, wetland, stream or drainage ditch? X Yes No*  
*If yes, identify water resource affected and give the DNR Protected Waters Inventory number (s) if the water resources affected are on the PWI: . Describe alternatives considered and proposed mitigation measures to minimize impacts.*

The existing snowmobile trail crosses several protected watercourses (Crown Creek, Fry Creek, Heffelfingcr Creek, Hockamin Creek, Oliver Creek, Tikkanen Creek and West Branch Baptism River) on bridges and the ATV trail will use these same bridges to cross these streams. Two additional bridges will be installed in the spring of 2002 to provide crossings of streams that are tributary to the protected watercourses. State permits have already been obtained for the bridge structures.

There are numerous small drainageways that carry water during seasonal runoff periods and following major precipitation events. (See Figure 3) At the point where the trail crosses these drainageways a variety of culverts and rock rip rap crossings will be installed to protect the beds and banks from ATV traffic and provide for a dry crossing. Depending on the size of the drainageway, the culverts will range in size from 8 inches to one culvert of 36 inches. Both the upstream and downstream ends of the culvert crossings will be protected with rock or rip-rap material. All culvert placements will be done when the drainageways are dry. Best Management Practices (Sustaining Minnesota Forest Resources, Minnesota Forest Resources Council, February 1999) will be followed to protect downstream resources. Culvert and rock crossing placement is regulated by federal and county permits, which must be obtained before work begins.

One large wetland area on the west side of the Moosewalk Trail, which is traversed by the snowmobile trail, will be avoided by re-routing ATV use onto an old forest road and along a segment of existing state forest road.

Three smaller areas, totaling 1000 feet in length, where the existing snowmobile trail traverses wetlands will be modified to accommodate ATV traffic. Through these wet areas (Type 7 wetlands on the west and northwest alignment of the Moosewalk Trail) the impact of the ATV trail will be minimized by narrowing the corridor from 20 feet to 10 feet and routing ATVs onto fill composed of corduroy (i.e., small logs laid parallel to each other and perpendicular to the direction of travel) and/or wooden boardwalk to make a firm trail surface for ATVs and to minimize impact to the wetland soils and vegetation. There will be no fill other than the wood material. The total wetland area to be impacted is approximately 10,000 sq. ft. (0.25 acre). ATV traffic will be routed onto the corduroy or boardwalk by erecting a temporary snow fence across the trail. Wetland areas will be formally delineated and any alterations will be subject to federal and county permit requirements.

13. **Water use.** Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? Yes  No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

14. **Water-related land use management district.** Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?  Yes  No

If yes, identify the district and discuss project compatibility with district land use restrictions.

15. **Water surface use.** Will the project change the number or type of watercraft on any water body? Yes  No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. **Erosion and sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved: acres \_\_\_\_\_ ; 300 cubic yards.

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

The local trail club (Silver Trail Riders) has implemented several erosion control measures associated with hills subject to erosion along the existing trail alignment. This work consists primarily of using a small dozer to construct drainage ditches on slopes to route water away from the trail surface in order to prevent drainage across the trail and subsequent trail erosion from occurring. A total of approximately 300 cubic yards of additional grading at several locations remains to be done. Disturbed areas will be seeded with native species and mulched, and hay bale check dams will be used at these locations to prevent erosion until vegetation is re-established.

Approximately 200 cubic yards of gravel will be added to the trail surface at various locations where soils are subject to rutting by ATVs. The gravel provides a hardened surface that is much more durable and minimizes rutting and puddles in the trail. The total length of such hardened areas is approximately 1 mile.

State forest land Best Management Practices (Sustaining Minnesota Forest Resources, Minnesota Forest Resources Council, February 1999) for erosion and sedimentation control will be applied at all grading sites.

**17. Water quality: surface water runoff**

*a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.*

The quantity of runoff from the trail will be unchanged before and after the trail designation. The quality of runoff water may improve slightly as funds are made available to provide for an improved trail surface for ATV use that is generally drier and less subject to erosion. In addition, culvert placement at numerous drainageways will add to runoff quality improvement by keeping ATV traffic out of the water when these drainageways are wet. The grant-in-aid trail designation will provide a continuing source of funding that is not currently available to maintain the trail and to rapidly repair any erosion problem areas that develop.

*b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.*

All streams and drainages in the area drain to the Baptism River which flows into Lake Superior. Designation of the ATV trail is not expected to have any measurable effect on either the Baptism River or Lake Superior water quality.

**18. Water quality: wastewaters**

*a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.*

None

*b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.*

Not applicable

*c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.*

Not applicable

*d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.*

Not applicable.

**19. Geologic hazards and soil conditions**

a. *Approximate depth (in feet) to ground water: 0-1 minimum 3-5 average to bedrock: 1 minimum 12 average (estimated values)*  
*Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.*

None.

b. *Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.*

No soil survey has been completed for any of Lake County. In general the majority of the soil in the project area is an Upland Deep Medium Loamy Dry. It is a well or moderately well drained soil formed in 10 to 20 inches of sandy loam over dense sandy loam (hard pan). The permeability is moderate in the upper material and moderately slow in the dense subsoil. It has a moderately high available water holding capacity and a moderate fertility. The amount of gravel and cobbles in the soil ranges from 10 to 35 percent. The surface commonly has less than 5 percent cobble and boulders. The upper portion of this soil will remain saturated for a few weeks after spring snowmelt and following periods of heavy rain. The loam surface is susceptible to compaction when moist and to rutting when saturated. Operation of heavy equipment will be limited to times when the soil is either dry or frozen.

There are some areas of other soil types. Lowland areas contain organic material and shallow peat. Areas between upland and lowland generally contain less soil and more cobbles and rocks. Some upland areas may have the same sandy loam type soil but, instead of being over the dense sandy loam, it is over bedrock. There is no soils inventory that indicates the exact locations or relative proportions of these soils types.

**20. Solid wastes, hazardous wastes, storage tanks**

a. *Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling, if hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.*

Not applicable

b. *Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater if the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.*

Not applicable

c. Indicate the number location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

Not applicable

21. **Traffic.** Parking spaces added **None**. Existing spaces (if project involves expansion).

Estimated total average daily traffic generated **10 (seasonal)**.

Estimated maximum peak hour traffic generated (if known) and time of occurrence **15 (seasonal, peak summer weekend)**. Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. if the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

The primary traffic conflicts associated with this project will be between recreational vehicles and logging operation vehicles which use the same forest roads. This situation exists at present; however no problems have been reported. Where necessary, a signed and marked travel corridor is established where logging trucks and ATVs (or snowmobiles) are using the same section of forest road.

Parking areas for access to the trail already exist and will continue to be used. These are shown on Figures 1-3 and are located on the Heffelfinger Road west of Finland, on Penn Avenue in Silver Bay, at the Finland Recreation Center, and at the Wildhurst Resort east of State Highway 1. A potential future parking area site exists on state forest land on the west side of State Highway 1 adjacent to the Mooserun Trail crossing. There are no current plans to develop this site, however.

No impacts to highway vehicular traffic on State Highway 1 or County Highway 7 are expected as a result of an increase in trail users traveling to a starting point to begin their trail ride.

22. **Vehicle-related air emissions.** Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: if the project involves 500 or more parking spaces, consult EA W Guidelines about whether a detailed air quality analysis is needed.

This project will create emissions both during construction and during continuing ATV operations.

Construction-related vehicle emissions will be minor and of a temporary nature, arising from the use of heavy equipment for trail erosion control measures. Diesel fuel exhaust emissions include carbon monoxide, nitrogen oxides, reactive organic gases, sulfur dioxide and suspended particulate matter, all of which are criteria pollutants that carry associated health risks.

Operational impacts to air quality occur both from the vehicles used to transport trail users to starting points and from the ATVs used on the

trail. These impacts, which occur now, are expected to continue after trail designation. ATVs, which are not currently subject to tailpipe emission standards, may create emissions that may be objectionable to other forest users, but they are not expected to exceed state or federal air quality standards. Over time, there may be marginal increases in ATV use and resultant emissions on the designated trails as a function of increased ATV traffic. However, the net effect on emissions of any increase in traffic may be offset by replacement of older machines with newer, cleaner ones over time. The federal Environmental Protection Agency has recently begun to develop more restrictive emissions standards for off-road mobile sources, including snowmobiles and ATVs.

**23. Stationary source air emissions.** *Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult EAW Guidelines for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.*

Not applicable

**24. Odors, noise and dust.** *Will the project generate odors, noise or dust during construction or during operation? X Yes \_\_\_No  
If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)*

The source of odors, noise and dust are the ATVs and snowmobiles that use the trail. Except for the 6.6-mile segment of the North Shore State Trail (NSST), the impacts of ATV use on this trail system have been occurring for many years. The net effect of the trail designation will be to add ATVs as a source of these types of impacts to the NSST segment during the summer months. Additional impacts may occur if ATV use levels increase substantially in the future.

#### **Odors**

The odor associated with this activity is that of the exhaust from motorized recreational vehicles. This odor may be considered objectionable to some forest or trail users. Exhaust odors will rapidly dissipate under most weather conditions. The odors associated with other vehicles, such as logging trucks and equipment, also present in the project area, are generally stronger and more persistent when these large vehicles are active. Temporary odors from the exhaust of dozers used to grade erosion control structures can be expected along the trail during construction, routine maintenance and rehabilitation activities.

## Noise

The MN Pollution Control Agency's Daytime State Noise Standard of L50 = 60 dB(A) and L10 = 65 dB(A) will not be exceeded by ATVs. Nevertheless, some forest users may characterize the ATV engine sound as "annoying." This is due largely to the relatively low background (or ambient) noise levels that presently exist in the area, and because of the unique character of the ATV noise. While acknowledging this potential for annoyance, the levels are not expected to constitute a nuisance. (State Noise Standards define "nuisance noise" as noise in residential areas that exceeds MPCA Daytime Standards of L50 = 60 dB(A), or that level exceeded 50% of the time or 30 minutes/hour, and L10 = 65 dB(A), or that level exceeded 10% of the time or 6 minutes/hour. MN Rules Chapter 730. Nighttime noise levels greater than L50=50dB(A) or L10=55dB(A) are not allowed in residential land use areas. MPCA will enforce consistent violations of these standards.)

Noise associated with timber harvest activities, snowmobiles and ATVs in proximity to the trail is an existing characteristic of this forest setting. There may be some marginal increase in the frequency of ATV noise if use levels increase over time. However, the intensity of ATV noise is expected to decrease over time as older (noisier) vehicles are replaced with newer (quieter) ones.

In the forest environment, the extent of the noise effects of ATVs is related to the existence of heavy vegetation and whether the leaves are on the trees and understory vegetation. Heavy leaf cover diminishes ATV noise transmission over distance. Only two months of the ATV use season (October and November) occur during leaf-off conditions.

There are no permanent residents living in the vicinity of the Moosewalk Trail within the state forest. There are three seasonal (hunting) cabins on leased county land parcels at locations within 0.5-1.0 mile of the Moosewalk Trail. Cabin users may be able to hear ATV noise under certain wind or leaf-off conditions. There is a resort at the location where the Mooserun Trail crosses State Highway 1. This resort is operated to serve snowmobile and ATV traffic and such use and the related impacts are compatible with the resort environment.

Along State Highway 1 north of Finland, where the Mooserun and North Shore State Trail are close to the road, there are numerous (approximately 60) seasonal and permanent residences within 0.5 mile of the trails. As mentioned above, the segment of the Mooserun Trail which is currently adjacent to the highway is being relocated approximately 0.25 mile further east away from the highway and residences. This re-route will reduce the noise experienced at residences near the highway from both snowmobiles and ATVs. For those residences, any marginal increase in ATV-related noise is not expected to exceed the existing vehicle generated noise levels from Highway 1 traffic. For residents living away from the highway, but near the Mooserun Trail there is currently noise associated with ATV traffic and, periodically, from logging activity. Some marginal increase may be expected over time if ATV traffic levels increase.

There will also be noise associated with ATV traffic on the sections of the North Shore State Trail (NSST) that will be opened to ATVs. This is a new use for this 6.6-mile state trail segment. Hikers on the Superior Hiking Trail (SHT) near the eastern terminus of the designated ATV

portion may be able to hear ATV noise, along with noise from regular vehicle traffic on County Highway 7. Some NSST and SHT users may be annoyed by the added noise of ATV traffic. However, the MPCA Noise Standards will be enforced.

**Fugitive Dust** - Under dry conditions abrasion of the soil due to vehicular travel over bare soil trail segments or forest road surfaces will release airborne dust. While not a health threat, the total suspended particulates portion can be a nuisance to some forest users. Existing vegetation will screen neighboring properties from airborne dust generated by trail use.

25. **Nearby resources.** Are any of the following resources on or in proximity to the site? Archaeological, historical or architectural resources?  Yes  No  Unknown  
Prime or unique farmlands or land within an agricultural preserve ?  
 Yes  No  
Designated parks, recreation areas or trails?  Yes  No  
Scenic views and vistas?  Yes  No  
Other unique resources?  Yes  No  
If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

There are no known archaeological, historical or cultural resources along the trail alignment or in close proximity to the trail.

Tettegouche State Park is located approximately two miles from the southeast side of the Moosewalk Trail. In addition, the Red Dot ATV Trail, which connects with the Moosewalk Trail, includes several miles of trail within the Palisade Valley Unit State Recreation Area portion of Tettegouche State Park. ATV use is consistent with the management plan for the state park and park officials report that existing ATV use on the Red Dot Trail has not generated complaints from park users. The Moosewallc/Mooserun ATV Trail is not expected to adversely affect the recreational experience of park users.

The North Shore State Trail (NSST) traverses the southeastern side of the trail area from southwest to northeast. (See Figures 1 and 2) The NSST is open to snowmobile, snowshoeing, dog mushing, and skiing in winter and to hiking and mountain biking in the spring, summer and fall. The NSST is closed to motorized use, other than snowmobiles. One effect of the proposed project is to amend the NSST Trail Plan to allow for a 6.6-mile segment of the trail to be used by ATVs. As a result some NSST users may encounter ATVs along this 6.6-mile segment that will be shared with the Moosewalk and Mooserun Trails. Those NSST users who find ATVs objectionable to their use of the trail may be disturbed by these encounters. The frequency of such encounters is expected to be very small. ATVs will also be allowed to cross the NSST at the point where the Red Dot and Moosewalk Trails join. Other segments of the NSST in the project area will remain closed to ATV traffic. Permitted and prohibited uses will be clearly posted.

The designated ATV trail eastern terminus will be at a parking area in close proximity (1/4 mile) to the Superior Hiking Trail, a non-motorized

footpath extending from Two Harbors to the Canadian border along the northshore highlands. Users of both trails will use the same parking area for trail access. Hikers on the Superior Hiking Trail may hear ATV traffic noise at this location. However, the hiking trail at this location is closer to County Highway 7 than to the ATV trail and the noise from regular vehicular traffic is likely to predominate over any ATV noise. The ATV trail and the hiking trail do not cross each other. There should be no direct impacts on the Superior Hiking Trail from ATV traffic.

**26. Visual impacts.** *Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? \_\_Yes X No*  
*If yes, explain.*

**27. Compatibility with plans and land use regulations.** *Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? X Yes X No.*  
*If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.*

The trail designation is consistent with the Two Harbors Area Forestry Plan. The plan does not address trail use in the forest. The proposed designation is also consistent with the draft OHV System Plan for the Northeast Region.

The proposed use of the NSST for ATVs is not currently consistent with the state trail plan for the NSST. The DNR is proposing to amend the plan in accordance with applicable procedures to allow for the use as described in this EAW.

**28. Impact on infrastructure and public services.** *Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? \_\_Yes X No. If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW, see EAW Guidelines for details)*

**29. Cumulative impacts.** Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this

EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

The use of ATVs on most sections of the Moosewalk and Mooserun Trails has been occurring for many years. Consequently the impacts associated with that use have existed for that same time. Impact frequency may be expected to increase with increased use. However, impact intensity can be expected to decrease with improved trail management and maintenance provided for by the grant-in-aid trail designation. There is also some expected reduction in ATV-related noise impacts and emission odors as a result of the gradual replacement of older with newer vehicles over time. The Moosewalk/Mooserun Trail connects with the Red Dot Trail to form a 64-mile system. There are only informal connections to this system using existing forest roads to form a larger use area. However, that opportunity currently exists and the proposed trail designation will not affect the opportunity for trail users to travel on these other routes.

**30. Other potential environmental impacts.** *If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.*

The Finland State Forest and the interspersed county forest land provides for ATV (and other OHV) travel on other non-designated trails and roads, as well as off-trail use. Off-road travel in the project area is primarily associated with hunters accessing deer and bear hunting sites. In general the density of the forest and understory vegetation does not allow for random (unplanned) off-trail travel. In general, the DNR believes that the provision of designated, managed and maintained trails will have the effect of reducing off-trail travel by providing a quality riding experience.

There are several undesignated spur trails which have existed for many years. These are used by trail users to access the trail from various forest road locations. (See Figures 1 and 2.) While these trails are not part of the designated system, their use by ATVs is legal and will likely continue.

**31. Summary of issues.** Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the

EAW List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

Wetland delineation and the regulation of corduroy placement will require further investigation before the project is begun. Both federal and county regulatory authorities have been contacted and will be involved in the final decisions regarding how much wetland encroachment and fill will be permitted. Best Management Practices (Sustaining Minnesota Forest Resources, Minnesota Forest Resources Council, February 1999) will be applied to all facets of this project.

Grant-in-aid trail (CIA) designation will provide the funding necessary to perform routine maintenance and corrective repair to address any use impacts. Additional erosion controls and trail hardening techniques, as well as restrictions on off-trail travel at locations where adverse impacts may develop are options available to trail administrators working in conjunction with Lake County and DN7R officials. Without formal CIA trail designation, these management tools would not be available to address the existing ATV use and prevent adverse resource impacts.

**RGU CERTIFICATION.** *The Environmental Quality Board will only accept SIGNED Environmental Assessment Worksheets for public notice in the EQB Monitor.*

**I hereby certify that:**

- The information contained in this document is accurate and complete to the best of my knowledge
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9b and 60, respectively.
- Copies this EAW are being sent to the entire EQB distribution list.

*Signature* Donald Buckhout (Date 12/14/01)

*Title* Environmental Planner

Environmental Assessment Worksheet form was prepared by the staff of the Environmental Quality Board at Minnesota Planning. For additional information, worksheets or for EAW Guidelines. Contact: Environmental Quality Board, 658 cedar St, St. Paul MN 55155, 651-296-8253, or [www.mnplan.state.mn.us](http://www.mnplan.state.mn.us)