DEPARTMENT OF NATURAL RESOURCES

RECORD OF DECISION

In the Matter of the Determination of the Need for an Environmental Impact Statement for the Matthew Lourey State Trail – ATV and OHM Use in Nemadji/St. Croix State Forests, Pine and Carlton Counties, Minnesota

FINDINGS OF FACT, CONCLUSIONS, AND ORDER

FINDINGS OF FACT

1. The Minnesota Department of Natural Resources (DNR) proposes to designate portions of the existing Matthew Lourey State Trail for off-highway motorcycle (OHM) and Class I- and Class II- all terrain vehicle (ATV) use. The proposed designation, treadway improvements, maintenance, and operations will occur on four trail segments (about 23.3 miles) of the Matthew Lourey State Trail (the Trail) mostly within the Nemadji and St. Croix State Forests, in northeastern Pine County and southeastern Carlton County. One segment includes a two mile section on Pine County lands located adjacent the southern border of Nemadji State Forest. These segments of the Trail are currently open and will continue to be open to snowmobile and non-motorized uses. Modifications will be limited to the existing footprint of an existing trail.

   No changes in use are proposed for the inter-connecting non-project trail segments that are currently open to ATV and OHM use. Once the proposed changes are implemented, the Matthew Lourey State Trail will provide approximately 44 miles of continuous ATV/OHM use. The Trail will provide a connecting link to several other ATV/OHM trails and help to integrate the motorized trail system within the region.

   The DNR proposes to designate the segments for ATV/OHM use during the summer and fall, generally from May through November each year, and allow ATV use during the winter to coincide with snowmobile use. No ATV or OHM use designation is proposed for the Matthew Lourey State Trail section that passes through St. Croix State Park.

2. The alignment was field surveyed to determine the extent of construction necessary for developing a sustainable treadway for the addition of motorized uses. Trails are considered sustainable if the following conditions are met: 1) Trail tread is stable and compacted, with a constant outsloped grade; 2) Depressions on a well-worn trail average less than three inches in most soil types; 3) Displacement of soils from the trail tread is minimal relative to the use and soil type; 4) Tread drains well with minimal to no signs of ongoing erosion, especially into water bodies; 5) Tread does not restrict site hydrology and impact surface- or ground-water quality; and 6) Effects to surrounding ecological systems is limited to the trail tread and directly adjacent clearance zone, with no bypassing and cross-country travel occurring.

   The project area occupies an existing trail corridor, which has an average 20-foot wide clearance zone to meet safety design standards for two-way snowmobile traffic. Height of the clearance zone is typically ten to twelve feet above average snow depth. The condition of the treadway

along segments proposed for ATV/OHM designation varies as a function of site-specific factors and historic use with off-highway vehicle (OHV) and highway licensed vehicles for recreational, silvicultural, or other purposes. Unauthorized trail use already occurs on these segments with resulting wear on the trail surface. Trails are also used during hunting and trapping seasons as allowed by statute.

3. The proposed project was designed to be consistent with recommended design, guidelines, and Best Management Practices (BMPs) detailed in DNR's manual, "*Trail Planning, Design, and Development Guidelines*." Establishing the motorized designation for these segments will allow the DNR to expend dedicated funds for implementing trail improvements and maintenance to meet those guidelines. The trail segments will be subject to ongoing trail condition monitoring and maintenance, which includes physical inspections and determinations of any specific maintenance needs or condition-related closures. Seasonal or temporary road and trail closures may be imposed at any time due to treadway repairs, wet soil conditions, logging operations, public safety concerns, or other natural resource protection needs. Seasonal closures would occur during spring thaw and follow heavy rainfall events.

4. The Matthew Lourey State Trail is an existing natural surface trail, extending approximately 80 miles from southern Carlton County to southern Pine County. In 1973, it was authorized by the Minnesota Legislature as a state trail unit of the State Outdoor Recreation system and was named the Minnesota-Wisconsin Boundary Trail; in 1988, it was designated as part of the Willard Munger Trail system; and in 2010, it was included in the Arrowhead Trail system and renamed the Matthew Lourey State Trail in honor of Chief Warrant Officer Matthew Lourey, who was killed in Iraq in 2005.

5. The management plan in effect for the Matthew Lourey State Trail is the 1982 Minnesota-Wisconsin Boundary Trail master plan, as modified in the 1994 plan for the Gandy Dancer Trail. The plan provided for ATV and OHM use on portions of the trail, with other portions limited to non-motorized recreation and snowmobiling.

6. The proposed project requires preparation of a State Environmental Assessment Worksheet (EAW) according to *Minnesota Rules*, part 4410.4300, subpart 30 (Natural Areas), which states that an EAW is required for permanent physical encroachment on lands within a state trail corridor when the encroachment is inconsistent with the management plan. With the DNR managing the state trail system and proposing the project, the DNR is the Responsible Governmental Unit (RGU) for conducting the environmental review (*Minnesota Rules*, part 4410.0500 subpart 5).

7. The EAW also is being prepared pursuant to Court Order. In its 2000 Draft System Plan for Pine and southern Carlton Counties, the DNR proposed to change the designation on several segments of the Willard Munger Trail to allow ATV and OHM use. Pursuant to *Minnesota Rules*, part 4410.1100, the DNR received a petition for an EAW on the System Plan. In 2002, the Minnesota Court of Appeals determined that the System Plan was not a project and therefore was not subject to environmental review. However, while the System Plan was not subject to an EAW, the Court determined an EAW was mandatory for the changes in designation for the Munger (now Matthew Lourey) State Trail. The 2002 Court of Appeals decision also ordered completion of an EAW-review for the proposed designation of 4.5 miles of connecting trails in the Nemadji State Forest. The DNR no longer proposes to develop these trail segments or to make any changes to these trails where they were in existence as segments of Grant-in-Aid trails at the time of the Court decision. Because no changes are proposed to these segments, they were not included for review in the EAW.

8. Pursuant to *Minnesota Rules*, part 4410.4300, subpart 30 and the Court Order, the DNR prepared an EAW for the Matthew Lourey State Trail – ATV and OHM Use in Nemadji/St. Croix State Forests project. The EAW is incorporated by reference into this Record of Decision on the Determination of Need for an Environmental Impact Statement (EIS).

9. The EAW was filed with the Minnesota Environmental Quality Board (EQB) and a notice of its availability was published in the EQB Monitor on May 2, 2011. A copy of the EAW was sent to all persons on the EQB Distribution List, to those persons known by the Department to be interested in the proposed project, and to those persons requesting a copy. A press release announcing the availability of the EAW was sent to newspapers and radio and television stations statewide. Copies of the EAW were also available for public review and inspection at the DNR Library (St. Paul); the DNR Northeast Region Office (Grand Rapids); the Minneapolis Public Library; the Sandstone Public Library; the Hinckley Public Library; the Moose Lake Public Library; the Cloquet Public Library; the East Central Regional Library (Region 7E) (Cambridge); and the Regional Development Library (Region 3) (the Duluth Public Library). The EAW was also made available to the public via posting on the DNR's website.

10. The 30-day EAW public review and comment period began May 2, 2011 and ended June 1, 2011, pursuant to *Minnesota Rules*, part 4410.1600. The opportunity was provided to submit written comments on the EAW to the DNR by U.S. Mail, by facsimile, or electronically by email.

11. During the 30-day EAW public review and comment period, the DNR received 28 written comments on the EAW from agencies or individuals. A copy of the comments is included with this Record of Decision as Attachment A.

    1 Bob Linn (05-02-2011)
    2 Thomas Stronczer (05-03-2011)
    3 Jason P. (05-03-2011)
    4 Jason P. (05-03-2011)
    5 Dale Jacobson (05-03-2011)
    6 Michael D. Carlson (05-03-2011)
    7 Joshua Ostrowski (05-03-2011)
    8 Paul Streeter (05-04-2011)
    9 Todd J. Kuss (05-04-2011)
    10 Todd J. Kuss (05-04-2011)
    11 Ernie Swihart (05-04-2011)
    12 Michael Haug (05-04-2011)
    13 Keith Knuth on behalf of Minnesota Adventure Riders (05-04-2011)
    14 Bob Bemmels (05-04-2011)
    15 Todd Lofstrom (05-04-2011)
    16 Tamara E. Cameron on behalf of the St. Paul District, U.S. Army Corps of Engineers (USACE) (05-04-2011)
    17 Allon Mor (05-05-2011)
    18 Michael Randall (05-05-2011)
    19 David Andrews, Jr. on behalf of Rapids Riders ATV Club (05-05-2011)
    20 Jan Dose (05-05-2011)

21 Kyle Sorenson (05-05-2011)
22 Greg Saunders (05-07-2011)
23 Chris Thorne (05-10-2011)
24 Barton Adams (5-11-2011)
25 David A. Lien on behalf of the Minnesota Chapter of the Backcountry Hunters and Anglers (MN BHA) (05-16-2011)
26 Terry Peterson on behalf of the Northern Pine Riders Snowmobile Club (05-28-2011)
27 Brent Ostwald (05-29-2011)
28 Karen Kromar on behalf of the Minnesota Pollution Control Agency (MPCA) (05-31-2011)

12. Several comments expressed an opinion about the merits of the proposed project and did not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). Two commenters expressed opposition to the project and seventeen commenters wrote to express their "support" or approval of the project. These comments will be provided to the proposer and to permitting and/or approval entities and/or authorities for their consideration as part of further decisions about whether to permit, approve, and/or implement the project. Individuals submitting comments in this category will generally find their comments regarding the merits of the proposed project not addressed in this Record of Decision.

Several comments addressed the accuracy and completeness of the information provided in the EAW, potential impacts that warrant further investigation, and the need for an Environmental Impact Statement. The written comments that were received are listed below, as compiled by topic and summarized from the comment letters. Where multiple comments on one specific issue were received, those comments are combined in a summary form that represents the essence of the comments. The DNR's response follows each comment.

a. Opposition or Support to the Project

Comment Letters #20 Jan Dose and #25 David A. Lien on behalf of the Minnesota Chapter of the Backcountry Hunters and Anglers (MN BHA)

Comment: The commenters expressed opposition to the proposed project and recommended the closing of OHV trails on state lands.

Response: The comments do not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). Comments in support of the project are noted and will be conveyed to the project proposer for consideration in determining implementation of the proposed project.

Comment Letters #2 Thomas Stronczer, #3 and #4 Jason P., #5 Dale Jacobson, #7 Joshua Ostrowski, #8 Paul Streeter, #9 and #10 Todd J. Kuss, #11 Ernie Swihart, #12 Michael Haug, #13 Keith Knuth on behalf of Minnesota Adventure Riders, #15 Todd Lofstrom, #17 Allon Mor, #19 David Andrews, Jr. on behalf of Rapids Riders ATV Club, #22 Greg Saunders, #23 Chris Thorne, and #24 Barton Adams

Comment: The commenters voiced support for the development of the proposed project for a variety of reasons. Jason P. and Keith Knuth on behalf of the Minnesota Adventure Riders offered to assist the DNR on trail projects.

Response: The comments do not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). Comments in support of the project are noted and will be conveyed to the project proposer for consideration in determining implementation of the proposed project. The offer to assist with trail projects will be conveyed to the DNR's Moose Lake Area Office for filling future volunteer needs and opportunities.

b. Nearby Bald Eagle Nesting Area

Comment Letter #27 Brent Ostwald

Comment: The commenter noted the existence of a Bald Eagle nesting area, where the eagles return year after year. The eagles appeared to tolerate the operation of road maintenance machinery, which is thought to be louder than the noise from ATVs.

Response: Information regarding the degree of tolerance that Bald Eagles have for human disturbances has been evaluated and the U.S. Fish and Wildlife Service (FWS) provides guidance on activities located in the vicinity of eagle habitat, as referenced in Attachment A of the EAW. The nesting area identified by the commenter is located at a distance of more than one-mile from the project area. The FWS recommends that the DNR maintain a buffer of at least 330 feet between the project activities and eagle nests (including active and alternate nests); restrict all clearing, external construction, and landscaping activities within 660 feet of a nest to outside the nesting season; and maintain established landscape buffers that screen the activity from a nest. The nesting birds would not be disturbed by construction, operation, or maintenance activities.

c. Damage to OHM Trails

Comment Letter: #6 Michael D. Carlson

Comment: The commenter alleges that ATV traffic has deeply rutted OHM trails on the Nemadji State Forest making them dangerous for operating OHMs.

Response: Travel on OHM-only designated trails with ATVs by the public is illegal and will be subject to citation. Enforcement has grown commensurate with increased numbers of riders and registered vehicles. The DNR and Trail Ambassadors will be monitoring use along motorized trails and will report damages. The commenter is encouraged to report observed trail condition issues or concerns to the DNR. The proposed project would allow the use of both ATVs and OHMs on the Trail. With the proposed Trail improvements, which include better drainage, treadway hardening, and on-going maintenance, the ATV use is not expected to cause deep rutting of the treadway that could affect the safety of OHM users. The average twenty-foot width of the proposed trail would provide a quality and sustainable venue for both ATV and OHM users.

d. Other Types of Recreational Vehicles Use on Minnesota Trails

Comment Letters: #9 and #10 Todd J. Kuss and #22 Greg Saunders

Comment: Todd J. Kuss would like the DNR to allow a variety of types of recreational vehicles, including snowmobiles, ATVs, OHMs, and dual sport motorcycles to use snowmobile trails. Greg Saunders would like the DNR to open up any off-road trail to street legal motorcycles.

Response: The concerns involve suggestions about DNR policies established for managing the statewide motorized trail system. The comments do not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). The comments are noted and will be conveyed to the project proposer for consideration in determining implementation of the proposed project.

e. Property Damage

Comment Letters: #20 Jan Dose

Comment: The commenter questions whether the DNR is aware of the damage caused by ATVs to right-of-ways, driveways, trails, etc., and alleges that these damages are not repaired.

Response: The comment is relevant to the use of ATVs in ditches within state, county, and township road right-of-ways. The proposed project will use an established trail that does not intersect any private driveways.

f. ATV Use During the Winter Season

Comment Letters #1 Bob Linn, #6 Michael D. Carlson, #14 Bob Bemmels, and #21 Kyle Sorenson

Comment: The commenters assert that ATV use should not be allowed on the Matthew Lourey State Trail during the winter season. The comments allege that ATV use during the winter months could affect the condition or sustainability of the snowmobile trails and result in unsafe riding conditions for snowmobiles. The comments express concern that opening the Trail to ATV use in winter could set a precedent for allowing winter use on other trails in the region.

Response: The comments do not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). Comments in support of the project are noted and will be conveyed to the project proposer for consideration in determining implementation of the proposed project.

Comment Letter #26 Terry Peterson on behalf of the Northern Pine Riders Snowmobile Club (the Club)

Comment: The commenter state that snowmobile Grant-in-Aid (GIA) trails connecting to the Matthew Lourey State Trail within the project area are for snowmobile use only. The Club's trail permits only designate snowmobile use on the connecting trails. The gates to the connecting snowmobile trails are open during the winter months. This would allow ATV users unauthorized access to connecting trails that cross private lands. ATV use of the connecting trails that cross

private lands creates a "very serious" risk of the private landowner's cancellation of the club's permit(s), resulting in the loss of the use of the connecting trail corridors for snowmobiles. The Club alleges that ATV users of the Trail would likely want to access desired services at nearby communities when operating on the Trail or may desire to use these towns as start-off locations to access the Trail. Both of these actions could result in trespassing on private lands.

Response: This comment identifies a concern regarding the potential for winter ATV riders to physically access Grant in Aid (GIA) snowmobile trails from the Matthew Lourey State Trail. ATV travel on any trail not open for such use is illegal. The DNR will post signs where the GIA snowmobile trails and the Matthew Lourey State Trail intersect to inform users where ATVs are prohibited and where ATVs are allowed. Rules and laws will be enforced by DNR and local law enforcement.

g. Physical Impacts on Water Resources

Comment Letters: #28 Karen Kromar on behalf of the Minnesota Pollution Control Agency (MPCA)

Comment: The commenter states that Lake St. Croix is impaired for phosphorus and its Total Maximum Daily Load (TMDL) review is being drafted and notes that sedimentation above the natural processes can affect the nest habitat of the biological community and the mussel community. While there are currently no impaired waters in the area, the MPCA plans to assess the Upper St. Croix Watershed in 2015 or 2016 for biology and chemical parameters. The MPCA states that it would be in the DNR's best interest to limit or stop any potential impacts at this time before any future impairment is found.

Response: The potential environmental effects to water quality, including the effects on the St. Croix River, were discussed in the EAW under No 11, Item No. 12, Item No. 14, Item No. 16, and Item No. 17. Under Item No. 11, the DNR pointed out mitigation that would be applied for the fisheries and mussel communities. The MPCA's plan to assess the Upper St. Croix Watershed in 2015 or 2016 for biology and chemical parameters is noted for the record. As indicated in the EAW, project construction and on-going management will employ best management practices to prevent erosion, sedimentation, or other impacts to receiving waters. As itemized in the EAW under Item No. 8, the project will be subject to MPCA Section 401 regulations of the Clean Water Act to minimize the potential for water quality impacts. *Minnesota Rules*, chapter 7050 (Water Quality Standards) include state wetland requirements as administered by the MPCA. Under these regulatory programs past fill in waters of the state may require mitigation in addition to that required for project-specific effects.

As noted under Item No. 16 in the EAW, most of the proposed mechanical actions would be implemented to control erosion and increase treadway stability. Although the construction will expose soil temporarily, the treadway will be more stable than at present and will resist erosion. With the proposed Master Plan amendment, implementation of remediation measures using best management practices, incorporation of permit-related requirements into work schedules, and ongoing monitoring and maintenance activities, the project should result in fewer adverse soil and water resource effects.

h. Section 10 of the Rivers and Harbors Act of 1899 Permit

Comment Letters: #16 Tamara E. Cameron on behalf of the St. Paul District, USACE
Comment: The commenter points out the need for the proposal to comply and meet the USACE's permit requirements pertaining to Section 10 of the Rivers and Harbors Act of 1899.

Response: The project will involve bridge construction or culvert installation across Keene Creek and Ox Creek. The proposed activities are unlikely to be regulated under the provision of Section 10 of the Rivers and Harbors Act. If determined to be applicable, the DNR will comply with all USACE permit requirements pertaining to the provisions of the Act.

i. Section 404 of the Clear Water Act Permit

Comment Letters: #16 Tamara E. Cameron on behalf of the St. Paul District, USACE

Comment: The commenter points out the need for the proposal to comply with USACE's permitting authority on Section 404 of the Clean Water Act. Pre-permit application consultation is recommended.

Response: This issue was addressed in the EAW under Item No. 8 and Item No. 12. The proposed project would likely require jurisdictional review and permits from the USACE for mitigating the environmental effects of the proposed project on wetlands and streams, where new crossing structures are proposed. The DNR will confer with the USACE during Section 404 permitting to verify applicability of these provisions and to ensure project compliance.

j. Hunting and Angling

Comment Letters: #25 David A. Lien on behalf of the Minnesota Chapter of the Backcountry Hunters and Anglers (MN BHA)

Comment: The commenter alleges that OHV use diminishes and/or degrades opportunities for hunting and angling on public lands and chases game away from hunting areas.

Response: The topic was addressed in the EAW under Item No. 11a. The DNR notes that the proposed project will take place in forests classified "limited" for motorized use. By law, Class 1 ATVs may be used off-trail in the project area for hunting and trapping related activities (*Minnesota Statutes*, section 84.926). In addition, Minnesota law (*Minnesota Statutes*, section 84.777) prohibits non-hunting recreational OHV riding in state forests (except on designated forest roads) during the firearms deer hunting season in the project vicinity. Consequently, OHV use during the big game hunting season will be limited to activity associated with hunting.

k. Recreational Uses of Public Lands

Comment Letters: #25 David A. Lien on behalf of the MN BHA

Comment: The commenter alleges that motorized recreational use of public lands conflicts with non-motorized uses.

Response: This item was addressed in the EAW under Item No. 25. Proper management is needed to minimize potential conflicts with recreational users of County and State lands and facilitate compatible uses of lands in proximity to the trail. Strategies to prevent potential

conflicts among motorized and non-motorized recreational users include: sufficient planning to coordinate outdoor recreation venues, up-to-date trail user information and sufficient trail signage, targeted monitoring and enforcement, and the implementation of the Trail Ambassador Program (DNR's OHV Safety and Conservation Program). Volunteers of the program will assist in trail monitoring and incident reporting. Incident reporting is provided by DNR field staff working in the vicinity of the proposed project.

The concept of "recreational conflict" itself has long been recognized by natural resource managers. DNR manages State Forests within the policy guidelines established in state statutes. The statutory policy for State Forests is multiple-use, sustained yield management of forest resources. State forests are actively managed to provide a range of goods and services, including outdoor recreation. They host a mix of commercial, industrial, and resource management activities that are generally inconsistent and incompatible with wilderness or a "solitude-like" experience, e.g., timber harvest, motorized recreation, wildlife habitat manipulation, mining, prescribed fire, tree planting, fuelwood and bough harvest, etc.

l. Road/Trail Building by Public Agencies

Comment Letters: #25 David A. Lien on behalf of the MN BHA

Comment: The commenter alleges that general land management policies for public lands have allowed excessive road/trail building and a lax enforcement policy has allowed some illegal user developed trails on these lands. These policies have helped to reduce the quality of outdoor experiences on public lands and have resulted in a variety of negative environmental effects pertaining to the loss/degradation of wildlife habitat.

Response: The amount of road and trail development within the Nemadji and St. Croix State Forests were described and addressed in the EAW under Item No. 9 (land use) and Item No. 29 (potential cumulative effects). This comment relates to the system of public roads/trails on state lands in general. The comments do not address the accuracy and completeness of the Environmental Assessment Worksheet (EAW), specific impacts that require further investigation, the potential for significant environmental effects, or the need for an Environmental Impact Statement (EIS). The DNR will provide further clarification of the contribution the proposed Trail will have on the expansion of the trail system in the Nemadji and St. Croix State Forests. The Trail will increase the mileage available to ATV/OHM use on the Nemadji and St. Croix State Forests by 14 percent. The proposed project will encourage managed trail use and reduce the potential for off-trail impacts by providing a managed riding opportunity for ATV and OHM users. With the project's use of an existing trail, additional fragmentation of public forestlands would not occur. Following completion of the statewide trail inventory and the institution of the "existing road and trail" database, which is used to store and track route data, the DNR is well positioned to monitor and enforce off-trail OHV travel on state lands. The DNR believes that its focus on off-highway vehicle monitoring and enforcement will make a substantial, lasting difference in terms of rider compliance with state law. Insuring that sufficient opportunities are available to all recreational user groups within the state forest system has been DNR's long-standing management objective.

m. Environmental Effects of Motorized Recreational Trails in General

Comment Letter: #25 David A. Lien on behalf of the Backcountry Hunters and Anglers

Comment: The commenter alleges that several negative environmental effects, including the spread of invasive species, increased soil compaction and runoff, increased erosion, increased disturbances to wetlands and rivers, increased sedimentation, and disturbances to wildlife and their habitat, stem from motorized recreational trails and their operation.

Response: Invasive species management, including measures that will be taken to minimize their spread has been addressed in the EAW under Item No. 11. DNR Operational Order #113 describes the agency's policies for invasive species management and control. The order contains procedures specific to trail management necessary for reducing the spread of invasive species. Environmental effects relating to increased soil compaction/runoff and sedimentation were addressed in the EAW under Item No. 16 and Item No. 17. The proposed project will include hardening of the surface of the trail to improve its sustainability. The impacts will be limited to the existing treadway and will not result in soil compaction elsewhere in the forest. Disturbances to wildlife and their habitat were addressed in the EAW under Item No. 11. No additional fragmentation of the forest is proposed. The DNR acknowledges that some changes in animal distribution due to the proposed project could occur. The vehicle related disturbances would result in wildlife making additional adjustments to the way they use habitats in vicinity of the project area. Mitigation to prevent mortality for some rare species is provided in the EAW under Item No. 11b. Since no new corridors are being developed and similar to slightly increased levels of use are expected, existing conditions of biodiversity, habitat and forest fragmentation are not expected to change substantially as a result of this project.

Potential wetland impacts and measures to avoid them were addressed in the EAW under Item No. 6, Item No. 10, Item No. 11, Item No. 12, Item No. 16, and Item No. 29. Regarding the concerns about increased disturbances to wetlands and rivers, off-highway vehicles cannot be operated in wetlands except as specifically authorized by statute (*Minnesota Statutes*, section 84.773). The DNR enforces this law and violators could be subject to both civil penalties and restitution payments.

13. Based upon the information contained in the EAW, provided in the written comments received, and based on the responses to comments provided in Finding 12, the DNR has identified the following potential environmental effects by topic associated with the project.

    a. Invasive Species
    b. Wildlife including Species in Greatest Conservation Need
    c. Endangered, Threatened, and Sensitive Species
    d. Erosion and Sedimentation
    e. Aquatic Resources and Water Quality
    f. Wetlands
    g. Traffic
    h. Engine Related Emissions
    i. Release of Toxic Substances
    j. Noise, Odors, and Dust
    k. Land Use and Nearby Resources
    l. Cumulative Environmental Effects

14. Each of these environmental effects are discussed in more detail below:

a. Invasive Species

Environmental effects of the project related to invasive species were discussed in the EAW under Item No. 11. Multiple use trails and associated facilities can be a pathway for the spread of invasive plants. Invasive species are known to be present along the trail corridor but specific sites and species have not been inventoried. Seeds are inadvertently carried on vehicle tires, boots, clothing, and maintenance equipment. Disturbance of vegetation cover and exposure of soil surfaces during construction could enable invasive species to establish in new areas. The movement of improperly cleaned maintenance equipment between work sites is a potential vector for spreading invasive species.

Mitigation

Recommendations for management and control of invasive species are found in DNR's *Trails and Waterways Section Discipline Guidelines for Invasive Species Management* (Operational Order #113, 2009). The DNR's Operational Order #59 provides guidelines for the use of herbicides on state lands. The DNR staffs are trained in the use of these guidelines. Several recommendations that are applicable to the proposed project include: conduct inventories to document infested areas; minimize vegetation and soil disturbances during construction and maintenance; clean equipment regularly to prevent the transfer of plant material; select and use only weed free surface hardening materials on the treadway; re-vegetate exposed soils with temporary non-invasive cover crops to allow native plants to re-populate the disturbance zone; and conduct periodic monitoring. Invasive species will be physically removed where practical or treated with herbicides if necessary in unrestricted areas. Volunteer Trail Ambassadors, who are trained to identify invasive plant species, will assist the DNR in identifying potential infestations.

b. Wildlife including Species in Greatest Conservation Need

Environmental effects of the project related to wildlife, including Species in Greatest Conservation Need (SGCN), were discussed in the EAW under Item No. 11a. Wildlife habitat in the project area consists of upland and wetland forest types interspersed with shrubby or herbaceous wetlands, and some open water lakes and streams. A variety of wildlife including SGCN, which are rare, declining, or vulnerable for a variety of reasons, utilize habitats in the vicinity of the proposed project and could be sensitive to the proposed construction and additional ATV/OHM traffic. Construction and maintenance activities will generate noise that temporarily displaces species sensitive to human intrusion. Wildlife may be disturbed by the noise, fumes, and dust generated by the additional ATV/OHM traffic. Some species are inherently intolerant to human intrusion, and some species are more sensitive to noise. Some individuals could exhibit increased stress, causing displacement or possibly increased mortality for those less tolerant of the disturbances. The vehicle related disturbances would result in wildlife making additional adjustments to the way they use habitats in vicinity of the project area.

Mitigation

The entire project is located along an existing developed trail corridor. No new forest clearings are proposed. Peripheral canopy and understory trimming for meeting safety guidelines will be kept to minimum. Key habitats identified for SGCN would not be affected by the project. The proposed treadway improvement techniques such as surface hardening, proper outsloping, and better drainage relate to the development of a sustainable natural surface trail. The application of these techniques will minimize erosion and sedimentation, trail drainage problems, and the

environmental effects to nearby resources. The proposed project will encourage managed trail use and reduce the potential for off-trail impacts by providing a managed riding opportunity for ATV and OHM users. Most of the wildlife species in the vicinity of the trail already tolerate some measure of human activity. The surrounding vegetation would generally provide ample cover and suitable escape habitat for many wildlife species. Local topographic changes and leafy vegetation that is typically present throughout the wildlife breeding season helps to moderate sound propagation. Operation of construction equipment would be limited to several weeks at any given location and would occur only during daylight hours. Over the long term, the intensity of ATV/OHM noise is expected to decrease (in the aggregate) as older, noisier vehicles are replaced with quieter ones.

c. Endangered, Threatened, and Sensitive Species

Environmental effects of the project related to endangered, threatened, and sensitive species were discussed in the EAW under Item No. 11b. A DNR Natural Heritage Information System (NHIS) review was conducted to determine whether any rare natural features were known to occur within a one-mile distance of the proposed project area and whether these features may be affected by proposed project developments. Several elements requiring project-related consideration were identified in the DNR Natural Heritage Information System database. Ranges of three state-listed birds of special concern: Bald Eagle (*Haliaeetus leucocephalus*), which is protected under several federal bird protection acts, the Red-shouldered Hawk (*Buteo lineatus*), and the Louisiana waterthrush (*Sieurus motacilla*) have been documented within the search radius of the project. The increased vehicle traffic could cause disturbances or abandonment of nests during the nesting season. Although no nests are known near the trail, nests could be identified during the development of the project. Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, and four-toed salamanders (*Hemidactylium scutatum*), a state-listed species of special concern, have been reported in the vicinity of the existing trail and may be encountered along the trail during construction and use of the Trail. Potential impacts to these species include collision fatalities and habitat degradation. Other mussel and plant species have been documented in the search radius but risk to their presence and habitat would be very low.

Mitigation

The decision to remove earlier planned trail reroutes from the project was made to reduce the potential environmental effects of the project on rare species' and wetland habitats. Should any rare species be identified during project planning, design, or construction and their vulnerability to project activities is indicated, wildlife officers will be notified and appropriate avoidance and disturbance minimization steps will be taken. If tree removal were necessary, the trees will be inspected for nests. With the unlikelihood that clearing of mature trees will occur, the risk of the project affecting nesting birds is minimal. Environmental effects to local salamander and turtle populations are minimized by: avoiding reroutes through natural vegetation or areas that were determined to be suitable habitats for these species; using an existing treadway; maintaining the treadway at or slightly above the level of the forest floor; and repairing ruts along the treadway. The project proposer has committed to work with DNR herpetologists to ensure the project does not result in avoidable impacts to turtles, salamanders, or other reptiles and amphibians of interest. The DNR's *Blanding's Turtle Fact Sheet* and the *Forest Management Guidelines for the Protection of Four-toed and Spotted Salamander Populations* include additional recommendations pertaining to trail development and maintenance to be implemented by the proposer. Use of herbicides for controlling vegetation is not recommended along the trail where the species themselves or suitable habitats for rare plants or animals have been identified. If herbicide use is deemed necessary on a site, an internal review would be conducted to insure that these species and habitats would not be affected.

d. Erosion and Sedimentation

Erosion and sedimentation were described in the EAW under Item No. 12, Item No. 16, and Item No. 17. The project will not create new impervious surfaces. However, the exposure of the soil surface during construction and disturbance of soils during use of the trail can lead to soil erosion and the movement of sediments towards and into surface waters. Degree of repair work needed in the project area was classified into the three categories: No Work/No Repair (5.2 mi), Dry Trail Upgrade (12.5 mi.), and Wet Area Repair (5.6 mi.). No Work/No Repair sections, which account for approximately 22 percent of the proposed alignment, are sustainable as presently constructed and would require no additional mechanical action to support the proposed motorized uses. The Dry Trail Upgrade identifies sections of the trail where minor to moderate mechanical action is necessary, i.e., leveling ruts, filling potholes, and outsloping the treadway. Approximately 54 percent of the proposed alignment would require the Dry Trail Upgrade. Wet Area Repair, proposed on 24 percent of the project area, would consist of more extensive modification to sustain the proposed addition of motorized uses. Measures applied along these sections would include treadway elevation, hardening, and outsloping, culvert installation, and other surface blading. Length of segment and surface area disturbed was measured and summarized for each category and the approximate soil volumes moved during excavation was calculated. As a maximum case scenario, the area to be graded or excavated is estimated at 36 acres and the cubic yards of soil to be moved, at 4,463 cubic yards. Equipment necessary to accomplish the work includes: cargo carriers; small Sweco crawler; backhoe; and posi-track loaders or all-season vehicles (ASVs). Surface hardening materials would be obtained from existing DNR gravel pits, when available, but new DNR borrow sites would likely be necessary along some repair sections. Approximately 45 new or replacement culverts would be installed in areas subject to seepage or runoff.

Dedicated OHV funds will be used to repair and maintain the trail segments within the project area. The DNR staff will conduct inspections three times per year or more, as conditions warrant, and will make the scheduled repairs using the additional resources. The Volunteer Trail Ambassadors, organized by trail user clubs and overseen by the DNR Division of Enforcement, will assist the DNR in monitoring trail use and condition.

Some increase in the potential of erosion/sedimentation may occur due to normal weathering of the trail surface and to an anticipated increase in motorized use proposed during the growing season. During routine use, compaction and displacement will tend to deepen grooves along heavily traveled portions of the tread. Runoff could follow treads and deepen them further.

Mitigation

Most of the proposed mechanical actions during construction and maintenance would be specifically implemented to increase treadway stability and control erosion. The DNR's use of the *Trail Planning, Design, and Development Guidelines* (2007) helps staff design and employ a variety of solutions and methods for building a sustainable trail across a variety of slopes, soil types, and erosion hazards. Sustainable trails can be created through a combination of good design, treadway placement along sloping areas, proper use of soil materials, and treadway hardening techniques that resist compaction, displacement, and erosion. Although the construction will expose soil temporarily, the new treadway surface will resist erosion and be more stable after improvements and mitigation measures have been implemented. By using an existing trail, the project will not create new impervious surfaces. No excavation outside of the trail corridor is proposed. The full length of the trail alignment traverses forestlands serving as vegetative buffers. Construction work will be carried out during dry conditions to minimize the

potential for runoff during construction. Grading and excavation will be limited in extent, dispersed along a narrow footprint, and have a short duration. Additional attention will be given to segments having slopes greater than six percent.

Treadway designs that will be implemented in erosion-prone areas along the Dry Trail Upgrade segments include installing water bars, dips and crests (i.e., rolling slopes), and some ditching to divert water away from the treadway. Rolling slopes help to reduce the size of drainages intersected by the trail, thus preventing excessive accumulation of flows along the trail. Trail improvements along segments identified as Wet Area Repair will include repair of muddy sections, treadway elevation and hardening, and the installation of culverts to improve drainage. The culvert placements will improve trail strength and reduce rutting in areas prone to seepage or ponding. The rapid stabilization method will be employed to achieve the quickest stability of exposed areas. The method includes practices such as: timely placement of silt fencing or straw bales; temporary or permanent seedings; mulching; diversion of water from exposed surfaces through temporary downdrains; and other protective measures. Dedicated OHV funding for treadway monitoring and maintenance will improve trail upkeep after project implementation.

Construction-related disturbance of one acre or more requires a General Stormwater Permit for Construction Activities under the MPCA-administered National Pollutant Discharge Elimination System (NPDES) program. This permit requires steps be taken to prevent erosion through the implementation of erosion control BMPs. As required by the MPCA, the DNR's permit application materials will include proposed erosion control plans showing the BMP details.

e. Aquatic Resources and Water Quality

The environmental effects on aquatic resources were described in the EAW under Item No 11, Item No. 12, Item No. 14, Item No. 16, and Item No. 17. The environmental effects to aquatic resources within the watersheds affected by the project are mainly attributable to erosion and sedimentation originating from the construction of the treadway and crossing structures and the operation of the proposed trail.

The 23.3 mile project area passes through several small- and medium-sized watersheds. The upper Nemadji segment lies within the Little Net River and Net River watersheds, which are part of the Lake Superior basin. Both of the rivers are trout streams designated under *Minnesota Rules*, part 6264.0050, subpart 4. Other segments of the proposed trail pass through sub-watersheds of the St. Croix River basin: Willow Creek, Larsen's Creek, the Lower Tamarack River, Keene Creek, Ox Creek, and McDermott Creek. The proposed trail enters the 300-foot wide shoreland zone and crosses Ox Creek, McDermott Creek, the Lower Tamarack River, and Keene Creek in three places. Suitable bridges are in place at four of the six stream crossings (one over McDermott Creek, one over the Lower Tamarack River, and two over Keene Creek). Two new crossing structures are proposed. One of the Keene Creek crossings is an at-grade ford, where a new bridge will be constructed. A new bridge or culvert is also proposed at Ox Creek, where the trail uses an existing road that does not have a usable crossing structure for OHVs. Construction occurring near or at stream crossings has a higher risk of affecting surface waters.

<u>Mitigation</u>
Construction will be conducted using Best Management Practices (BMPs) to achieve minimal erosion and sedimentation in areas near water bodies. Once the project is implemented, trail maintenance will be scheduled and seasonal and/or temporary closures will be authorized during adverse weather periods. Specific best management practices would be defined in the permitting process. BMPs will include: working only during dry periods; minimizing the size of disturbance

zones; using the vegetative buffers for capturing runoff; diverting runoff from exposed surfaces through downdrains; placing erosion control mulching or organic blankets on some exposed areas; and quickly establishing vegetation along the trail. Materials used to trap sediments may include: silt fences, straw bales, fiber logs, grade breaks, and compost or filter bags. Erosion control blankets will be employed on sloped-off trail bank areas near wetlands and streams. All exposed soil areas will be stabilized, mulched, and seeded with appropriate native species as soon as possible but no later than seven days after construction activity has temporarily or permanently ceased. Temporary stockpiles near waterbodies will have silt fence or other effective sediment controls. Vehicle tracking of sediment off the construction site will be minimized. Less erosive materials such as crushed rock would be applied to approaches if necessary.

The General Construction Stormwater Permit, as administered by the MPCA, regards trout streams as special waters and specifies that additional BMPs be implemented when the discharge point from a construction area occurs within one mile of a designated trout stream. Although the Upper Nemadji segment traverses the watersheds in proximity of trout streams, no construction work or repairs is proposed along this segment. No construction will be necessary because the wet portions of this segment are avoided during the summer ATV/OHM use period by using an existing upland forest trail that circumnavigates the wetlands. ATV use will be allowed on the winter snowmobile route when the ground is frozen.

The proposed bridges would require a Work in Public Waters Permit, which has provisions designed to minimize encroachment, change, or damage to the environment. The DNR's Fisheries staff will determine the appropriate impact avoidance and/or mitigation measures necessary for constructing the proposed Keene and Ox Creek crossing structures and for stabilizing approaches at these and other existing crossings. Bridges will span the natural bankfull-width, therefore providing adequate clearance for debris and sediment transport. The bridge capacity would be designed to be the same as the capacities of channel segments located upstream and downstream of the bridge. The two new structures will be engineered to minimize encroachment to pass the 1% annual flood event (100-year flood). Bridge placement will minimize environmental effects on fish migrations. Work exclusion dates will be incorporated into project scheduling and staging to protect fish spawning and migration. The remaining crossings use existing road culverts or bridges so the proposed construction will not affect their shoreland or floodplain areas.

The DNR will design and construct the proposed culvert or bridge to minimize erosion, consistent with the provisions of state shoreland rules (*Minnesota Rules*, part 6120.3300) and as required within the Construction Stormwater General Permit. Prior to construction, the proposed Ox Creek crossing structure will require administrative approvals from officials of New Dosey Township and Pine County.

Designation of the existing trail segments is not expected to have any measurable effect on the quality of the receiving waters of the Lake Superior tributaries or those of the St. Croix River. With application of appropriate water quality BMPs, construction-related effects should be minor and temporary. The project is not expected to cause any increases in phosphorus or mercury levels in the receiving waters.

f. Wetlands

Issues relating to environmental effects on wetlands are described in the EAW under Item No 12. In addition to the public waters listed above, the project vicinity includes numerous wetland areas and small drainageways that are waters of the state. The National Wetland Inventory (NWI) maps prepared by the U.S. Fish and Wildlife Service provide a general indication of whether a

wetland is or may be present on the project area. The NWI maps identify that the proposed trail transects approximately four miles of wetlands classified as: emergent marsh (Type 2 or Type 3), scrub/shrub wetland (Type 6), wooded swamp (Type 7) and forested bog wetlands (Type 8), totaling 7.5 acres of the 56.1 acre trail corridor. To enable logging access and authorized recreational uses, a majority of the existing trail treadway has undergone some type of alteration, including grading, shaping, berming, or the placement of fill material. Most of the wetlands identified in the project area have disturbances associated with past road or trail development and/or maintenance activities.

The primary trail corridor was established more than a decade before the Minnesota Wetland Conservation Act (WCA) was passed in 1991. The WCA does not require mitigation for any wetland fill that occurred before its enactment. Furthermore, *Minnesota Rules*, part 8420.0420 provide a forestry exemption for fill placement if its primary purpose was for silvicultural activities. The Board of Water and Soil Resources (BWSR) Guidance Paper 2004-01 provides instructions for interpreting whether mitigation is required when the usage of a trail changes from one primary use to another. For a trail or road that has been in place for more than 10 years and for which the use changes from silvicultural to something else, such as recreational, only wetland impact in excess of the original footprint requires mitigation. The DNR anticipates mitigation would be required on some trail sections that cross wetlands and require additional fill placement. The proposed project is estimated to require fewer than two acres of additional fill placement.

Mitigation

The DNR will complete field delineations of all wetlands along the trail during project planning. If jurisdictional wetlands are identified along the Trail, Wetland Conservation Act (WCA) requirements will be followed, including sequencing (avoid, minimize) and, if required, replacement of wetland impacts. Where possible, wetland replacement will be in-place and in-kind to increase the likelihood of success. Opportunities to restore previously degraded wetlands will be considered.

In addition to being subject to the WCA, the project is subject to review and permitting to meet federal Clean Water Act Section 401 and 404 requirements, as administered by the MPCA and the U.S. Army Corps of Engineers (USACE), respectively. Section 401 requires that an applicant for a federal permit, or license, for any activity which may result in any discharge into waters must first obtain a certification from the state that the proposed action will comply with state water quality standards, primarily contained in *Minnesota Rules*, chapter 7050, and the applicable requirements of the Clean Water Act. The MPCA and USACE may treat past fill in waters of the state somewhat differently from the WCA and may require mitigation in addition to that required for project-specific wetland fill placement. Fill in or alteration of small drainageways, e.g., the placement of culverts, may also require Section 401/404 review and permitting. The DNR will consult with MPCA and USACE staff during wetland delineation and permitting to further ascertain their regulatory requirements. Agency regulators and the DNR may design improvements to restore natural flow patterns where previously disrupted by construction.

g. Traffic

Traffic related environmental effects were described in the EAW under Item No. 21. If the increase in trail use warrants additional parking, an existing designated parking location at Highway 173 in the St. Croix State Forest may need to be expanded from its current five vehicle-with-trailer capacity to accommodate seven more vehicles with trailers. The potential for the future expansion of a parking site could result in some land clearing.

Mitigation

Existing parking areas and forest road shoulder pull-off sites are expected to accommodate most parking needs of trail users. Other parking opportunities exist at various forest access points and along other connecting OHV and snowmobile trails in the area. The parking lot expansion will only be implemented if use levels regularly exceed present capacities.

h. Engine Related Emissions

Emission related environmental effects were described in the EAW under Item No. 22. Engines used for the development and operation (use, monitoring, and maintenance) of the treadway will produce emissions along the trail corridor. Additional incremental transport-related effects are incurred on state and county highways while traveling to and from trail entry points. Diesel engines used in construction and maintenance will generate exhaust emissions including nitrogen oxides, hydrocarbons, carbon monoxide, reactive organic gases, sulfur dioxide, and suspended particulate matter, all of which are criteria pollutants that carry associated health risks. ATV/OHMs and highway-licensed transport vehicles with gasoline engines would also generate emissions that could affect air quality. Previously designated segments of the Matthew Lourey State Trail are already exposed to some emissions. With the anticipation of increased usage of the trail, the amount of emissions produced by ATV/OHMs is expected to increase. The operation of these vehicles can create pollutants that linger, especially at intersections or where vehicles congregate. Emission levels could occasionally (temporarily) exceed state and federal ambient air quality standards in some high-use areas.

Mitigation

Emissions arising from construction-related use of heavy equipment and from recreational vehicles will be minor and temporary in nature. Manufacturers of new diesel and ATV/OHM engines must meet more stringent EPA emission standards. Local climatic conditions will normally act to dissipate and dilute vehicle emissions. A deterioration of local or regional air quality is not expected from project implementation. The emissions are considered quite small when compared to those generated from other transportation activities in the region.

i. Release of Toxic Substances

This environmental effect was addressed in the EAW under Item No. 20. No solid wastes or hazardous wastes will be generated and no such hazards are known in the project area. Although the project does not generate toxic or hazardous materials itself, materials such as fuels, antifreeze, and hydraulic oils will be used in construction, operation, and maintenance equipment. Temporary fuel tanks for servicing equipment may be required.

Mitigation

In the event of a leak or spill during construction or maintenance activities, materials would be contained and cleaned up according to approved guidelines and standards. The DNR equipment operators are trained in emergency spill remediation. Standard safety procedures will be followed for handling materials. Construction- and maintenance-related refueling would occur away from stream/wetlands and shoreland zones. Release of hazardous materials via leaks or spills is expected to be infrequent and minimal.

j. Noise, Odors, and Dust

This topic was addressed in the EAW under Item No. 24. Noise, odors, and dust will be generated from small diesel and gasoline powered equipment during construction, operation, and maintenance of the trail. The operation of ATV/OHM vehicles will generate odors, dust, and noise, which will vary in amplitude as a function of engine displacement and the presence of sound-control measures on vehicles. Older ATV/OHM with two-stroke engines will create more noise and odors than those with newer four-stroke engines. Some baseline noise is already produced along the corridor by existing trail use and concurrent forest management activities. There would be a small increase in noise frequency over current conditions, as use levels are expected to increase over time. Very few residences and seasonal dwellings are located nearby or within one mile of the trail. These dwellings are located along township roads within state forest boundaries. Although State Noise Standards will not be exceeded, some forest users may characterize the ATV/OHM engine sound as "annoying," especially as a function of low current ambient noise levels.

The MPCA's Daytime State Noise Standard, defines "nuisance noise" as noise in residential areas that exceeds of L50 = 60 dB(A) and L10 = 65 dB(A). Nighttime noise levels greater than L50 = 50 dB(A) or L10 = 55 dB(A) are not allowed in residential land use areas (*Minnesota Rules*, chapter 7030). The MPCA will enforce consistent violations of these standards. When operated on public lands, OHMs must be equipped with a silencer or other device that limits sound emissions to the standards set in *Minnesota Statutes*, section 84.789, subdivision 3.

Odors that are generated during ATV and OHM use would vary as a function of the number and types of vehicles active on the trail and weather conditions at the time of operation. Fugitive dust is generated from soil abrasion on natural-surfaced or graveled treadways. The increased levels of use would create additional fugitive dust during dry conditions. It can be a nuisance to riders and other forest users.

Mitigation

Operation of construction equipment would be limited to several weeks at any given location and would occur only during daylight hours. Over the long term, the intensity of ATV/OHM noise is expected to decrease (in the aggregate) as older, noisier vehicles are replaced with newer, quieter ones.

Noise propagation is partially mitigated by the presence of leaves on nearby trees and understory vegetation. Heavy leaf cover during the growing season reduces the distance of noise transmission. Noise transmission during the late fall (October and November) and winter seasons would be more pronounced as less foliage is available to muffle sound. Other mitigating factors are local topography and long distances to receptor sites. Odors will dissipate quickly under most circumstances and weather conditions. Airborne dust is expected to be localized and generally restricted to a narrow zone along the Trail.

k. Land Use and Nearby Resources

This topic was addressed in the EAW under Item No. 9, Item No. 25, and Item No. 29. The state forests host a mix of commercial, industrial, and resource management activities, including timber harvest, motorized and non-motorized recreation, wildlife habitat manipulation, mining, prescribed fire, tree-planting, and fuelwood and bough harvesting. Among the motorized recreational opportunities provided by the Nemadji and St. Croix State Forests are: touring/wildlife viewing from vehicles; snowmobiling; and riding off-highway vehicles. Non-

motorized activities would include: wildlife viewing, cross country skiing, hiking, dog sledding, berry picking, hunting, fishing, trapping, horseback riding, and mountain biking, among others. A network of existing public roads, forest roads, access routes, and trails provide public access to the Nemadji and St. Croix State Forests. The Matthew Lourey State Trail segments that occur within the two state forests are currently open to hiking, horseback riding, mountain biking, and snowmobiling, with about 15 miles also open to ATV/OHM use.

Motor vehicle use on the two state forests is subject to the forest's "limited" motorized use classification. Presently ATV/OHM use is permitted on several designated motorized trails, as listed below; nearly eighty miles of the Nemadji and St. Croix State Forests' System and Minimum Maintenance roads, unless posted closed; and several miles of nearby county and township roads. Snowmobiles may travel anywhere in the forest unless the area or trail is signed to prohibit their use. Winter ATV travel is only allowed on designated trails. Off-trail travel is prohibited for ATVs and OHMs with certain big game hunting and trapping exceptions for ATVs, as specified in *Minnesota Statutes*, section 84.926.

ATV/OHM trail development in the state forests includes: segments of the Matthew Lourey State Trail, the Gandy Dancer Trail, the Continental Divide, and the Yellow Birch Trail, other unit trails, and other Grant-in-Aid (GIA) trails. The Gandy Dancer Trail is open to winter season OHV riding. Collectively, among the managed motorized recreational trails on the two state forests, over 120 miles of trail are available for snowmobiling, 170 miles for ATV/OHM use, and 68 miles for OHM use. The proposed project would increase the mileage presently designated for ATV/OHM use by approximately 23 miles.

Trails designated for non-motorized uses, including hiking, bicycling, and horseback riding, total approximately 57 miles. In general, non-motorized users, including horseback riders and hikers, may travel anywhere in the forest unless the area or trail is signed for prohibiting these uses. Several upland sections of snowmobile trails and logging access routes provide additional access for a variety of non-motorized recreational activities. Several camping/day use area facilities and trail-side shelters are available on the state forests. A private campground, St. Croix Haven, is located off Highway 173, adjacent the St. Croix State Forest.

About 3.5 miles of the project area alignment of the Matthew Lourey State Trail is located within the 3,500 acre Klondike Trail Grouse Management Unit. Important components of the ruffed grouse management unit plan include development and/or maintenance of the main access road (Grouse Road), the parking areas, and the hunter walking trails. The plan focuses on developing additional grouse habitat improvements on the Unit. Additional unique resources over three miles from the project area are the St. Croix River and St. Croix State Park, both of which are over three miles from the proposed trail project. The Upper St. Croix National Scenic Riverway is managed by the National Park Service. The St. Croix River is a state designated "Canoe and Boating River" or water trail, and a state and federally designated "Wild and Scenic River." The St. Croix State Park is located more than eight miles from the proposed project. The State Park includes a 22-mile segment of the Matthew Lourey State Trail and has over 100 miles of other snowmobile and non-motorized trails.

Mitigation

The Matthew Lourey State Trail is managed consistent with its statutory authorization and master plan. The DNR proposes to allow OHV use on additional trail segments, and to amend the management plan accordingly after environmental review is complete. The Nemadji and St. Croix State Forests are managed within the policy guidelines established in state statutes that promulgate the multiple-use management and sustainable yield of forest resources. The proposed

trail use is consistent with the statutory and administrative uses of the state forests and is compatible with land uses in New Dosey Township.

All of the presently designated recreational uses of the Trail will continue after project completion. Opportunities for non-motorized recreational activities are available on the two state forests. The proposed motorized uses are fairly distant from designated hiking and horseback trails, but near the County Road 25 trailhead of a 17-mile dog sled trail. Additional non-motorized venues are available at the nearby St. Croix National Scenic Riverway managed by the National Park Service, the DNR's St. Croix State Park, other non-formal trails or access roads, and would continue to be allowed on the Trail.

l. Cumulative Environmental Effects

The proposed project will entail the construction of trail improvements and the designation of ATV/OHM use on additional mileage, equivalent to a 14 percent increase in ATV/OHM trail mileage within the St. Croix and Nemadji State Forests, and may increase overall use levels to some extent. The potential environmental effects related to this project would be associated with environmental effects from other past, present, or reasonably foreseeable future projects for which a basis of expectation has been laid. These findings provide the basis for the determination of whether the cumulative potential effect is significant and whether the contribution from the project is significant, when viewed in connection with other contributions.

As described in the EAW under Item No. 6, Item No. 9, Item No. 27 and Item No. 29, developments in proximity to the proposed site have several similar environmental effects. Cumulative environmental effects related to the proposed project can be summarized into a general list that includes an increase in the potential for: the spread of invasive species; erosion and sedimentation; disturbances to wildlife, including SGCN; disturbances to endangered, threatened, and special concern species; and the generation of noise, dust, and/or fumes during construction and operation. Timber harvesting and forest management (TH/FM) is a reasonably foreseeable project for which a basis of expectation has been laid that may contribute cumulative effects to the proposed project.

The landscape through which the trail is proposed is largely managed for the production of wood products and therefore is exposed to disturbances associated with the forestry industry. Timber harvest in particular can result in the creation of new minimum maintenance roads or timber skid trails. Stands prescribed for thinning treatments are normally entered every 15 to 20 years and stands managed for natural regeneration are entered every 50 to 60 years. According to the recently completed and on-going harvest prescriptions by the DNR, as averaged over a two-year period, it is estimated that these activities range from five- to seven percent of area within a one-mile radius of the trail. While the contribution of potential cumulative effects of the Trail is small in extent compared to timber harvest, the effects can be longer lasting. Timber stands are entered less frequently due to the long periods of growth that is necessary between harvests for forest regeneration.

In terms of trail development, no future GIA trails are presently planned, nor is a basis of expectation laid for the development of additional motorized and non-motorized routes in the vicinity of the project. There are no other known or proposed trail projects or other development projects in the vicinity of the proposed project.

Mitigation

These findings provide the basis for the determination of the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project. Mitigation strategies of the proposed project have been described under each of the environmental effects identified. Mitigation of TH/FM activities is the responsibility of state forest managers, as defined by the Sustainable Forest Resources Act (SFRA) (*Minnesota Statutes*, section 89A.02). The Minnesota Forest Resource Council (MFRC) has established best management practices for all forested lands in Minnesota. The SFRA requires the DNR to develop and administer a program, overseen and directed by the MFRC, to monitor implementation of the TH/FM guidelines on public and private forestlands. Implementation monitoring of the TH/FM guidelines has been conducted on public and private forestlands since 2000. An example of TH/FM policies that help reduce environmental effects is the implementation of most timber harvesting activities during the winter months to avoid soil and wetland disturbances. Growing season harvests are only allowed on stands located near System Forest Roads. To reduce the need for creating additional access corridors to stands slated for entry, existing trail segments are considered in the development of the harvest plan to prevent the need for creating new access routes.

The project area has received varying degrees of ATV and OHM use in the past that may have caused some deterioration to surrounding wetlands and water bodies. Establishing the motorized designation for these segments will allow the DNR to dedicate funds for trail improvement, maintenance, monitoring, and enforcement. Leveling ruts, filling potholes, and installing culverts in wet areas will improve trail stability and reduce sediment from reaching nearby waterbodies.

Proper management of ATV/OHM use within the state forests helps to minimize the environmental effects of on- and off-trail motorized recreation activities. The Nemadji and St. Croix State Forests' limited classification restricts ATVs and OHMs to forest roads that are not posted closed and trails designated and posted open to those uses. Individuals who venture off-trail or onto unauthorized snowmobile trails, gated trails, or blocked trails illegally, whatever the reason, or knowingly or unknowingly trespass, or cause rutting, erosion or damage to vegetation and wetlands, will be subject to citation. Enforcement has grown commensurate with increased numbers of riders and registered vehicles. The DNR has initiated "Special Work Details" to address chronic or localized enforcement problems. The DNR works closely with other law enforcement agencies, notably County Sheriff's Offices, to address OHV-related issues, safety training, and field enforcement.

Following completion of the statewide trail inventory and the institution of the "existing road and trail" database, which is used to store and track route data, the DNR is well positioned to monitor and enforce off-trail OHV travel on state lands. The DNR believes that its focus on off-highway vehicle monitoring and enforcement will make a substantial, lasting difference in terms of rider compliance with state law. Planning for establishing sufficient physical separation between users in multiple use areas has been applied in the two state forests. Insuring sufficient opportunities are available to all recreational user groups within the state forest system has been DNR's long-standing management objective that is being carried forward during the development of this project.

Proper management is needed to minimize potential conflicts among recreational users of County and State lands and facilitate compatible uses of lands in proximity to the trail. Strategies to prevent potential conflicts among motorized and non-motorized recreational users include: up-to-date trail user information and sufficient trail signage, targeted monitoring and enforcement, and

the implementation of the Trail Ambassador Program (DNR's OHV Safety and Conservation Program). Volunteers in the program will assist in trail monitoring and incident reporting. Incident reporting is also a routine duty of all DNR field staff working in the vicinity of the proposed project.

The project area has received varying degrees of ATV and OHM use in the past that is inconsistent with the current Master Plan. The Matthew Lourey State Trail is considered a core travel corridor. General recreational riding is expected to be more concentrated (thus less dispersed) than current conditions; this may or may not be the case for more utilitarian-type activities such as hunting, trapping, and berry picking. Because project implementation expands the access network for these forests, increases in destination-type visitation for motorized recreation may occur.

15. The following permits and approvals are needed for the project:

Unit of Government	Type of Application	Status
Pollution Control Agency (MPCA)	NPDES/SDS Permit: Construction Stormwater General Permit Clean Water Act: Section 401 Certification	 Not Applied For Not Applied For
DNR	Wetland Conservation Act Public Waters Work Permit State Trail Plan Amendment	Not Applied For Not Applied For Pending
U.S. Army Corps of Engineers	Section 404 Permit	Not Applied For
Township	Approval for Bridges	Not Applied For
County	Change in Lease with Pine County	Not Applied For

CONCLUSIONS

1. The Minnesota Environmental Review Program Rules, *Minnesota Rules*, part 4410.1700, subparts 6 and 7 set forth the following standards and criteria, to which the effects of a project are to be compared, to determine whether it has the potential for significant environmental effects.

   In deciding whether a project has the potential for significant environmental effects, the following factors shall be considered:

   A. type, extent, and reversibility of environmental effects;
   B. cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;

C. extent to which the environmental effects are subject to mitigation by on-going regulatory authority; and

D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

2. *Type, extent, and reversibility of environmental effects*

   Based on the Findings of Fact above, the DNR concludes that the following potential environmental effects, as described and discussed throughout these Findings of Fact, will be limited in extent, temporary, or reversible:

   Invasive Species
   Wildlife including Species in Greatest Conservation Need
   Endangered, Threatened, and Sensitive Species
   Erosion and Sedimentation
   Aquatic Resources and Water Quality
   Wetlands
   Traffic
   Engine Related Emissions
   Release of Toxic Substances
   Noise, Odors, and Dust
   Land Use and Nearby Resources
   Cumulative Environmental Effects

3. *Cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;*

   Based on the Findings of Fact above, the DNR concludes that cumulative potential effects, as described in Finding 14, are not significant in terms of:

   The project's contribution to the increase in the potential for: the spread of invasive species; erosion and sedimentation; disturbances to wildlife, including SGCN; disturbances to endangered, threatened, and special concern species; and the generation of noise, dust, and/or fumes during construction and operation, when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project.

   Timber harvesting and forest management activity is the only known anticipated future project specifically planned in the foreseeable future affecting the proposed project area. No other related projects are known. Timber harvesting and forest management activity effects within the project area, when viewed in consideration of the proposed project, would not result in significant cumulative effects.

For each of the environmental effects listed, the proposed trail project would contribute minor increases in cumulative potential effects on the project area relative to the other contributors.

4. *Extent to which environmental effects are subject to mitigation by on-going public regulatory authority.*

   Based on the information in the EAW and Findings of Fact above, the DNR has determined that the following environmental effects, as described in Finding 14, are subject to mitigation by ongoing public regulatory authority, including permits, approvals, enforcement of regulations, or other programs:

   Invasive Species. (Operational Order #113 describes the DNR policies for invasive species management and control and contains a listing of statutes and rules that govern the management and other activities as they pertain to selected invasive species. Operational Order 59 governs the DNR's use of pesticides).

   Endangered, Threatened, and Sensitive Species. (Federal Bald and Golden Eagle Protection Act and the Federal Migratory Bird Treaty Act; *Minnesota Statutes*, part 84.0895 Protection of threatened and endangered species).

   Erosion and Sedimentation. (MPCA NPDES/SDS Permit: Construction Stormwater General Permit).

   Aquatic Resources and Water Quality. (DNR Public Waters Work Permit; USACE, Section 404 Clean Water Act (CWA); MPCA NPDES/SDS Permit: Construction Stormwater General Permit and Section 401 CWA Certification; Pine County Shoreland Zoning Ordinances, and Wetlands Conservation Act).

   Wetlands. (Wetlands Conservation Act; USACE Section 404 Clean Water Act (CWA); MPCA NPDES/SDS Permit, Construction Stormwater General Permit; MPCA NPDES/SDS Permit: Construction Stormwater General Permit and Section 401 CWA Certification; MPCA *Minnesota Rules*, chapter 7050 requirements; Pine County Shoreland Zoning Ordinance).

   Noise, Odors, and Dust. (MPCA noise standards, *Minnesota Rules* Chapter 7030 in concert with DNR and local governmental units; *Minnesota Statutes*, section 84.789).

5. *Extent to which environmental effects can be anticipated and controlled as a result of other environmental studies undertaken by public agencies or the project proposer, of other EISs.*

   Environmental effects related to trail design, construction, maintenance, and use can be anticipated and controlled as a result of the following DNR studies.

   1982. *Master plan for the Minnesota-Wisconsin Boundary Trail and west addition*. DNR, St. Paul. 174 p. + append.

   1994. *The Gandy Dancer Trail plan including amendments to the Moose Lake Area Forest Resource Management Plan and the Minnesota-Wisconsin Boundary Trail Plan (Willard Munger State Trail).* DNR, St. Paul. 18 p. + append.

2007. *Trail planning, design, and development guidelines*. DNR, St. Paul. 308 p.

2009. *Department of Natural Resources, Parks and Trails Division, Trails and Waterways Section - discipline guidelines for invasive species management*. (Operational Order 113). February 9. 21 p. + append. and figures.

Recent Environmental Review Documents Completed by the DNR

2009. *UPM Blandin ATV/OHM Trail.* Environmental Assessment Worksheet and Record of Decision.

2009-10. *Virginia Expansion of the Iron Range Off-Highway Vehicle Recreation Area.* Environmental Assessment Worksheet and Record of Decision.

6. The Minnesota Department of Natural Resources has fulfilled all the procedural requirements of law and rule applicable to determining the need for an environmental impact statement on the proposed Matthew Lourey State Trail – ATV and OHM Use in Nemadji/St. Croix State Forests project.

7. Based on considerations of the standards and criteria and factors specified in the Minnesota Environmental Review Program Rules (*Minnesota Rules* part 4410.1700, subpart 6 and 7) to determine whether a project has the potential for significant environmental effects, and on the Findings and Record in this matter, the DNR determines that the proposed Matthew Lourey State Trail – ATV and OHM Use in Nemadji/St. Croix State Forests project does not have the potential for significant environmental effects.

ORDER

Based on the above Findings of Fact and Conclusions:

The Minnesota Department of Natural Resources determines that an Environmental Impact Statement is not required for the Matthew Lourey State Trail – ATV and OHM Use in Nemadji/St. Croix State Forests project.

Any Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

Dated this 22 day of June, 2011.

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

Erika R. Rivers

Erika Rivers
Assistant Commissioner