

ENVIRONMENTAL ANALYSIS AND DECISION ON THE NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

Form 1600-1

Rev. 6-2001

Department of Natural Resources (DNR)

Region or Bureau Northern Region
Type List Designation NR 150.03(5)(a)1.b

NOTE TO REVIEWERS: This document is a DNR environmental analysis that evaluates probable environmental effects and decides on the need for an EIS. The attached analysis includes a description of the proposal and the affected environment. The DNR has reviewed the attachments and, upon certification, accepts responsibility for their scope and content to fulfill requirements in s. NR 150.22, Wis. Adm. Code. Your comments should address completeness, accuracy of the EIS decision. For your comments to be considered, they must be received by the contact person before 4:30 p.m., March 24, 2006.

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Applicant: Wisconsin Department of Natural Resources

Address: 101 South Webster, Madison, Wisconsin

Title of Proposal: Acquisition, Development and Management of the Amery to Dresser State Trail

Location: Polk County. The rail corridor runs from 90th Avenue, east of Hwy MM in Town of Osceola to the Apple River in the City of Amery, where it connects with the existing Cattail Trail. The legal description is attached as Appendix 1.

PROJECT SUMMARY

1. Brief overview of the proposal including the DNR action (include cost and funding source if public funds involved)

The Department of Natural Resources proposes to extend the Cattail State Trail in Polk County with a new 13.48 mile long section between the City of Amery to the Town of Osceola, about 1 ½ miles southeast of the Village of Dresser. Department actions include:

- Purchase 14 miles of abandoned railroad corridor comprised of 185.76 acres of land from Canadian National via subsidiaries: Wisconsin Central and Fox Valley and Western for \$500,000. (Appendix 2)
- Enter into a memorandum of understanding and cooperative state trail easement with Polk County under which the County will develop, maintain and operate a recreational trail on 13.48 miles of the rail corridor beginning 3 miles south of Dresser and extending through the City of Amery.
- Review and approve a Polk County initiated Master Plan for trail development, operation and maintenance.
- Provide grants to Polk County for development and operation of the trail.

Since Polk County has not yet developed specific engineering plans for trail development, Department staff conducted a *Preliminary Engineering Assessment of Trail Development Needs*. (Appendix 3) This assessment is based on visual observation of the existing abandoned railroad right of way, limited measurements of the trail surface and assessment of work required to create the proposed 20-foot dual trail surface. Needs were assessed for four types of construction to prepare the trail base:

- Grading – at \$2,000 per mile
- Medium hillside ditch cuts and grading – at \$1,000 per 100 feet
- Difficult ditch cuts and grading – at \$2,000 per 100 feet
- Large amount of fill needed – at \$2,000 per mile

Since the existing rail grade stands well above the surrounding landscape over most of its length, it is anticipated that needed fill will be available on-site to bring lower areas to the needed grade. Estimated construction costs are:

Grading	17, 690
Advanced ditching, culverts and intersection work	90, 600
Trail surfacing **	990, 322
Trail brushing at \$1,000 per mile	<u>13, 480</u>
Total	\$1,112,105

** The trail surfacing cost estimate is based on a 4 inch gravel thickness for a 6 foot wide trail at \$22,040 per mile. For a 20 foot trail surface, the cost is estimated at \$73,466 per mile.

This is a preliminary cost estimate based on statewide contracting rates. Actual costs may vary. Local vendor rates and use of County construction crews could substantially reduce construction costs. The estimate is based on one design scenario. If a different construction alternative is chosen, costs will be different.

Funding for corridor acquisition was from State Stewardship bonding. It is anticipated that Polk County will apply for and receive grant funding for trail development and operation under a variety of programs with eligibility based on planned trail use. Funding sources include the Wisconsin ATV Fund, Snowmobile Fund and federal Recreational Trails Act administered by Department of Natural Resources, and the federal Transportation Enhancement Program administered by Department of Transportation.

2. Purpose and Need (include history and background as appropriate)

This trail segment is being acquired and developed to address recreational needs of this growing area as well as regional recreation demand from Wisconsin residents and visitors. Its development as a trail is supported by prior State trails plans and policies.

The *Wisconsin State Trails Strategic Plan* (1993) clarifies the Wisconsin Department of Natural Resources' (DNR) role and mission of providing all types of trails and strategies for carrying out this mission. The *State Recreational Trails Network Plan* (Appendix 4) approved by the Wisconsin Natural Resources Board in January 2001, provides a blueprint for implementing the strategy. This plan identifies a series of potential trail corridors across Wisconsin linking existing trails, public lands, natural features and communities. The *State Recreational Trails Network Plan* provides authorization from the Natural Resources Board for the DNR to pursue acquisition of abandoned rail rights of way and other corridors identified in the plan.

The *State Trails Network Plan* includes as Segment 13, Dresser to Michigan. This 250-mile east-west corridor includes the existing Cattail Trail (Amery to Alma) which is owned by the DNR and operated by Polk and Barron Counties. This corridor has the potential to link the Gandy Dancer, Wild Rivers and Bearskin-Hiawatha state trails, the Pine Line Trail, Nicolet State Trail, Ice Age National and State Scenic Trail and three other segments (2, 15 and 17) proposed as part of the plan. It would also link with the proposed Hiles to Crandon snowmobile trail in Forest County. Other potential connections identified could link to the Tri-County Trail and Mountain Bay Trail.

Consistent with the *State Trails Network Plan*, in December 2003, the Natural Resources Board approved acquisition of three railroad corridors from Canadian National from its subsidiaries, Wisconsin Central, Ltd. and Fox Valley and Western, for \$790,000. Funding for this acquisition was from State Stewardship bonding. This purchase included the 185.76 acre right of way from Amery to Lotus Lake, south of Dresser.

The Department of Natural Resources and Polk County subsequently developed plans for development and operation of the Amery to Dresser trail segment. In October, 2004 an Amery to Dresser State Recreation Trail Master Plan was completed. In November, 2004 the Department of Natural Resources and Polk County signed a *Memorandum of Understanding* (MOU) and *Cooperative State Trail Easement*.

In April, 2005 citizen groups filed a petition for judicial review requesting, in part, that the trail not be developed or opened until an environmental review has been completed pursuant to NR 150, Wis. Admin. Code, and the MOU. The lawsuit was settled and a court order declared earlier Department of Natural Resources decisions regarding proposed trail development and operation to be null and void. The Department was directed to conduct the environmental review with public input and hearing, and then proceed with decision making after considering the environmental impacts. The Court order states that the trail is to be closed to the public pending environmental review and future Department decisions on the easement, master plan and MOU. The Court orders that the Department will prohibit all brushing, development and use activities on the trail until at least 60 days after final decisions are made by the Department.

While previous plans and agreements have been declared to be null and void, for purposes of this analysis, trail development as

described in the *Amery to Dresser State Recreation Trail, Polk County, Wisconsin, Master Plan, October 2004* (Appendix 5) is analyzed as part of the proposed action.

3. Authorities and Approvals (list local, state and federal permits or approvals required)

Statutory Authority for Cooperative Trail Development

Section 23.09(2)(h), Wis. Stats., The Department may enter into cooperative agreements with other units of government.

Section 23.11(1), Wis. Stats., The Department is granted such further powers as may be necessary or convenient to perform the duties required of it by Chapter 23, Stats.

Section 23.33(8)(a), Wis. Stats., The Department shall encourage and supervise a system of all-terrain vehicle routes and trails, and establish standards and procedures for certifying designated routes and trails .

Section 27.01(2)(e), Wis. Stats., The Department may grant leases or easements in the state parks.

Section 27.01(1)(m), Wis. Stats., The Department may take actions as may be deemed advisable for the development of the state park system.

Section 23.175(2)(a), Wis. Stats., The Department may designate a system of state trails as part of the state park system.

Designation as a State Trail

A question has arisen as to whether the Amery to Dresser Trail's status as a "state trail" under s. NR 51.73 precludes the use of motorized vehicles on the trail. Section 23.175 (2) (a), Wisconsin Statutes, states that "the department shall: Designate a system of state trails as part of the state park system for use by equestrians, bicyclists, riders of electric personal assistive mobility devices, cross-country skiers or hikers." The list in Wis. Stat. § 23.175 (2) (a) does not use either of the words "means" or "includes" used in statutes to qualify lists of terms. Typically "means" indicates a complete list and "includes" indicates a partial list.

Without the use of "means" or "includes" Wis. Stat. § 23.175 (2) (a) is ambiguous because it is "capable of being understood by reasonably well-informed persons in two or more different senses." *Pritchard v. Madison Metropolitan School District*, 242 Wis. 2d 301, 309. In such an instance, a rule of statutory interpretation is that if an administrative agency has been charged with the statute's enforcement, the court may look to the agency's interpretation and accord deference to that interpretation. *MCI Telecoms Corp. v. State*, 203 Wis. 2d 392.

The Department should be accorded deference for its decision to allow uses other than those listed in Wis. Stat. § 23.175 on designated state trails. The DNR was charged by the legislature to carry out Wis. Stat. § 23.175, which lists many specific duties relating to designating, funding, and cleaning up state trails. The DNR has long interpreted this statute to mean that motorized vehicle use and other uses such as rollerblading are allowed on state trails. Chapter NR 51.70 of the Wisconsin Administrative Code outlines the purpose and basis for carrying out Wis. Stat. § 23.175. Chapter NR 1.61 of the Wis. Admin. Code explains the public use of Department land, which includes snowmobiling or other motorized activities as authorized on a property by the property master plan. NR 51.70 was first created in 1990 and updated in 2001 and NR 1.61 was created in 1996. Chapter NR 44 of the Wis. Admin. Code entitled "Master Planning for Department Properties" was created in 1996 as well, and lays out all the intended and allowable recreational uses of department properties.

Wis. Admin. Code NR 44.07 sets out the recreational use setting subclassifications for the master plans of recreational facilities and trails. The subclassifications describe a range of recreational use settings, each being characterized by the manner it addresses a number of key attributes, such as degree of remoteness, motor use and the apparent level of management and development. The settings range from wild and undeveloped in Type I to intensively used and highly developed in Type IV. Wis. Admin. Code NR 44.07 (1) (Note).

State trails are usually designated as a Type III or Type IV recreational use setting. This allows for the trails to be well developed, graded, have high levels of social contact, be near other human activity, and offer opportunities for intensive recreational use activities and experiences. NR 44.07 (7) states that public access may be by both motorized and non-motorized means. A note in Wis. Admin. Code NR 44.07 (7) gives examples of areas that typically may be included under this classification and designated state trails is one of the listed examples.

The Department’s interpretation of the statute is reasonable and therefore, should be afforded great weight even if there is another reasonable interpretation. The Department’s interpretation does not contravene the language of Wis. Stat. § 23.175 because the statute does not use limiting language and thus can be interpreted to mean that the list of possible uses is illustrative and not exhaustive.

The Department’s interpretation is not contrary to legislative intent. The legislature intended the Department to carry out the implementation of the statute. Wis. Stat. § 23.175 specifically enumerates the duties of the Department to include preparing a trail management plan, determining how the moneys being expended are to be allocated from the appropriations, and encouraging other state agencies, political subdivisions, organizations and individuals to participate in planning, establishing, developing and maintaining state trails.

The Department’s Interpretation of Wis. Stat. § 23.175 is long standing and is based on the agency’s expertise and specialized knowledge in managing recreational uses on Department properties. The interpretation of Wis. Stat. § 23.175 to mean that motorized vehicle use is allowed on designated state trails complements the comprehensive system of recreational use standards that were developed to classify uses of department land and is a reasonable interpretation.

Waterway and Wetland Protection Requirements

Environmental Issue	Authority	Contact
Waterway Crossings and Modifications	Chapter 30 Stats.	DNR Water Management Specialist
Wetland Crossings and Modifications	NR 103 (Chapter 281, Stats.) Federal Clean Water Act, Section 404	DNR Water Management Specialist US Army Corps of Engineers
Stormwater and Grading	NR 216 (Chapter 283, Stats.)	DNR Storm Water and Water Management Specialists
Shorelands and Floodplain	County Shoreland and Floodplain Zoning Ordinances Pursuant to Chapters NR 115, (Chapter 59, Stats.) and NR 116 (Chapter 87, Stats.)	County Zoning office Also check with local jurisdiction (township, village, city)

PROPOSED PHYSICAL CHANGES (more fully describe the proposal)

4. Manipulation of Terrestrial Resources (include relevant quantities - sq. ft., cu. yard, etc.)

Proposed trail development would provide a dual surface to support hiking, bicycling, horseback riding and ATV riding in the summer, and snowmobiling and ATV riding in the winter. Limited secondary activities might include wildlife watching, X-C skiing, and snowshoeing within the R.O.W.

Trail development would involve cutting brush that has grown along the rail corridor, grading the rail bed to a 20-foot width, surfacing half of the trail surface with gravel for motorized/horse use and surfacing the remaining half with 4 inches of compacted limestone or 2-inches of asphalt for non-motorized use. The *Preliminary Engineering Assessment of Trail Development Needs* (Appendix 3) lists lengths of trail segments that will require various levels of construction. Estimates are that 10.85 miles of the rail corridor will require only grading, 1.4 miles will require medium hillside ditch cuts and grading, .88 mile will require difficult ditch cuts and grading, and .35 mile will require large amounts of fill. Fill material from segments to be graded can be used to provide needed fill. It is not expected that initial trail development will require replacement of any culverts or any bridge repair. Culvert replacement may be required as part of future trail maintenance if failures occur which result in slumping of the trail surface or blocked surface water flow. The bridge over Sucker Creek is showing surface damage from eroded concrete which will require repair at some time in the future.

Trail maintenance will involve mowing the area immediately adjacent to the trail surface, trimming brush and trees so they don’t interfere with trail grooming or use, grading and compacting the trail surface to maintain a smooth operating surface, applying dust suppression material as needed to prevent nuisance dust conditions for trail users and neighboring property owners, and herbicide application to control growth of plants on the trail surface and for invasive species control. Hand removal and controlled burning may be required to control invasive species in some locations, particularly near wetlands and surface waters where herbicide use must be limited. Erosion control measures such as soil replacement, planting grasses and shrubs, and placing erosion control matting or silt

fencing will be required where trail users who stray from the trail surface create erosion problems. Rocks or other obstacles should be placed as needed to discourage trail users from straying from the trail surface. Beaver activity is likely to cause some problems with blocked culverts, requiring attention.

Proper use of the designated trail should not result in any additional manipulation of terrestrial resources. However, trail users who stray from designated trails sometimes impact the surrounding landscape causing erosion and damage to plant communities, animal habitat and public and private property. Measures are described below to discourage such illegal and destructive activity.

5. Manipulation of Aquatic Resources (include relevant quantities - cfs, acre feet, MGD, etc.)

Trail construction will be on existing railroad bed, including historic wetland fill, culverts and bridges. An alternative trail construction method will be required for 0.4 mile from approximately mile 5.85 to mile 6.25 (measuring from the western trailhead at 90th Avenue) where existing historic fill does not provide the needed 20-foot trail width. In this stretch, raised plank decking would be constructed for the walking/bicycling half of the trail, as additional wetland fill cannot be approved. Decision on the type of structure should be based on additional engineering assessment, consultation with Water Regulation staff and consider cost effectiveness. (Additional information in Section 15 and Appendix 10)

It is not anticipated that any culvert or bridge construction will be required for trail construction. Existing culverts are very heavy duty concrete and iron structures, built to very high railroad construction standards. Existing culverts and bridges are more than long enough to accommodate the proposed 20 foot trail width. The Sucker Creek Bridge shows surface concrete damage which will require maintenance at some time in the future. No stream bank grading is required as the existing rail corridor provides a superior base for trail construction.

Grading the rail corridor to achieve the required trail width would normally involve grading material from the existing surface onto the banks of the rail grade. This practice will not be allowed on this grade for trail sections running beside or through wetlands, or beside surface waters, so as to avoid deposition of material from the rail grade into adjacent wetlands or surface waters. Instead, material removed from sections of the grade adjacent to wetlands or surface waters should be placed on upland sections of the trail.

Erosion control during trail construction must meet current stormwater permit requirements and best management practices. Practices, based on on-site conditions, will include placement of silt fencing, straw bale filters and rock fill structures. As several segments of this trail are to be built on elevated railroad bed with steep side slopes, some segments will pose difficult erosion control challenges. Additional engineering work will be required to determine erosion control requirements. Run-off channels and catchment basins may be required to prevent stormwater runoff to surface waters and wetlands. Such structures can be designed to handle run-off both from construction and future trail maintenance.

Maintenance activities would need to be managed so as not to impact the extensive wetland and surface water systems along the trail. Erosion control measures will be required to prevent stormwater run-off from carrying suspended solids into wetlands or surface waters when the trail surface is graded. The least cost approach would simply be to grade and compact the trail surface during dry weather. However, silt fencing or construction of run-off channels and catchment basins should be considered for sections of trail with very steep sides adjacent to wetlands and surface waters. As noted above, structures designed for trail construction could serve for trail maintenance as well. Ongoing attention to maintenance of stormwater run-off structures will be an important part of trail maintenance.

Erosion of trail-side banks could occur if trail users stray from the trail, resulting in sedimentation in wetlands and streams. Trail users who stray from the trail can damage wetlands, surface water features and aquatic habitat, cause erosion and sedimentation. Steep side banks of many sections of this trail will serve as a deterrent to off-trail operation. However measures such as trail signing, fencing and strategic placement of rocks along the trail should be part of trail design and construction. Trail user training, cooperation of recreational clubs, peer pressure, guidance from courtesy patrol members and enforcement efforts should include an emphasis on the importance of staying on the designated trail.

Dust created by trail users will settle in surface waters, as will emissions from motorized recreational vehicles. It is not anticipated that such deposition of materials would result in impacts in excess of water quality standards, with the possible exception of sediment deposition due to erosion. Removal of sediment from surface waters may be required if this were to occur. Since such removal is costly and not entirely effective, prevention is the best approach.

6. Buildings, Treatment Units, Roads and Other Structures (include size of facilities, road miles, etc.)

The current proposal is for trail construction on existing railroad bed as described above. Additional future construction plans anticipated include:

- Future acquisition and development of a trail corridor from 90th Street to Dresser
- Parking and trailhead facilities in Dresser
- Parking at the intersection of Highway F and P at 65th Street

7. Emissions and Discharges (include relevant characteristics and quantities)

Construction stormwater run-off may occur to wetlands and creeks, and will require proper permitting, erosion control measures and management. Sedimentation of wetlands and water bodies may also result from trail use and inappropriate off-trail use. Air emissions will occur from construction machinery. Air emissions will occur on an ongoing basis from motorized trail use. (Additional information in Section 17 b.)

While no deposition of materials in wetlands or surface waters is planned, some may occur due to stormwater runoff during construction, maintenance, or as a result of trail use. Aquatic habitat may be damaged and sedimentation occur if trail users stray into wetlands or water bodies. Erosion of trail-side banks could also occur if trail users stray from the trail, resulting in sedimentation in wetlands and streams. Dust created by trail users will settle in surface waters, as will emissions from motorized recreational vehicles. It is not anticipated that such deposition of materials would result in impacts in excess of water quality standards, with the possible exception of sediment deposition due to erosion. Removal of sediment from surface waters would be required if this were to occur.

8. Other Changes

Grant Funding

Funding for corridor acquisition was from State Stewardship bonding. It is anticipated that Polk County will apply for and receive grant funding for trail development and operation under a variety of programs with eligibility based on planned trail use. It is anticipated that the proposed trail will be eligible for grant programs administered by the Department of Natural Resources with funding from the ATV Fund, Snowmobile Fund, and federal Recreational Trails Act. It is also anticipated that development and operation of this trail will be eligible for federal Transportation Enhancement program administered by the Wisconsin Department of Transportation. A report, "Funding of Wisconsin Trails" describing available types of funding and eligibility criteria can be found at www.dnr.state.wi.us/org/land/parks/reports/trail_funding. Excerpts from this report describing funding sources noted above are included as Appendix 6.

9. Identify the maps, plans and other descriptive material attached

Maps, diagrams and aerial photographs of the trail corridor are provided as part of the *Phase I Environmental Assessment* prepared for Polk County by Ayres Associates, September, 2002 which can be reviewed at the Polk County Parks and Recreation Department in Balsam Lake, or the Department of Natural Resources office in Ladysmith. This report includes:

- 1:24,000 USGS NYE quadrangle location maps
- April 16, 2001 aerial photographs of the project corridor
- Detailed drawings of the Wisconsin Central Ltd. sale area, May 1, 2002
- Plat maps
- Soil Conservation Service 1973 soil maps
- Site reconnaissance photographs
- Well locations, groundwater contours and estimated plume of pesticide contamination from agricultural groundwater investigation at Equity Cooperative in Amery

Township maps with the rail corridor highlighted are provided here as Appendix 7. A map highlighting resources and issues mentioned in the text is provided as Appendix 8.

AFFECTED ENVIRONMENT (describe existing features that may be affected by proposal)

10. Information Based On (check all that apply):

- Literature/correspondence (specify major sources)

Wilson, T. and Johnson, D. 2002. Phase I Environmental Site Assessment, Wisconsin Central Ltd. Railroad Corridor 3 Miles South of Dresser to Amery, Polk County, Wisconsin. Ayres Associates, Eau Claire, Wisconsin.

State Trails Network Plan. 2001. Wisconsin Department of Natural Resources

Amery to Dresser State Recreation Trail, Master Plan. 2004. Polk County Property, Forestry and Recreation Committee

George E. Fogg, 2002. Park Guidelines for Off-Highway Vehicles. In association with National Off-Highway Vehicle Conservation Council.

Memo, Report on site visit to Amery-Dresser Grade. July, 2005, Ted Gostomski.

Memo, Public Health Consultation, Amery-Dresser Trail, Polk County. October 2005. Robert Thiboldeaux.

E-mails, Historical Review. February, 2005. Victoria Dirst.

Database Inquiry, Natural Heritage Inventory, Wisconsin Department of Natural Resources.

World Wide Web inquiries:

- esajournals.org, The impact of insecticides and herbicides on the biodiversity and productivity of aquatic communities.
- Minnesota Pollution Control Agency, Fugitive Dust Control
- U. S. Forest Service, Dust Palliative Selection and Application Guide
- Wisconsin DNR, State Park, Forest and Trail annual visits
- Wisconsin Department of Tourism, Economic Impact
- Wisconsin Department of Tourism, Market Research
- Nonoise.org, Community Noise
- Nonoise.org, Noise Pollution Clearinghouse Fact Sheet, Noise Effects on Wildlife
- Wisconsin DNR, Statewide Comprehensive Outdoor Recreation Plan
- EPA, Air Quality, Frequently Asked Questions
- Wisconsin Department of Revenue, Statement of Changes in Equalized Values

Correspondence – Letters from citizens in response to an invitation to identify issues for consideration

Personal Contacts (list in item 26)

Field Analysis By: Author Other (list in item 26)

Past Experience With Site By: Other (list in item 26)

11. Physical Environment (topography, soils, water, air)

The *Phase I Environmental Site Assessment* prepared for Polk County by Ayres Associates includes the following description of the physical environment.

Topography

The topography of the subject property varies from the project beginning at 90th Avenue of approximately 980 feet National Geodetic Vertical Datum (NGVD) to approximately 1,070 feet NGVD near the project finish at the Apple River. Over the 13.48 miles, topography changes approximately 90 feet from start to finish. Numerous streams, lakes and lowlands were adjacent to the subject property along the entire corridor (USGS 1978).

Soils

The soils across the subject property consist of mostly Rosholt-Cromwell-Menahga soil with small areas of Amery-Santiago-Magnor. The Rosholt-Cromwell-Menahga soils are nearly level to very hilly, well drained and somewhat excessively drained loamy and sandy soils on pitted outwash plains. The Amery-Santiago-Magnor soils are nearly level to very hilly, well drained, and somewhat poorly drained loamy and silty soils on till plains (USDA November 1979).

Surface Water

Numerous surface water features adjoin the subject property from start to finish. Major surface water features are as follows:

<i>Lotus Lake (East Lake)</i>	<i>958 feet NGVD</i>
<i>Horse Lake</i>	<i>946 feet NGVD</i>
<i>Round Lake</i>	<i>947 NGVD</i>
<i>Bear Trap Lake</i>	<i>1030 feet NGVD</i>
<i>Kinney Lake</i>	<i>1042 feet NGVD</i>
<i>North and South Twin Lakes</i>	<i>1062 feet NGVD</i>
<i>Apple River</i>	<i>1070 NGVD</i>

Numerous streams and creeks, including Horse Creek and Sucker Creek, cross the subject property throughout the 13.5 miles. Along with the major surface water features, numerous creeks and lowlands with small areas of surface water adjoin the subject property.

Geology

In general, Ordovician-age dolomite is underlain by Saint Peter sandstone, which is underlain by the Prairie Du Chien group, which is underlain by Cambrian-age sandstone throughout the railroad corridor (Young and Hindall 1973).

Hydrogeology

Groundwater is estimated to be between 1,050 feet NGVD and 1,065 feet NGVD or approximately 5 to 20 feet below ground surface (bgs) based on the previously estimated surface elevation. Regional groundwater flow direction is estimated to be southwest (Young and Hindall 1973).

Air Quality

The Wisconsin Department of Natural Resources air monitoring station at Somerset in St. Croix County provides data that is representative of the region, including Polk County. Conditions there can be seen on the internet at <http://dnr.wi.gov/org/aw/air/wisards/state.htm> and are generally good. However, there were times during the summer of 2005 when all of Wisconsin was subject to an ozone alert due to hot weather periods when there was very little wind. During these times, ozone levels across the Midwest were high enough to require an alert so that people who are sensitive to higher ozone levels could limit their activity and avoid health impacts.

12. Biological Environment (dominant aquatic and terrestrial plant and animal species and habitats including threatened/endangered resources; wetland amounts, types and hydraulic value)

Southeastern Polk County, and the western half of the railroad grade in particular, straddles the line between the Forest Transition and Western Prairie Ecological Landscapes. The *DNR Ecological Landscapes of Wisconsin* handbook information available on the Wisconsin DNR website describes these landscapes as follows.

Western Prairie

The Western Prairie Ecological Landscape, just south of the Tension Zone, is characterized by its glaciated, rolling topography and a primarily open landscape with rich prairie soils and pothole lakes, ponds, and wet depressions, except for forested areas along the St. Croix River. The climate and growing season are favorable for agricultural crops. Historic vegetation was comprised of dry to mesic prairie grasses in the rolling areas and wet prairies in the broad depressions. Open oak savannas and barrens were found on the hilly topography, with small inclusions of sugar maple-basswood forest in small steep sites. Prairie pothole type wetlands were mainly found in St. Croix and Polk Counties. Barrens were found along the river terraces of the St. Croix River.

Almost half of the current vegetation is agricultural crops and almost a third of the area is grasslands, with smaller areas of open water, open wetlands and urban areas. The major forest types are maple-basswood and oak-hickory, with smaller amounts of lowland hardwoods and lowland conifer.

Among the management opportunities for this landscape are:

- *Restoration of wetland/grassland communities, with a special focus on grassland birds.*
- *This Ecological Landscape is an important breeding area for the rare Loggerhead shrike.*
- *Continued restoration and maintenance of prairie pothole/wetland complexes and other wetland communities for waterfowl and other wetland wildlife, including the US Fish and Wildlife Service's Waterfowl Production Areas.*

Forest Transition

The Forest Transition Ecological Landscape lies along the northern border of Wisconsin's Tension Zone, through the central and western part of the state, and supports both northern forests and agricultural areas. The growing season in this part of the state is long enough that agriculture is viable, although climatic conditions are not as favorable as in southern Wisconsin. Historic vegetation was primarily northern hardwood forest dominated by sugar maple and hemlock, and containing some yellow birch, red pine and white pine.

Currently over 60% of this Ecological Landscape is non-forested. Forested areas consist primarily of northern hardwoods and aspen, with smaller amounts of oak and lowland hardwoods. Small areas of conifer swamp are found near the headwaters of streams, and associated with lakes in kettle depressions on moraines. Ground flora show characteristics of both northern and southern Wisconsin, as this Ecological Landscape lies along the Tension Zone.

Among the management opportunities for this landscape are:

- *Restoration and management of northern hardwood forests for age classes and structural diversity.*
- *Reforestation of marginal agricultural lands to reduce forest fragmentation, increase forested habitat, provide protection from*

erosion and increase socioeconomic value.

- *Preservation of Eastern hemlock on the western extent of its range, where it may have unusual genetic factors.*
- *Non-indigenous invasive plants are a particular problem in this Ecological Landscape due to the interspersed land uses. They impact natural areas, wildlife forage and forest regeneration.*
- *Wetland restoration.*
- *Prevention of nonpoint pollution.*

The trail corridor reflects the descriptions above of the Western Prairie and Forest Transition Ecological Landscapes, with a mixture of farms and woodland, crossing wetlands and small streams and adjacent to several small lakes. While the dominant land use is agriculture, growth of mixed hardwoods along the corridor provides visual separation giving it a natural appearance. The lakes, wetlands, small streams and Wapogasset Branch of the Apple River (Sucker Creek) add to the natural beauty and wildlife values. Department of Natural Resources Wildlife and Water Regulation staff consider the wetlands to be of high value as they contain a diverse mix of wetland vegetation. The shallow or seasonal wetlands along the corridor are important to amphibians and other types of wetland dependent wildlife. The mixed hardwood stands, wetlands, creeks and farmland provide excellent wildlife habitat.

Endangered Resources

The Natural Heritage Inventory (NHI) shows no threatened or endangered species in or directly adjacent to the corridor. The nearest “hits” are near St. Croix Falls and east of Wapogasset Lake, more than 2 miles north of the rail corridor. The Natural Heritage Inventory shows four species in the area of the trail that are Special Concern Species. These are Bald Eagle (*Haliaeetus leucocephalus*), the fish species Banded killifish (*Fundulus diaphanous*) and two plant species, Northern Yellow Lady’s-slipper (*Cypripedium parviflorum* var. *makasin*) and Marsh ragwort (*Senecio congestus*). The NHI inquiry included the area beyond 5 miles of Horse Creek, Sucker Creek (Wapogasset Branch) and the Apple River.

Northern Region Ecologist, Ted Gostomski visited the trail corridor on July 8 and July 18, 2005. His report (Appendix 9) documents plants observed relevant to the charge he was given, which was to survey the grade for endangered resources concerns, especially prairie remnant sites that harbored plant species indicative of that community. Mr. Gostomski recorded 13 plant species along the grade that can be defined as prairie or grassland species. Most notable among them were wild bergamot (*Monarda fistulosa*), leadplant (*Amorpha canescens*), prairie purple clover (*Dalea purpurea*), rough blazing star (*Liatris aspers*) and round-headed bush clover (*Lespedeza capitata*). The first of these prairie species was observed two miles west of Amery. None of the prairie species identified carry any endangered, threatened or Special Concern designation at either the state or federal levels.

Mr. Gostomski also observed no fewer than 12 species of non-native invasive plants along the grade. These include some of the most notoriously invasive plants such as common buckthorn (*Rhamnus cathartica*), honeysuckle (*Lonicera* sp.), giant reed grass (*Phragmites australis*), yellow sweet clover (*Melilotus officinalis*), white sweet clover (*Lelilotus alba*) and spotted knapweed (*Centaurea maculosa*).

A Bald Eagle (*Haliaeetus leucocephalus*) nest was observed near the west end of the grade. It was on the opposite side of a wetland south of the grade and did not appear to be active at the time of the visit, but should be checked prior to any work in that area.

Issues raised by local citizens include reported observations of Karner Blue Butterfly and Cerulean Warblers. Ted Gostomski did not observe Karner Blue Butterflies during his July 18 site visit which was during the second flight period for these butterflies. He did observe Northern Blue (*Lycaeides idas*). The Karner Blue Butterfly Habitat Conservation Plan calls for a pre-management survey on included lands prior to development of recreational facilities, to determine if Karner Blue are present. While Ted’s inspections this summer would meet that requirement, it would be prudent to conduct another inspection at the appropriate time next year. Information on Karner Blue and an excerpt from the Habitat Conservation Plan are included in Appendix 9.

Cerulean Warblers are a State-Threatened species. Their habitat is described as “Mature mesic deciduous woodlands, including maple, basswood, and especially oak in both uplands and lowland or floodplain forests. Often found near small canopy openings in large continuous forest tracts; prefer medium and large tracts over small tracts (less than 40 acres).” The Wisconsin Breeding Bird Atlas shows confirmed breeding in southwestern Polk County and a good population has been confirmed on the Straight Lake property near Luck. Habitat that may be appropriate for this species on the Amery-Dresser right of way is more likely to be found near Dresser where trees are larger. The state recovery plan (Flaspohler, D. 1993. Wisconsin cerulean warbler recovery plan. Wisconsin Endangered Resources Report 101. Madison, Wisconsin Dept. of Natural Resources) is the appropriate reference for guidance to avoid impacting this species, if its presence is confirmed.

13. Cultural Environment

- a. Land use (dominant features and uses including zoning if applicable)

The trail corridor is a scenic setting with a mixture of farms and woodland, crossing wetlands and small streams and adjacent to several small lakes. While the dominant land use is agriculture, growth of mixed hardwoods along the corridor provides visual separation giving the trail a natural appearance. The lakes, wetlands, small streams and Wapogasset Branch of the Apple River add to the natural beauty and wildlife values. Lotus Lakes Estates, a relatively new subdivision at the west end of the corridor, is a rapidly developing suburban area. Wanderoos and Deronda are small unincorporated villages along the corridor and the City of Amery is at the east end. While there are many homes near the corridor, just a few are directly adjacent. There are instances of real estate trespass to be dealt with, including septic systems built partially within the corridor, lawns mowed up to and, in some cases, across the corridor and material disposed of or stored within the corridor.

b. Social/Economic (including ethnic and cultural groups)

The U.S. Census Bureau 2000 statistics show Polk County population to be 41, 319 with a median age of 38.7. Population data at that time showed a classic normal distribution (bell curve) with 42% of the population between ages of 25 and 54. The population is not racially diverse, being 97.6% white. Family households make up 69.7% of the population and non-family households 30.3%. Thirty four percent of households have children (under 18) and nearly 26% have individuals over age 65. Housing is 80.2% owner-occupied and 19.8% renter-occupied. Most frequently reported ethnic backgrounds were German, Norwegian, Swedish and Irish. Most (98.6%) were born in the U.S.

The census report shows the Polk County labor force to be 21,400 people, with 20,553 employed. Most (15,611) commute alone to work while 2,588 carpool. Few (59) report using public transportation, while 642 walk and 1,268 work at home. Mean travel time to work is 28.7 minutes. Sources of employment are:

- Manufacturing - 28.1%
- Education, health and social services – 19.3%
- Retail trade – 10%

Private wage and salary workers are 77.5% of the workforce, government workers 11.4% and self employed 10.4%. Median household income is \$41, 183. Families below the poverty level comprise 4.6% of families in the county.

c. Archaeological/Historical

Department of Natural Resources Archeologist Victoria Dirst conducted a historical review and reported the following results:

There are no known historic structures that are part of the rail line. However, there are three known archeological sites within the right-of-way or directly adjacent to it. Two are in T33N, R18W, sec 21, near the southwest shore of Lotus Lake. Sites PK-153 and PK-154 are small lithic scatters on sandy rises in a cultivated field 40 meters southwest of the lake, directly southwest of the rail line. The Nye Mound, PK-26, is on the south shore of Horse Lake in T33N, R18W, sec 27. It is described as a conical mound, partly destroyed, east of the Soo Line Railroad Station and partly within the right-of-way.

14. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

There are no State natural areas adjacent to the trail. While much of the trail corridor passes through agricultural land, it is a historic rail corridor and will not remove land from agricultural use.

ENVIRONMENTAL CONSEQUENCES (probable adverse and beneficial impacts including indirect and secondary impacts)

15. Physical (include visual if applicable)

Development of the trail will have limited impact on the physical environment, being built on a rail corridor in use since 1886. Most of the corridor has substantial fill with the rail bed standing above the surrounding landscape. Grading is needed to widen the bed from the existing 12 - 15 foot width to 20 feet in order to allow development of the planned dual tread. Widening can be accomplished along most of the corridor by grading the surface onto existing slopes of the raised rail bed, or removing material from areas cut down to achieve the required trail width and using it on areas of the trail that require fill to achieve needed drainage. In areas where the rail bed does not rise above the surrounding landscape, ditching and grading will be required to construct a trail with the needed crown and to allow adequate drainage.

Material graded from areas of the trail with substantial elevation above the surrounding landscape could be applied to those areas where fill is required to produce the needed crown and drainage. This earth work will somewhat change the visual aspect as the trail bed will be at a lower elevation on areas that currently stand well above the surrounding land, and higher where filled.

The corridor traverses one large wetland where historic fill did not raise the bed substantially above the adjacent wetland. This is from

approximately mile 5.85 to mile 6.25, measuring from the western trailhead. Additional wetland fill would be required at this location to bring the rail bed to the planned 20 foot width. Since wetland fill cannot be approved if there is an alternative, physical alteration on this stretch of trail would likely entail construction of raised plank decking for the walking/bicycling portion of the trail. While this structure would shade out some wetland plants, it would minimize impacts to wetland functional values.

Appendix 10 shows alternative methods for construction of raised planked decking, including puncheon, corduroy, bog bridge, gadbury and boardwalk structures. Additional engineering assessment will be required to determine the best structure for this location. Construction is not anticipated to be difficult or to cause great disturbance of the wetland, as the wetland is shallow and most work can be staged from the existing railroad bed. Some wetland disturbance will occur as structures are placed, whether they are mudsill logs, sleepers, cribbing or piles. Driving piles during winter ice conditions might be considered in order to minimize site disturbance. However, a decision on the type of structure should be based on additional engineering assessment, consultation with Water Regulation staff and consider cost effectiveness.

Trail development will involve removing brush and trees that have grown up in and immediately adjacent to the trail corridor. This will eliminate some wildlife habitat that has developed since the rail bed was abandoned, however much of the brush that has grown up on the corridor is invasive species which are not considered to be high quality habitat. Trail operation and maintenance will result in ongoing physical impacts. Trail maintenance will involve periodic brush removal, mowing, grading and compacting the trail surface and shoulder, application of herbicides where needed and application of dust suppressants as needed. These activities will have a positive impact in that they will reduce prevalence of invasive plant species and reduce their spread by trail users. They will have negative physical impacts to the extent that materials are allowed to enter wetlands and creeks along the trail. (Additional information in Section 16 and appendices.)

Trail use will impact the physical environment by generating dust and causing erosion on the trail surface. The degree to which trail users comply with rules for trail use will determine the extent and degree of impacts. Experience elsewhere shows that trail users will stray from the trail in some locations, causing erosion on the adjacent landscape and destruction of vegetation. This damage can create stormwater run-off problems and result in sediment damage to wetlands and streams along the trail.

16. Biological (including impacts to threatened/endangered resources)

Herbicides

Herbicide use could result in impacts to the biological environment if application were to result in herbicides being applied directly to wetlands or surface waters. Some herbicides applied to aquatic environments have been shown to reduce species richness, diversity and biomass. Impact on amphibians has been shown to be a problem if some herbicides are incorrectly applied and end up in the aquatic environment. These problems can be avoided by selection of the proper herbicide based on needs of the site, and proper application. Appendix 11 provides an example of research on potential herbicide impacts. Herbicide use will be beneficial where it discourages growth of invasive exotic plant species. Herbicide application is part of the approach to reducing the impact of invasive plants.

Current practice by Polk County staff who manage the Gandy Dancer Trail is to apply herbicides once a year, in Spring, and only to the traveled portion of the trail. The existing Cattail Trail has not required herbicide application, as motorized use discourages growth of plants on the traveled portion of the trail. Trail shoulders are periodically graded, taking care of brush and weeds there. Herbicides that are applied are those that do not cause impacts to aquatic species.

Dust Control Materials

Materials applied to the trail surface for dust control could also result in biological impacts if over applied, applied to surface waters or wetlands, or if long term application results in materials leaching into groundwater or entering surface waters with stormwater. Potential impacts include increased surface run-off rates, water pollution impacts due to dissolved oxygen depletion, acidity or corrosivity, ammonia, phenols, dissolved salts and heavy metals. Some dust control materials can harm vegetation and reduce seedling growth. Some can cause discoloration or foaming if they get into surface waters. Information on dust control materials is provided as Appendix 12.

Dust control on the existing Cattail Trail east of Amery has been by application of liquid magnesium chloride, once a year in Spring, on ¼ mile of the trail. Design and construction of the trail can reduce dust problems, with use of materials that produce less dust, especially in locations where neighboring landowners may be impacted. (See Section 25 information on mitigation of impacts.)

Noise

Research suggests that long term exposure to noise can cause stress that is harmful to health of wildlife species and their reproductive fitness. Responses have the potential to cause injury, energy loss, decrease in food intake, habitat avoidance, and abandonment and

reproductive losses. Losses due to predation can be increased if birds are frightened off their nest by noise. (Additional information in Section 17b. below and Appendix 15.)

Threatened and Endangered Resources

Ted Gostomski's inspection of the rail corridor (See Section 12 and Appendix 9) revealed 13 plant species of remnant prairie, none of which carry any endangered, threatened or special concern designation at the State or federal level. A Bald Eagle nest observed at the far west end of the grade, if found to be active at the time of trail construction, would require that Bald Eagle Management Guidelines be followed. The guidelines recommend:

1. Avoid disturbance such as land clearing and tree removal within 330 feet of the nest year round.
2. Avoid nest disturbance within 330-660 feet during the 15 February to 15 August breeding and nesting season.
3. Bald Eagle roosts and feeding sites should be protected within 660 feet of a nest. If tree removal occurs, it is suggested that several supercanopy trees be left for future nest tree replacement.

Negative impact on nesting eagles from trail construction would not be expected if these guidelines are followed. As the nest is approximately 400 feet from the trail, trail use will cause disturbance from noise. However, the nest is approximately 200 feet from County Highway M and close to a residence, suggesting that any eagles using the nest have adapted to human activity.

The Natural Heritage Inventory shows no threatened or endangered species in or directly adjacent to the corridor. The nearest "hits" are near St. Croix Falls and east of Wapogasset Lake, more than 2 miles north of the rail corridor. The Natural Heritage Inventory shows three Special Concern Species in the area of the trail, in addition to the Bald Eagle. These are the fish species Banded killifish (*Fundulus diaphanous*) and two plant species, Northern Yellow Lady's-slipper (*Cypripedium parviflorum*) and Marsh ragwort (*Senecio congestus*). There are no legally required management prescriptions based on presence of these species. Trail construction and operational practices described here to protect terrestrial and aquatic environments will be protective of these species of concern. The NHI inquiry included 5 miles of Horse Creek, Sucker Creek (Wapogasset Branch) and the Apple River. Specific information on these species and Mr. Gostomski's recommendations for their protection are as follows:

Banded killifish (*Fundulus diaphanous*), a State Special Concern fish, prefers clear water of the bays and quiet backwaters of large lakes and medium to large streams with and sparse to no vegetation over gravel, sand, silt, marl, clay detritus or cobble. Spawning occurs from June through mid-August.

- This species is found in rivers near the grade. Using standard erosion controls where the grade crosses water should provide sufficient protection from negative impacts due to sedimentation.

Northern Yellow Lady's-slipper (*Cypripedium parviflorum* var. *makasin*), a plant of Special Concern in Wisconsin, prefers fens, calcareous swales, and rich springy forest edges. Flowering occurs from late May through late June. Optimum identification period is late May through early July.

- This species does not occur near or downstream from the grade, so no impacts to the species resulting from the trail use are likely.

Marsh ragwort (*Senecio congestus*), a plant of Special Concern in Wisconsin, with a habitat that is uncertain, it being probably extirpated, but it probably prefers cold marshes, fenlike sedge meadows, and island shores and cliffs. Flowering occurs from mid-May through late July. Optimal identification period is from mid-May to late July.

- This species does not occur near the grade, but may be located downstream where habitat is more suitable. Using standard erosion controls where the grade crosses water should provide sufficient protection from negative impacts downstream due to sedimentation.

Additional site inspection is warranted to determine if citizen reports that Karner Blue Butterflies and Cerulean Warblers have been observed on the right of way. If confirmed, measures as described in the Karner Blue Butterfly Habitat Conservation plan or Wisconsin Cerulean Warbler Recovery Plan will need to be undertaken.

17. Cultural

- a. Land Use (including indirect and secondary impacts)

The *Wisconsin State Trails Network Plan* outlines benefits of recreational trails as follows.

Environmental and Aesthetic Benefits

Trails provide a unique facility to serve a diverse population that may otherwise have limited opportunities to access natural areas due to financial or transportation constraints.

When rail lines are converted to trail use, the state generally acquires a 100-foot wide corridor, of which a 10-foot strip is surfaced

for the trail. Most of the rest of the land is left in its natural state, providing habitat for birds and other wildlife as well as diverse plant communities that include prairie remnants. The corridors are also extremely important as wildlife corridors which protect species diversity and diverse plant communities such as prairie remnants.

Economic Benefits

Trail users spend money on bicycles, snowmobiles, other durable goods and equipment maintenance related to their recreation, often in the areas near the trails. Local hotels, bed and breakfasts, restaurants, bakeries, gas stations, and other businesses also benefit from tourists' spending.

The state Department of Tourism developed numerous publications that promote statewide trail use. Studies show that long trails, which attract users from far away, represent the most spending per user. Shorter, urban trails generally get more users, so they also have a high economic impact. This spending results in higher sales tax revenues for the state and counties.

For example, the communities along the Elroy-Sparta State trail have seen an increase in tourism since the trail opened in 1968. The City of Sparta now proclaims itself the 'Bicycling Capital of America.' Promotions by the cities of Elroy and Sparta attracted businesses to serve trail users. The Wisconsin Bicycle Transportation Plan 2020 cites data from a 1988 study of the Elroy-Sparta trail that indicated a per person spending of \$25.00 per day. Once adjusted for inflation and assuming 60,000 visitors annually, users of this trail spent in excess of \$2 million on trail-related activities.

The presence of trails often increases the value of properties adjacent to the corridors, especially those through residential neighborhoods. The National Association of Home Builders cites trails as the second and third most important amenity that would influence people to move to a new location.

Quality of life is an increasingly important factor in attracting and retaining businesses in a community, and trails are important contributors to quality of life. Corporations bring jobs to communities and help to support other businesses.

Additionally, health improvements due to outdoor exercise can help control medical costs in the long run.

Social Benefits

Trails can provide a sense of place and a source of community pride. When integrated with features such as historic sites, commercial or residential areas, and parks, they can improve the overall character of a region. They are beautiful places for people to enjoy the natural beauty of our state.

Trail corridors can become outdoor classrooms where children and adults can observe and learn about their natural and cultural environment.

Health Benefits

Trails provide pleasant places for people to walk, run, bicycle, ski, skate or do other exercises, all of which control weight, blood pressure and cholesterol levels, build strength and endurance, and help prevent osteoporosis, diabetes and depression.

In his publication "Park Guidelines for Off-Highway Vehicles," George E. Fogg cites community benefits of facilities for off-highway vehicles as:

- Protection of green space;
- Reduction of trespass on public and private land;
- Contribution to the local economy;
- Unique opportunity for safety training;
- Deterrent to illegal OHV riding on private lands and public road rights-of-way;
- Environmental education; and
- Frequently, the greening of disturbed environments.

Regarding social, environmental and educational benefits of OHV recreation, this publication states, "OHV recreation is family and group oriented. The vehicles themselves and associated activities encourage multiple person participation....Throughout the United States, youth programs are discovering that off-highway motorcycles and ATVs are a powerful motivational tool to help young people discover a more positive future. These recreational vehicles are a magnet for attracting young people and providing an exciting opportunity for kids, law enforcement officers, and recreation specialists to work together.

Unauthorized and uncontrolled OHV use of natural areas around communities often occurs when no designated local OHV sites are provided. These situations frequently involve young people searching for a place to ride or drive after school or on weekends. Today's high percentage of working parents compounds the problem by reducing parental supervision and transportation to designated recreation areas.

Designated and managed OHV recreation sites and programs can help protect natural and historic resources. An OHV park can, through environmentally sensitive design and active site management, direct OHV use where it is most appropriate....Establishment of an OHV park protects open space....Larger or rural OHV parks protect larger areas and can provide valuable habitat for plants and wildlife....An OHV park, like any other park, provides an excellent venue for natural resources, environmental, and wildlife management studies.”

Trail acquisition, in addition to creating an opportunity for recreational use, will assure preservation of the corridor in case it is needed to meet future transportation and communications needs.

Trail development will have a positive impact on physical condition of the corridor. The rail corridor, currently vacant and un-used, has been overgrown and harbors many invasive non-native plant species. Some vacant properties are used for illegal disposal of refuse and that is beginning to happen here. Some neighboring landowners are using parts of the corridor as if it were part of their property. Typically this is simply mowing to extend a lawn, storage of equipment and materials or junk disposal. There are some instances of real estate trespass, with structures or waste systems extending onto corridor property. Development as a trail will help to preserve the corridor for future transportation uses and prevent the land from degrading to an abandoned condition.

Views from some neighboring properties may be improved with County staff and volunteers providing maintenance of the trail while maintaining its natural appearance. However, some neighboring landowners may consider this a negative, preferring the privacy, tranquility and rustic appearance of the undeveloped corridor.

Some current uses of the corridor that have been mentioned by members of the public will not be allowed if it is developed as a trail. Hunting, for example, has been mentioned as a current use and would not be allowed as part of trail use as a state trail.

Land use impacts of ongoing trail use and management will include decreased enjoyment by some neighbors of their properties due to noise, dust, air emissions and nuisance odors. Some people who previously used the trail corridor for walking indicate they would not do so if there is motorized recreational use, due to safety concerns.

The extent of benefits and impacts of trail use will depend on the number of trail visitors. It is difficult to accurately estimate trail use levels by type of activity, as extensive use monitoring has not been done in Wisconsin and conditions vary for different trail locations. Appendix 13 provides use estimates for other Wisconsin trails. Assuming that use levels would be similar to the Tuscobia or Red Cedar State Trails, we might anticipate in the neighborhood of 35,000 to 45,000 visitors per year initially. As infrastructure improvements are made over time (particularly parking) further trail connections are made and marketing efforts undertaken, we might anticipate use levels closer to 80,000 to 100,000 per year. Based on trail manager's judgment, the Tuscobia Trail has an estimated 45,000 ATV and 30,000 snowmobile visits per year. A similar estimate for the Wild Rivers Trail suggests winter use at about 500 snowmobiles and ATVs per day on week-ends and 20 to 50 per day during the week. Summer use is estimated at about 100 ATVs per day on the week-end and 20 to 50 on a weekday. These are estimates only, based on managers' experience. While there is some use of these trails by hikers, cyclists and equestrians, use estimates are not available.

b. Social/Economic (including ethnic and cultural groups, and zoning if applicable)

The great majority of comments heard from the public are related to anticipated social and economic impacts of trail use depending on the types of uses to be allowed and experience that people have had with various activities. This analysis provides an overview to assure that decision-makers are aware of issues for which there is public interest or concern.

Economic Impact

Many public comments relate the potential economic benefits of trail use, particularly snowmobiling, ATV use, bicycling and equestrian trail uses. Each of these uses can bring substantial economic benefits from local residents recreating near home, saving costs and fuel to travel elsewhere and spending their recreational dollars at local businesses, and drawing tourists to the area. Many studies are available on the economic benefits of tourism, several of which are available on the Wisconsin Department of Tourism web site. Summaries of several economic studies are included as Appendix 14. The following excerpts suggest the scale of economic benefits that can be anticipated. .

- A Department of Tourism survey in cooperation with Department of Natural Resources showed that in 2000-2001, daily expenditures by snowmobilers average \$78.23 per person for traveling snowmobilers (includes both Wisconsin and out-of-state residents) and \$39.76 for local snowmobilers.
- ATV users were surveyed between June and October, 2003 by the Department of Urban and Regional Planning, U.W. Madison. Average spending per person per trip was \$523.33. With an average stay of 3.2 nights, daily expenditures averaged \$163.54.
- A Department of Tourism study on the Elroy-Sparta State Trail, La Crosse River trail, the 400 State Trail and Great River Trail indicated that cycling visitors spend an average of \$26 per person per day. Cyclists stay an average of three nights in paid lodging accommodations, dine in area restaurants, shop in local stores, and visit local attractions.

These studies were done at different times and with differing methods, so results should not be directly compared. They are cited as examples of the economic benefit that can be anticipated from trail development.

Estimating economic benefits to the region from trail operation and use is somewhat speculative, given that we do not have a high level of confidence in trail use projections. A conservative estimate is therefore appropriate. Applying the mean of visitor expenditure estimates, we might anticipate expenditures of approximately \$95 per day per trail user. With initial trail use projected to be 40,000 trail visits per year, the regional economic benefit might reach \$3.8 million per year. With full trail development and effective marketing, trail use may increase to 90,000 trail visits per year in the future and a regional economic impact of \$8.5 million per year. Additional economic benefits will accrue due to the multiplier effect as dollars brought into the community continue to circulate locally. The cumulative economic impact of the Wisconsin trails network also includes demand for recreational equipment. Many manufacturers, distributors and retailers benefit from demand for the full array of recreational equipment.

Noise

Members of the public cite concerns about noise from recreational vehicles. Summer ATV use is especially a concern for some, as neighbors to the trail will be spending more time outdoors and have windows open. Some are concerned about impacts on other forms of recreation. Others simply value the peace and quiet they find in this rural area.

A 2003 article in the Casper Star Tribune, addressing noise from snowmobiles in national parks, quotes Les Blomberg, executive director of the Noise Pollution Clearinghouse, "We do know from studies that motorized recreation along a trail tends to create a mile-wide footprint of noise." Research shows that noise impacts both humans and animals. Impacts on humans include interference with communication, noise-induced hearing loss, annoyance response, and effects on sleep, the cardiovascular and psychophysiological systems, performance, productivity and social behavior. Research suggests that long term exposure to noise can cause stress that is harmful to health of wildlife species and their reproductive fitness. Responses have the potential to cause injury, energy loss, decrease in food intake, habitat avoidance, and abandonment and reproductive losses. (Information on noise is included as Appendix 15.)

As the impact of noise is reduced with distance from the source, most of the impacts noted here are likely to affect only neighboring properties closest to the trail. Hearing loss may be a risk for recreational vehicle operators who have long term continuous exposure to higher noise levels, but would not be an expected impact on neighboring landowners. For neighbors within about a mile of the trail but not directly adjacent, noise may be considered a nuisance as opposed to a health issue.

Safety

Concerns have been expressed for the safety of non-motorized users sharing the trail with ATVs. High speeds and size of machines are cited as concerns, along with lack of experience of some operators and operators who don't comply with regulations. Snowmobile and ATV riders who go off the authorized trail pose hazards for neighbors. Dust and rocks kicked up by ATVs are a concern for people who would share the trail.

Observance of speed limits should reduce concerns for safety. NR 64.07 (2) requires that an ATV operator must yield the right of way and slow to 10 mph when within 100 feet of a person not on an ATV, snowmobile or motorcycle. Trail use courtesy is considered to be essential and law enforcement presence important for a multiple use trail to be successful.

Enforcement resources include a half-time Polk County recreational enforcement officer, and coverage by DNR Conservation Wardens and Parks and Recreation enforcement officers. While these enforcement officials have many other responsibilities that compete for their time, overall, more effort is being placed on motorized recreation now than was the case in the past. Group enforcement checks are done periodically and there is an emphasis on recreational trails. In addition, the Polk County ATV Association has taken training in the "Ride Smart - Get Involved - Tell Others" program and has a number of volunteer Trail Ambassadors. Each of these is an important part of the effort required to educate trail users and provide needed oversight of trail use.

Safety is also a concern for some people who walk or bike on county roads, with County F and County D specifically mentioned.

Non-Compatible Trail Uses

A number of public comments suggest that motorized and non-motorized trail recreation may be incompatible due to noise, dust, speed, trail damage and safety concerns. Some feel that ATV use precludes other uses of a trail and question whether multiple use is practical. Experience on other trails shows that ATV traffic does appear to reduce non-motorized trail use. Some trail managers share concerns about compatibility of motorized and non-motorized uses. However, there is a difference in that the proposed trail would have a dual tread for motorized and non-motorized users. This is similar to the Wild Goose Trail in Dodge and Fond du Lac Counties. Development of a dual-use trail in Northern Wisconsin would provide an opportunity to monitor use and determine acceptability to trail users.

Supply and Demand

A number of public comments relate to other trails available in the area for various recreational activities. The Wisconsin Statewide Comprehensive Outdoor Recreation Plan (SCORP) web page includes a summary of recreation opportunities available by region (Appendix 16). The following trail recreation opportunities are listed for the Great Northwest Region, which includes Ashland, Bayfield, Douglas, Sawyer, Washburn, Burnett, Rusk, Barron and Polk Counties:

Trails – ATV (summer) use [miles]	402
Trails – ATV (winter) use [miles]	858
Trails – bicycle use [miles]	211
Trails – cross-country ski use [miles]	782
Trails – dogsled use [miles]	15
Trails – hiking use [miles]	149
Trails – horseback riding use [miles]	418
Trails – inline skating use [miles]	15
Trails – mountain biking use [miles]	259
Trails – off-road motorcycle use [miles]	30
Trails – off-road truck use [miles]	0
Trails – single or multipurpose [miles]	370
Trails – snowmobile use (funded) [miles]	2729
Trails – snowmobile use (unfunded) [miles]	182
Trails – snowshoe use [miles]	70
Trails – water use [miles]	10

The SCORP web page also lists the percentage of people, statewide over age 16, who participate in various activities. This is based on survey results. Percentages of people participating in trail related activities include the following:

Walk for pleasure	85.8%
Family gathering	78.9
View/photograph natural scenery	67.5
Visit nature centers, etc.	65.3
View/photograph other wildlife	57
Sightseeing	55.3
Bicycling – any type	49.3
Snow/ice activities (any type)	44.4
View/photograph birds	40.9
Visit a wilderness or primitive area	38.3
Hiking	35
Bicycling – Paved road *	34.1
Biking – mountain	31.3
Running or jogging	29.4
Visit other waterside (besides beach)	26.4
Drive off-road	25.8
Offroad driving with an ATV	23.4
Bicycling – off-road*	20.4
Inline skating	20
Visit prehistoric/archeological sites	19.4
Running – trail*	18.6
Snowmobiling	18.3
Bicycling – Single track	18
Offroad 4-wheel driving	17.7

Skiing – Cross country	11.4
Horseback riding (any type)	9.8
Horseback riding on trails	8.1
Snowshoeing	8
Offroad motorcycling	5.9
Skateboarding	2.6
Geocaching	2
Dog sledding	1.1

* Source is Outdoor Industry Foundation. Others are interviews from 7/99 to 11/04.

Health Impacts

A number of health professionals and others comment that the opportunities and encouragement to exercise that trails afford are important given current public health concerns such as the incidence of obesity. Trail recreation, especially walking, running and cycling, provide significant health benefits.

It has also been suggested that trail development and use could create health risks. If soils contaminated by historic spills or pesticide use along the rail corridor are disturbed by trail construction or trail use, human exposure might occur. Robert Thiboldeaux, Ph.D. Toxicologist with the Health Hazard Evaluation Unit, Division of Public Health, Wisconsin Department of Health and Family Services looked into this issue (Appendix 17). Dr. Thiboldeaux concluded:

- Dust created by ATV use on the Amery-Dresser trail may subject users to respirable particle exposure in excess of the National Ambient Air Quality Standard.
- Exposure by dust to neighbors of the ATV trail is an indeterminate health hazard.
- Soils contaminated with arsenic were not observed in initial tests of surface soils in the Amery-Dresser corridor.
- The health hazard from soil contaminants is indeterminate due to incomplete information.

He recommends:

- Test soil within the Amery-Dresser corridor 1-4 feet below the surface for the presence of metals, pesticides and hydrocarbons.
- If the trail is opened to ATV use, it should be regularly maintained and dust suppressants should be applied to avoid the dispersion of subsurface soils.

A Phase I Environmental Site Assessment conducted for Polk County in 2002 by Ayres Associates also addresses environmental conditions that could result in health impacts. The assessment revealed evidence of “recognized environmental conditions” that have the potential to affect the property. These include:

- Nye Store LUST (leaking underground storage tank) site
- Wanderoos Gift & Grocery LUST site
- Anderson Property ERP (environmental repair project) site
- Gorres Oil Co. Bulk Plant ERP site
- Equity Cooperative DATCP (Dept. of Ag, Trade and Consumer Protection) site (pesticide site)
- Superlocker LUST site
- Amoco bulk plant site
- Railroad section house site
- City of Amery LUST site (Center Street)

The report states, “These sites are within close proximity to the subject property and are still under investigation, remediation or environmental monitoring. They pose a potential threat to soil and groundwater quality of the subject property. They should not impede use of the property as a recreation trail; however, there is a risk that excavation or installation of a potable water supply near these sites could encounter contamination.”

“The discarded solid waste along the subject property is a business environmental risk that should be taken into account when purchasing this property. Other than the solid waste, no environmental concerns originating from the subject property were discovered in this assessment.”

Information on potential health impacts of air emissions is summarized below.

Air Quality

The U.S. Environmental Protection Agency has adopted new emission standards for recreation vehicles and some other off-road engines. Frequently Asked Questions information (Appendix 18) available on the EPA website succinctly summarizes concerns with recreation vehicles. Individually, these vehicles can have a very high emission rate. The EPA information compares emissions from unregulated recreational vehicles with those of an automobile meeting current National Low Emission Vehicle (NLEV) emission

standards. An unregulated two-stroke off-highway motorcycle can emit as much pollution in one hour as over 20 automobiles operating for one hour. Similarly, an un-regulated two-stroke snowmobile can emit as much as nearly 100 automobiles.

EPA notes that engines covered by the new standards contribute to ozone formation, ambient particulate matter and carbon monoxide (CO) levels and emit mobile source air toxics. There are health concerns associated with these emissions. Increased ozone concentrations have been associated with increased hospitalizations for people with asthma and chronic exposure can cause permanent lung damage. Children and people with compromised respiratory systems are particularly at risk. Carbon monoxide enters the bloodstream and reduces delivery of oxygen to the body's organs and tissues. Health threats are most serious for people who suffer from cardio-vascular disease, with healthy people affected only by higher levels. Exposure to elevated CO is associated with impairment of visual perception, work capacity, manual dexterity, learning ability and performance of complex tasks. High CO concentrations generally occur in areas with elevated mobile-source emissions. Peak concentrations typically occur in the colder months when mobile-source CO emissions are greater and nighttime temperature inversions occur more frequently. Mobile source air toxics include benzene, toluene, 1,3-butadiene, formaldehyde, acetaldehyde and acrolein, which cause a variety of health-related problems. EPA's information states, "Users of these engines and vehicles may experience high levels of personal exposure to these substances. For example, snowmobile riders and those directly exposed to snowmobile exhaust emissions can be exposed to benzene levels two to three orders of magnitude greater than the 1996 national average benzene concentrations. These elevated levels are also known as toxic 'hot spots,' which are of particular concern to EPA."

With full implementation of new emission standards for recreational vehicles, recreational marine diesel engines and industrial spark-ignition engines, EPA expects an overall 71-percent reduction in hydrocarbon emissions from these engines, 80-percent reduction in nitrogen oxides and 57-percent reduction in carbon monoxide by 2020. EPA information states, "These controls will help reduce ambient concentrations of ozone, CO, and fine particulate matter. In addition, they will reduce personal exposure for people who operate, work with or are otherwise close to these engines and vehicles."

The Wisconsin Department of Natural Resources has conducted some monitoring to address potential concerns with snowmobile operation. In January, 2000 monitoring was conducted at Northland Pines School District buildings in Eagle River and in very close proximity to the Eagle River Snowmobile Derby track (Appendix 18). Monitoring showed carbon monoxide levels to be well below national ambient air quality standards. Concentrations of constituents for which no ambient standards existed were compared to concentrations at other monitoring locations. Most volatile organic compounds were not detected. Most detected were within the range of concentrations measured in other Wisconsin urban locations (Green Bay, Milwaukee and Wisconsin Rapids). However, 1, 1, 1 Trichloroethane and toluene were at higher concentrations. Acetone, acetaldehyde and formaldehyde were detected with concentrations within the range measured at other urban locations.

Impacts on Adjacent Landowners

Many adjacent landowners are concerned that trail use will negatively impact enjoyment of their property. They are concerned about dust and noise, odors and air emissions, safety concerns especially for children living near the trail, trespass and property damage. Some would like to be able to walk, bike, rollerblade or push children in strollers along the trail but feel that motorized use would prevent these activities. There is concern that there are not places in the rural environment for safe recreation. Timing of trail use is an important issue for many who feel motors are a nuisance on quiet evenings and beyond a nuisance when they interrupt normal sleep patterns. There is less concern about snowmobiles as they operate during times when homes are closed up and people spend less time outside. Summer ATV use is more frequently cited as a concern.

Real Estate Values

Public comments cite increased real estate values as a benefit of a public trail. However, some are concerned that impacts to adjacent landowners cited above may cause a reduction in value and possibly reduce their ability to sell a home. Many studies have been done which show a positive impact of recreational trails on real estate values. However, most currently available studies considered green space, walking and bicycling trails. To gain some insight into potential property values of a motorized trail, property values near the existing Cattail Trail were examined. This trail runs through Towns of Lincoln, Clayton, Almena and Turtle Lake, and Village of Turtle Lake. Wisconsin Department of Revenue data on equalized values shows that residential property values in each of these units increased between 2004 and 2005. Town of Clayton would be expected to have the greatest potential for impact, as the trail runs through the middle of the entire township from northeast to southwest. Residential property values in Town of Clayton increased each year from 1999 through 2005. While this simple analysis can't predict specific impact on an individual property, it does suggest that the strong real estate market in the area is, overall, overshadowing any potential negative impact the trail may have. One landowner adjacent to the Amery to Dresser right of way cited their experience with a home sale that fell through due to concerns about planned trail development. Some information on studies of impact of trails on property values and the Department of Revenue data are included as Appendix 19.

Equestrian Opportunities

Horseback trail riding is cited as being a growing sport, both for individual horse owners and organized riding clubs.

Quality of Life and Community benefits

Trails can provide alternative transportation routes that reduce transportation costs, especially where they allow people to walk or cycle to work or other activities. They can help to reduce congestion and maintain natural beauty. Trails can also be a valuable asset to community organizations and youth groups, especially when used for community events, youth challenges and environmental education. People involved with snowmobile and ATV clubs also cite community involvement and volunteerism as important activities. There is a great deal of pride and personal ownership in the trail system already in place and a desire to see the system maintained and expanded.

Appropriate Use of Public Funds

A number of people who support multiple use of the proposed trail mention that the corridor was purchased with public funds and encourage development that will afford the greatest use by the greatest number of people.

c. Archaeological/Historical

Development and operation of the trail could further damage the Nye Mound on the south shore of Horse Lake. Trail grading and future maintenance would likely further degrade the site if mitigation efforts were not undertaken, as would trail operation if users were to stray from the designated trail. In addition, secondary impacts could include damage of two archeological sites near the trail if trail users were to travel off-trail. (See Section 25 for mitigation measures.)

18. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

No other special resources have been identified in the immediate area of the proposed trail.

19. Summary of Adverse Impacts That Cannot Be Avoided (more fully discussed in 15 through 18)

Most adverse impacts of the proposed trail development and future recreational use can be mitigated. Impacts that can be mitigated to a degree, but not eliminated, include noise, air emissions, odors, dust and reduced wildlife habitat.

Noise from motorized recreational vehicles has been cited as a concern by many neighboring landowners. While many newer machines are quieter, we must anticipate that there will always be some impact, especially for people living adjacent to the trail and wildlife now occupying habitat adjacent to the trail. Noise could also be reduced by instituting speed limits. The degree to which this would be effective would depend on cooperation and compliance by people using the trail.

Air emissions will always be an issue as long as recreational vehicles on the trail are powered by internal combustion engines. Impacts will be greater initially, as many machines currently in use do not meet new EPA emission standards. As machines age and are replaced, concerns with air emissions and associated odor complaints will diminish. EPA literature suggests it will take about fifteen years for this transition.

Loss of wildlife habitat that will occur with removal of brush that has grown onto the trail is considered a minor impact. It will be more than offset by the positive impact of invasive species control, if effective measures are undertaken.

Since many of the concerns with trail use are social issues, the degree to which they can be mitigated will depend on the cooperation and good will of people in the community as well as their ability to influence behavior of visitors. One thoughtful commenter at the April 2004 public hearing noted, "The trail should be a fun environment. If people in user groups are unhappy with each other, it won't be." Cooperation within the community and mutual respect between trail users and neighboring landowners is key to addressing the many social issues outlined above.

DNR EVALUATION OF PROJECT SIGNIFICANCE (complete each item)

20. Environmental Effects and Their Significance

- a. Discuss which of the primary and secondary environmental effects listed in the environmental consequences section are long-term or short-term.

Physical changes to the rail bed due to grading and fill will be long term. Land use impacts will continue as long as the trail remains in use, as will impacts of noise, dust, potential for exposure to contaminated soils and air emissions. Short term impacts include stormwater run-off, dust and air emissions during trail construction.

- b. Discuss which of the primary and secondary environmental effects listed in the environmental consequences section are effects on geographically scarce resources (e.g. historic or cultural resources, scenic and recreational resources, prime agricultural lands, threatened or endangered resources or ecologically sensitive areas).

The Nye Mound and lithic scatter archeological sites are cultural resources that require protection. No endangered resources impacts are anticipated. Remnant prairie plants are a valued asset locally and worthy of protective measures. The area is very scenic and trail development will create a valuable recreational resource.

- c. Discuss the extent to which the primary and secondary environmental effects listed in the environmental consequences section are reversible.

All impacts of trail development and operation are reversible, with the exception of health impacts for individuals if they were to occur. Additional sampling for soil contaminants is important to assure that any potential risks are known.

21. Significance of Cumulative Effects

Discuss the significance of reasonably anticipated cumulative effects on the environment (and energy usage, if applicable). Consider cumulative effects from repeated projects of the same type. Would the cumulative effects be more severe or substantially change the quality of the environment? Include other activities planned or proposed in the area that would compound effects on the environment.

The proposed trail is a segment of an extensive trail system envisioned as part of the *State Trails Network Plan*. As additional segments are added to the system, we would expect use to increase. Popularity of trails would be expected to increase with expanded opportunity for long distance touring. Increased use would result in cumulative impacts from noise, dust, air emissions and potential human exposure to soil contaminants. If mitigation measures are undertaken, cumulative effects should not substantially change the quality of the environment. Other cumulative impacts that may occur include:

- Trespass on private property may increase as access is provided near more private properties. However, trespass could be expected to decrease as more trails are built and therefore more adequate recreation opportunities provided.
- Invasive exotic species may be spread more broadly.
- Economic benefits can be expected to increase as a broader system of linked trails encourages long distance touring.
- A healthier population as people get more exercise and benefit from stress reduction associated with outdoor recreation.
- Increased community and family benefits associated with outdoor recreation.

The expanded motorized trail system will result in increased energy use as we would expect local enthusiasts and tourists to take advantage of the expanded recreational resource. This would be offset to some degree by availability of a trail riding opportunity locally for people who will otherwise travel to other locations to use their machines.

22. Significance of Risk

- a. Explain the significance of any unknowns that create substantial uncertainty in predicting effects on the quality of the environment. What additional studies or analysis would eliminate or reduce these unknowns?

Additional soil sampling is needed to determine if there is a risk of human exposure to contaminated soils due to construction activity and from dust raised by trail use. Lack of data on trail use, particularly where motorized and non-motorized uses are allowed, makes accurate prediction of economic benefits and environmental impacts difficult. Efforts to gather use data on Wisconsin trails with a variety of uses would be desirable. Studies of economic benefits of trails have been done at different times and with different methods for the different types of use. Local decision-makers might benefit from more current comparative study of economic benefits.

- b. Explain the environmental significance of reasonably anticipated operating problems such as malfunctions, spills, fires or other hazards (particularly those relating to health or safety). Consider reasonable detection and emergency response, and discuss the potential for these hazards.

Spills of fuel could occur as a result of accidents involving recreational vehicles or as machines are refueled. Such spills are likely to be minor due to small capacity of fuel tanks. Motor vehicles in parking areas could also cause spills. We would expect these incidents to be reported and routinely dealt with.

Accidents involving motorized and non-motorized trail users are a concern for a number of citizens providing comments. These could be due to incidents such as collisions, people being struck by stones or debris kicked up by a recreational vehicle or horses frightened by a vehicle. Potential for these kinds of accidents may be relatively high if no separation is provided between motorized and non-motorized trail treads.

23. Significance of Precedent

Would a decision on this proposal influence future decisions or foreclose options that may additionally affect the quality of the environment? Describe any conflicts the proposal has with plans or policy of local, state or federal agencies. Explain the significance of each.

There has been discussion by City of Amery officials of a plan to develop this rail corridor as a greenway and a citizen's group, Friends of the L.O.G. Greenway, has been formed in support of the concept. Development as a motorized trail would be in conflict with this idea. However, it would not foreclose the option for the future, should County and City officials decide that non-motorized use would be a greater public benefit. While this is an important issue for local people and an important decision for their communities, it does not create a statewide precedent. Appendix 20 provides information on Amery City Council discussion and action regarding the trail.

24. Significance of Controversy Over Environmental Effects

Discuss the effects on the quality of the environment, including socio-economic effects, that are (or are likely to be) highly controversial, and summarize the controversy.

There is local controversy as to whether this trail should allow motorized or non-motorized use. Many landowners adjacent to the trail as well as other citizens are concerned about potential environmental, public health and economic impacts. There are differing views on which uses would provide the greatest economic benefits. Some people living near the trail are concerned about noise, dust, potential exposure to soil contaminants, air quality impacts, odor, safety of children, trespass and property damage, and impact on real estate values. Motorized recreation enthusiasts are concerned about maintaining a stable trail system, motorized recreation opportunities, overcrowding on other trails, importance of the recreational vehicle industry to the economy, increasing recreational demands, appropriate use of public funds, and opportunities for elderly and handicapped people. There is strong support of volunteer efforts to maintain the trail once it is developed. Appendix 21 is a summary of concerns voiced during public hearings in 2004. Appendix 22 provides further comments from neighboring property owners, former Trail Committee members and others who responded to a letter offering the opportunity to identify issues for consideration as part of this assessment.

ALTERNATIVES

25. Briefly describe the impacts of no action and of alternatives that would decrease or eliminate adverse environmental effects. (Refer to any appropriate alternatives from the applicant or anyone else.)

No Action

If the trail is not developed and operated, problems with invasive plant species evident on the corridor will continue and likely worsen. Their spread would impact neighboring properties and may threaten prairie remnants on and adjacent to the corridor. Additional problems with illegal disposal of wastes on the corridor could be expected. Informal use of the corridor would likely continue, providing some recreational opportunities but also sometimes creating a nuisance for neighboring landowners and possibly exposing users to soil contaminants, if they are present. Enforcement would likely be required to control illegal use by motorized vehicles. Real estate trespass problems would continue and possibly increase. The corridor would continue to be available for future transportation use, since it is publicly owned.

Proposed Action with Mitigation of Impacts

Development of the corridor by Polk County as a dual surface trail to accommodate both motorized and non-motorized uses year-round poses a number of environmental and social issues. The following mitigation efforts might be considered to reduce negative impacts.

- Wetland fill – Of particular concern is the 0.4 mile wetland crossing where historic fill for railroad construction does not provide the needed 20 foot width. Alternatives to wetland fill are described in Wisconsin Department of Natural Resources Draft ATV Trail Design Standards. They include raised plank decking and construction of puncheons, structures made up of rough-cut logs floated on the wetland. These options would cover some existing wetland vegetation but not require additional wetland fill. Another option here would be to reduce trail width to 15 feet, with signing as required to address safety issues for trail users sharing a stretch of single trail.
- Remnant prairie species – Northern Region Ecologist Ted Gostomski recommends placing large boulders along the grade in locations where the adjacent land becomes flat or where prairie plants or communities occur, to keep trail riders on the trail. Specific locations of these boulders should be determined on-site in order to use as few as necessary.
- Spread of Non-Native Invasive Plants – Brushing operations for trail development may include treating some of the grade with an herbicide. This will help, but will not eliminate all invasive plants. Any use of the grade, whether by motorized or non-motorized recreational vehicles or simply walking, can spread the plants along the entire grade and beyond. This is

considered a greater threat to prairie remnants than motorized use. Mr. Gostomski recommends that an invasive plant management plan be prepared for the grade that includes an outreach component to inform adjacent landowners and all user groups about invasive plants and recruit their help in eradication efforts. All three available methods (mechanical, chemical and fire) should be considered for control of invasive plants.

- Eagle's Nest – Mitigation of construction and trail use impacts is outlined in Section 16.
- Noise – Noise is considered a nuisance problem during daytime hours, especially during months when houses are open to the outdoors. It can be a more serious problem for people living near the trail at night if sleep is disrupted. Noise can also impact wildlife and farm animals. Noise could be reduced by imposing speed limits for motorized recreation. If speed limits do not adequately address the problem with sleep disruption, hours of operation could be set to eliminate night-time use.
- Safety and Non-Compatible Uses - Safety of non-motorized users and neighbors due to speed and size of motorized machines might be addressed to some degree by speed limits. Risk of a non-motorized trail user being struck by a machine, rocks or dust could further be reduced by separating the dual trails with rock or fencing. While a substantial additional expense, if done well, this could add to the visual appeal of the trail. The motorized trail needs to be 12 feet wide to meet design specifications, so this would reduce the width of the non-motorized portion. Alternatively, trail paving could be considered to reduce dust and flying gravel. While this option is not favored by snowmobilers, it could improve physical safety of other trail users. Speed limits could also be considered to reduce physical risks.
- Dust – Managers of other trails have gained valuable experience in dust suppression. Quality of the material used for trail surfacing is the first opportunity to deal with dust. Material selected should have enough fines to allow good compaction, but not so much as to generate excessive amounts of dust. Application of dust suppression materials could be done routinely and in response to complaints. Dust would be expected to be less of a problem if speed limits are established. It may be appropriate to set lower speed limits in areas near homes and where non-motorized recreation is more popular. Alternative trail surfacing materials that might be considered include traprock (available locally) and rotten granite. The blocky physical characteristics of traprock cause it to compact well. However, experienced trail managers find that limestone with a specific amount of fine grained material provides a superior surface for walking and bicycling. Asphalt paving could nearly eliminate concerns with dust, but at greater cost both initially and for long term maintenance.
- Health Impacts – Dr. Thiboldeaux concludes there is an indeterminate risk of exposure to soil contaminants from dust with trail construction and use. Additional sampling of the trail corridor is recommended to determine if there is a risk. If contaminants are found to be present, then dust control during trail construction and future trail use will be critical.
- Air Emissions – New EPA rules for motorized recreational vehicles address significant concerns with air emissions. However, it is expected to take about 15 years for older machines to be replaced with the newer, cleaner models. Since concentrations of emissions are likely to be high enough to be a health issue only very close to the trail, it may be prudent to conduct air monitoring inside homes where odor issues suggest a potential for health concerns. If levels of health concern are found, the County might consider buying and moving a home. This would, of course be very expensive. However, it would address both concerns with air quality and some of the real estate trespass issues.
- Nuisance Odors – New EPA rules will help reduce odor problems over time. Education efforts by government agencies and recreational vehicle clubs which encourage proper maintenance can help to somewhat reduce the problem. Trail access points should be designed so that machines are not idled near homes. Signing and local education efforts should emphasize the importance of not idling near a home.
- Trespass and Property Damage – Fencing or placement of rocks along the corridor may be appropriate, especially in residential areas and where high quality natural plant communities occur. Fencing could include maintenance of existing fenced right of way. The County could consider offering to fence the right of way adjacent to residential areas with a style of fence as chosen by the neighboring property owner (e.g. split rail or traditional white). Education and enforcement, including active involvement of courtesy patrols should help to reduce problems.
- Protecting Archeological Sites – Wisconsin Department of Natural Resources Archeologist Victoria Dirst recommends that a raised plank structure on puncheons be constructed over the Nye Mound so as to avoid any grading or other additional disturbance of the mound. In addition, rocks should be placed along the trail where required to prevent trail users from straying into areas with scattered materials of archeological significance. Local education efforts and enforcement should encourage legal and courteous trail use, encouraging all trail users to stay on the trail.

Non-motorized Use

The County Committee that evaluated trail development considered an option of a year-round hiking trail with limited mountain biking use and a possible parallel trail for horses. No additional trail surfacing would be done. Development would be limited to grading, brushing, erosion control, trail head parking, signing and fencing. Surface restoration or upgrading and other additional infrastructure would be considered in the future as funding becomes available. This alternative would not require widening the existing rail grade. It would be much less costly and would eliminate concerns with motorized use. Based on experience with the existing Cattail Trail, we would expect that any use of such a trail for mountain biking would be very limited, as the trail surface would be relatively rough.

Environmental impacts would include minimal reduction of wildlife habitat due to trail brushing, runoff during construction, limited erosion of trail banks from hikers, cyclists and horse riders going off trail, potential impacts from application of herbicides and dust control materials (if needed), and limited noise impacts. Following guidelines for construction near an eagle's nest would prevent any impact on threatened or endangered species. Trail use would not be expected to impact eagles if the nest is active.

Cultural impacts would include economic gain, though benefits would likely be limited until the trail surface is upgraded. The community would forego the economic benefits of motorized recreation. Limited disturbance of landowners adjacent to the trail would be anticipated due to trespass and noise. Additional sampling for toxic materials along the trail would be recommended to assure users are not exposed. Available research indicates that property value increases could be anticipated. Community benefits would be available and quality of life enhanced (particularly after the trail surface is upgraded).

Mitigation efforts as described above would be required to protect archeological sites, reduce impacts of invasive plants and protect the public from exposure to contaminated soils, if any are found to be present.

Fewer funding sources would be available for trail development and operation if motorized recreation were not allowed. Appendix 6 outlines available funding sources based on planned uses.

Year-Round Motorized Use

The Committee considered an option of a motorized trail for snowmobiles/ATVs in winter, and ATVs/motorcycles in summer, similar to the Cattail Trail from Amery to Turtle Lake. The trail would be open for other uses like hiking and mountain biking, with the expectation that this use would be limited. Construction would be the same as described for non-motorized use. Annual maintenance would include touch-up grading, brushing, mowing and repairs to the trail as well as off-trail damage. Additional future development as funding becomes available would include surface restoration, infrastructure upgrades and fence maintenance. It was recognized that the western terminus is connected to Dresser only by the winter snowmobile trail and that the existing trailhead in Amery will require a crossing at Main Street in Amery.

Initial construction costs would be less than the proposed alternative, as it would not require widening the rail grade. However, sections of the trail that are not elevated above the surrounding landscape would require grading and ditching. Fill would be required in some areas to assure adequate drainage and create the needed crown on the trail. Construction would involve no wetland fill or alternative measure.

Environmental impacts would include minimal reduction of wildlife habitat due to trail brushing, runoff during construction, erosion of trail banks from riders going off trail, potential impacts from application of herbicides and dust control materials, and noise impacts. Air quality impacts as outlined above could be anticipated. Following guidelines for construction near an eagle's nest would prevent any impact on threatened or endangered species. Motorized recreation may have some impact on eagles using the nest, if it is active, but since the nest is near a county highway and a residence, the eagles appear to have habituated to human activity.

Cultural impacts would include economic gain. Adjacent landowner concerns about trespass, noise, air emissions, odor and dust would be issues to be addressed. Additional sampling for toxic materials along the trail would be recommended to assure users and people on adjacent properties are not exposed. Safety concerns would exist for non-motorized trail users, though such use would be expected to be limited. Community benefits would be available. Quality of life would be enhanced (particularly after the trail surface is upgraded) for trail users, but possibly reduced for some trail neighbors.

Mitigation measures as outlined above for the proposed alternative should be considered to address remnant prairie species, spread of non-native invasive species, construction near the eagle nest, noise, safety and non-compatible uses, dust, health impacts, air emissions, nuisance odors, trespass and property damage and to protect archeological sites.

Non-Motorized Summer and Motorized Winter Use

This option considered by the Committee would allow snowmobile and ATV use from December through April and non-motorized use in summer. This option would be similar to the Gandy Dancer Trail. Construction would include grading, brushing, erosion control, west end parking, signing and fencing. The trail would be surfaced either with limestone or asphalt. Annual maintenance would include grooming, mowing, grading, brushing and repairs.

Initial construction costs would be less than the proposed alternative, as it would not require widening the rail grade. Construction costs would also be less than the year-round motorized use option, as minimal grading and ditching would be required. This is because winter snowmobile and ATV trails, operating on frozen ground, do not require construction to as high a standard as is now required for summer ATV trails.

Environmental impacts would include minimal reduction of wildlife habitat due to trail brushing, runoff during construction, erosion of trail banks from riders going off trail, potential impacts from application of herbicides and dust control materials, and noise impacts. Air quality impacts as outlined above could be anticipated. Following guidelines for construction near an eagle’s nest would prevent any impact on threatened or endangered species. Motorized recreation may have some impact on eagles using the nest, if it is active, but since the nest is near a county highway and a residence, the eagles appear to have habituated to human activity.

Cultural impacts would include economic gain. Adjacent landowner concerns about trespass, noise, air emissions, odor and dust would be issues to be addressed. Concerns with noise would be less than for the year-round motorized option, with motorized use during times of year when homes are closed to the outdoors. Additional sampling for toxic materials along the trail would be recommended to assure users and people on adjacent properties are not exposed. Community benefits would be available. Quality of life would be enhanced (particularly after the trail surface is upgraded) for trail users, but possibly reduced for some trail neighbors.

Mitigation measures as outlined above for the proposed alternative should be considered to address remnant prairie species, spread of non-native invasive species, construction near the eagle nest, noise, dust, health impacts, air emissions, nuisance odors, trespass and property damage and to protect archeological sites.

State Operation

In addition to the alternatives described above which were considered by the Polk County Committee, there is the alternative of operation as a State trail in lieu of a cooperative agreement with Polk County. Any of the use options described above could be implemented as part of this alternative and associated mitigation of impacts would be required.

SUMMARY OF ISSUE IDENTIFICATION ACTIVITIES

26. List agencies, citizen groups and individuals contacted regarding the project (include DNR personnel and title) and summarize public contacts, completed or proposed).

<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
7/5/05	Dan Schuller – Northern Region Land Leader, Tim Miller, Northern Region Parks and Recreation Supervisor - DNR	Project background, approach to EA
8/29	Tim Miller - DNR	File information from Ladysmith, project background
9/1/05	Bill Clark, NOR EA Coordinator - DNR	Developing an EA.
9/22/05	Jim Pardee, EA coordinator – DNR, Madison	Developing an EA
9/22/05	Ted Gostomski, NOR Ecologist - DNR	Ecological setting and his report on threatened and endangered species
9/23/05	Cheryl Housley, Program Assistant - DNR	Information on land acquisition.
9/23/05	Mike Lutz, Attorney and April Shewmake, Intern - DNR	Background on court case, how to proceed with EA
9/23/05	Tim Miller - DNR	Status report and advice
9/27/05	Site visit	
9/28/05	Debra Peterson, Parks Manager – Polk County	Discussed trail development plans and acquired Polk County citizen involvement file

9/28/05	Terry Jordan, NOR Trail Coordinator - DNR	Discussed trail plans, real estate issues and consultation with others to date
9/28/05	Diane Conklin, NOR Grants Specialist - DNR	Discussed estimating trail use and user conflicts
9/29	Rob Thiboldeaux, Toxicologist - DHSS	Discussed assessment of public health issues, requested his written report
10/11/05	Property owners and Committee	Sent a letter and summary of issues from earlier Polk County citizen involvement, to 130 people inviting them to identify additional issues to be considered as part of the EA. This mailing included adjacent property owners and members of the Polk County committee that had done earlier work on the trail. A list of addressees is included as Appendix 23.
10/20/05	Tom Dettle, Facilities and Lands Engineer	Site visit. Assessment of construction needs
10/26/05	Kevin Morgan, Dan Harrington, Bill Clark, Jim Pardee - DNR	E-mailed information and requested reviews of draft as developed at that time
11/1/05	Dan Schuller – DNR	Status report and advice on how to proceed
11/8/05	Dan Harrington – DNR	Site visit to assess aquatic habitat and water regulation issues
11/8/05	Kevin Morgan – DNR	Met at Barron office, discussed wildlife issues
11/8/05	Debra Peterson	Returned public involvement files to Polk County office, discussed status and acquiring information on use levels.
11/9/05	Brigit Brown – DNR	Discussed user numbers, dust suppression, herbicide use
11/10/05	Mike Lutz, Jim Pardee, Brigit Brown	Conference call on draft to date, approach, work needed to complete, assignments for completion and public notice
Planned		Public notice and opportunity to review Draft EA
Planned		Public hearing

DECISION (This decision is not final until certified by the appropriate authority)

In accordance with s. 1.11, Stats., and Ch. NR 150, Adm. Code, the Department is authorized and required to determine whether it has complied with s.1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

Complete either A or B below:

A. EIS Process Not Required



The attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion, therefore, an environmental impact statement is not required prior to final action by the Department.

B. Major Action Requiring the Full EIS Process



The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator 	Date Signed <i>Feb. 17, 2006</i>
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Number of responses to news release or other notice: 113

Certified to be in compliance with WEPA	
Environmental Analysis and Liaison Program Staff 	Date Signed <i>02/20/2007</i>

NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, ss. 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

**APPENDIX 1
LEGAL DESCRIPTION**

Township Range Section(s): All that portion of the Wisconsin Central Ltd.'s Dresser to Amery, Wisconsin Branch Line right of way and property between the North line of Section 21, Township 33 North, Range 18 West, Polk County, Wisconsin at or about Railroad Mile Post 49.6 to Railroad Mile Post 63.08, now discontinued, varying in width on each side of the Wisconsin Central Ltd.'s Main Track centerline, as formerly located upon, over and across the following described real estate in Polk County, Wisconsin:

Township 33 North, Range 18 West

Section 21: the East half of the Northwest Quarter; the Southwest Quarter of the Northeast Quarter; and the Southeast Quarter;
Section 28: the Northeast Quarter of the Northeast Quarter;
Section 27: the Northwest Quarter; the Northeast Quarter of the Southwest Quarter; and the Southeast Quarter;
Section 26: the South Half of the South Half;
Section 25: the Southwest Quarter of the Southwest Quarter;
Section 36: the North Half of the North Half; Also,

Township 33 North, Range 17 West

Section 31: the North Half of the Northwest Quarter; and the Northeast Quarter;
Section 32: the Northwest Quarter; and the Northeast Quarter;
Section 33: the South Half of the North Half;
Section 34: the South Half of the North Half; and the North Half of the Southeast Quarter;
Section 35: the South Half of the North Half; and the North Half of the South Half;
Section 36: the Southwest Quarter of the Northwest Quarter; and the North Half of the South Half;

Township 33 North, Range 16 West

Section 31: the Northwest Quarter of the Southwest Quarter; the South Half of the Northwest Quarter; and the Northeast Quarter;
Section 32: the North Half of the Northwest Quarter; and the Northwest Quarter of the Northeast Quarter;
Section 29: the South Half of the Southeast Quarter;
Section 28: the South Half of the Southwest Quarter: LESS and EXCEPT that part of Grantor's 300foot wide Station Ground property at Amery, Wisconsin in the Southwest Quarter of the Southwest Quarter of Section 28, Township 33 North, Range 16 West, described as follows: Beginning at the intersection of the South line of said Station Ground property and the West line of said Section 28; thence Northerly along said West line 140 feet, more or less, to a line parallel and 140 feet normally distant Northerly from the South line of said Station Ground property; thence Easterly along said parallel line 978 feet, more or less, to the Northerly extension of the East line of Harriman Avenue; thence Southerly along the last said extended line 140 feet, more or less, to the South line of said Station Ground property; thence Westerly along said South line 978 feet, more or less, to the point of beginning.

Hereinabove described property bounded on the Northwesterly side by the North line of said Section 21, Township 33 North, Range 18 West, Polk County, Wisconsin at or about Railroad Mile Post 49.6 and bounded on the Easterly side by said Mile Post 63.08; said Mile Post 63.08 located a distance of 2005 feet, more or less, Easterly from the West line of said Section 28, Township 33 North, Range 16 West, Polk County, Wisconsin, as measured along said Main Track centerline.



NEWS RELEASE

Wisconsin Department of Natural Resources Northern Region

810 W Maple St., Spooner, WI 54801
Phone: (715) 635-2101 TDD: (715) 635-4001
107 Sutliff Avenue, Rhinelander, WI 54501
Phone: (715) 365-8900 TDD: (715) 365-8957
dnr.wi.gov www.wisconsin.gov

DATE: February 17, 2006

CONTACT: Tim Miller

SUBJECT: Amery to Dresser State Recreational Trail Proposal Being Reviewed

Spooner, WI - The Department of Natural Resources (DNR) is proposing to acquire, develop, and manage the former railroad grade between Amery and Dresser in Polk County as a state recreational trail. The purpose of this project is to address recreational needs in the local area as well as regional recreation demand from Wisconsin residents and visitors as outlined in previous statewide trail plans and policies.

The proposed project would extend the Cattail Trail with a new 13.48 mile long segment between the City of Amery and the Town of Osceola about 1 ½ miles southeast of the Village of Dresser. As part of this project, the department would purchase 14 miles of abandoned railroad corridor from Canadian National Railroad, enter into a memorandum of understanding and cooperative state trail easement with Polk County, and approve a master plan developed by Polk County for development, maintenance, and operation of the trail.

Before a decision can be made on plans for the proposed trail development and management, an Environmental Assessment (EA) must be completed. This notification ensures the chance for public input on that analysis.

Once the EA process is completed, the department will then complete a final review and decision on the necessary elements of the proposal. The analysis developed in the EA will be considered along with any other pertinent information as part of those final decision making steps on the project.

This project is not anticipated to result in significant adverse environmental effects. The department has prepared an EA on this project proposal and made a preliminary decision that an environmental impact statement will not be required. This recommendation does not represent approval from other DNR sections which may also require review of the project. Copies of the draft EA can be obtained from Tim Miller, Regional Parks & Recreation

The following counties are in the Northern Region: Ashland, Barron, Bayfield, Burnett, Douglas, Florence, Forest, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn.
The Public Affairs Manager for DNR Northern Region is Jim Bishop, (715) 635-4242.

Supervisor, WDNR, N4103 Highway 27, Ladysmith, WI 54848, 715/532-4372, or by e-mail at

timothy.miller@dnr.state.wi.us. Copies of the EA can also be viewed at the Amery Library (801 Keller Avenue in Amery), Polk County Parks & Recreation Department office (100 Polk Plaza in Balsam Lake), Wisconsin DNR Interstate Park office at St. Croix Falls, or the DNR Service Center in Spooner.

As part of the public review process on the EA, the department also will hold an open house and hearing on Thursday, March 9, 2006 to receive comments on the analysis. The open house and hearing will be held in the gymnasium at Unity High School located at 1908 150th Street, STH 46 North, Balsam Lake, WI 54810. The open house will begin at 6:00 p.m. with the hearing to follow at 7:30 p.m.

Comments on the proposed project and preliminary assessment are welcome and should be received by Mr. Miller no later than 4:30 p.m., Friday, March 24, 2006. Comments may be submitted verbally, electronically, or in hard copy written form. Comments received at the hearing on March 9th will receive the same consideration as those sent directly to Mr. Miller.

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