NATURAL RESOURCES BOARD AGENDA ITEM

FOR July 1993 BOARD MEETING

TO BE PRESENTED BY: Jim Treichel

SUMMARY: The master plan for the approximately 8 miles long Saunders-Minnesota Trail is presented for review and approval. This project is a cooperative one with Douglas County. The project was approved December, 1990, a Memorandum of Agreement was signed by the county and the Department Secretary in 1991. Purchase was made in February, 1992. The Bureau of Parks and Recreation has worked with Douglas County on this master plan. The county held a public meeting which was very positive. The process for this trail parallels the process used for the Candy Dancer Trail. Both trails will connect immediately south of the City of Superior. This trail also will connect with trails in Minnesota at the Minnesota state line. Under the cooperative agreement, the State of Wisconsin purchased the trail and the county will develop, operate, and maintain it.

RECOMMENDATION: That the Board approve the master plan with an acreage goal of 156 acres.

LIST OF ATTACHED REFERENCE MATERIAL:

<table>
<thead>
<tr>
<th>No</th>
<th>Fiscal Estimate Required</th>
<th>Yes</th>
<th>Attached</th>
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<tbody>
<tr>
<td></td>
<td>Environmental Assessment or Impact Statement Required</td>
<td>Yes</td>
<td>Attached</td>
</tr>
<tr>
<td></td>
<td>Background Memos</td>
<td>No</td>
<td>Attached</td>
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</tbody>
</table>

APPROVED:

[Signatures and dates]

[Names of members and signatories]

[Names of staff members and signatories]

: J. Scullion-AB/5
  J. Addis-AD/5
  D. Weisenicker-PR/1
  D. Treichel-PR/1
  D. Hammer-PR/1

J. Schweiger-Sprouer
W. Smith-Sprouer
T. DeWitt-Sprouer
D. Pendry-PR/4
L. Nehl-PR/1

[Signature of highest executive]
DATE: June 7, 1993

TO: The Natural Resources Board

FROM: George Meyer

SUBJECT: Board Approval of the Saunder's-Minnesota Trail Master Plan

The approximately 8-mile long Saunder's-Minnesota Trail master plan is presented for review and approval. This is a cooperative trail project with Douglas County styled after the successful Gandy Dancer Trail Project with Polk, Burnett and Douglas counties. The state purchased the trail and Douglas County will develop, operate and maintain it.

The project was approved by the Board in December, 1990, the Memorandum of Understanding was signed by the County and the Secretary in 1991 and purchase was made in February, 1992.

This trail will connect to the Gandy Dancer Trail on the east and to Minnesota Trails on the west at the state-line. (See attached map.) The trails in Minnesota may be connected to Genola, Minnesota, a location in the center of the state.

This plan was written by Douglas County with the Bureau of Parks & Recreation’s cooperation and guidance.

A public meeting was held October 19, 1992 in Superior to receive input for the trail. Input expressed covered uses such as horse, snowmobile and ATV. Input also covered connection to Minnesota trails and timely cooperative grooming and operation. The plan now recognizes horse, snowmobile and ATV uses. In addition hiking, mountain biking and skiing will also be permitted uses due to additional public input. The trail will also be available for disabled users.

This master planning project was approved for completion by Jim Addis, Division Administrator in July, 1992.

The acreage goal is 156 acres.

v:\9307\pr9saude.jlt

Attachment (map)

cc: J. Scullion - AD/3
    J. Addis - AD/3
    D. Weisenicker - FR/1
    L. Wehls - PA/1
    J. Treichel - FR/1

J. Schwieger - Spooner
W. Smith - Spooner
T. Dewitt - Spooner
D. Fenney - FR/4
D. Hamner - FR/1
SAUNDERS GRADE RECREATIONAL TRAIL
MASTER PLAN
DOUGLAS COUNTY, WISCONSIN
SAUNDERS GRADE RECREATIONAL TRAIL

MASTER PLAN

DOUGLAS COUNTY, WISCONSIN

COMPILED BY:
Geoffrey Wendorf
Community Resource Development Agent
Douglas County/UW-Extension

WITH DIRECTION FROM:
Douglas County Recreational Trail Committee
Richard Berg             Merle Meyer
Dave Minor               Dennis Godfrey
Mark Schroeder           Jon Mierauad
Geoffrey Wendorf         Millo Polka
Woody Budnick            Ronald Bosteder
Ron Bartholomew          Bill Lee Grams

Bureau of State Parks and Recreation
Department of Natural Resources
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INTRODUCTION

This Master Plan represents Douglas County's plan for the development and maintenance of the Saunders Grade Recreational Trail. The eight mile trail extends eastward from the Minnesota state line to a point in Douglas County that will eventually connect to the Gandy Dancer Recreational Trail. Map I shows the location of the Saunders Grade Recreational Trail and its proximity to the Gandy Dancer Recreational Trail.

The Saunders Grade Recreational Trail will be developed as a result of a Memorandum of Understanding (MOU) signed by the Wisconsin Department of Natural Resources (WDNR) and Douglas County (Appendix A). Under the terms of the MOU the WDNR will be responsible for the acquisition of the railroad right-of-way (ROW), other necessary trail linkages for trail continuity, and any additional land deemed necessary for trail support facilities (e.g. parking, restrooms, etc.). Under this same MOU, Douglas County will be responsible for the development, operation, and maintenance of the trail.
SECTION I - ACTIONS

A. GOALS AND OBJECTIVES

Goal

To provide and preserve an eight mile (approximate) long recreational trail, to link with the section of trail that extends from Genola, Minnesota eastward to the Minnesota/Wisconsin state line. It is expected that Carlton County, Minnesota will develop a trail on their portion of the right-of-way. The trail will make available year round use that will provide for safe two-way traffic, be accessible to all users regardless of impairment, for hiking, snowmobiling, cross-country skiing, all-terrain vehicle (ATV) riding, horseback riding, and horse drawn carriages. The trail corridor will be preserved for present and future generations. *

Objectives

1. To connect the Saunders Grade to the Gandy Dancer Recreational Trail.
2. Provide trail access to the physically impaired through proper design, construction, and management.
3. Provide spring, summer and fall trail use opportunities to hikers, joggers, bird watchers and photographers.
4. Provide a trail and the necessary maintenance to accommodate snowmobilers, ATV's, and cross-country skiers each season.
5. Provide a trail and the necessary maintenance to accommodate horseback riders.
6. Provide a trail and the necessary maintenance to accommodate horse drawn carriages.
7. Provide a trail and the necessary maintenance to accommodate mountain biking.
8. The eight mile recreational trail will be incorporated in the Douglas County Outdoor Recreational Plan.

* A public hearing was held (Appendix B) to assess the interested public's desired uses for the trail. The information gained from this public hearing, in combination with information and input from other sources, formed the basis for the proposed recreational trail use.
Additional Benefits

1. Continued preservation of the right-of-way not developed as trail in grass, prairie, brush and trees will benefit wildlife by providing food and cover.

2. Recreational trail development will enhance tourism development opportunities.

3. Recreational trail will provide for linkages to existing and potential recreational trails.

4. Preserve the right-of-way in the public trust for future uses.

B. RECOMMENDED DEVELOPMENT AND MANAGEMENT PROGRAM

1. Land Acquisition

Under the terms of the MOU, the WDNR acquired the right-of-way. The WDNR will convey a non-exclusive easement to Douglas County and mutually agreed to by the county for $1 and other valuable consideration.

Under the terms of the MOU, the WDNR will attempt to purchase all rights, title and interest in and to the premises for the purpose of providing a connector trail to the Gandy Dancer Recreational Trail.

2. Development

Under the terms of the MOU, the WDNR will convey by a non-exclusive easement to Douglas County the right to develop, maintain, operate and replace with WDNR approval a recreational trail on lands within the county.

According to the terms of the MOU the development of the recreational trail is the responsibility of Douglas County. The WDNR will grant an easement to Douglas County for the development, maintenance and operation of the trail. It is understood that the WDNR will assist Douglas County financially with trail development to whatever extent possible i.e. Local Park Aids, LAWCON, ATV and Snowmobile Aids, and Stewardship Funds.
Under the terms of the MOU, the county agrees the trail will be open for public use within five years of completion of WDNR's acquisition that would allow the trail to be built and used.

Development of the trail will occur under the direction and supervision of the Douglas County Forest, Parks and Recreation Committee. The planned development has been phased to allow for orderly and financially affordable development; however, it is the intent of Douglas County to develop the trail as rapidly as financial resources become available.

The total estimated development cost is $82,015.

In December 1992, Douglas County contracted with Frank H. Giesen P.E. to conduct a study on the right-of-way that included the following components:

1. Inspection of the following infrastructures for adequacy and present conditions:
   1. Road Bed
   2. Communication Poles
   3. Drainage and Culverts
   4. Wash Outs
   5. Guard Rails
   6. Retaining Walls

2. A recommended phased-in development plan.

The engineering analysis report resulting from this contract is included in the master plan as Appendix C.

A. Phase I - 1993

Phase I development (1993) will include providing for trail safety and security by grading the entire eight mile route, installing stop and other informational signs and installing guard rail on sections identified in the engineering report. To control uses of the property, signs depicting the allowable recreational uses will be posted on the trail. Signs warning of intersections and other trail hazards will be erected. During Phase I of development the trail surface will consist primarily of the existing ballast material. The ballast consists of large rocks which are less than ideal for recreational trail use. During subsequent phases of development (Phases II, III, IV) the large rock ballast will be replaced with crushed gravel or crushed rock screenings. Sand will not be used to replace the large rock ballast. The trail will be usable for hiking, jogging, bird watching, photography, mountain biking and horseback riding in the summer and fall, and snowmobiling, all-terrain vehicles, and horse drawn sleighs in the winter.
Estimated development cost for Phase I is $18,225.

B. Phase II - 1994

Phase II development will include the following components:

1. Remove creek debris and logs at Clear Creek (see page 4 of Appendix C - Engineering Report).
2. Clean up other creek obstructions and minor repairs.
3. Install finely graded surface course from Minnesota state line to Barnes Road (see Map 2). Will provide for an adequate running surface for recreational purposes.
4. Grade fine graded material from Minnesota state line to first town road.

Estimated development cost for Phase II is $19,450.

C. Phase III - 1995

Phase III development will include the following components:

1. Install finely graded surface course from Barnes Road to Irondale Road. (See Map 3)
2. Grade fine graded material from Barnes Road to Irondale Road.

Estimated development cost for Phase III is $18,580.

D. Phase IV - 1996

Phase IV development will include the following components:

1. Install finely graded surface from Irondale Road to Mertes Road (See Map 4).
2. Grade fine graded material from Irondale Road to Mertes Road.
3. Install retaining walls (see Appendix C - Engineering Report).

4. Remove existing beaver dams.

Estimated development cost for Phase IV is $13,760.

E. Phase V - 1997

Phase V development will include the following components:

1. Repair channel structure at Clear Creek (See page 5 of Appendix C - Engineering Report).

2. Clear downstream logs at Clear Creek (See page 5 of Appendix C - Engineering Report).

Estimated development cost for Phase V is $12,000.
3. **Management**

The multi-purpose recreational trail will be operated and managed by Douglas County according to state standards.

A. **Facility Management**

Winter maintenance of the trail will involve sign replacement and trail grooming coordinated by the county. Periodic maintenance will include brush clearing and grading of the trail surface.

Labor for the maintenance will be provided by the county and volunteers.

B. **Vegetative Management**

Vegetative management is needed to improve and maintain the aesthetics of the trail, to enhance the wildlife habitat along the trail right-of-way, and to facilitate the maintenance of the trail for recreational uses.

C. **Wildlife Management**

It is desirable to improve the habitat for songbirds and other wildlife along the trail. The protection of wild berries and other food sources and natural nesting places will be addressed.
Memorandum of Understanding by Douglas County
and State of Wisconsin Department of Natural Resources

APPENDIX A

I. Introduction:

The purpose of this Memorandum of Understanding (MOU) is to set forth the agreements and understandings which have been reached between Douglas County, hereinafter referred to as the County, and the State of Wisconsin Department of Natural Resources, hereinafter referred to as the WDNR, regarding the acquisition, development, and operation of approximately 8 miles of discontinued rail property in Wisconsin located between a point in the County and the Minnesota State Line. The grade is presently owned by the Soo Line Railway Company in the County and has been approved for abandonment by the Interstate Commerce Commission. It is expected Carlton County, Minnesota will develop a trail on their portion of the right-of-way. (The right-of-way extends to Genola, Minnesota.)

The WDNR is interested in preserving the grade corridor for connector recreational trail purposes. The County is interested in developing, maintaining, and operating a recreational trail in the corridor provided the WDNR acquires same. The parties agree to work together to achieve their mutual goals as set forth below. This right-of-way lies into the trail between the Dresser area, in Wisconsin and Superior, Wisconsin, (the Gandy Dancer Trail).

II. Description of the Property:

Legal description to follow, hereinafter referred to a premises.

III. Consideration:

The WDNR will acquire the right-of-way provided a reasonable price can be negotiated for the premises and the owners can convey merchantable title. The WDNR will convey a nonexclusive easement to the County and mutually agreed to by the County for $1 and other valuable consideration.

IV. Obligations of WDNR:

1. The WDNR will purchase, the premises and enter into long-term agreement for the 8 miles of railroad corridor within Wisconsin.

2. WDNR will attempt to purchase all rights, title and interest in and to the premises for the purpose of providing a connector trail to the Gandy Dancer Trail.

3. The WDNR will convey by a non-exclusive easement to the County the right to develop, maintain, operate and replace with WDNR approval a recreation trail on lands within their county.

4. The WDNR agrees to comply with the environmental impact process for the purchase of the property pursuant to s. 1.11, Stats., and Chapter NR 150, Wis. Adm. Code.

5. WDNR agrees that any advertising or display material relating to the trail shall clearly identify the property is owned by the WDNR and under the management and control of the county.

12
Obligations of the County:

1. The County shall develop, maintain, operate, repair, and replace a recreation trail on the premises.

2. The County shall enter into an easement or lease with the WDNR to accomplish the purposes contained herein.

3. The County shall complete the environmental impact assessment for the master plan, for development, maintenance and operation of the trail.

4. The County shall write a master plan for the project to be completed prior to any trail development (according to WDNR format). The master plan will determine the trail uses and management.

5. The County shall conduct public meetings to determine uses, development and operation as part of the master plan process.

6. The County agrees the trail will be open for public use within 5 years of completion of WDNR's acquisition that would allow the trail to be built and used. If the trail is not open by this date or ever closed to be used for trail purposes for two years then all rights revert to and remain in the WDNR without necessity of reentry. WDNR is not obligated to continue to manage the recreational trail and may sell the right-of-way.

7. Upon revocation the WDNR will assume compliance responsibility for the land and water conservation fund assisted areas. A payment equal to any land and water conservation grant awarded through the community assistance program for development shall be paid to the WDNR by the County.

8. Upon revocation payment equal to any other grant amount awarded through the community assistance program for development shall be paid to WDNR by the County.

9. The County agrees to indemnify and save harmless WDNR, its officers, employees and agents and to assume all responsibility and liability for death of, or injury to any person, including but not limited to, officers, employees, agents, patrons, invitees or licensees of the parties hereof and for loss, damage or injury to any property, including but not limited to, that belonging to WDNR, together with all liability for any expenses, attorney's fees and costs incurred or sustained by the WDNR, arising from or growing out of, or in any manner or degree directly or indirectly caused by, attributable to, or resulting from the grant or exercise of the HUD and the assessment or the construction, maintenance, repair, renewal, alteration, change, relocation, existence, presence, use, operation or removal of the recreational trail, unless caused by the negligence of WDNR, its officers or employees.

10. The County shall release and indemnify and save harmless WDNR, its officers, employees and agents, for any damage to the property by the County, their employees, agents, contractors or subcontractors, arising from or growing out of, or in any manner
or degree directly or indirectly caused by, attributable to, or resulting from the grant or exercise of the MOU and the easement or the construction, maintenance, repair, renewal, alteration, charge, relocation, existence, presence, use, operation or removal of any structure incident thereto or from any activity conducted by or on behalf of the county or WDNR on or in the vicinity of the recreational trail unless caused by the negligence of WDNR, its officers, employees or agents.

11. The County agrees that any advertising or display material relating to the trail shall clearly identify the property is owned by the WDNR and under the management and control of the County.

12. The County in connection with this MOU shall open the facilities to the general public subject to reasonable rules and regulations, fees, and charges as the County deems necessary for the management and operation of the County premises.

a. Rules and Regulations. The parties agree that the provisions of Section 186.04(11)(a) Wis. Adm. Code, remain applicable to the Premises. Daily routine enforcement remains the responsibility of the County.

b. Admission fees, if any, charged by the County shall not exceed those established in s. 27.01 (7), Stats. The County will discuss the fees to be charged with the WDNR at an annual meeting held prior to May 1 each year and the fees shall be subject to written approval by the WDNR. The County retains all fees collected as payment for its services under this MOU. If admission fees are charged, the conservation patron license and senior citizen card issued by the WDNR shall be honored without additional admission charges.

13. Trail development will conform with WDNR state trail standards.

14. In the exercise of its rights herein, including but not limited to the operation of the eased property as a recreational trail, the County shall not discriminate against any member of the public on the basis of age, race, creed, color, handicap, sex, marital status, arrest or conviction record, ancestry, sexual orientation or membership in the National Guard, state defense force or any other reserve component of the military forces of the United States or this state.

VI. General:

1. This MOU is subject to all applicable laws and regulations and to the approval of the WDNR Board and the Governor.

2. The WDNR retains the right to withdraw from this transaction if it determines that merchantable title cannot be conveyed to the WDNR or a reasonable price cannot be negotiated for the premises.

3. This MOU may be revised by mutual written agreement of the WDNR and the County.
This MOU acknowledges that the Department may convey other easements in and to above described property consistent with the rights granted herein.

IN WITNESS WHEREOF, WDNR and the County have caused this Memorandum to be executed in their respective names by their respective duly authorized representatives on the date shown below.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Carroll E. Besady, Secretary  1-7-91

DOUGLAS COUNTY

County Board Chairperson  11-30-90

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APPENDIX B
RECREATIONAL TRAIL HEARING

A public hearing was held Monday, October 19, 1992, at 5:45 p.m., at the Superior/Douglas County Chamber of Commerce. The purpose of the hearing was to receive public input regarding the uses, development, and operation of the Saunders-Genola abandoned Soo Line rail grade in Douglas county.

The meeting was held immediately preceding a Douglas County Recreational Trail Committee meeting. Those members present were: Richard Berg, Mark Schroeder, Ron Bartholomew, Merle Heyer, Dennis Godfrey, Jon Mentera, Ronald Boisder, Bruce Bergsten, and John Shepard for Dick Murray. Others present were Ken Warring, John Reuille, Kerry Berg, and Dave Drinkwine.

Mark Schroeder described the proposed location of the trail system, purpose of the public hearing, and format which would be used to take testimony. He explained that the purpose of public input is to develop a master plan for the trail system to be presented to the Department of Natural Resources for their approval.

At this time Mark Schroeder asked for public input for uses, development, and operation of the trail.

Dennis Godfrey spoke in support of the use of the trail for snowmobile and ATV riding, with the ATV use being year around.

Bruce Bergsten stated that horses have a negative effect on the trail due to frozen horse manure, and tracks made in the groomed surface.

Dennis Godfrey added that the width and speed of horse drawn sleighs makes for an unsafe condition.

John Reuille stated that horse riders could use the trail in summer, however the snowmobile user group is attempting to raise funds to purchase a groomer, and horses are tough on groomed trails. He further stated that horses are difficult to see at night.

Ron Bartholomew stated he would like to see some pines planted by Highway C, and if possible to create a berm on each side of the grade to drift snow in the trail to add base. He also felt that this would reduce the summer dust problems by retaining moisture on the trail.

Dennis Godfrey asked if was feasible to remove or reclaim ballast to use on snowmobile trails as fill to upgrade them for summer ATV use.

Ron Bartholomew stated he was in agreement with the other parties on horse use of the trail.
Richard Berg stated that the Douglas County Board of Supervisors is making a concerted effort to coordinate the efforts of the Wisconsin and Minnesota officials link and groom trails. He stated that a letter from County Board Chair Dumke to the Minnesota officials has been drafted.

Dennis Godfrey expressed concern over this topic, and stated that these grades are going to increase snowmobile/UTV traffic to South Superior.

Ken Warring stated that the Wrenshall Grade will be groomed this winter in Minnesota.

Ron Bartholomew stated that if user groups are going to use the grade, they should pay for the development.

Bruce Bergsten stated he agreed with Ron Bartholomew’s statement.

Dennis Godfrey also stated his agreement with Ron Bartholomew’s statement.

Kerry Berg stated concern over a washout on the grade at the Clear Creek crossing.

Hearing adjourned at 6:16 p.m.

Respectfully submitted,
Mark Schroeder
The Saunders Grade Recreational Trail

This study has been performed to determine infrastructure improvements necessary to develop a former railroad corridor for use as a recreational trail.

Historically the Saunders Grade Trail has been known as the Brooten Line by railroad officials and employees. It was constructed by the Minneapolis, St. Paul and Sault Ste. Marie Railroad Company (more commonly called the Soo Line Railroad). Recently it was abandoned by the Soo Line because they now have trackage rights over the Burlington Northern Railway. These rights make the Saunders Grade Trail redundant. In earlier times railroads did not as a matter of general policy lease trackage rights to competitors. The exact dates of construction are not available, however, railway maps indicated that the railroad was completed on or before April, 1911.

At the time of construction competing railroads had already accessed Superior, Wisconsin from the west. The Northern Pacific and Great Northern, major competitors, had selected the more favorable routes to the Head of the Lakes. This Soo Line route followed a more scenic path which creates a bonus for a recreational trail.

The Saunders Grade through Douglas County served three destinations. They were:

1. Crosby-Ironton. This route served iron mines and provided a regular market for mineral hauling. In Superior the Soo Line used the Northern Pacific Ore Dock. See Appendix A.

2. Brooton-Glenwood, Minnesota. This route served the grain market in North Dakota and Minnesota. It provided an interchange with the Canadian Pacific at Portal, North Dakota for Canadian grain and forest products. This route furnished passenger service in conjunction with freight service known as a "mixed train".

3. Plummer-Thief River Falls, Minnesota. This line served north west Minnesota and provided a connection to Winnipeg.
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<th>DESCRIPTION</th>
<th>COST</th>
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<td>2.08</td>
<td>30&quot; R.C.P. in good condition.</td>
<td>Clean up culverts at entrance.</td>
</tr>
<tr>
<td>2.15</td>
<td>24&quot; R.C.P. in good condition.</td>
<td>Cost: $200.00</td>
</tr>
<tr>
<td>2.22</td>
<td>54&quot; cast iron pipe Clean cut upstream entrance.</td>
<td></td>
</tr>
<tr>
<td>2.22</td>
<td>36&quot; R.C.P. pipe both in good condition</td>
<td></td>
</tr>
<tr>
<td>2.25</td>
<td>Install 12' timber retaining wall. Wash out.</td>
<td>Wall installation $1000.00</td>
</tr>
<tr>
<td>2.3</td>
<td>30&quot; R.C.P. with two holes. Repair this with non-shrinking grout Fill in washout with ballast.</td>
<td>Repair holes $200.00</td>
</tr>
<tr>
<td>2.65</td>
<td>30&quot; R.C.P. in good condition</td>
<td></td>
</tr>
<tr>
<td>2.75</td>
<td>36&quot; R.C.P. in good condition.</td>
<td></td>
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<tr>
<td>3.0</td>
<td>Good intersection road. Install 2 stop signs 36&quot; R.C.P. crosses the road diagonally is in good condition.</td>
<td>2 - Trail stop signs $90.00</td>
</tr>
<tr>
<td>3.25</td>
<td>Former timber trestle 199' long filled with rock and clay. 2 - 72&quot; R.C.P. at stream in good condition. 1 - 24&quot; overflow pipe also in good condition.</td>
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<tr>
<td>3.72</td>
<td>Start of trestle which was 570' long. It was filled with rock and clay. 2 - 72&quot; R.C.F. installed. Clean entrance to culvert. Install 500' guard rail each side.</td>
<td>Clean debris from culvert entrance $100.00</td>
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<tr>
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<td></td>
<td>1000' of timber guard rail @ $10/l.f. $10,000.00</td>
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3.79
24" C.M.P. in good condition.

4.11
24" C.M.P. in good condition.

4.53
36" R.C.P. culvert in good condition.
Beaver dam upstream approximately 100' long, 8' - 10' high. It is the most beautiful beaver dam I have ever seen. It has a convex shape just like an engineered dam. Pictures should be taken. Wow, what a sight! Students in Civil Engineering could learn from this. I understand that the beavers did not have a computer for design. They did it the "old fashioned way"... with lots of sweat and arithmetic.

4.65
48" R.C.P. culvert in good condition.

5.22
Culvert was under ice due to beaver dam. Remove beaver dam. This is just a "plain" one.
Culvert is 48" but because of the ice we could not check it out.

6.34
Irondale Road. Former location of Bozeman Train Station. Install two stop signs.

6.90
24" C.M.P. pipe in good condition.

Remove Dam $250.00

Install 2 Trail stop signs $90.00
MILE DESCRIPTION COST
8.35 End of Trail at Mertes Road. Install stop sign at west side of Mertes. East side already has a sign. Install 1 stop sign $45.00

In addition, the railroad left their communication poles along the route. A portion have been removed either by vandals or with permission of the Soo Line Railroad. The remainder should be removed either by a contractor for salvage or by the forestry crew. Many are in good to acceptable condition. Inquir: should be made of contractors to see if they may be removed for their salvage value.

The Saunders Grade Trail is in relatively good condition. The major cost will be grading the ballast and surfacing it with finer aggregate. It will provide the missing link between the Minnesota portion of the Trail and the existing trail at Saunders. It should be attractive and will be a fine opportunity for Minnesota users to experience Douglas County hospitality.
TOTAL COST
SAUNDERS GRADE RECREATIONAL TRAIL

$82,015
THE SAUNDERS GRADE
RECREATIONAL TRAIL

Engineering Study
Alternative Strategies for Implementation

There are two alternatives which can be considered to stage this project so that it can be implemented within funding or budget restraints, staged construction and alternative methods of construction.

**STAGED CONSTRUCTION:**

**Year One**
1. Grade entire route .......................... 4000.00
2. Install stop signs ......................... 225.00
3. Install guard rail .......................... 14000.00

**Total ........................................... 18,225.00**

**Year Two**
1. Remove creek debris and logs at Clear Creek 1000.00
2. Clean up other creek obstructions and minor repairs 1770.00
3. Install finely graded surface course from Minnesota line to first town road 15590.00
4. Grade fine graded material .................. 1180.00

**Total ........................................... 19,450.00**

**Year Three**
1. Install finely graded surface course from town road to Bores (Ironon Rd.) 17300.00
2. Grade fine graded material .................. 1280.00

**Total ........................................... 18,580.00**
Saunders Grade Recreational Trail
Alternative Strategies

Year Four
1. Install finely graded surface from Boreo to Merze Road 10240.00
2. Grade fine graded material 770.00
3. Install retaining walls 2500.00
4. Remove dents 250.00

Total .......................................................... $13,760.00

Year Five
1. Repair channel structure at Clear Creek 11000.00
2. Clear downstream logs at Clear Creek 1000.00

Total .......................................................... $12,000.00

The repair at the Clear Creek Channel should be monitored annually to determine its adequacy. It is scheduled during the fifth year; however, if it deteriorates it may need to be done sooner.

ALTERNATIVE METHODS OF CONSTRUCTION
The crushed surface could be obtained from these alterations:
1. Remove ballast and crush for a finer gradation. This would depend upon availability of a portable crusher, a loader and trucks. At this time that availability is difficult to determine.
2. Use the Douglas County Highway facility for crushed materials. This would depend upon availability and the potential for conflict with the Douglas County Highway Department program.

All work could be done with the exception of the guard rail, the retaining walls and the Clear Creek channel improvements. This would also lower the cost.