

***Red Top ATV Loop Trail Survey
Final Report***

April 2008



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This report was prepared by Katie Fernholz of Dovetail Partners on behalf of the Oversight Committee for the 70-Mile Trail Project. The 70-Mile Trail Project is supported with a grant from the Minnesota Department of Natural Resources.

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Introduction

In January 2008, the Oversight Committee for the 70-Mile Trail Project in Aitkin and Itasca Counties, Minnesota conducted a survey with the objective of gaining information related to the perceived noise impacts of ATV trails.

The 70-Mile Trail Project includes the development of an extensive, first-rate ATV/OHV trail in Aitkin and Itasca Counties, Minnesota. The trail is designed to be environmentally sensitive, economically beneficial, and community supported.

The Aitkin-Itasca 70-Mile ATV/OHV Trail Project will:

- Focus the increasing ATV user base on an existing extensive (420+ miles) and meaningful (popular destinations) trail system within 2 hours of the Twin Cities. This should reduce potential negative impacts on natural resources, often caused by unregulated cross-country travel, by providing a well advertised "place to go" and by linking trail segments in environmentally sensitive ways.
- Connect major recreation destinations (from the Mille Lacs area, through McGregor and the Big Sandy Lake areas, and on to the Grand Rapids area) via an ATV trail to promote tourism and its associated economic impacts.
- Revitalize local communities along and near the trail system. These communities benefit economically from seasonal snowmobile use; expanding a similar clientele (ATV users) to a larger segment of the year could have significant benefits to these small communities.

The project is directed by the 70-Mile Trail Oversight Committee with 19 members representing diverse interests and experiences from throughout the project area. Dovetail Partners and Applied Ecological Services are contracted to assist the Committee with project coordination. Dovetail Partners managed the survey project. Additional information about the 70-Mile Trail Project is available at the project website, www.70miletrail.net.

Background

Motorized recreational trails have the potential to cause noise-related impacts to wildlife and humans. The existing literature includes research related almost exclusively to evaluating noise impacts associated with roads and passenger vehicle traffic. Because all-terrain vehicle (ATV) trails experience use patterns that can differ significantly from road uses, there is a need for additional research to evaluate the potential for noise impacts associated with ATV and off-highway motorcycle (OHM) trails. For additional information, see the list of resources.

Survey Description

The survey was developed to gain information related to the perceived noise impacts of ATV trails. The survey included 17 questions related to the impacts associated with living near an existing ATV trail. A cover letter was included and described the purpose of the survey. The survey was mailed to the target group of property owners with a self-addressed stamped envelope included for returning the completed surveys. Survey responses were coded to identify distance from the trail; however, individual responses were not identified and remained anonymous. The complete survey and cover letter are included as Appendix A.

Results

The mail-in survey was conducted from January 17 to February 4 of 2008. The survey was mailed to property owners (E-911 addresses) located within 3 miles of the Red Top ATV Loop trail in southern Aitkin County. Trail use counts collected for the Red Top trail in May and June of 2006 recorded 144 riders per day on the weekends and 38 per day on weekdays.

The results of the survey provide information to the Oversight Committee regarding the perceived noise impacts of an existing trail located within the general area of the 70-Mile Trail Project and in similar landscape conditions and with similar use patterns to what is proposed for the project.

A total of 161 surveys were mailed. Surveys were coded by distance from the trail so responses could be evaluated by proximity to the trail. There were three distance “zones” used to classify survey responses. Greater than a 57% response rate was realized in each survey zone and an overall response rate of over 58% was achieved (Table 1). A total of 94 completed surveys were received.

Table 1. Survey Response Zones & Response Rate

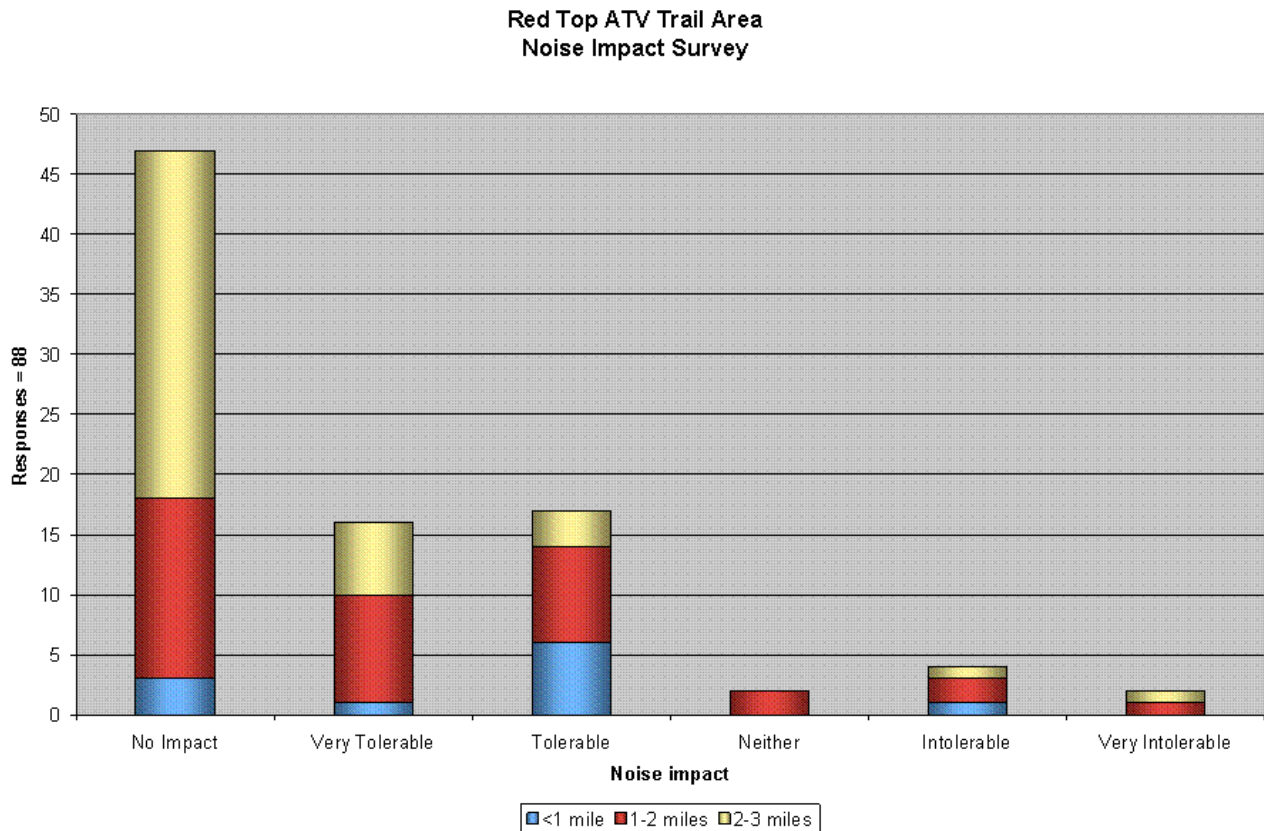
<i>Zone</i>	<i>Distance from Trail</i>	<i>Response Rate</i>
Zone A	<1-mile	57%
Zone B	1 – 2 miles	59%
Zone C	2 – 3 miles	58%

Nearly all respondents (88 out of 94, 94%) indicated they were familiar with the Red Top Trail and more than 70% use the trail for ATV riding or other activities. Overall, 53% indicated “no noise impacts” from living near the Red Top trail – including 27% of the responses from Zone A, 41% from Zone B, and 73% from Zone C. Of the 47% that reported some impacts from noise, 80% of these responses reported the noise as either “tolerable” or “very tolerable”, including 88% of the survey responses from Zone A, 77% from Zone B, and 82% from Zone C. Survey results also indicated that noise impacts are most likely to occur during the summer, on the weekends, in the afternoon, and for a perceived time period of 30 minutes or less. About 30% of survey respondents indicated they are not ATV riders. The results are further summarized in Table 2 and illustrated in Figure 1.

Table 2. Summary of Survey Results

<i>Response</i>	<i>Overall Response Rate</i>	<i>Response Rates for Zones</i>		
		<i>A</i>	<i>B</i>	<i>C</i>
Familiar with the Red Top ATV Trail	94%	92%	97%	91%
Use the trail for ATV Riding	49%	45%	51%	48%
Use the trail for other activities	26%	45%	24%	23%
No Noise Impact from the trail	53%	27%	41%	73%
Noise is Tolerable or Very Tolerable	80%	88%	77%	82%

Figure 1. Summary of Results by Number of Responses (Total Responses = 88)



Conclusion

The results of the survey provide information to the Oversight Committee for the 70-Mile Trail Project regarding the perceived noise impacts of an existing trail located within the project area and in similar landscape conditions and with similar use patterns as what is proposed for the 70-Mile Trail Project. The survey focused on property owners' experiences and perceptions of how they are impacted by the close proximity of an ATV trail to their residences. Given the number of survey respondents that indicated no noise impact from the trail, there is reason to believe that the social impacts of noise from the Red Top ATV Loop trail are not in excess of tolerable levels for current residents.

Further research is needed to quantify noise levels (i.e., decibel measurements) and to evaluate impacts from other types of trails (i.e., linear trails rather than loop systems). Research could also be conducted throughout the year to quantify the mitigating benefits, if any, of vegetation and leaf-on conditions for dampening noise impacts.

Resources

Ouren Douglas S., Christopher Haas, Cynthia P. Melcher, Susan C. Stewart, Phadrea D. Ponds, Natalie R. Sexton, Lucy Burris, Tammy Fancher, and Zachary H. Bowen. 2007. *Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands: A Literature Synthesis, Annotated Bibliographies, Extensive Bibliographies, and Internet Resources*. Open-File Report 2007-1353. U.S. Department of the Interior U.S. Geological Survey. <http://www.dovetailinc.org/documents/USGSOHVBiblioReport.pdf>

Minnesota Department of Natural Resources, Section of Trails & Waterways. 2007. *Trail Planning, Design, and Development Guidelines*. <http://www.comm.media.state.mn.us/bookstore/viewbook.asp?BookID=6069&stocknum=9-66>

Schneider, Ingrid E. Ph.D. and Tony Schoenecker. 2006. *All-terrain Vehicles in Minnesota: Economic impact and consumer profile*. UMN Tourism Center and the Minnesota Department of Employment & Economic Development. <http://www.tourism.umn.edu/research/ATVExecutiveSummary.pdf>

Stokowski, Patricia A. Ph.D. and Christopher B. LaPointe. 2000. *Environmental and Social Effects of ATVs and ORVs: An Annotated Bibliography and Research Assessment*. School of Natural Resources, University of Vermont <http://atfiles.org/files/pdf/ohvbibliogVT00.pdf>

Appendix A: Survey and Cover Letter

January 16, 2008

First Name Last Name
Address
City, State Zipcode

Dear First Name Last Name,

Dovetail Partners, in cooperation with the Aitkin County Land Department, is interested in understanding potential noise impacts associated with the Red Top ATV Loop Trail located in south-central Aitkin County. The information from this survey will enhance the management of ATV and off-highway vehicle trails.

You have been selected to complete this survey because you own property located within 3 miles of the Red Top ATV Loop Trail. We have selected a specific group of people for this survey and therefore, every questionnaire is important.

The survey should take about 10 minutes to complete. Please return your completed survey in the enclosed, self-addressed, postage-paid envelope. Your responses and input are very important. All the information you provide is voluntary, confidential and anonymous.

To ensure that your response is included in the survey analysis, **please mail your completed survey as soon as possible and before February 4th.**

If you have any questions, please contact me at 612-333-0430 or katie@dovetailinc.org. Thank you in advance for your participation in this important project.

Sincerely,

Red Top ATV Loop Trail Survey

Section 1. In this first set of questions we would like to learn about your household and your recreational activities.

1. What is your age?

- | | |
|---|---|
| <input type="checkbox"/> less than 18 years | <input type="checkbox"/> 45 to 54 years |
| <input type="checkbox"/> 18 – 24 years | <input type="checkbox"/> 55 to 64 years |
| <input type="checkbox"/> 25 – 34 years | <input type="checkbox"/> 65 to 74 years |
| <input type="checkbox"/> 35 – 44 years | <input type="checkbox"/> 75 years and older |

2. What is your Gender? Male Female

3. Which type(s) of property do you own in south-central Aitkin County?
(Check all that apply.)

- primary residence
 seasonal recreational property (i.e., cabin or hunting land)
 Other: _____

4. How long have you owned your property in south-central Aitkin County? _____ Years

5. Which of the following recreational activities do you or a member of your household participate in at least once per year? (Check all that apply.)

- | | |
|---|--|
| <input type="checkbox"/> Water Skiing | <input type="checkbox"/> Canoeing/Kayaking |
| <input type="checkbox"/> Snowmobiling | <input type="checkbox"/> Bicycling |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Horseback Riding |
| <input type="checkbox"/> Hunting | <input type="checkbox"/> Jogging/Running |
| <input type="checkbox"/> Boating | <input type="checkbox"/> Hiking |
| <input type="checkbox"/> Cross-County Skiing | <input type="checkbox"/> Camping |
| <input type="checkbox"/> Downhill Skiing | <input type="checkbox"/> Birding/Wildlife Watching |
| <input type="checkbox"/> All-terrain vehicle (ATV) Riding | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Dirt-Bike Riding | |

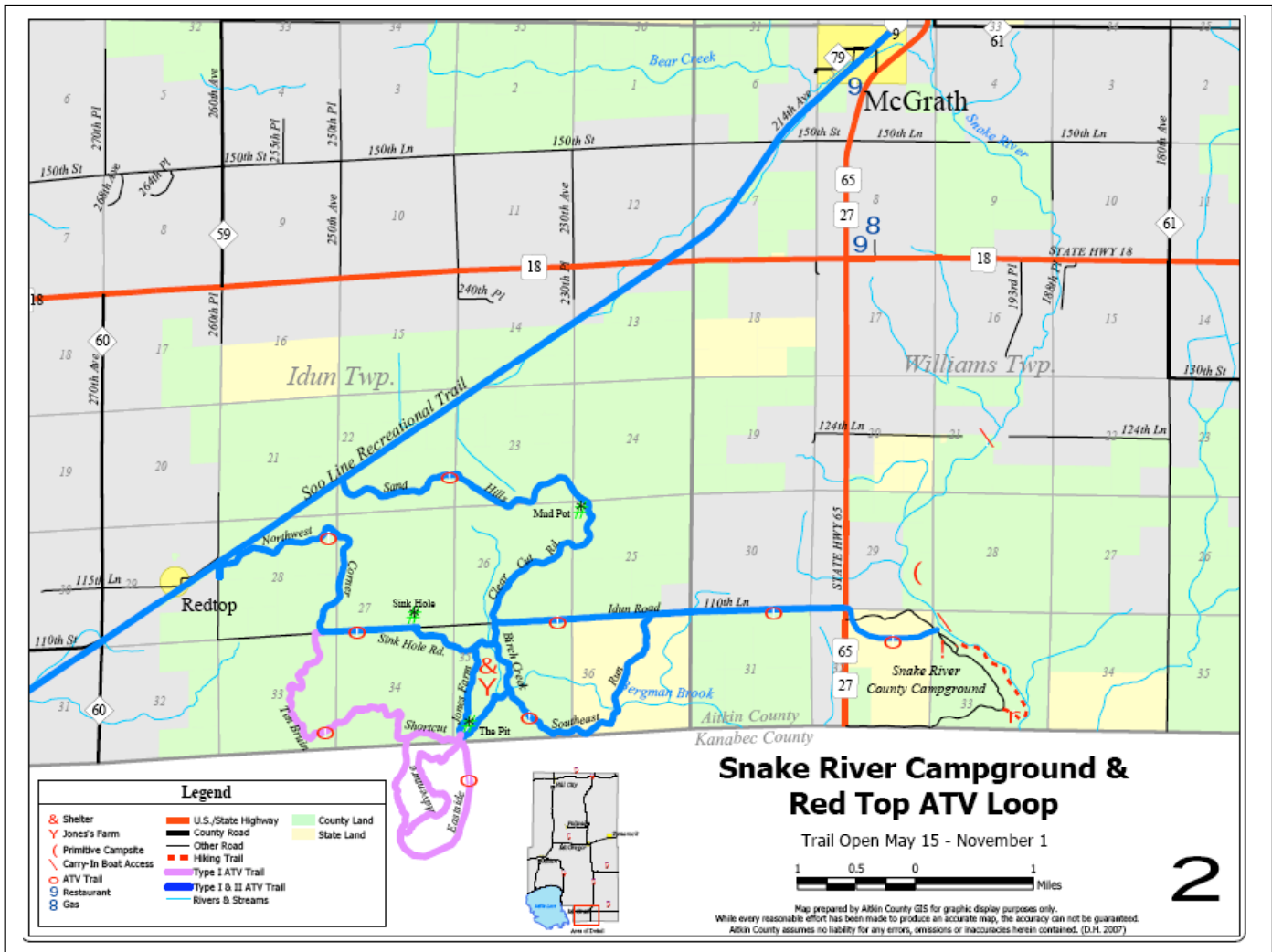
6. Do you use All-Terrain Vehicles (ATVs) for any of the following? (Check all that apply.)

- a) recreational trail riding
 b) access to public land (hunting, etc)
 c) farm work / yard work
 d) I don't ride ATV's

7. Are you familiar with the Red Top ATV Trail shown on this map?

Yes No

If you answered "No" to Question 7 and are not familiar with the Red Top ATV Loop Trail, you are done with this survey. If you answered "Yes" please continue with the following questions.



Section 2. In this set of questions we would like to learn about your experience with the Red Top ATV Loop Trail. You have been identified as owning property located within 3 miles of this trail.

8. Do you use the Red Top ATV Loop Trail for recreational ATV riding? Yes No

9. Do you use the Red Top ATV Loop Trail for activities other than ATV riding?
 Yes No If Yes, how do you use the trail? _____

10. Which of these statements best describes your experience with having the Red Top ATV Loop Trail near your property? (Select only one.)

- I forget the ATV trail is even there
- I rarely think about the ATV trail
- I think about the ATV trail up to once a week
- I think about the ATV trail almost daily

11. How much of an impact do you experience from noise by living near the Red Top ATV Loop Trail? (Circle only one.)

No Noise Impact	Very Tolerable	Tolerable	Neither	Intolerable	Very Intolerable
0	1	2	3	4	5

If your response to Question 11 is “No Noise Impact” you are done with the survey. If you are impacted by noise from the Red Top ATV Trail please continue with Question 12.

12. Is the noise you experience primarily associated with use of the Red Top ATV Trail or other ATV/OHV activities? (Select only one.)

- The noise is primarily from use of the Red Top ATV Trail
- The noise is primarily from other ATV/OHV activities (i.e., ditch riding)
- The noise is equally from the Red Top ATV trail and other ATV/OHV activities.

If your response to Question 12 indicates that noise is “Primarily from other ATV/OHV Activities”, you are done with the survey. If you experience noise impacts from the Red Top ATV Trail, please continue with Questions 13 – 17.

13. How does the noise associated with the Red Top ATV Trail change when you are inside of your home (or other dwelling) on the property? (Circle only one.)

Significantly Less Noise When Inside	Slightly Less Noise When Inside	About the Same Noise When Inside	Slightly More Noise When Inside	Significantly More Noise When Inside
1	2	3	4	5

14. How would you describe the frequency of noise associated with the Red Top ATV Trail? (Select all that apply.)

- The noise occurs every day of the week.
- The noise occurs most days, but not every day.
- The noise occurs about two days per week.
- The noise occurs less than two days per week.
- The noise occurs mainly on weekends.

15. How would you describe the duration of noise associated with the Red Top ATV Trail? (Select all that apply.)

- The noise occurs for one hour or more at a time.
- The noise occurs for between 30 and 60 minutes at a time.
- The noise occurs for between 15 and 30 minutes at a time.
- The noise occurs for less than 15 minutes at a time.

16. How would you describe the time of day of noise associated with the Red Top ATV Trail? (Select all that apply.)

- The noise occurs primarily before sunrise.
- The noise occurs primarily between sunrise and noon.
- The noise occurs primarily between noon and sunset.
- The noise occurs primarily after sunset.

17. How would you describe the season of noise associated with the Red Top ATV Trail? (Select all that apply.)

- The noise occurs primarily in the spring.
- The noise occurs primarily in the summer.
- The noise occurs primarily in the fall.
- The noise occurs primarily in the winter.

Other things you would like to share:

Thank you for participating in this survey! Please use the enclosed self-addressed, postage-paid envelope to mail your complete survey to me by February 4th. Your responses and input are very important. Please contact me with any questions, Kathryn Fernholz, 612-333-0430

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