

# **STUDY OF ANNUAL RECREATIONAL FUEL CONSUMPTION BY ALL-TERRAIN VEHICLES (ATVs) FINAL REPORT**



FEBRUARY 2006

Prepared for:  
Minnesota Departments of Natural Resources,  
Revenue, and Transportation

Prepared by:



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February 17, 2006

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Attn: Tim Kelly  
OMBS, Box 10  
500 Lafayette Road  
St. Paul, Minnesota 55155-4010  
(651) 296-4892  
[tim.kelly@dnr.state.mn.us](mailto:tim.kelly@dnr.state.mn.us)

Dear Tim Kelly,

We are pleased to provide the FINAL REPORT for the project entitled  
***“Study of Annual Recreational Fuel Consumption by All-Terrain  
Vehicles”*** to the Departments of Natural Resources, Revenue, and  
Transportation.

Please contact us if you require additional information or have  
questions about the report.

Sincerely,

Gregory E. Thompson  
Project Manager

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# Minnesota 2005 ATV Recreational Fuel Consumption Study Final Report

## **EXECUTIVE SUMMARY**

In 2005, the Minnesota Legislature requested (Laws of Minnesota, 2005, 1st Special Session, Chapter 1, Article 2, Section 3, Subd. 6) that the Departments of Natural Resources, Revenue, and Transportation determine the percentage of highway taxable gasoline used by all-terrain vehicles (ATVs) for recreation (i.e., for non-business purposes). At the time of the legislative request, Minnesota Statutes 296A.18, Subd. 4 specified this percentage as 0.15%, a figure based on a 1984 study.

The Departments of Natural Resources, Revenue, and Transportation hired ThomTech Design, Inc. of St. Paul to conduct this study to recalculate the percentage of highway taxable gasoline used by ATVs for recreation. The study results determined that the percentage is now 0.27%. The study found that 7,055,529 gallons are purchased annually for ATV recreation use. The taxable highway gallons in Minnesota in 2005 are reported by the Department of Revenue to be 2,633,361,337.

Minnesota had 236,683 ATVs with recreational registrations in 2005. Based on the study results, the average ATV used about 30 gallons of gasoline annually for recreation purposes.

## I. UNDERSTANDING

**A. Introduction.** In 2005, the Minnesota Legislature requested (Laws of Minnesota, 2005, 1st Special Session, Chapter 1, Article 2, Section 3, Subd. 6) that the Departments of Natural Resources, Revenue, and Transportation determine the percentage of highway taxable gasoline used by all-terrain vehicles (ATVs) for recreation (i.e., for non-business purposes). The Departments of Natural Resources, Revenue, and Transportation hired ThomTech Design, Inc. of St. Paul to conduct this study of ATV gasoline usage.

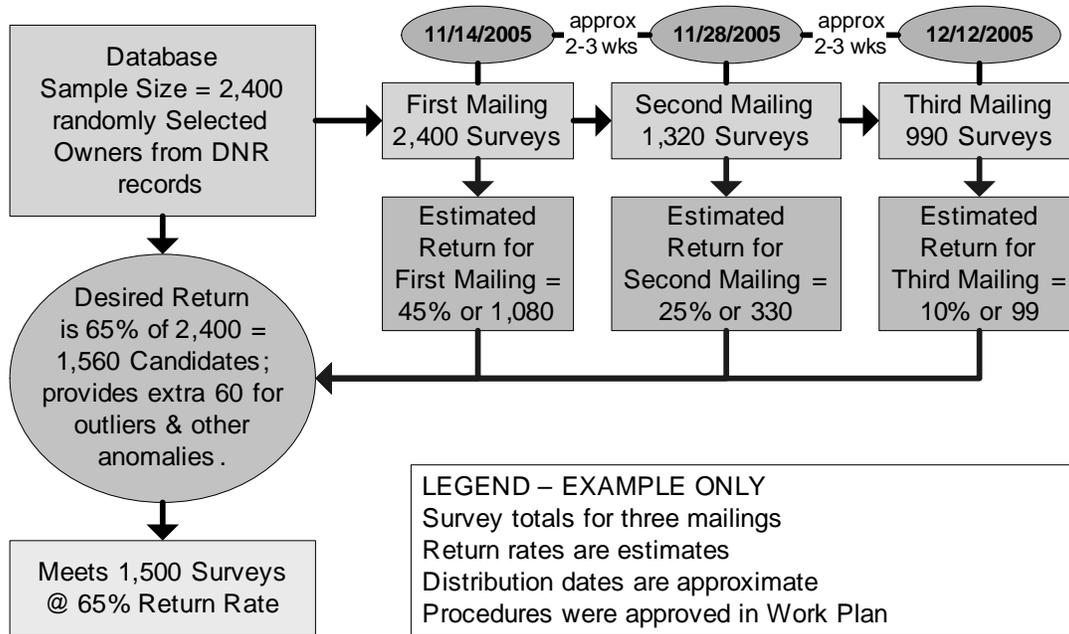
**B. Background.** The study results will provide information to the Minnesota Legislature on the allocation of gasoline-tax dollars to all-terrain vehicle programs, which is specified in MS 296A.18, Subd. 4. A previous study was done in 1984 (“Three-Wheel Off-Road Vehicle Gasoline Consumption in Minnesota”), and this study provides an update of the 1984 study.

## II. GOALS & OBJECTIVES

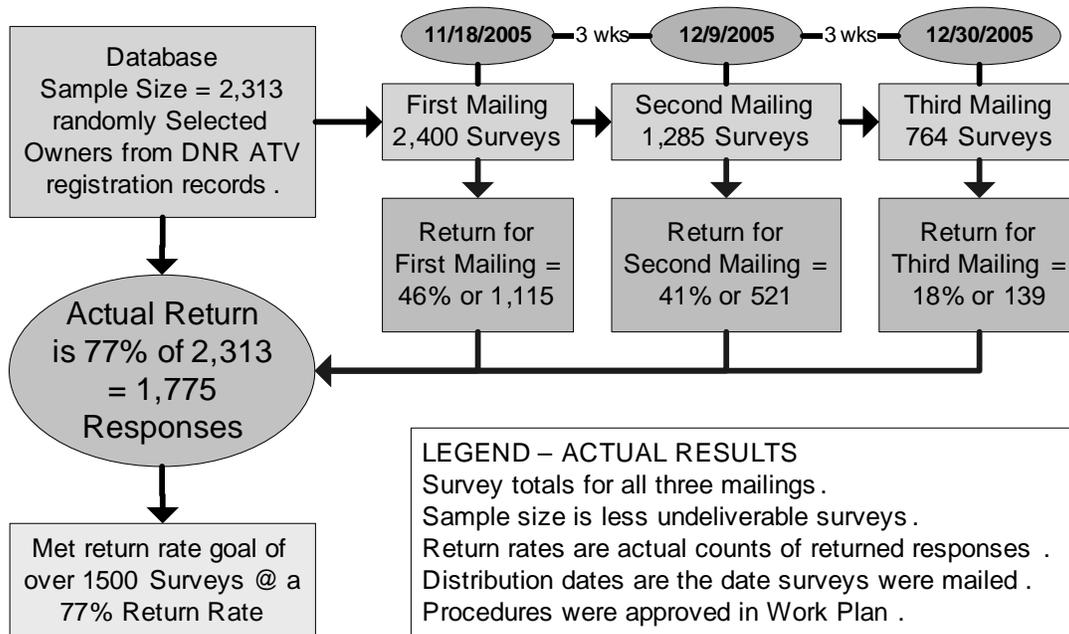
**A. General.** The goals of the project were (1) to estimate annual recreational gas consumption by all-terrain vehicles (ATVs), and (2) to provide information to allocate gas-consumption among different ATV-facility types, including public land, trails, and forest roads; public roads right of way; and private land, trails, and roads.

**B. Approach.** These recreational gas consumption estimates (the study results) were derived from ATV-owner surveys. A single mail-out survey to meet the requirements of both goals was administered as part of the study methodology. One survey was used because the requirements of the first goal are a subset of the second goal, except for the use inside and outside of Minnesota. In preparing the survey instrument, two focus groups were conducted. One focus group was devoted to each of the two goals. The purpose of each focus group was to validate the survey questions with an actual group of ATV owners.

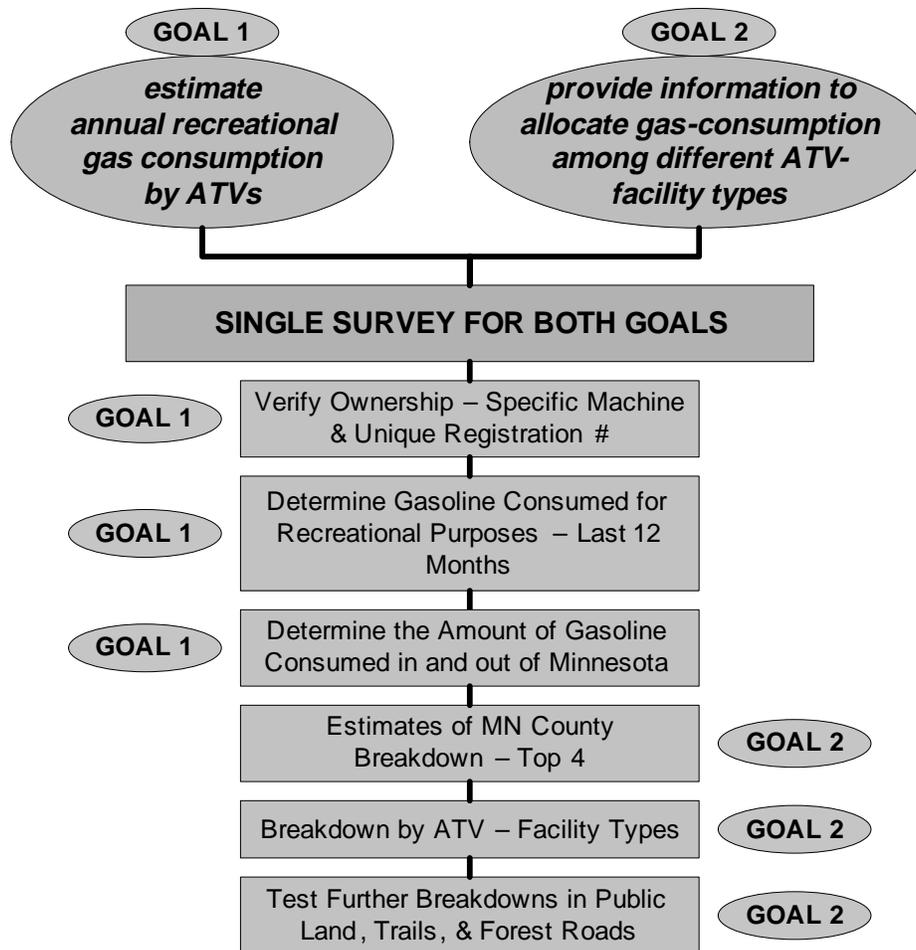
**C. Goals 1 & 2.** For the two goals, the expectation was a minimum of 1500 completed surveys with a minimum return rate of 65 percent. A mail-survey technique with three mailings was administered (see Figure 1 for predicted results and Figure 2 for actual results of the three mailings). The names and addresses of ATV owners contained in the ATV-registration file maintained by the DNR formed the candidate pool. Telephone numbers were not available from this registration file. The population of ATVs for the survey was restricted to ATVs registered for recreational purposes. Figure 3 provides a diagram of the project goals.



**Figure 1: Predicted Results for Three Mailings**



**Figure 2: Actual Results for the Three Mailings**



**Figure 2: Project Goal Diagram**

**D. Goal 1.** At a minimum, to meet the needs of the first goal, the study provided the following information from ATV owners:

1. Verification that the ATV selected for the study is still owned. The ATV selected for the study is a specific machine, with a unique registration number. The owner was asked to reference only this vehicle when responding to the survey questions. A description of the vehicle was included in the survey instrument via an informational sticker. The informational sticker was designed with agency staff assistance and approved in the work plan.
2. Gasoline consumed by the selected ATV for “recreational purposes” over the last 12 months. Recreational purposes are defined as:
  - a). ATV riding for non-business activities.
  - b). ATV riding by itself for fun and enjoyment.
  - c). ATV riding as part of another recreational activity, such as deer hunting.

The recreational gasoline consumption was broken down into the portion consumed in Minnesota and the portion consumed outside of Minnesota. The latter amount (“portion consumed outside of Minnesota”) provides the estimate for the amount of gasoline consumed in Minnesota by nonresident ATVs. It is assumed here that Minnesota is neither a net importer nor net exporter of ATV recreational use and associated gas consumption. There is no existing information on, nor practical way to measure directly, the gasoline consumed in Minnesota by nonresident ATVs. In lieu of existing information or a practical way to measure nonresident ATV use in MN, the assumption is made that MN is neither a net importer nor net exporter, and thus the amount of recreational gasoline from MN-registered ATVs that is consumed outside MN (which can be measured) is equal to the amount consumed in Minnesota by nonresident ATVs. Overall, 91 percent of all ATV gasoline consumed in MN is estimated to come from MN-registered ATVs, with the remaining 9 percent from nonresident ATVs.

The survey questions for this goal were validated to ensure that respondents could accurately answer the questions. The validation of the survey questions was very important to this project. Experience in previous recreational vehicle gasoline consumption studies indicated that the framing of the question is crucial to the ATV owner’s understanding of the study and getting an accurate response.

Validation of the survey questions was accomplished by conducting a focus group. In the focus group, ATV owners were offered alternative survey-question formats to achieve the information needs of the goal, and they contributed to the decision on the most effective format. The alternative formats were designed with agency staff assistance. Agency staff representatives attended the focus groups as observers.

The most effective way to ask ATV owners about gasoline use was discussed in both focus groups. After the second focus group, the decision was made to ask the gasoline question directly, and not impose a uniform method of calculation on survey respondents. This decision recognizes the fact that different ATV owners have different preferred means of arriving at annual gasoline usage. The direct means of asking the question is as follows (this question format was one of the original options):

- For the last 12 months, how many **total gallons of fuel** did you or others purchase for this ATV for recreational use . . . (*answer both ‘a’ and ‘b’*)
- (a) . . . **within MN?**                    \_\_\_\_\_ gallons for last 12 months (*enter “0” if none*)
  - (b) . . . **outside of MN?**                \_\_\_\_\_ gallons for last 12 months (*enter “0” if none*)

The survey was targeted for fielding near the end of November 2005, when the Minnesota firearms deer hunting season was ending and ATV use is still fresh in the respondent’s memory. ATVs are commonly used in big-game hunting.

**E. Goal 2.** At a minimum, to meet the needs of the second goal, the study provided the following information from ATV owners:

1. Estimates of the Minnesota county breakdown of ATV recreational gasoline consumption, or surrogate for gasoline consumption, such as ATV use-days. From past experience, having recreation participants specify their top four counties of use is usually sufficient to capture virtually all their use in Minnesota. The survey instrument asked the respondents for their top four counties of use. A Minnesota county map, with locational landmarks, roads, and cities was included with the survey instrument. The survey instrument was designed to gather this information.

In the second focus group, ATV owners indicated that they could reliably breakdown their ATV usage by county.

2. Breakdown of county estimates in goal#1 by ATV-facility types. The minimum listing of facility types is:

(1) public land, trails and forest roads—this included facilities provided by federal, state and local governments in the form of open land, trails, and forest roads; this excluded riding adjacent to public road rights of way (e.g., in ditches along public roads);

(2) public roads right of way—this included riding along public roads, for example, in ditches along the road; and

(3) private—this included all use on private lands, trails and roads. The survey instrument was designed to gather this information.

In the second focus group, ATV owners indicated that they could reliably breakdown their ATV usage by these three facility types.

As an additional part of survey-question verification in the second focus group, testing further breakdowns in “public land, trails and forest roads” was explored. The intent was to see if ATV owners can accurately differentiate a trail from a forest road or a federal facility from a state facility from a county facility.

The conclusion from efforts to breakdown the public lands/trails category further was that ATV owners could not reliably do so. As a result, the format of survey question asks owners to breakdown use by county and the preceding three facility types.

### III. PROJECT TASKS

**A. Tasks.** The following tasks (Table 1) were accomplished for successful completion of the project:

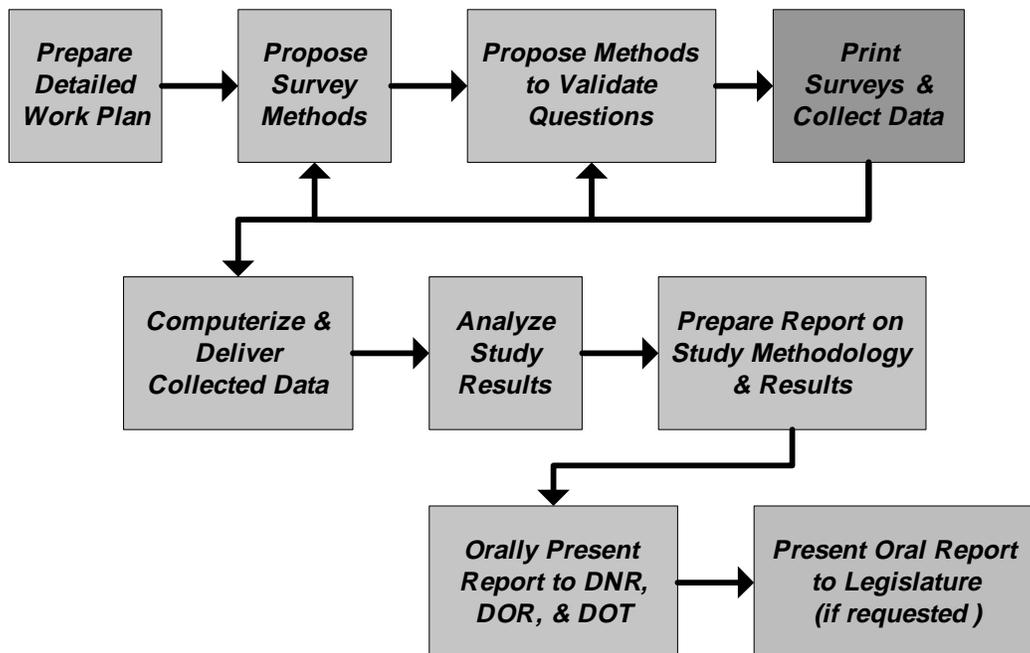
Task	Action
1. Prepare a final, detailed work plan and submit for review, discussion and revision.	A comprehensive work plan was prepared that included all tasks, methods, and descriptions of the project from start to finish.

Task	Action
2. Determine methods to select the sample of ATV owners for the survey.	The DNR ATV registration file was used to randomly select a sample of ATV owners. The ATVs in the sample were restricted to those registered for recreational purposes. To ensure a geographically representative sample, and minimize the odds of selecting the same owner more than once, the file was sorted on zip code and owner's last name before every Nth record is selected for the mailing. See Procedures section below for how the sample file was determined.
3. Determine survey methods (e.g., mail, telephone) that minimize potential bias in estimates, and that deal effectively with potential outliers ('outliers' are responses that are far different than the norm and can skew the overall results).	ATV owners were mailed surveys based on the addresses in the DNR database. Both goals (1 & 2) were accomplished with the same survey. Three mailings were conducted in order to achieve the minimum of 65% returns. The mailing consisted of a personalized cover letter, coded survey, and self-addressed stamped return envelope mailed to the appropriate address. The best way to minimize the effect of outliers is to have a large enough sample that the outliers do not have an effect. Because the response rate was 77% the need for outlier factorization was minimized. The outlier procedures in place are described in a later section.
4. Determine methods to validate the questions asked of ATV owners, given the proposed survey methods.	Two focus groups were conducted. Candidates were selected from ATV owners in the DNR ATV registration file. The focus groups were attended by registered ATV owners invited to participate. The goal was to get two groups of 10-15 members each. ATV owners that attended were paid \$50 cash for attending. The project team presented to the focus group members survey questions prepared in at least three different ways. A detailed examination and comparison was conducted in order to get the format for the desired question that elicits a response that is understandable, specific, and meets the projects needs. ATV owners for the focus groups were selected based on their proximity to the meeting place on the north side of the metro area (no more than a thirty minute drive).
5. Computerize collected data and deliver automated data files to the DNR, Mn/DOT and DOR in a format they require.	All data was collected and delivered in an automated file of all returned surveys. In addition the project team will provide survey #s (with a link to the specific machine and owner), date of mailing, and any respondent information general in nature.

<b>Task</b>	<b>Action</b>
6. Analyze study results.	The responses were analyzed of the returned surveys. This included the ownership verification, calculation of the recreational gas consumption, county breakdowns, and the necessary facility & land use breakdowns. An analysis description is provided in the next section of this document.
7. Prepare a report on study methodology and study results. Deliver a digital copy of the report to each state agency, along with 10 printed copies of the report.	A comprehensive report was prepared (this document) on the study methodology and study results. There are 10 printed copies and an electronic copy. The report contains all documentation from the study, explains methodology, survey questions, return rates, and examples.
8. Orally present the report to the DNR, Mn/DOT and DOR.	An MS PowerPoint presentation of the final report to the DNR, Mn/DOT, and DOR has been prepared.
9. If requested, orally present the report (or selected information) to the MN Legislature at a hearing.	The project team is available as needed to support the state agencies regarding Minnesota Legislature commitments.

*Table 1: Task & Action List*

**B. Project Task Flow.** The task flow for the tasks described in Table 1 above is provided in Figure 4 below.



*Figure 4: Task Flow*

## IV. PROCEDURE

**A. Sampling Methods.** The method for selecting the sample of ATV owners for this study is listed below.

1. Downloaded all ATVs registered for recreational use on 10/10/2005 from DNR's registration file (these had an expiration date greater than or equal to 12/31/2004). Downloaded file contained 246,335 ATVs.
2. Removed the 1167 ATVs registered for nonprofit use leaving 245,168 ATVs.
3. Sorted the file on zipcode, last name, and customer id.
4. Using a random start at record 81 selected every 102<sup>nd</sup> ATV producing a sample of 2403 ATVs.
5. Dropped every 800<sup>th</sup> record from the sample to produce the final sample of 2400 ATVs

**B. Focus Groups.** The purpose of good survey instrument design is to maximize high response and minimize non response bias and non sampling errors. To achieve this result, focus groups were used to fine tune questions and consider responses from actual ATV owners. The project team decided to conduct two focus groups, one for each of the project goals. The questionnaire was designed based on the evaluation of the focus group results. See Attachment 1 for the focus group documentation that includes sample questions and results.

Candidates were selected from the registered ATV owners file at the DNR and limited to those candidates within a 15 mile radius of the Mn/DOT training facility in Arden Hills. This would allow the candidates to attend the focus group easily. From this sample set, 120 names were selected at random and invited to attend the focus group. They were asked to telephone for confirmation and directions.

Focus Group #1 (10/18/2006) was conducted at 7pm at the Mn/DOT training facility in Arden Hills. Participants were asked to sign in, received a name tag, and took a seat at the round table. The candidates were provided with a description of the study and the reasons for inviting them to participate. The discussions were spirited and elicited thoughts from all attendees. The candidates who agreed to attend were called to confirm their attendance 1-2 days before the focus group date. As the focus group attendees arrived, refreshments were served, and the facilitator led a group discussion on the questions for the survey instrument.

Focus Group #2 (10/20/2006) was also conducted at 7pm at the training facility. The group was conducted in the same manner as the first one.

**C. Survey.** The survey was prepared from the focus group results. See Attachment 2 for the survey documentation. Attachment 2 includes the survey instrument, cover letters, and survey results. The survey was four pages printed on 11"x17" cream colored bond paper using one fold. Pages 1 and 2 consisted of questions designed to gather the information to meet goals 1 and 2. Page 3 consisted of a Minnesota state map with counties, cities, and roads identified to assist the respondent. Page 4 consisted of general questions regarding the respondents general use and knowledge of ATVs.

**D. Outliers.** The response rate for this survey was sufficiently high (77%) for the study not to use the outlier method proposed in the original work plan.

In place of the outlier method, the study team decided to verify answers from owners who reported relatively high and relatively low gas amounts (see next section).

**E. Verification of Responses.** During the analysis phase of the study, it was evident that several values reported by the respondent needed to be verified. The project team met to discuss this situation and it was determined that the best thing to do was contact the respondents by telephone and verify their survey response. To do this, the team concluded that those respondents that indicated that they had consumed 200 gallons or more of fuel for recreational purposes during the last 12 months needed to be verified. Also, those respondents that had marked zero gallons but indicated several days of usage were included. The telephone script and results of the verification are provided in Attachment 3. There were sixteen responses that were candidates for verification.

The results of the verification are as follows:

For the fifteen surveys with reported gas amounts at 200 gallons or more, three could not be reached because a phone number could not be found, two could not be reached after repeated calls, nine verified their original answers, and one cut the gallons in half (the lower gallon figure is used in the computations).

For the one survey with a reported gas amount of zero and more than twenty days of use, the respondent could not be reached because a phone number could not be found.

Overall, of the 16 candidates for verification, only one gas amount number was changed.

## **F. Analysis.**

The analysis and computations for the study are provided in Tables 2 and 3. Table 2 illustrates the response rate computation and Table 3 computes the gasoline purchases in the last 12 months for recreational use. Table 4 provides the disposition of the surveys for recreational gasoline purchase calculations.

<u>Line</u>	<u>Number of surveys</u>	<u>Description</u>
1	2400	Initial sample size
2	87	Undeliverable, including deceased respondent
3	2313	Deliverable (line 1 - line 2)
4	1775	Returned
<i>Response rate =</i>		<i>76.7% = Returned / Deliverable (line 4 divided by line 3)</i>

*Table 2: Response Rate Computation*

<u>Line</u>	<u>Quantity</u>	<u>Description</u>
1	236,683	Number of recreational-registered ATVs in MN
2	1534	Number of <i>sample</i> ATVs with survey data for gas computations
3	45,728.6	Gallons purchased in last 12 months by <i>sample</i> ATVs for recreation use
4	7,055,529	Gallons purchased in last 12 months by all 236,683 ATVs for recreation use (=line 1 * line 3 / line 2)
5	2,633,361,337	Taxable highway gallons in Minnesota, 2005
6	0.27%	Percentage of taxable highway gallons purchased for ATV recreation use (=line 4 * 100 / line 5)

*Table 3: ATV Gasoline Purchases in Last 12 Months for Recreation Use Computations*

<u>Code</u>	<u>Number of surveys</u>	<u>Description</u>
1	1534	Used in gas calculations
<b><i>Surveys not used in gas calculations</i></b>		
9	87	Undeliverable, including deceased respondent
8	517	Did not respond
7	144	Could not determine full 12 months of ATV use: respondent reported no longer owning ATV, or respondent did not indicate if ATV still owned.
6	73	Could not determine full 12 months of ATV use: respondent reported purchasing ATV "used" in last 12 months, or respondent indicated purchase in last 12 months and did not specify if the purchase was a "new" or "used" machine.
5	29	Missing gas amount data: No response to either gas amount question (either within or outside of MN).
4	16	Missing gas amount data: No response to within MN gas amount question, and outside MN gas amount specified as zero.
Total	2400	

*Table 4: Disposition of Surveys for Recreational Gas Purchase Computations*

## V. CONCLUSION

In 2005, the Minnesota Legislature requested (Laws of Minnesota, 2005, 1st Special Session, Chapter 1, Article 2, Section 3, Subd. 6) that the Departments of Natural Resources, Revenue, and Transportation determine the percentage of highway taxable gasoline used by all-terrain vehicles (ATVs) for recreation (i.e., for non-business purposes). At the time of the legislative request, Minnesota Statutes 296A.18, Subd. 4 specified this percentage as 0.15%, a figure based on a 1984 study.

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Minnesota had 236,683 ATVs with recreational registrations in 2005. Based on the study results, the average ATV used about 30 gallons of gasoline annually for recreation purposes.

# Attachment 1

## FOCUS GROUP DOCUMENTATION

LETTER OF INVITATION FOR THE FOCUS GROUPS



3830 Rustic Place  
St. Paul, MN 55126  
651.482.9680  
www.thomtechdesign.com

October 10, 2005

**Name**  
**Address**  
**City, State Zip**

Dear **Year, Make, Model** owner,

The Minnesota Departments of Natural Resources, Transportation, and Revenue would like to invite you to **participate in a focus group** on Tuesday, **October 18, 2005 (or Thursday, October 20, 2005) at 7:00 pm**. Participation in the focus group pays \$50 and light refreshments will be served. The focus group will meet in room 2 at the MN/DOT Training and Conference Center.

The address is:  
MN/DOT Training and Conference Center  
1900 West County Road I  
Shoreview, MN 55126

The state of Minnesota has hired our company to conduct a study on gasoline consumption of **All Terrain Vehicles (ATV)** within the state of Minnesota. The focus group will discuss methods of collecting data from registered ATV owners about the amount of fuel used to operate and transport ATVs for use in Minnesota. We are anticipating about 10-15 ATV owners to review sample questions and discuss the more accurate and easiest way to collect this information.

Please contact us if you are interested in attending, **(651) 208-2948** or email **[mnatv2005@hotmail.com](mailto:mnatv2005@hotmail.com)**. We will be telephoning you to confirm your participation the day before the meeting.

If you have questions or comments, please contact me. Thank you.

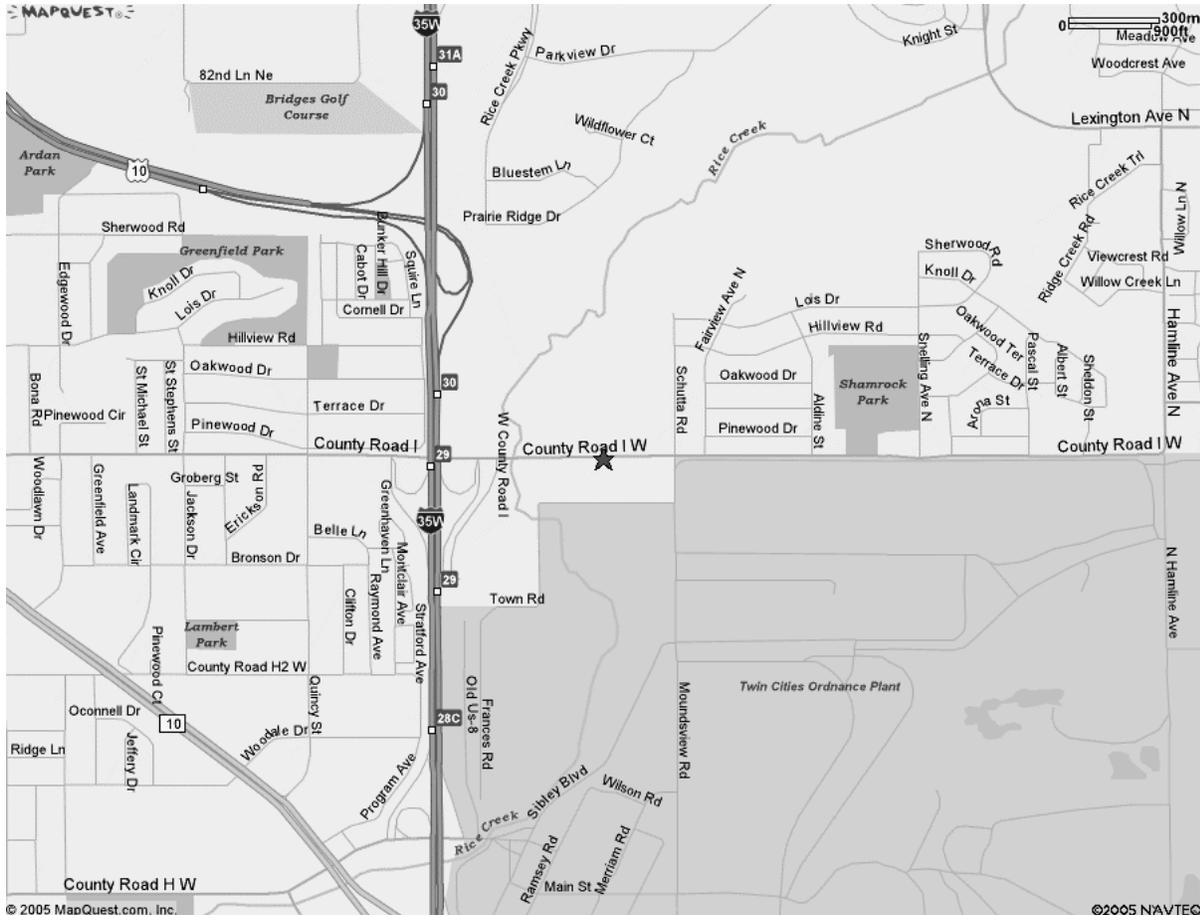
Sincerely,

Project Administrator

# MAP FOR ATV FOCUS GROUP

Mn/DOT Training & Conference Center  
1900 West County Road I  
Shoreview, MN 55126

18/20 October 2005; 7:00 PM



## MAP FOR MN/DOT TRAINING & CONFERENCE CENTER

TELEPHONE: 651 208-2948

October 18, 2005

## Goal 1 Focus Group Sample Questions

**The goal of the survey is to arrive at two numbers:**

1. Annual gasoline consumption for recreation use, in gallons, by this ATV in MN
2. Annual gasoline consumption for recreation use, in gallons, by this ATV outside of MN

Note: "Recreation use" is defined as ATV riding for non-business purposes. It includes ATV riding by itself for fun and enjoyment, and ATV riding as part of another recreational activity, such as deer hunting.

Note: these questions will be asked of the ATV owner for a particular ATV that is identified by registration number and model.

**The questionnaire will consist of two parts:**

- I. Sample questions
- II. One of the options (A,B, or C) for computing the gallons used by the ATV in MN and outside MN

**I. SAMPLE QUESTIONS** – Sample questions for all options: Please ask yourself, is the question clear & understandable?

1. Did you purchase this ATV within the last 12 months?  Yes  No  
If YES, did you purchase the ATV new or used?  New  Used

**II. OPTIONS A, B, C** – Ask yourself, which of these methods is the easiest to get an accurate figure for gasoline consumed by this ATV in the last 12 months for recreation use in MN and outside of MN.

### **Option A**

In the last 12 months, how many total days was this ATV used for recreation purposes by you or anyone else in MN?  days in last 12 months

In the last 12 months, how many total days was this ATV used for recreation purposes by you or anyone else outside of MN?  days in last 12 months

On a typical recreation-use day, how many gallons of fuel does this ATV burn? \_\_\_\_ gallons per day

**Option B**

In the last 12 months, how many total gallons of fuel did you or others purchase for this ATV for recreation use within MN? \_\_\_\_ gallons for last 12 months

In the last 12 months, how many total gallons of fuel did you or others purchase for this ATV for recreation use outside of MN? \_\_\_\_ gallons for last 12 months

**Option C**

In the last 12 months, how many times did you or others refill the fuel container or tank for this ATV for recreation use within MN? \_\_\_\_ # of times refilled in last 12 months

In the last 12 months, how many times did you or others refill the fuel container or tank for this ATV for recreation use outside of MN? \_\_\_\_ # of times refilled in last 12 months

Typically, when you or others refills the fuel container or tank for recreation use, how many gallons of fuel is put into the container or tank? \_\_\_\_ gallons per refill

October 20, 2005

## Goal 2 Focus Group Sample Questions

The goal of the questions is to arrive at estimates of ATV recreation use by facility type and county in MN. The ultimate goal of these questions is develop a rational way to allocate ATV gas-tax dollars to forest roads.

Note: "Recreation use" is defined as ATV riding for non-business purposes. It includes ATV riding by itself for fun and enjoyment, and ATV riding as part of another recreational activity, such as deer hunting.

Note: these questions will be asked of the ATV owner for a particular ATV that is identified by registration number and model.

### Part 1: ATV facility types

1. There are several ways to distinguish public land, ask yourself if you can provide your best estimates to the following questions:

A. During the last 12 months, how many days was the ATV used for recreation by you or others predominately on **PRIVATE LANDS AND PRIVATE TRAILS**? \_\_\_ days

B. During the last 12 months, how many days was the ATV used for recreation by you or others predominately on **PUBLIC ROAD RIGHTS-OF-WAY**, including roadside ditches (this excludes private lands/trails)? \_\_\_ days

C. During the last 12 months, how many days was the ATV used for recreation by you or others predominately on **PUBLIC LANDS AND PUBLIC TRAILS** (this excludes public road rights-of-way). \_\_\_ days

2. Now, ask yourself if you can breakdown the last category (public lands & public trails) and provide your best estimate to the following questions:

A. During the last 12 months was the ATV used for recreation by you or others predominately on a forest road? Yes\_\_\_ No\_\_\_

If Yes, How many days did you ride predominately on a forest road? \_\_\_Days

If Yes, How did you know that you were on a forest road?

\_\_\_\_\_

B. During the last 12 months was the ATV used for recreation by you or others predominately on public lands or trails? Yes\_\_\_ No\_\_\_

If Yes, How many days was the ATV used for recreation by you or others for riding on a **FEDERAL** trail or state land? \_\_\_Days

If Yes, How many days was the ATV used for recreation by you or others for riding on a **STATE** trail or state land? \_\_\_Days

If Yes, How many days was the ATV used for recreation by you or others for riding on a **COUNTY** trail or state land? \_\_\_Days

If Yes, How did you know you were riding on a federal, state, or county trail or land?

\_\_\_\_\_

3. During the last 12 months was the ATV used for recreation by you or others predominately on designated trails? Yes\_\_\_ No\_\_\_

If Yes, How did you know or not know whether you were on a designated trail?

\_\_\_\_\_

## Part 2: ATV facility types by MN county

Ask yourself if you can provide your best estimates to the following questions:

Look at the MN county map, and tell us the counties where the machine is most used by you and other people for recreation in the last 12 months. You can list up to five counties. If there are fewer than five counties of use, just list them. If you are unsure of the counties, identify the nearest town.

Note: "Recreation use" is defined as ATV riding for non-business purposes. It includes ATV riding by itself for fun and enjoyment, and ATV riding as part of another recreational activity, such as deer hunting.

1. In what county was the ATV used **the most** by you or others for recreation in the last 12 months?

County name \_\_\_\_\_ or Nearest

Town \_\_\_\_\_

Total days ATV used for recreation in county in last 12 months? \_\_\_ days

Of these total days, how many days was the ATV used in this county predominately on . . .  
... private lands and private trails? \_\_\_ days  
... public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_ days  
... public lands and public trails (this excludes public road rights-of-way). \_\_\_ days

2. In what county was the ATV used **the second most** by you or others for recreation in the last 12 months?

County name \_\_\_\_\_ or Nearest

Town \_\_\_\_\_

Total days ATV used for recreation in county in last 12 months? \_\_\_\_ days

Of these total days, how many days was the ATV used in this county predominately on . . .  
... private lands and private trails? \_\_\_ days  
... public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_ days  
... public lands and public trails (this excludes public road rights-of-way). \_\_\_ days

3. In what county was the ATV used **the third most** by you or others for recreation in the last 12 months?

County name \_\_\_\_\_ or Nearest

Town \_\_\_\_\_

Total days ATV used for recreation in county in last 12 months? \_\_\_\_ days

Of these total days, how many days was the ATV used in this county predominately on . . .  
... private lands and private trails? \_\_\_ days  
... public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_ days  
... public lands and public trails (this excludes public road rights-of-way). \_\_\_ days

4. In what county was the ATV used **the fourth most** by you or others for recreation in the last 12 months?

County name \_\_\_\_\_ or Nearest

Town \_\_\_\_\_

Total days ATV used for recreation in county in last 12 months? \_\_\_\_ days

Of these total days, how many days was the ATV used in this county predominately on . . .  
... private lands and private trails? \_\_\_ days

- . . . public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_ days
- . . . public lands and public trails (this excludes public road rights-of-way). \_\_\_ days

5. In what county was the ATV used **the fifth most** by you or others for recreation in the last 12 months?

County name \_\_\_\_\_ or Nearest

Town \_\_\_\_\_

Total days ATV used for recreation in county in last 12 months? \_\_\_\_ days

Of these total days, how many days was the ATV used in this county predominately on . .

- . . . private lands and private trails? \_\_\_ days
- . . . public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_ days
- . . . public lands and public trails (this excludes public road rights-of-way). \_\_\_ days

**Part 3: Additional Questions**

1. Are you or a member of your household a member of an ATV Club? Yes\_\_\_ No\_\_\_
2. Has you or anyone in your household attended ATV Safety Training? Yes\_\_\_ No\_\_\_
3. Do you wear a helmet when riding this ATV? Yes\_\_\_ No\_\_\_
4. Do you use the Minnesota Department of Natural Resources Web Site for information? Yes\_\_\_ No\_\_\_
5. What best describes how this ATV is used?
  - \_\_\_Enjoyment
  - \_\_\_Hunting
  - \_\_\_Fishing
  - \_\_\_Household Chores
6. How many ATVs are in your household? \_\_\_\_#ATVs

## **FOCUS GROUP SUMMARY**

**A. Introduction.** The focus groups were scheduled on October 18 and 20, 2006 at 7pm at the Mn/DOT Training and Conference Center. Arrangements for the conference room were handled by the Minnesota Department of Transportation. The candidate names for the focus group were provided by the MN Dept of Natural Resources. Each of the departments received a copy of sample questions at a meeting.

Names were provided as a random sample of ATV owners that lived close to the focus group location. The candidates were sent an invitation letter explaining the purpose of the project and soliciting their participation.

25 (12 in Group 1, 13 in Group 2) people agreed to attend. Each candidate was offered \$50 and light refreshments for approximately 1 hour of their time.

**B. Focus Group 1.** The first focus group began at 7pm on Tuesday, October 18, 2005.

### **ATV Gas Consumption Meeting Minutes for Goal 1**

**Place:** MN/DOT Training and Conference Center, 1900 West County Road I,  
Shoreview, MN 55126

**Date:** October 18, 2005

**Time:** 7:00 pm

**Facilitators:** Gregory Thompson, Alexis Thompson

**Attendees:** 12

**DNR Rep:** Ron Sushak

**DOT Reps:** Terry Lemke, Charlie Kettering

#### **Agenda:**

Overview

Introduction

Purpose

Goal

Discussion

Handout

Conclusion

#### **Meeting Minutes:**

Greg welcomed everyone to the meeting and indicated where refreshments, facilities, and recycling areas were located.

Greg provided an overview of the project and described the random process which resulted in each attendee being invited to participate in the focus group.

Each attendee was solicited to introduce themselves, indicating where they are from, how many ATVs they own, and some of the activities they use their ATV for during the last 12 months.

Of the 12 attendees, one attendee owned one ATV, the others attending owned between 2 and 5 ATVs.

Each of the attendees was invited to the focus group because they were registered owners of a particular ATV. Of the 12 attendees, one of the registered ATVs had not been used in the last 12 months. All others had various frequencies of use.

Examples of ATV use provided by the attendees were: fishing, hunting, pulling deer, plowing snow, ice fishing, household chores, riding trails, kids driving around, and training.

During the discussion phase, attendees were encouraged to examine methods of accurately recording the number of gallons of gas consumed during the last 12 months by this particular ATV.

The group identified the following ways to estimate the gas consumed: days of use, times gas was replenished, direct question of how much gas was consumed.

There was also a discussion of the definition of recreational use for ATVs. One question raised was whether volunteer training was business or recreational use and that it could be either. The DNR representative stated that the ATVs used for farm use had already been eliminated from the sample.

Also discussed was the importance of emphasizing on the survey that the responder only answer questions pertaining to the ATV listed on the sticker and not the other vehicles (if any) owned, nor should they be responding for their favorite ATV or the one used most often.

Then the handout was distributed to each attendee. They discussed it briefly then proceeded to complete the questionnaire. Each person was asked to compare the options A-C and offer an option D if needed. Emphasis was placed on an accurate estimate of the gallons of gas consumed.

Additional discussion followed, each attendee was asked to read their answers, discuss their thought process at arriving at their answers. Each attendee was asked to select the option that they thought provided the most accurate way to obtain the amount of gasoline consumed during the last 12 months. Results are attached in the table below.

### **Important outcomes:**

Clearly indicate on the survey that the responder is to focus only on the ATV identified on the sticker.

There did not seem to be a problem with the ATV owners identifying recreational use versus business use.

Option A was the most prevalent method voted on by the attendees, with option B being second. Attendees thought that the questions should be asked in at least two ways to provide some additional verification of the accuracy.

### **C. Focus Group 2.**

## **ATV Gas Consumption Meeting Minutes for Goal 2**

**Place:** MN/DOT Training and Conference Center, 1900 West County Road I, Shoreview, MN 55126

**Date:** October 20, 2005

**Time:** 7:00 pm

**Facilitators:** Gregory Thompson, Alexis Thompson

**Attendees:** 13

**DNR Rep:** Tim Kelly

**DOT Reps:** Terry Lemke, Charlie Kettering

### **Agenda:**

Overview

Introduction

Purpose

Goal

Discussion

Handout

Conclusion

### **Meeting Minutes:**

Greg welcomed everyone to the meeting and indicated where refreshments, facilities, and recycling areas were located.

Greg provided an overview of the project and described the random process which resulted in each attendee being invited to participate in the focus group.

Each attendee was solicited to introduce themselves, indicating where they are from, how many ATVs they own, and some of the activities they use their ATV for during the last 12 months.

Of the thirteen attendees, 5 owned one ATV, the others attending owned between 2 and 5 ATVs.

Each of the attendees was invited to the focus group because they were registered owners of a particular ATV. Of the thirteen attendees, one of the registered ATVs had not been used in the last 12 months. All others had various frequencies of use.

Examples of ATV use provided by the attendees were: fishing, hunting, pulling deer, plowing snow, ice fishing, household chores, riding trails, and kids driving around.

During the discussion phase, attendees were encouraged to examine methods of accurately recording the number of gallons of gas consumed during the last 12 months by this particular ATV.

The group identified the following ways to estimate the gas consumed: days of use, times gas was replenished, direct question of how much gas was consumed.

Then the handout was distributed to each attendee. They discussed it briefly then proceeded to complete the questionnaire question by question.

Additional discussion followed, each attendee was asked to read their answers, discuss their thought process at arriving at their answers. Results are attached in the table below.

**Important outcomes:**

The best way to ask the number of gallons consumed by someone is directly. The way in which they come up with the answer is up to them.

Participants were able to determine if they were riding on private lands/trails, public road right-of-way, or public lands/trails. They were not about to breakdown public land/trails further.

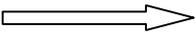
Attachment 2

**SURVEY DOCUMENTATION**

# RECREATIONAL USE SURVEY OF ATV OWNERS

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**Please note:** “Recreational Use” is defined as ATV riding for non-business purposes. It includes ATV riding by itself for fun and enjoyment, and ATV riding as part of another recreational activity, such as deer hunting.

These survey questions pertain **only** to the use of the ATV identified by the label shown to the right.  **DO NOT** give answers for any other ATV.

---

## **PART 1: General questions for ATV identified on sticker above**

1. Do you still own this ATV? *(check one)*  
 yes       no (If NO, then do not complete the rest of the survey. Place it in the postage paid envelope and return it today. Thank you.)
  
2. For the last 12 months, how many **total gallons of fuel** did you or others purchase for this ATV for recreational use . . . *(answer both ‘a’ and ‘b’)*
  - (a) . . . **within MN?**       gallons for last 12 months *(enter “0” if none)*
  - (b) . . . **outside of MN?**       gallons for last 12 months *(enter “0” if none)*
  
3. Did you purchase this ATV within the last 12 months? *(check one)*  
 yes       no  
  
3a. If YES, did you purchase this ATV new or used? *(check one)*  
 new       used

## **PART 2: Questions on recreational use for ATV identified on sticker above**

4. For the last 12 months, how many **total days** did you or others use this ATV for recreational use . . . *(answer both ‘a’ and ‘b’)*
  - (a) . . . **within MN?**       days for last 12 months *(enter “0” if none)*
  - (b) . . . **outside of MN?**       days for last 12 months *(enter “0” if none)*

Look at the Minnesota county map on page 3, and tell us the counties where this ATV was used by you or others for recreation in the last 12 months. You can list up to four counties. If there are fewer than four counties of use, just list them. If you are unsure of the county, identify the nearest community.

5. In what county was this ATV used **the most** by you or others for recreation in the last 12 months?

County name \_\_\_\_\_ (or Nearest Community \_\_\_\_\_)

Total days ATV used for recreation in this county in last 12 months? \_\_\_\_ **days**

Of these total days, how many days was the ATV used in this county predominately on . .

. . . private lands and private trails? \_\_\_\_ **days**

. . . public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_\_ **days**

. . . public lands and public trails (this excludes public road rights-of-way)? \_\_\_\_ **days**

6. In what county was this ATV used **the second most** by you or others for recreation in the last 12

months? County name \_\_\_\_\_ (or Nearest Community \_\_\_\_\_)

Total days ATV used for recreation in this county in last 12 months? \_\_\_\_ **days**

Of these total days, how many days was the ATV used in this county predominately on . .

. . . private lands and private trails? \_\_\_\_ **days**

. . . public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_\_ **days**

. . . public lands and public trails (this excludes public road rights-of-way)? \_\_\_\_ **days**

7. In what county was this ATV used **the third most** by you or others for recreation in the last 12

months? County name \_\_\_\_\_ (or Nearest Community \_\_\_\_\_)

Total days ATV used for recreation in this county in last 12 months? \_\_\_\_ **days**

Of these total days, how many days was the ATV used in this county predominately on . .

. . . private lands and private trails? \_\_\_\_ **days**

. . . public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_\_ **days**

. . . public lands and public trails (this excludes public road rights-of-way)? \_\_\_\_ **days**

8. In what county was this ATV used **the fourth most** by you or others for recreation in the last 12

months? County name \_\_\_\_\_ (or Nearest Community \_\_\_\_\_)

Total days ATV used for recreation in this county in last 12 months? \_\_\_\_ **days**

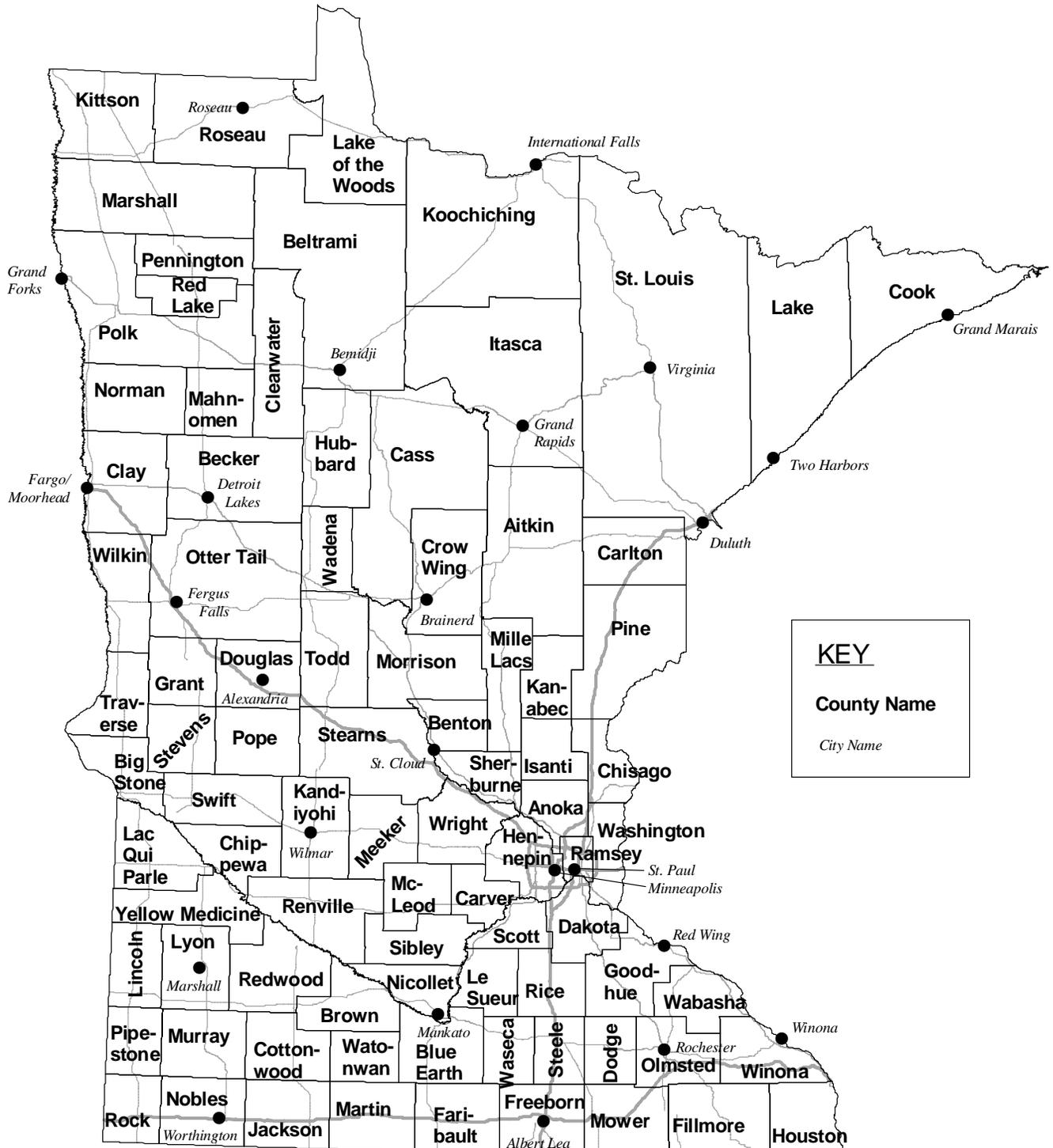
Of these total days, how many days was the ATV used in this county predominately on . .

. . . private lands and private trails? \_\_\_\_ **days**

. . . public road rights-of-way, including roadside ditches (this excludes private lands/trails)? \_\_\_\_ **days**

. . . public lands and public trails (this excludes public road rights-of-way)? \_\_\_\_ **days**

# Minnesota Counties



**PART 3: Questions about you as an ATV rider**

9. How many years have you been riding ATVs for recreation? \_\_\_\_ years
10. Are you a member of an ATV club? (check one) \_\_\_\_ yes \_\_\_\_ no
11. Have you taken an ATV safety training course? (check one) \_\_\_\_ yes \_\_\_\_ no
12. What percent of the time do you wear a helmet when riding an ATV for recreation? (check one)  
\_\_\_\_ 25% or less \_\_\_\_ 26-50% \_\_\_\_ 51-75% \_\_\_\_ more than 75%
13. Do you use the Minnesota Department of Natural Resources website for ATV information ([www.dnr.state.mn.us](http://www.dnr.state.mn.us))? (check one)  
\_\_\_\_ yes \_\_\_\_ no
14. In what ways do you use your household's ATV(s)? (check all that apply)  
\_\_\_\_ used as part of hunting  
\_\_\_\_ used as part of fishing  
\_\_\_\_ used for trail/overland riding by itself for fun and enjoyment  
\_\_\_\_ used for household chores  
\_\_\_\_ other (please describe) \_\_\_\_\_
15. How many ATVs are owned by your household? \_\_\_\_ number of ATVs

**THAT'S THE END OF THE QUESTIONS. PLEASE INSERT THE COMPLETED SURVEY INTO THE POSTAGE-PAID ENVELOPE AND DROP IT IN THE MAIL.**

**THANK YOU VERY MUCH.**

---

Survey# \_\_\_\_\_ (This survey number is only used to keep track of who has completed the survey and who has not. We will send replacement surveys to those who do not respond in three weeks. Your answers are strictly confidential and will never be associated with your name.)

**First mailing cover letter**  
(printed on DNR letterhead stationery)

Dear «fname\_proper» «lname\_proper»,

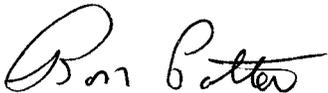
We—the Minnesota Department of Natural Resources—would like to hear from you about your ATV riding in Minnesota. We are very interested in the amount of your ATV use, how much gas your ATV consumes, where you ride in the state, and what types of facilities you use. We make many decisions that affect ATV riding in Minnesota. When making these decisions, we want to be sure we understand your use patterns.

**Please take 15 minutes to fill out the enclosed survey and return it to us.** You are one of only a small number of ATV owners who is being asked to complete this survey. Your survey answers are strictly confidential and will never be associated with your name.

If you have any questions about this survey, please contact Ron Sushak of the DNR at 651-259-5562, or send him an email at [ron.sushak@dnr.state.mn.us](mailto:ron.sushak@dnr.state.mn.us). This survey is being conducted for the DNR by ThomTech Design, Inc.

Thank you for your help.

Sincerely,



Ron Potter

**Off-Highway Vehicle Program Supervisor**

Survey #: «ID»

**Second mailing cover letter**  
(printed on DNR letterhead stationery)

Dear «fname\_proper» «lname\_proper»,

About three weeks ago, we sent you a survey that asked about your ATV riding in Minnesota. We have received many valuable responses to our survey, but we have missed hearing from you.

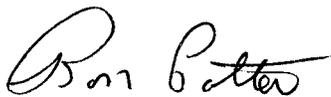
We are very interested in the amount of your ATV use, how much gas your ATV consumes, where you ride in the state, and what types of facilities you use. We make many decisions that affect ATV riding in Minnesota. When making these decisions, we want to be sure we understand your use patterns.

**Please take 15 minutes to fill out the enclosed survey and return it to us.** You are one of only a small number of ATV owners who is being asked to complete this survey. Your survey answers are strictly confidential and will never be associated with your name.

If you have any questions about this survey, please contact Ron Sushak of the DNR at 651-259-5562, or send him an email at [ron.sushak@dnr.state.mn.us](mailto:ron.sushak@dnr.state.mn.us). This survey is being conducted for the DNR by ThomTech Design, Inc.

Thank you for your help.

Sincerely,



Ron Potter

**Off-Highway Vehicle Program Supervisor**

Survey #: «ID»

**Third mailing cover letter**  
(printed on DNR letterhead stationery)

Dear «fname\_proper» «lname\_proper»,

Over the last six weeks, we sent you two surveys that asked about your ATV riding in Minnesota. We have received many valuable responses to our survey, but we have missed hearing from you.

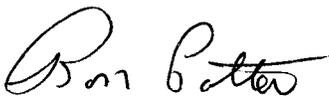
**Even if you participate very little in ATV riding, we want to hear that from you.** We are very interested in the amount of your ATV use, how much gas your ATV consumes, where you ride in the state, and what types of facilities you use. We make many decisions that affect ATV riding in Minnesota. When making these decisions, we want to be sure we understand your use patterns.

**Please take 15 minutes to fill out the enclosed survey and return it to us.** You are one of only a small number of ATV owners who is being asked to complete this survey. Your survey answers are strictly confidential and will never be associated with your name.

If you have any questions about this survey, please contact Ron Sushak of the DNR at 651-259-5562, or send him email at [ron.sushak@dnr.state.mn.us](mailto:ron.sushak@dnr.state.mn.us). This survey is being conducted for the DNR by ThomTech Design, Inc.

Thank you for your help.

Sincerely,



Ron Potter

**Off-Highway Vehicle Program Supervisor**

Survey #: «ID»

## SURVEY RESULTS

Each question from the survey is presented below with the percentage of frequency for each potential answer. These results are based on the 1534 surveys used for gasoline computations.

#	Question	Response	Result
1	Do you still own this ATV? ( <i>check one</i> )	Yes	100%
		No	0%
2a	For the last 12 months, how many <b>total gallons of fuel</b> did you or others purchase for this ATV for recreational use <b>within MN?</b>	0-5 gallons	20.8%
		6-10 gallons	17.3%
		11-15 gallons	9.3%
		16-20 gallons	14.2%
		21-30 gallons	15.1%
		31-60 gallons	15.0%
		Over 60 gallons	8.3%
		average= 27.1 gal	
2b	For the last 12 months, how many <b>total gallons of fuel</b> did you or others purchase for this ATV for recreational use <b>outside of MN?</b>	0-5 gallons	88.9%
		6-10 gallons	4.7%
		11-15 gallons	1.4%
		16-20 gallons	1.5%
		21-30 gallons	1.7%
		31-60 gallons	1.3%
		Over 60 gallons	0.5%
		average= 2.7 gal	
3	Did you purchase this ATV within the last 12 months?	Yes	11.6%
		No	88.4%
3a	If YES, did you purchase this ATV new or used?	New	100.0%
		Used	0.0%
4-8	Questions 4-8 are not applicable for this table and are not displayed.		
9	How many years have you been riding ATVs for recreation?	0-5 years	37.4%
		6-15 years	34.2%
		16-25 years	24.0%
		over 25 years	4.3%
10	Are you a member of an ATV club?	Yes	4.9%
		No	95.1%
11	Have you taken an ATV safety training course?	Yes	23.1%
		No	76.9%

#	Question	Response	Result
12	What percent of the time do you wear a helmet when riding an ATV for recreation?	25% or less	66.8%
		26-50%	7.4%
		51-75%	7.9%
		more than 75%	18.0%
13	Do you use the Minnesota Department of Natural Resources website for ATV information ( <a href="http://www.dnr.state.mn.us">www.dnr.state.mn.us</a> )?	Yes	24.0%
		No	76.0%
14	In what ways do you use your household's ATV(s)?	hunting	60.1%
		fishing	36.9%
		trail riding	69.5%
		Household chores	78.3%
		other	4.1%
15	How many ATVs are owned by your household?	1	54.0%
		2	30.5%
		3	8.6%
		4 to 5	6.0%
		6 or more	0.9%

Attachment 3

**VERIFICATION METHOD**

## Verification Phone Script

### Annual ATV Fuel Consumption Study 2005

- A. Hello, I'm calling on behalf of the MN DNR. May I please speak with \_\_\_\_\_?
- B. (When correct person answers) Hello, my name is \_\_\_\_\_. In the last few months, you answered a MN DNR survey about your ATV use. We appreciate your comments and would like to get TWO more minutes of your time to verify that we have the correct information from you; this information is very important to us. Do you remember this survey? (If this person did not fill out the survey, will try to talk to the person who did.)
- C. The survey asked about recreational use—by you or others—in the last 12 months for this ATV: \_\_\_\_\_ (make/year/[if necessary] registration number).
- D. When asked about the gallons of fuel you or others purchased for this ATV for recreational use over the last 12 months, you wrote \_\_\_\_\_ gallons purchased in MN and \_\_\_\_\_ gallons purchased outside of MN. I just want to verify that these gallon figures were (i) for that ATV, (ii) for recreational use, and (iii) over the last 12 months. Can you verify that for me?
- E. (After the information is verified or corrected) Thank you so much for your time.

#### **If asked:**

- 1. Your survey answers are strictly confidential and will never be associated with your name.
- 2. MN DNR contact is Ron Sushak at 651-259-5562
- 3. "Recreational Use" is defined as ATV riding for non-business purposes. It includes ATV riding by itself for fun and enjoyment, and ATV riding as part of another recreational activity, such as deer hunting.

#### **Phone message**

- A. Hello, I'm calling for \_\_\_\_\_. My name is \_\_\_\_\_ and I'm calling on behalf of the MN DNR. In the last few months, you answered a MN DNR survey about your ATV use. We appreciate your comments and would like to get TWO more minutes of your time to verify that we have the correct information from you; this information is very important to us. The survey asked about recreational use—by you or others—in the last 12 months for this ATV: \_\_\_\_\_ (make/year/registration number). If you could give me a call back at your earliest convenience at 651 208-2948 that would be great. Thank you so much for your time.
- B. **(If a second/third phone message is needed)** Hello, my name is \_\_\_\_\_. In the last few months, you answered a MN DNR survey about your ATV use. We appreciate your comments and would like to get

TWO more minutes of your time to verify that we have the correct information from you; this information is very important to us. When asked about the gallons of fuel you or others purchased for this ATV for recreational use over the last 12 months, you wrote \_\_\_\_\_ gallons purchased in MN and \_\_\_\_\_ gallons purchased outside of MN. I just want to verify that these gallon figures were (i) for that ATV, (ii) for recreational use, and (iii) over the last 12 months. You can verify these answers by calling 651 208-2948 at your earliest convenience. Thank you very much for your time.

#### RESULTS OF TELEPHONE VERIFICATION

#### ATV Gas Consumption Study 2005

#### Verification Phone List:

#	Survey#	DNRID	Reason*	Notes
1	5010	2273	Gallons: 250, 0	Verified
2	4144	2270	Gallons: 200, 0	Unable to reach
3	1781	421	Gallons: 200, 0	Verified
4	4842	1842	Gallons: 200, 0	Verified
5	1919	770	Gallons: 200, 10	Could not find ph#
6	2472	401	Gallons: 575, blank	Verified, trail riding mostly
7	2529	981	Gallons: 250, 0	Verified
8	2585	1007	Gallons: 500, 0	Could not find ph#
9	2602	1884	Gallons: 350, 0	CORRECTED: 350 figure for 2 ATVs; answer: 175 gal
10	2603	1374	Gallons: 200, 0	Verified
11	3971	1888	Gallons: 200, blank	Verified
12	3925	2356	Gallons: 200, 0	Verified
13	3309	1070	Gallons: 250, 0	Verified
14	3356	1550	Gallons: 400, 0	Could not find ph#
15	3542	988	Gallons: 75, 300	Unable to reach
16	3349	535	Gallons: 0, 0, (30 MN days)	Could not find ph#

\* First gallon figure is purchased in MN, second is purchased outside MN

4 could not find phone number  
 1 changed answer  
 2 unable to reach  
 9 verified answer  
 16 total