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November 20, 1997

To: Dick Stehr, Division Engineer, Metro
Don Raisanen, District Engineer, D-3

From: Carol R. Braun 
Safety Rest Area Program Manager

Subject: 1995 Safety Rest Area Usage Survey Summary Report for
Enfield Safety Rest Area, I-94, RP 187
Elm Creek Safety Rest Area, I-94, RP 215.5

Enclosed are copies of the 1995 Rest Area Usage Survey Reports for the Enfield and Elm Creek safety rest areas. This is the first distribution of these reports. Although preparation of the reports was long overdue, the information in these reports will provide timely information for the long range planning and proposed rehabilitation of these sites.

The objective of the motorist survey is to collect user data during an average summer travel weekend to verify design criteria used in the planning, location and design of rest areas. To provide information on motorist use of rest areas in this corridor, both of the above noted rest areas surveys were conducted simultaneously. The five day user surveys were conducted from August 10 through 14, 1995. The methods for conducting the surveys, copies of the survey forms and analysis of the data collected is included in the enclosed reports.

The Design Services Section, Site Development Unit, will continue to conduct user surveys at selected interstate and trunk highway safety rest areas, especially at new facilities and sites marked for rehabilitation, to measure overall user patterns and needs and to verify and update design criteria. If you have any questions or comments concerning the methodology or results of the surveys or would like additional copies of the reports, please contact me.

Attachments

cc: Commissioner J. Denn, MS 100
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G. Rohrbach, MS 675
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(attachment sent to cc list)

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***Minnesota Department
of Transportation***

***Elm Creek Safety Rest Area
1995 User Survey***

***Prepared by the Office of Technical Support
Site Development Unit***



November 1997

**State of Minnesota
Department of Transportation
Office of Technical Support - Site Development Unit
Transportation Building, Mail Stop 686
395 John Ireland Boulevard
St. Paul, Minnesota 55155**

Elm Creek Safety Rest Area - 1995 Usage Survey

The Minnesota Department of Transportation (MN/DOT), Office of Technical Support - Site Development Unit, conducted a Rest Area User Survey at the Elm Creek Safety Rest Area, serving East bound travelers on I-94, located in Maple Grove, Minnesota, from August 10 through 14, 1995.

The objective of Rest Area User Surveys is to collect user data, during an average summer travel weekend, to verify or modify statewide design criteria developed for safety rest area planning, location and design. Pertinent information collected includes percent of vehicles stopping, traffic classification, number of persons per vehicle, and use of facilities.

During the survey period, MN/DOT staff collected information about every vehicle entering the rest area. As each vehicle approached, specific information at the top of each User Survey, (day of week, licensing state, vehicle type and time-in), was recorded. Each vehicle was stopped on the entrance ramp before reaching the parking stalls and building. The driver of each vehicle was handed a paper User Survey form and asked to fill it out during their visit at the rest area facility. (See copy of User Survey, page 4.) The surveys were collected by MN/DOT staff waiting on the exit ramp, who then recorded the time-out.

During the five day survey period, from 8:00 am to 5:00 pm, 3,195 vehicles and 7,412 people used the rest area facilities. Of all the East bound I-94 traffic passing the site, 2.8% stopped and used the rest area. However, 4% of all Semi-tractor trailer vehicles passing the rest area stopped. A higher than average percent of recreational vehicles, motorcycles and pick-ups and vans with trailers passing the site also stopped. The projected design value for percent of traffic stopping for an interstate rest area near an urban area is 9%. It is believed that the commuter traffic and local freeway trips by area residents reduced the percent of traffic stopping at this facility.

The average length of stay for all vehicle types¹ was 14.9 minutes, however the oversized and commercial vehicle stayed an average of 17.4 minutes at the rest area. Motorists in standard size vehicles averaged a shorter distance of 107 miles between stops than the oversized and commercial vehicles. Commercial drivers drove on average 3 hours between stops.

Users of the rest area were made up mostly of people who were either starting (76%) or ending (74%) their current trip in the state of Minnesota. Overall, the Midwest dominated trip starting and trip ending points. Twenty-four percent of all users started their trip in another state, while 31% of all vehicles entering the site were licensed out-of-state. Approximately 48% of all standard and oversized vehicles were traveling for vacation.

Over 75% of all motorists said their main reason for stopping at this facility was to use the restrooms. Motorist safety needs were the second highest reason for stopping (14.4%), which includes; rest/relax 7%, switch drivers 4.4%, check vehicle 2.4% and sleep .6%. The percent of oversized and commercial vehicles stopping at the rest area for safety needs, 22.1% and 20.9% respectively, was substantially higher than for standard sized vehicles. In addition, the second highest single reason for commercial drivers to stop at this rest area was to use the telephone, 19.2%.

Facilities provided at rest areas are used and appreciated by all motorists, however, motorists in standard sized vehicles used the restrooms, waste receptacles, vending machines and map displays most, while oversized vehicle motorists were higher than average users of outside water faucets, walking trails and pet exercise areas. Over 45% of all commercial vehicle drivers used the public telephone and 20.8% used the vending machines.

The State of Minnesota's safety rest areas remain popular with travelers. At this rest area, 61.8% of all motorists preferred to use safety rest areas compared to 4.8 who preferred private commercial facilities. Although Minnesota does not have any combined safety rest areas/private commercial facilities, 31.8% of the motorists indicated a preference to use such facilities if available.

If private/commercial development were permitted in Minnesota's safety rest areas over 46% of the respondents prefer no private development or vending machines only. Commercial Vehicle users were more likely than users of other vehicle types to prefer restaurants (both fast food/take out & sit down) if private/commercial development were permitted at Minnesota's safety rest areas.

When asked, "If this facility was not available, where would you have stopped?", 36.7% said they would stop at the next commercial facility, 21.2% would continue driving, 10% would

¹ Standard vehicle: car, pick-up, van, motorcycle
Oversized vehicle: car, pick-up or van with trailer, recreational vehicle
Commercial vehicle: semi-tractor trailer truck, commercial truck, bus

stop on the shoulder, ramp or at an interchange. Commercial Vehicle users were more likely to stop on the highway shoulder or ramp than were users of other vehicle types.

Motorist were asked to rank the importance of several highway operations and motorist services. Rest areas were one component in this inquiry. Responses were quite similar across vehicle types regarding the importance of the three highway operation activities explored: Road Surface & Motorist Services were deemed to be quite important, while Roadside was of moderate importance. Users found the three motorist services listed to be very important, especially Road Signs and Traffic Signals. Commercial Vehicle users rated Emergency Road Condition Information as slightly more important than did users of the other vehicle types.

For short term stopping, less than 20 minutes, 92.5% of all Commercial drivers prefer to use safety rest areas. Overall the main reasons Commercial drivers use interstate rest areas is for restrooms 68.2%, safety stops (rest/relax, check load, mechanical check) 31.8%, telephone 21.1% and update log book 10%.

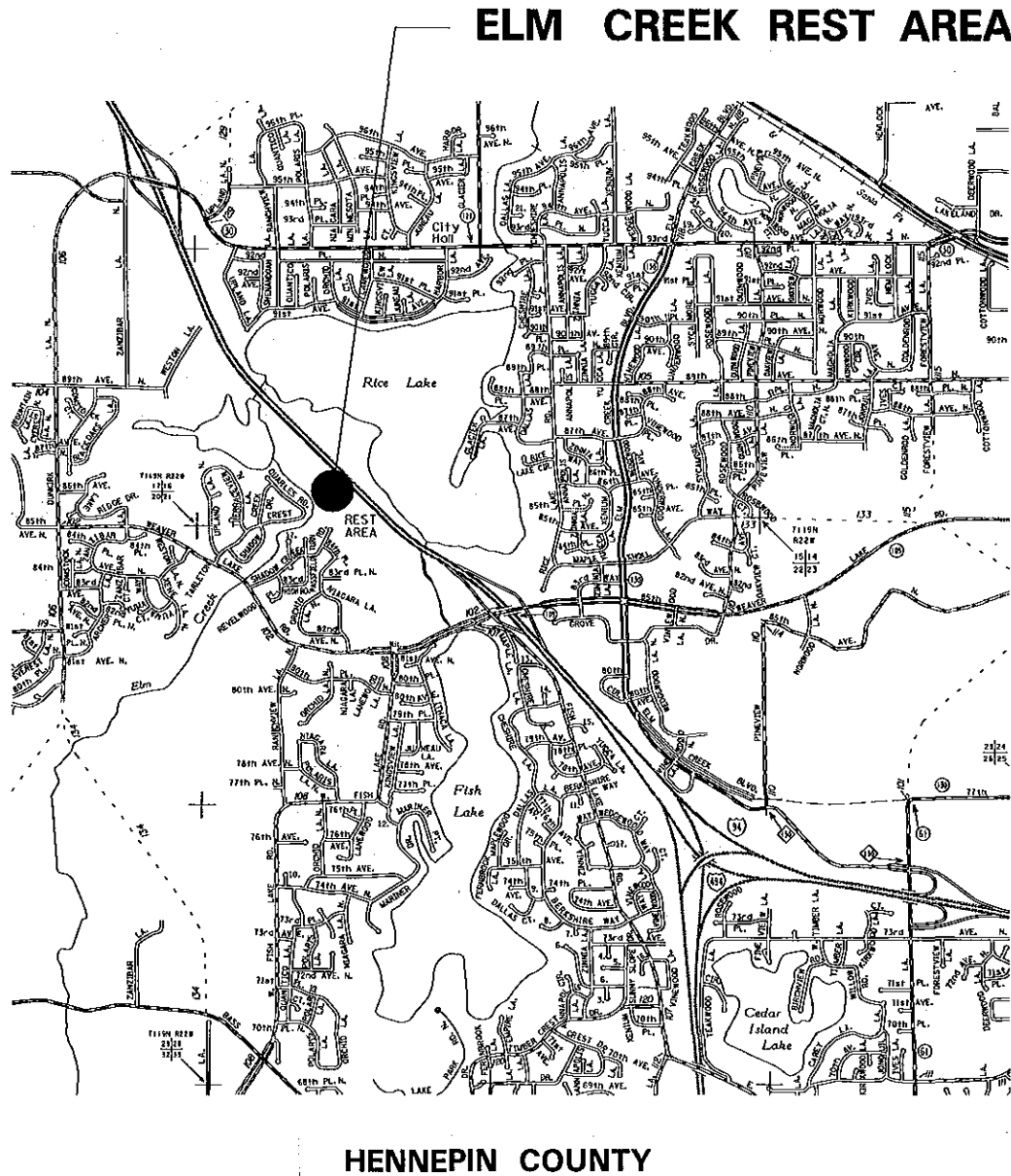
The data collected from this user survey is stored in a computer data file which allows comparison of a wide range of information and permits further opportunity for sorting data and analyzing specific user information.

For more information about this survey, please call the Mn/DOT Site Development Unit.



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Location of the Elm Creek Safety Rest Area.



The Elm Creek Safety Rest Area is located in Hennepin County approximately 2 miles northwest of the I-94 and I-694 interchange. The facility is located atop a rolling hillside along Elm Creek and has views to Rice Lake. The surrounding land use is residential.

Elm Creek Safety Rest Area

The driver of each vehicle was given one copy of the following survey.
(The 8 1/2" X 14" survey has been reduced to fit this page.)



ELM CREEK SAFETY REST AREA USER SURVEY, AUGUST 10 -14, 1995

Day of the week: Thu. Fri. Sat. Sun. Mon. Time-in: _____ Lic. State: MN _____
Vehicle type: 1 2 3 10 11 12 13 20 30 31 40 Time-out: _____ (specify other) _____

Dear Motorist: The Minnesota Department of Transportation, (Mn/DOT), is attempting to determine how Safety Rest Areas and Travel Information Centers along highways are utilized and what facilities should be provided to satisfy your needs. Only you can supply the information we need to plan future facilities. Please answer the following questions:

1. Number of people in your vehicle?
senior adults (over 59): _____ adults (16-59): _____ children (under 16): _____
2. Reason for your travel? business vacation other
3. How far do you generally travel between stops? miles: _____ time: _____
4. Where did your current trip start? City: _____ State: _____ Zip code: _____
Where will your current trip end? City: _____ State: _____ Zip code: _____
5. Please select your main reason for stopping at this rest area. (pick only one, write letter here): _____

A. restroom	D. rest/relax	G. telephone	J. other (please specify) _____
B. eat/picnic	E. water	H. switch driver	
C. sleep	F. check vehicle	I. travel information	
6. Which of the following facilities were used by your party? (check all that apply)
 restrooms map displays outside water faucet trash/recycle receptacle
 picnic table walking trail vending machines computer travel screen
 telephone pet exercise area other (please specify): _____
7. When traveling, which type of facility do you prefer to use? (pick only one, write letter here): _____
 A. safety rest areas C. private/commercial facilities
 B. public park D. combined safety rest areas & private/commercial facilities
8. If private/commercial development were permitted at Minnesota's safety rest areas, which of the following business types would you prefer? (pick only one, write letter here): _____
 A. vending machines C. gas and vehicle services E. no private/commercial development
 B. restaurant (sit down) D. restaurant (fast food/take out)
9. If this rest area were not available, where would you stop? (pick only one, write letter here): _____
 A. Interchange C. next commercial facility E. continue driving
 B. next town D. highway shoulder/ramp F. other (please specify) _____
10. Please rate the importance of the following highway operation activities using a range of 1 to 10.
 1 = not important to you at all 5 = medium importance 10 = extremely important
 _____ Road surface (i.e., pavement construction, snow and ice removal, smooth pavement)
 _____ Roadside (i.e., landscaping, mowing, trash removal, eliminating weeds)
 _____ Motorist Services (i.e., road signs, rest areas, emergency road condition information)
11. Please rate the importance of the following motorist services using a range of 1 to 10.
 1 = not important to you at all 5 = medium importance 10 = extremely important
 _____ road signs and traffic signals _____ rest areas _____ emergency road condition information

Additional Questions for Commercial Truck Drivers Only:

12. For short term stopping (less than 20 min.) do you prefer to use rest areas or commercial truck stops?
 rest areas commercial truck stops

13. Please identify your main reason for using interstate rest areas. (Choose one only).
 rest/relax travel directions restrooms update log book
 check load telephone mechanical check other _____

PLEASE RETURN SURVEY TO THE PEOPLE AT THE REST AREA EXIT RAMP. THANK YOU.
(Please use other side for additional comments)

SUMMARY OF COLLECTED DATA

Date of survey: August 10 through 14, 1995

Time of survey: 8:00 a.m. to 5:00 p.m.

Weather on site: Partly cloudy to sunny; light rain: rain showers interrupted the survey for a few short periods of time.

Total I-94 mainline vehicles traveling East bound: 112,375

I-94 mainline East bound vehicles passing safety rest area without entering: 109,180

Vehicles traveling East bound entering safety rest area: 3,195

Percent of I-94 mainline East bound vehicles stopping at safety rest area: 2.84%

Percent of out-of-state vehicles stopping at safety rest area: 31.16%

Percent of in-state vehicles stopping at safety rest area: 68.84%

Age distribution of people using the safety rest area:

	All People Entering Safety Rest Area	Percent
Senior Adults (over 60)	1,609	22.80%
Adults (16 - 59)	4,004	56.75
Children (under 16)	1,443	20.45
Total	7,056	100.00%

Average number of people per vehicle: 2.32

Average length of stay in safety rest area: 14.92 minutes (All Vehicles)
 13.87 minutes (Standard Vehicles)
 17.36 minutes (Oversize & Commercial Vehicles)

Number of vehicles 8:00 am to 5:00 pm

Date	Day	Vehicles Entering Rest Area	Vehicles Not Entering Rest Area	Daily One-way Traffic Totals	Average Percent Stopping at Rest Area
August 10	Thurs.	578	23,725	24,303	2.38%
August 11	Fri.	572	19,044	19,616	2.92%
August 12	Sat.	659	23,327	23,986	2.75%
August 13	Sun.	744	23,499	24,243	3.07%
August 14	Mon.	642	19,585	20,227	3.17%
Total (surveys returned)		3,195	109,180	112,375	2.84%

Elm Creek Safety Rest Area

Hourly volume of vehicles entering Safety Rest Area

<u>Time</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>	<u>Sunday</u>	<u>Monday</u>	<u>Total</u>	<u>Percent</u>
8:00 - 9:00	37	--	28	26	52	143	4.50
9:00 - 10:00	60	8	69	72	97	306	9.62
10:00 - 11:00	73	45	81	109	82	390	12.26
11:00 - 12:00	73	82	84	73	78	390	12.26
12:00 - 1:00	67	77	100	81	89	414	13.02
1:00 - 2:00	84	82	88	89	69	412	12.95
2:00 - 3:00	72	109	106	107	75	469	14.74
3:00 - 4:00	55	93	52	91	53	344	10.81
<u>4:00 - 5:00</u>	<u>53</u>	<u>72</u>	<u>51</u>	<u>94</u>	<u>43</u>	<u>313</u>	<u>9.84</u>
Totals	574	568	659	742	638	3,181	100.00%

Note: Total does not equal 3,195 for 'Vehicles Entering Safety Rest Area' due to recording errors on 'Time In' for 14 vehicles.

Type of vehicle entering Safety Rest Area

	Average Length		Number of People	(A)	(B)
	Vehicle Total	of Stay In Minutes			
<u>Standard Vehicles</u>					
Cars	1,612	14.44	3,290	51.05%	2.57%
Pick-up or van	956	12.78	2,365	30.27	2.88
Other - Motorcycle	27	<u>18.05</u>	43	0.85	5.57
Standard (average)		(13.87)			
<u>Oversize Vehicles</u>					
Pick-up - van w/ rec. trailer	118	14.91	312	3.74	3.62
Recreational vehicles	41	20.21	112	1.30	6.03
Pick-up - van w/ other trailer	37	13.91	99	1.17	4.25
Car w/ recreational trailer	22	26.73	56	0.70	1.70
Car w/ other trailer	6	20.50	20	0.19	2.36
<u>Commercial Vehicles</u>					
Semi-tractor trailer trucks	280	18.07	312	8.87	4.13
Commercial trucks	57	15.42	169	1.80	2.22
Buses	<u>2</u>	<u>10.00</u>	<u>3</u>	<u>0.06</u>	0.87
Oversize & Commercial (average)		(17.36)			
Total	3,158	14.92	6,781	100.00%	

- (A) Percentage of total number of vehicles using the safety rest area.
- (B) Percentage of vehicles that stopped in the safety rest area, out of the total number of mainline vehicles of the same type both entering and passing the safety rest area.

Note: Vehicle total does not equal 3,195 due to recording error for 37 vehicle types.
 Number of people does not equal 7,056 due to recording error for vehicle type.

SURVEY QUESTIONS

Note: The total number of responses for subgroups does not always total the total number of vehicles due to omissions in recording the vehicle type.

Question 1: Number of people in your vehicle?

	All People Entering Safety Rest Area	Percent
Senior Adults (over 60)	1,609	22.80%
Adults (16 - 59)	4,004	56.75
<u>Children (under 16)</u>	<u>1,443</u>	<u>20.45</u>
Total	7,056	100.00%

Average number of people per vehicle: 2.32
 % Responding: 94.99%

Question 2: Reason for your travel?

	<u>All Vehicles</u>		<u>Standard Vehicles</u>		<u>Oversize Vehicles</u>		<u>Commercial Vehicles</u>	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
Vacation	1,234	42.92%	1069	45.96%	147	71.71%	5	1.61%
Business	829	28.84	502	21.58	25	12.19	293	94.52
<u>Other</u>	<u>812</u>	<u>28.24</u>	<u>755</u>	<u>32.46</u>	<u>33</u>	<u>16.10</u>	<u>12</u>	<u>3.87</u>
Total	2,875	100.00%	2,326	100.00%	205	100.00%	310	100.00%

% Responding: 89.98% 89.63% 91.52% 91.45%

Question 3: How far do you generally travel between stops?

	<u>All Vehicles</u>	<u>Standard Vehicles</u>	<u>Oversize Vehicles</u>	<u>Commercial Vehicles</u>
Miles				
Average	129.94	122.51	144.60	174.73
Median	107.66	106.66	120.83	156.25
% Responding:	70.61%	70.06%	72.32%	72.86%
Minutes				
Average	138.41	131.31	151.58	189.49
% Responding:	53.80%	54.49%	52.23%	49.26%

Question 4a: Where did your current trip start?

	<u>All Vehicles</u>		
	<u>Total</u>	<u>Percent</u>	
<u>Midwest U.S.</u>	<u>2,525</u>	<u>93.83%</u>	
Minnesota	2,057	76.44	
North Dakota	238	8.84	
Wisconsin	64	2.38	
Iowa	61	2.27	
Illinois	30	1.11	
South Dakota	17	0.63	
Other	58	2.16	(Michigan, Missouri, Ohio, Nebraska, Kansas, Indiana)
 West U.S.	 109	 4.05	
South U.S.	38	1.41	
Northeast U.S.	<u>19</u>	<u>0.71</u>	
Total U.S.	2,691	100.00%	
% Responding:	84.23%		

Question 4b: Where will your current trip end?

	<u>All Vehicles</u>		
	<u>Total</u>	<u>Percent</u>	
<u>Midwest U.S.</u>	<u>2,403</u>	<u>94.49%</u>	
Minnesota	1,890	74.32	
Wisconsin	169	6.64	
Iowa	132	5.19	
Illinois	91	3.58	
North Dakota	20	0.79	
South Dakota	6	0.24	
Other	95	3.73	(Michigan, Missouri, Ohio, Nebraska, Kansas, Indiana)
South U.S.	47	1.85	
Northeast U.S.	47	1.85	
West U.S.	<u>46</u>	<u>1.81</u>	
Total U.S.	2,543	100.00%	
% Responding:	79.59%		

Elm Creek Safety Rest Area

Question 5: Please select your main reason for stopping at this rest area. (pick only one)

	<u>All Vehicles</u>		<u>Standard Vehicles</u>		<u>Oversize Vehicles</u>		<u>Commercial Vehicles</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
Restroom	2,066	75.05%	1,736	78.02%	131	65.83%	170	57.24%
<u>Motorist Safety</u>								
<u>Value/Use (Net)</u>	<u>(395)</u>	<u>(14.35)</u>	<u>(286)</u>	<u>(12.85)</u>	<u>(44)</u>	<u>(22.11)</u>	<u>(62)</u>	<u>(20.88)</u>
Rest/Relax	192	6.97	143	6.43	16	8.04	31	10.44
Switch drivers	120	4.36	103	4.63	13	6.53	3	1.01
Check vehicle	66	2.40	27	1.21	14	7.04	25	8.42
Sleep	17	0.62	13	0.58	1	0.50	3	1.01
Telephone	168	6.10	99	4.45	12	6.03	57	19.19
Eat/Picnic	58	2.11	42	1.89	12	6.03	4	1.35
Travel information	48	1.74	47	2.11	0	0.00	1	0.33
Water	<u>18</u>	<u>0.65</u>	<u>15</u>	<u>0.68</u>	<u>0</u>	<u>0.00</u>	<u>3</u>	<u>1.01</u>
Total	2,753	100.00%	2,225	100.00%	199	100.00%	297	100.00%
% Responding:	86.17%		85.74%		88.84%		87.61%	

Question 6: Which of the following facilities were used by your party? (check all that apply)

(Base:)	<u>All Vehicles</u>		<u>Standard Vehicles</u>		<u>Oversize Vehicles</u>		<u>Commercial Vehicles</u>	
	<u>(2,776)</u>		<u>(2,259)</u>		<u>(191)</u>		<u>(294)</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
Restrooms	2,611	94.06%	2,140	94.73%	174	91.10%	268	91.16%
Trash/Recycle receptacle	538	19.38	452	20.01	35	18.32	47	15.99
Telephone	420	15.13	260	11.51	24	12.57	133	45.24
Vending machines	409	14.73	325	14.39	20	10.47	61	20.75
Map displays	340	12.25	292	12.93	21	10.99	25	8.50
Outside water faucet	243	8.75	200	8.85	21	10.99	17	5.78
Picnic table	187	6.74	174	7.70	8	4.19	4	1.36
Walking trail	134	4.83	118	5.22	12	6.28	3	1.02
Pet exercise area	125	4.50	107	4.74	16	8.38	2	0.68
Computer travel screen	23	0.83	19	0.84	2	1.05	2	0.68
Other	87	3.13	63	2.79	13	6.81	11	3.74
% Responding:	86.89%		87.05%		85.27%		86.73%	

Note: Adds to more than 100% due to multiple mentions.

Elm Creek Safety Rest Area

Question 7: When traveling, which type of facility do you prefer to use? (pick only one)

	<u>All Vehicles</u>		<u>Standard Vehicles</u>		<u>Oversize Vehicles</u>		<u>Commercial Vehicles</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
Safety rest areas	1,741	61.76%	1,483	64.68%	132	66.67%	108	36.49%
Combined safety rest areas & private/Commercial facilities	897	31.82	665	29.00	58	29.29	160	54.05
Private/Comm'l facilities	134	4.75	100	4.36	7	3.54	27	9.12
Public park	<u>47</u>	<u>1.67</u>	<u>45</u>	<u>1.96</u>	<u>1</u>	<u>0.50</u>	<u>1</u>	<u>0.34</u>
Total	2,819	100.00%	2,293	100.00%	198	100.00%	296	100.00%
% Responding:	88.23%		88.36%		88.39%		87.32%	

Question 8: If private/commercial development were permitted at Minnesota's safety rest areas, which of the following types of business types would you prefer? (pick only one)

	<u>All Vehicles</u>		<u>Standard Vehicles</u>		<u>Oversize Vehicles</u>		<u>Commercial Vehicles</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
No private/Comm'l development	839	30.69%	684	30.85%	69	35.20%	78	26.99%
Restaurant (fast food/take out)	606	22.16	471	21.25	33	16.84	96	33.22
Gas and vehicle services	575	21.03	491	22.15	48	24.49	26	9.00
Vending machines	424	15.51	355	16.01	28	14.29	38	13.15
Restaurant (sit down)	<u>290</u>	<u>10.61</u>	<u>216</u>	<u>9.74</u>	<u>18</u>	<u>9.18</u>	<u>51</u>	<u>17.64</u>
Total	2,734	100.00%	2,217	100.00%	196	100.00%	289	100.00%
% Responding:	85.57%		85.43%		87.50%		85.25%	

Question 9: If this rest area were not available, where would you stop? (pick one only)

	<u>All Vehicles</u>		<u>Standard Vehicles</u>		<u>Oversize Vehicles</u>		<u>Commercial Vehicles</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
Next commercial facility	1,025	36.73%	808	35.64%	72	36.18%	130	44.22%
Safety Issues (Net)	(871)	(31.21)	(680)	(30.00)	(67)	(33.67)	(116)	(39.46)
Continue driving	592	21.21	474	20.91	46	23.12	68	23.13
Highway shoulder/Ramp	142	5.09	87	3.84	15	7.54	39	13.27
Interchange	137	4.91	119	5.25	6	3.01	9	3.06
Next town	817	29.27	721	31.80	52	26.13	36	12.24
Other	<u>78</u>	<u>2.79</u>	<u>58</u>	<u>2.56</u>	<u>8</u>	<u>4.02</u>	<u>12</u>	<u>4.08</u>
Total	2,791	100.00%	2,267	100.00%	199	100.00%	294	100.00%
% Responding:	87.36%		87.36%		88.84%		86.73%	

Question 10: Please rank the importance of the following highway operation activities using a range of 1 to 10 (1 = not important to you at all, 5 = medium importance, 10 = extremely important)

	<u>All Vehicles</u>
Road Surface	
Mean	9.06
(Base)	(2,711)
% Responding:	84.85%
Motorist Services	
Mean	8.28
(Base)	(2,690)
% Responding:	84.19%
Roadside	
Mean	6.05
(Base)	(2,672)
% Responding:	83.63%

Terms Defined: Road Surface (i.e., pavement construction, snow and ice removal, smooth pavement)
 Motorist Services (i.e., road signs, rest areas, emergency road condition information)
 Roadside (i.e., landscaping, mowing, trash removal, eliminating weeds)

Question 11: Please rank the importance of the following motorist services using a range of 1 to 10 (1 = not important to you at all, 5 = medium importance, 10 = extremely important)

	<u>All Vehicles</u>
Road Signs and Traffic Signals	
Mean	8.86
(Base)	(2,676)
% Responding:	83.76%
Rest Areas	
Mean	7.81
(Base)	(2,699)
% Responding:	84.48%
Emergency Road Condition Information	
Mean	7.40
(Base)	(2,637)
% Responding:	82.54%

Elm Creek Safety Rest Area

QUESTIONS 12 & 13, COMMERCIAL TRUCK DRIVERS ONLY

Question 12: For short term stopping (less than 20 min.) do you prefer to use rest areas or commercial truck stops?

	<u>Commercial Vehicles</u>		<u>Commercial Trucks</u>		<u>Semi-Tractor Trailer Trucks</u>		<u>Buses</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
Rest area	260	92.53%	32	94.12%	227	92.28%	1	100.00%
Commercial truck stops	<u>21</u>	<u>7.47</u>	<u>2</u>	<u>5.88</u>	<u>19</u>	<u>7.72</u>	<u>0</u>	<u>0.00</u>
Total	281	100.00%	34	100.00%	246	100.00%	1	100.00%
% Responding:		82.89%		59.65%		87.86%		50.00%

Question 13: Please identify your main reason for using interstate rest areas. (Choose one only...However, some checked all that applied.)

	<u>Commercial Vehicles</u>		<u>Commercial Trucks</u>		<u>Semi-Tractor Trailer Trucks</u>		<u>Buses</u>	
	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>	<u>Total</u>	<u>Percent</u>
Restrooms	191	68.21%	18	54.55%	172	69.92%	1	100.00%
<u>Comm'l Truck Driver Safety</u>								
<u>Value/Uses (Net)</u>	<u>(89)</u>	<u>(31.79)</u>	<u>(13)</u>	<u>(39.39)</u>	<u>(76)</u>	<u>(30.89)</u>	<u>(0)</u>	<u>(0.00)</u>
Rest/Relax	60	21.43	8	24.24	52	21.14	0	0.00
Check load	34	12.14	3	9.09	31	12.60	0	0.00
Mechanical check	26	9.29	2	6.06	24	9.76	0	0.00
Telephone	59	21.07	7	21.21	52	21.14	0	0.00
Update log book	28	10.00	1	3.03	27	10.98	0	0.00
Travel directions	10	3.57	0	0.00	10	4.07	0	0.00
Other	10	3.57	0	0.00	10	4.07	0	0.00
(Base)	(280)		(33)		(246)		(1)	
% Responding:		82.60%		57.89%		87.86%		50.00%

Note: Adds to more than 100% due to multiple mentions.



ELM CREEK SAFETY REST AREA
USER SURVEY, AUGUST 10 -14, 1995

Day of the week: Thu. Fri. Sat. Sun. Mon. Time-in: Lic. State: MN
Vehicle type: 1 2 3 10 11 12 13 20 30 31 40 Time-out: (specify other)

Dear Motorist: The Minnesota Department of Transportation, (Mn/DOT), is attempting to determine how Safety Rest Areas and Travel Information Centers along highways are utilized and what facilities should be provided to satisfy your needs.

- 1. Number of people in your vehicle? senior adults (over 59): adults (16-59): children (under 16):
2. Reason for your travel? business vacation other
3. How far do you generally travel between stops? miles: time:
4. Where did your current trip start? City: State: Zip code:
5. Please select your main reason for stopping at this rest area. (pick only one, write letter here):
6. Which of the following facilities were used by your party? (check all that apply)
7. When traveling, which type of facility do you prefer to use? (pick only one, write letter here):
8. If private/commercial development were permitted at Minnesota's safety rest areas, which of the following business types would you prefer? (pick only one, write letter here):
9. If this rest area were not available, where would you stop? (pick only one, write letter here):
10. Please rate the importance of the following highway operation activities using a range of 1 to 10.
11. Please rate the importance of the following motorist services using a range of 1 to 10.

Additional Questions for Commercial Truck Drivers Only:

- 12. For short term stopping (less than 20 min.) do you prefer to use rest areas or commercial truck stops?
13. Please identify your main reason for using interstate rest areas. (Choose one only).

PLEASE RETURN SURVEY TO THE PEOPLE AT THE REST AREA EXIT RAMP. THANK YOU.
(Please use other side for additional comments)

ELM CREEK REST AREA/TIC USAGE SURVEY - THURSDAY, AUGUST 10, 1995

HOUR	CARS			PICK-UPS, VANS			Commer. TRUCKS	SEMI'S		RV'S	BUS	OTHER (motorcycles)	TOTAL
	car only	w/rec. trailer	w/other trailer	p-up/van only	w/rec. trailer	w/other trailer		tractor trailers					
	1	2	3	10	11	12	13	20	30	31	40		
8** - 9	1062	0	0	564	1	22	102	136	7	5	3		
9 - 10	1899	148	34	799	83	21	195	375	25 370	15 37	26	(1/2)	
10 - 11	2631	345	00 31	1045	185	32	378	661	00 29	31	21	(1/2)	
11 - 12	1037	1	1	543	25	15	96	185	12	3	12		
12 - 1	970	1	4	566	201	12	94	201	9	9	40		
1 - 2	1003	13	6	560	19	15	78	213	8	0	3		
2 - 3	1206	5	8	628	17	17	99	192	20	2	17		
3 - 4	1280 1182	2	3	630	43	18	81	125	17	3	9		
4 - 5**	1453	73	7	633	83	16	84	144	20	7	15		
TOTAL													

8:10
 East # west # 3

Error Error

** CHECK THE WATER METERS @ 8:00a _____ AND @ 5:00p _____, RECORD ON MIKE'S SHEET!

ELM CREEK REST AREATIC USAGE SURVEY - FRIDAY, AUGUST 11, 1995

HOUR	CARS			PICK-UPS, VANS			Commer. TRUCKS	SEMI'S tractor trailers	RV'S	BUS	OTHER (motorcycles)	TOTAL
	car only	w/rec. trailer	w/other trailer	p-up/van only	w/rec. trailer	w/other trailer						
	1	2	3	10	11	12	13	20	30	31	40	
8:25-9 8** - 9	1068	8	0	506	18	7	67	174	9	2	4	
8:25-9 8-10 9i	1295	34	6	556	52 52	16	58	207	11	2	1	
8:25-9 10-11 u	1204	10	1	735	42 42	23	81	191	12	1	0	
11-12	1276	12	0	663	57	17	52	258	36	2	10	
12-1	1364	14	0	215	16	4	5	42	3	0	3	
1-2	1106	17	3	578	42	19	35	136	13	3	3	
2-3	1034	29	7	560	58	19	64	167	15	9	4	
3-4	1381	13	6	798	59	30	62	118	30	9	11	
4-5**	1282	3	3	629	31	19	46	92	7	12	6	
TOTAL												

** CHECK THE WATER METERS @ 8:00a _____ AND @ 5:00p _____, RECORD ON MIKE'S SHEET!

WATER METER (8:00 AM - 5500) (9:41 - 6370) (5:00 PM - 6410)

ELM CREEK REST AREA/TIC USAGE SURVEY - SATURDAY, AUGUST 12, 1995

HOUR	CARS			PICK-UPS, VANS			Commer. TRUCKS	SEMI'S	RV'S	BUS	OTHER	TOTAL
	car only	w/rec. trailer	w/other trailer	p-up/van only	w/rec. trailer	w/other trailer		tractor trailers			(motorcycles)	
	1	2	3	10	11	12	13	20	30	31	40	
8** - 9	942	6	3	516	31	13	28	48	5	4	7	
9 - 10	1088	10	2	616	63	21	24	66	12	4	13	
10 - 11	1592	21	6	778	62	12	12	63	9	6	3	
11 - 12	1888	41	6	1662	216	35	18	70	14	12	4	
12 - 1	1944	71	16	710	193	21	19	133	16	3	17	
1 - 2	1689	31	6	802	101	24	24	61	13	6	11	
2 - 3	1810	22	5	916	142	26	17	63	14	2	10	
3 - 4	1448	35	2	723	104	25	13	65	12	4	7	
4 - 5**	1165	21	2	611	55	19	10	44	10	6	6	
TOTAL												

** CHECK THE WATER METERS @ 8:00a ⁶⁴³¹ AND @ 5:00p ⁶⁴⁸¹, RECORD ON MIKE'S SHEET!

5,700 gal.

ELM CREEK REST AREA/TIC USAGE SURVEY - SUNDAY, AUGUST 13, 1995

HOUR	CARS			PICK-UPS, VANS			Commer. TRUCKS	SEMI'S tractor trailers	RV'S	BUS	OTHER (motorcycles)	TOTAL
	car only	w/rec. trailer	w/other trailer	p-up/van only	w/rec. trailer	w/other trailer						
	1	2	3	10	11	12	13	20	30	31	40	
8** - 9	735	2	1	275	27	7	7	46	2	3	4	
9 - 10	730	1	2	524	24	15	8	39	6	1	3	
10 - 11	1440	11	6	743	34	14 [↑]	7	56	13	6	6	
11 - 12	1581	20	4	860	63	9	5	49	10	11	9	
12 - 1	1850	24	1	1118	77	17	11	58	18	3	10	
1 - 2	1549	29	15	617	71	13	15 [↑]	29	12	1	20	
2 - 3	2205	56	7	1133	186	35	6	62	28	2	31	
3 - 4	2242	37	13	1275	233	14	13	56	29	7	25	
4 - 5**	1520	28	1	1015	117	22	4	104	13	1	8	
TOTAL												

** CHECK THE WATER METERS @ 8:00a 650 AND @ 5:00p 656, RECORD ON MIKE'S SHEET!

ELM CREEK REST AREA/TIC USAGE SURVEY - MONDAY, AUGUST 14, 1995

HOUR	CARS			PICK-UPS, VANS			Commer. TRUCKS	SEMI'S	RV'S	BUS	OTHER	TOTAL
	car only	w/rec. trailer	w/other trailer	p-up/van only	w/rec. trailer	w/other trailer		tractor trailers			(motorcycles)	
	1	2	3	10	11	12	13	20	30	31	40	
8** - 9	1394		1	776	1	20	96	177	8	1	7	
9 - 10	1076	3	3	671	19	15	150	217	9	5	4	
10 - 11	1118	2	7	636	44	21	56	224	14	3	10	
11 - 12	932	17	2	710	54	17	46	171	15	10	9	
12 - 1	1209	24	4	708	62	16	34	149	15	2	10	
1 - 2	1226	1	6	695	31	30	81	257	16	0	13	
2 - 3	1150	9	3	606	38	13	31	193	12	2	8	
3 - 4	1085	13	6	707	39	21	36	235	14	5	5	
4 - 5**	1153	4	5	577	22	17	38	147	17	4	10	
TOTAL												

006666
006650
**** CHECK THE WATER METERS @ 8:00a _____ AND @ 5:00p _____, RECORD ON MIKE'S SHEET!**