

Status of Summer Trail Use (2007-09) on Five Paved State Bicycle Trails and Trends Since the 1990s

The five trails are:

Paul Bunyan, Heartland, Root River & Harmony-Preston Valley, Douglas, and segment of Paul Bunyan near Lake Bemidji State Park and City of Bemidji

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Report prepared by:
Tim Kelly
Office of Management and Budget Services
Minnesota Department of Natural Resources

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Introduction

In the 1990s, the MN DNR conducted ten studies of paved state bicycle trails, which at the time represented nearly all such trails (Reference 1). Five of those trails have been revisited since 2007, providing a fresh perspective on trail use and the characteristics of the user population (Figure 1). Further trail updates are likely over the next few years.

This report is a summary of the findings from the most recent trail studies. Attention is focused on both the current status of summer trail use and on trends since the 1990s, the latter because trail use and the people who use trails have changed over the last decade. For those wanting more detailed results, a full set of tables of study findings can be found in Appendix A.

Three of the five trails studied in the last few years are dominated by “tourist” users, who have traveled a long distance from home to the trail (Table 1). The Paul Bunyan and Heartland tourist trails are in the north central lakes region of the state, a region that is primarily a water-recreation destination area with a large concentration of lakeside resorts and vacation homes (trail maps are in Appendix A). The Root River & Harmony-Preston Valley Trail is situated in a rugged forested landscape in southeastern Minnesota, a place that has developed into a noted tourist destination. The trail is one of the key attractors of tourists to the area.

The other two trails are dominated by local users, most of whom live within a few miles of the trail. The Douglas Trail extends northward out of Rochester, and the segment of the Paul Bunyan Trail near Lake Bemidji State Park is heavily used by residents of Bemidji.

Tourist and local-use trails exhibit a variety of differences, including the mix of trail activities, characteristics of trail users, and trip-spending patterns. For these reasons, report tables separate the trail types for ease of comparison.

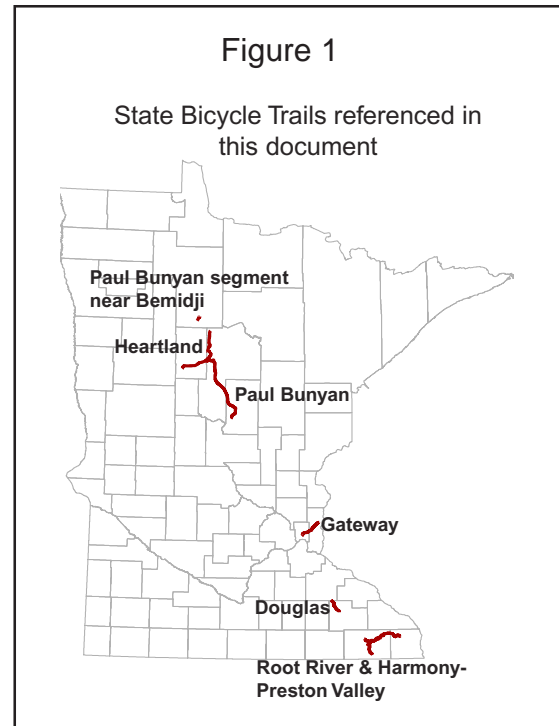


Table 1

Update studies conducted on tourist and local-use trails in period from 2007 to 2009

<u>Trail-use statistic</u>	<i>----- Tourist trails -----</i>			<i>----- Local-use trails -----</i>	
	Paul Bunyan* <u>2007</u>	Heartland* <u>2007-08</u>	RR-HPV* <u>2008-09</u>	Douglas* <u>2009</u>	PB-BSP* <u>2009</u>
● Median <u>miles</u> of users from home	120	125	120	3	5
● Percent of use from within 10 miles of the trail	33%	29%	9%	83%	71%
● Percent of use from over 50 miles of the trail	59%	62%	70%	7%	21%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Methodology

The trail studies have two components: counting users by trail activity, and collecting user characteristics and opinions through a mail survey (survey instrument is in Appendix B). For the first component, a field person travels the trail and counts users during nominal one-hour sampling blocks (Table 2). For the second component, the field person recruits users for a mail survey by getting the users name and address; a mail survey is then sent to a few days later. Both the survey and counting dates, times and places follow a statistical sampling plan. Sample counts are statistically projected to full summer use quantities.

Who are the trail users?

A demographic profile of trail users can be formed by comparing the users from Minnesota to the general Minnesota population (Reference 2). Minnesotans make up nearly 80 percent (77%) of use of the five trails studied between 2007 and 2009.

Minnesota trail users in the 41 to 65 age range are over-represented on the trails; they comprise one-third of the general population and just over half of trail users (Table 3). All other age classes are under-represented. Teens and children are the

Table 2

Administration of trail studies

Item	Paul Bunyan* <u>2007</u>	Heartland* <u>2007-08</u>	RR-HPV* <u>2008-09</u>	Douglas* <u>2009</u>	PB-BSP* <u>2009</u>
<u>Trail-use counts</u>					
Trail-use segment counts	199	222	226	70	66
Number of trail segments	7	6	7	2	2
Use counts per segment	28	37	32	35	33
<u>Trail-user surveys</u>					
Survey contacts	351	347	345	421	443
Valid addresses	350	343	343	409	437
Surveys returned	308	299	231	305	324
Return rate	88%	87%	67%	75%	74%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

most under-represented; together they make up 25 percent of the population and only 16 percent of trail users.

Trail users from Minnesota are comprised of largely equal portions of females and males, same as the general population.

The large majority of Minnesota trail users are white (98%) and non-Hispanic (99+ %). Few users (2%) are non-white and/or Hispanic, while the Minnesota population has 15% in this race and ethnicity category.

Minnesota trail users (25 years old or older) are well educated, similar to Minnesota state park visitors (Reference 3). Nearly two-thirds (65%) have at least a bachelor's degree, which is twice as high as the general population.

Lastly, Minnesota trail users have higher annual household incomes (median near \$75,000) than the general population (median near \$58,000).

Table 3

Demographic characteristics of Minnesotans who use state trails in the five studies from 2007 to 2009

(Notes: Minnesotans account for 77 percent of the use of the five trails. Minnesota population characteristic estimates from U.S. Census Bureau: age, gender and race/ethnicity are for 2008; educational attainment is for 2007; and household income is for 2007-08)

Characteristic	MN Trail users (percent)	MN population, 2007-08 (percent)
A. Age Class		
Children (<13)	12%	17%
Teens (13-18)	4%	8%
Adults (19-40)	24%	30%
Adults (41-65)	51%	33%
Adults (66+)	<u>9%</u>	<u>12%</u>
Total	100%	100%
<i>Median age</i>	45.8	37.3
B. Gender		
Female	49%	50%
Male	<u>51%</u>	<u>50%</u>
Total	100%	100%
C. Race and ethnicity		
Race		
White	98%	89%
Non-white	<u>2%</u>	<u>11%</u>
Total	100%	100%
Ethnicity		
Hispanic/Latino	0.3%	4%
Non-Hispanic/Latino	<u>100%</u>	<u>96%</u>
Total	100%	100%
Race & Ethnicity		
White, Non-Hispanic/Latino	98%	85%
Non-white and/or Hispanic/Latino	<u>2%</u>	<u>15%</u>
Total	100%	100%
D. Educational attainment (age 25+)		
High school graduate or higher	99%	91%
Bachelor's degree or higher	65%	31%
E. Household income		
under \$30000	9%	(no detail)
\$30000 to \$39999	7%	
\$40000 to \$49999	7%	
\$50000 to \$59999	10%	
\$60000 to \$74999	15%	
\$75000 to \$99999	20%	
over \$100000	<u>32%</u>	
Total	100%	
<i>Median income</i>	Near \$75,000	\$57,607

Trail use characteristics

The trails receive between 25,000 and 125,000 hours of use during the summer (Table 4). Overall use is split about 45% to 55% between weekends/holidays and weekdays, respectively, with all the trails having a day-of-week split in the range of 40%/60% to 60%/40%, a range commonly found in outdoor recreation studies. Because weekends/holidays are fewer than weekdays, the typical weekend/holiday has substantially more use than the typical weekday (some 70% more on average).

Table 4

Summer trail use by day of week and activity

Trail use measure	Combined (percent)	<i>----- Tourist trails -----</i>			<i>----- Local-use trails -----</i>	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Total hours of summer use	370,761	81,711	74,419	123,410	64,869	26,352
Percent by day of week						
Weekends/holidays (%)	46%	42%	40%	53%	43%	49%
Weekdays (%)	54%	58%	60%	47%	57%	51%
Percent by activity						
Bike (%)	70%	66%	65%	87%	55%	52%
Skate (%)	4%	6%	4%	1%	4%	9%
Walk/hike (%)	20%	23%	24%	11%	28%	25%
Run/jog (%)	5%	5%	3%	1%	13%	6%
Other (%)	2%	1%	5%	0%	0%	9%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Biking is by far the top activity. Biking is particularly dominant on the tourist trails, especially the Root River & Harmony-Preston Valley Trail. Trail users who are a long distance from home are predominately biking (e.g., 90% of those over 100 mile from home are biking), while near-home trail users are more an even mix of biking and walking/jogging/skating (e.g., those within 10 miles of home are about 50%/50% split between biking and other activities). The local-use trails reflect this more even mix of biking and other activities.

A majority of trail users on the tourist trails are over 100 mile of home (Table 5). Both the Paul Bunyan and Heartland Trail, however, have a sizable local user base originating within 10 miles of the trail; the Root River & Harmony-Preston Valley Trail receives minimal use from local users. The Paul Bunyan draws about one-third of users from the Twin Cities, while the other two tourist trails draw more from out of state.

Table 5

Market areas of summer trail use

Market measure	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
<u>Percent of use by travel distance from home</u>						
10 miles or less	35%	33%	29%	9%	83%	71%
10.1 to 50 miles	13%	8%	9%	21%	10%	8%
50.1 to 100 miles	8%	5%	8%	12%	4%	4%
over 100 miles	<u>44%</u>	<u>54%</u>	<u>54%</u>	<u>58%</u>	<u>3%</u>	<u>18%</u>
Total percent	100%	100%	100%	100%	100%	100%
<u>Percent of use by origin</u>						
Local counties of trail location	37%	35%	32%	11%	83%	70%
Seven-county Twin Cities	19%	33%	17%	20%	6%	9%
Rest of Minnesota	<u>20%</u>	<u>17%</u>	<u>24%</u>	<u>27%</u>	<u>8%</u>	<u>11%</u>
Subtotal Minnesota	77%	85%	73%	59%	98%	90%
Outside of Minnesota	<u>23%</u>	<u>15%</u>	<u>27%</u>	<u>41%</u>	<u>2%</u>	<u>10%</u>
Total percent	100%	100%	100%	100%	100%	100%
<u>Median miles of travel to the trail</u>						
All activities	40	120	125	120	3	5
Bike	100	140	168	120	4	5
Walk/hike/run/jog	4	6	1	15	3	3

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

The local-use trails, of course, are dominated by people who live near the trail (Table 5). The Douglas Trail has little tourist use. The Bemidji segment of the Paul Bunyan has a modest portion of long-distance users, many of whom are from out of state; two-thirds (65%) of these long-distance users are visitors to Lake Bemidji State Park, which is located on the trail.

For the local-use trails, both bikers and pedestrian users (walkers/joggers) live near the trail (Table 5). Similarly on the tourist trails, the pedestrian users are primarily locals. Bikers, in contrast, comprise the long-distance users on the tourist trails.

Users of the tourist trails tend to be older than users of local-use trails (Table 6). The median age of tourist trails users is in the 46 to 51 age range, with a majority of users in the age bracket from 41 to 65. (For perspective, the median age of the Minnesota population is 37.3 in 2008.) Local-use trail users have lower median ages and are more dominated by children and young adults. The segment of the Paul Bunyan near Bemidji has a particularly young user population.

Table 6
Summer trail use by age class

Age class	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Children (<13)	10%	8%	10%	9%	13%	16%
Teens (13-18)	4%	4%	4%	3%	5%	10%
Adults (19-40)	23%	18%	20%	21%	31%	33%
Adults (41-65)	53%	56%	55%	59%	44%	35%
Adults (66+)	<u>10%</u>	<u>14%</u>	<u>11%</u>	<u>8%</u>	<u>8%</u>	<u>6%</u>
Total percent	100%	100%	100%	100%	100%	100%
Median age	47.3	50.3	46.5	50.8	42.7	32.9

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Use on all the trails is concentrated, which is undoubtedly due to variations in the concentration of potential users along the trail (permanent residents, resort/campground guests, and seasonal home owners) and differences in the attractiveness of the trail segments. Along the Paul Bunyan Trail, most of the use is concentrated in the more developed south, especially in the segment from Merrifield to Pequot Lakes, which includes the resort city of Nisswa (Table 7; Figure 2). The segments of the Heartland Trail extending eastward out of Park Rapids are most intensively used; the segments from Park Rapids to Nevis account for over half of trail use (54%), but only one-fourth of trail miles (Figure 2). Especially concentrated is use on the Root River & Harmony-Preston Valley Trail, where over half of the use (53%) occurs on the nine-mile segment from Isinours to Whalan, which includes the resort city of Lanesboro (Figure 3). The intensity of use on the Lanesboro segment is one of the highest recorded in these recent studies. A similarly high intensity of use occurs on the segment of the Douglas Trail extending out of Rochester (Figure 4). Also intensively used is the short southern segment of the Paul Bunyan Trail near Bemidji (Figure 2). This southern segment is nearer the city center than the northern segment, and is situated along the shore of Lake Bemidji, a highly scenic location.

Since the 1990s, all of the trails, except the Douglas, have been extended. The extension on the segment of the Paul Bunyan near Bemidji is the short southern segment, which is more intensively used than the older segment in the north. On the other trails, the new segments have a lower intensity of use than the old segments. The new segments on the Paul Bunyan Trail (Hackensack to Heartland Trail) comprise 25 percent of trail miles, but only 15 percent of the trail use. Similarly, the new segments on the Heartland Trail (Walker to Cass Lake) comprise 42 percent of trail miles and 18 percent of trail use, while the new segments on the Root River & Harmony-Preston Valley Trail (Preston to Harmony, and Money Creek Woods to Houston) comprise 32 percent of trail miles and 10 percent of trail use.

Table 7

Summer trail use by trail segment

	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Miles of trail</u>	<u>User-hours per trail mile</u>
A. Paul Bunyan Trail, 2007				
Overall	81,711	100%	64.2	1,273
Trail segment				
Baxter to Merrifield	15,812	19%	9.0	1,757
Merrifield to Pequot Lakes	34,687	42%	13.1	2,648
Pequot Lakes to Pine River	10,573	13%	9.3	1,137
Pine River to Backus	3,656	4%	9.3	393
Backus to Hackensack	5,111	6%	7.5	682
Hackensack to Trail shelter	9,531	12%	7.2	1,324
Trail shelter to Heartland Trail	2,341	3%	8.8	266
B. Heartland Trail, 2007				
Overall	74,419	100%	47.0	1,583
Trail segment				
Park Rapids to Dorset	21,324	29%	6.3	3,385
Dorset to Nevis	18,931	25%	5.3	3,572
Nevis to Akeley	9,791	13%	6.3	1,554
Akeley to Walker	10,832	15%	9.4	1,152
Walker to Cass CR #142	10,671	14%	8.6	1,241
Cass CR #142 to Cass Lake	2,869	4%	11.1	258
C. Root River and Harmony-Preston Valley Trails, 2008				
Overall	123,410	100%	59.9	2,060
Trail segment				
Fountain to Preston	21,690	18%	12	1,808
Preston to Harmony	5,872	5%	12.3	477
Isinours to Whalan	64,820	53%	9.3	6,970
Whalan to Peterson	14,599	12%	8.9	1,640
Peterson to Rushford	5,384	4%	4.8	1,122
Rushford to Money Creek Woods	5,086	4%	5.8	877
Money Creek Woods to Houston	5,958	5%	6.8	876
D. Douglas Trail, 2009				
Overall	64,869	100%	12.5	5,190
Trail segment				
Rochester to Douglas	36,169	56%	5.0	7,234
Douglas to Pine Island	28,700	44%	7.5	3,827
E. Paul Bunyan Trail segment near Lake Bemidji State Park, 2009				
Overall	26,352	100%	7.3	3,610
Trail segment				
● North (Mississippi River to northern terminus, including segment extending into Lake Bemidji State Park)	14,524	55%	5.3	2,740
● South (Mississippi River to southern terminus)	11,828	45%	2.0	5,914

Figure 2

Paul Bunyan & Heartland State Trails

Beltrami, Cass, Hubbard & Crow Wing Counties

- State Trail (paved)
- - - State Trail (unpaved)
- Cuyuna Lakes State Trail (paved)
- Other Trails
- P Parking
- PA Rest Area
- RR Restrooms
- CA Campground
- SH Shelter

0 2 4 6 8 10 12 14 16
Scale in Miles

Heartland city distances in miles

Park Rapids	8.3	11.6	17.9	27.3	39.8	47
Dorset	5.3	11.6	21.0	33.5	40.7	
News	8.3	15.7	28.2	35.4		
Akeley	0.4	21.9	29.1			
Walker			12.5	19.7		
Wilkinson				7.2		
2 mi. south of Cass Lk.						

Paul Bunyan city distances in miles

Brainerd / Baxter	9.0	15.9	22.1	25.4	31.4	44.0	71.4	82.7	89.0	94.2	100.4	107.9
Merrifield	6.9	13.1	16.4	22.4	31.7	39.2	49.6	73.9	80.0	85.2	91.6	98.9
Pequot Lakes	6.2	9.5	15.5	24.8	32.3	35.5	41.7	76.6	73.1	78.3	84.7	92.0
Jenkins	3.3	9.3	18.6	26.1	44.9	55.5	58.0	76.9	97.2	178.5	85.8	
Pine River	6.0	15.3	22.8	45.5	62.2	25.7	43.3	68.8	87.5	232.5		
Bakus	9.3	16.8	29.6	44.2	25.1	45.7	62.2	89.8	97.6	276.5		
Hackensack	7.5	30.3	36.9	42.1	48.3	53.3	59.9	97.2				
Walker	6.6	11.8	18.0	23.2	29.6	36.8						
Benedict	5.2	11.4	16.2	21.0	30.3							
Laporte	6.2	11.4	17.8	25.1								
Guthrie	5.2	11.6	18.9									
Nary	6.4	13.7										
Bemidji	7.3											
Lake Bemidji St. Park												

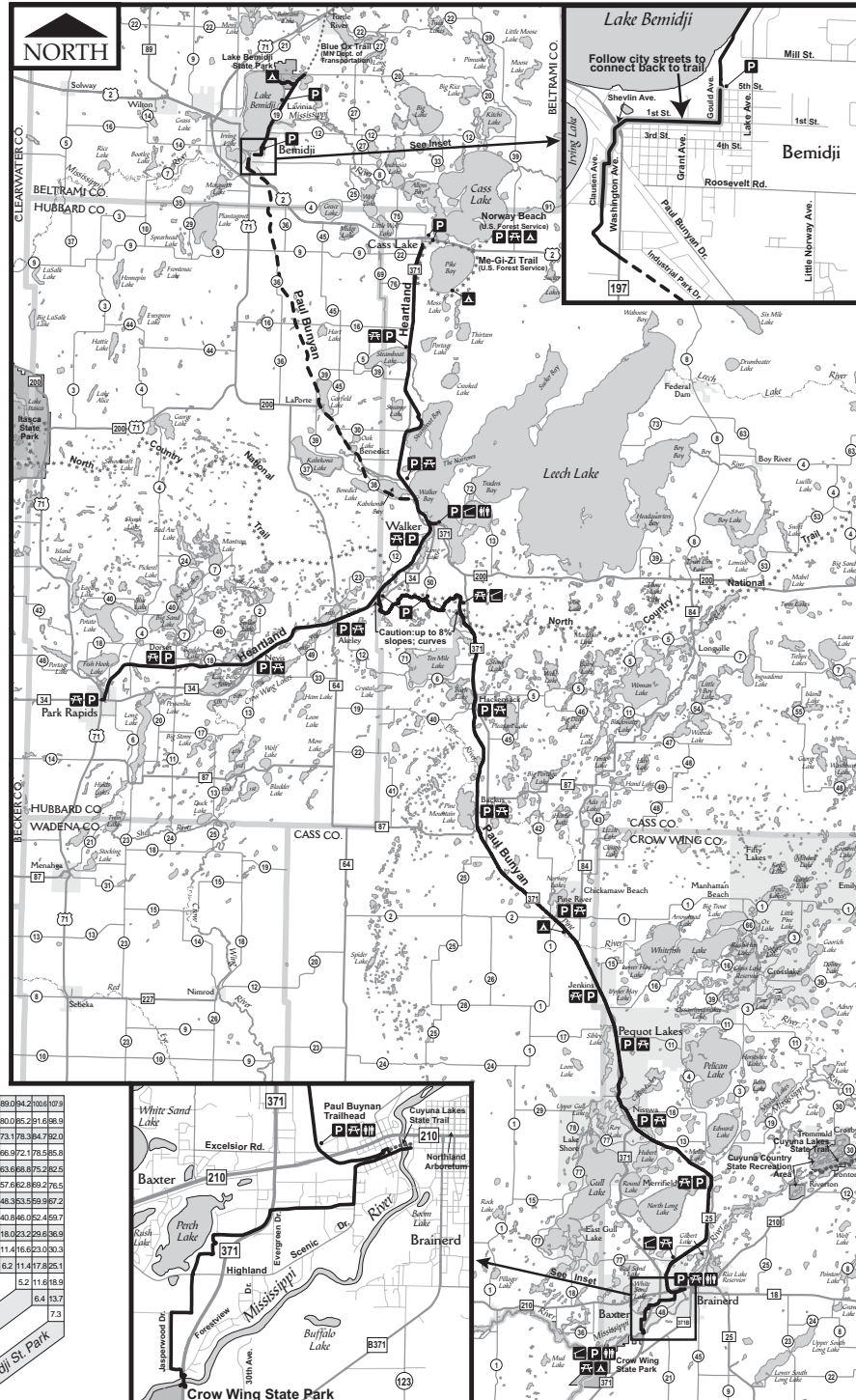


Figure 3

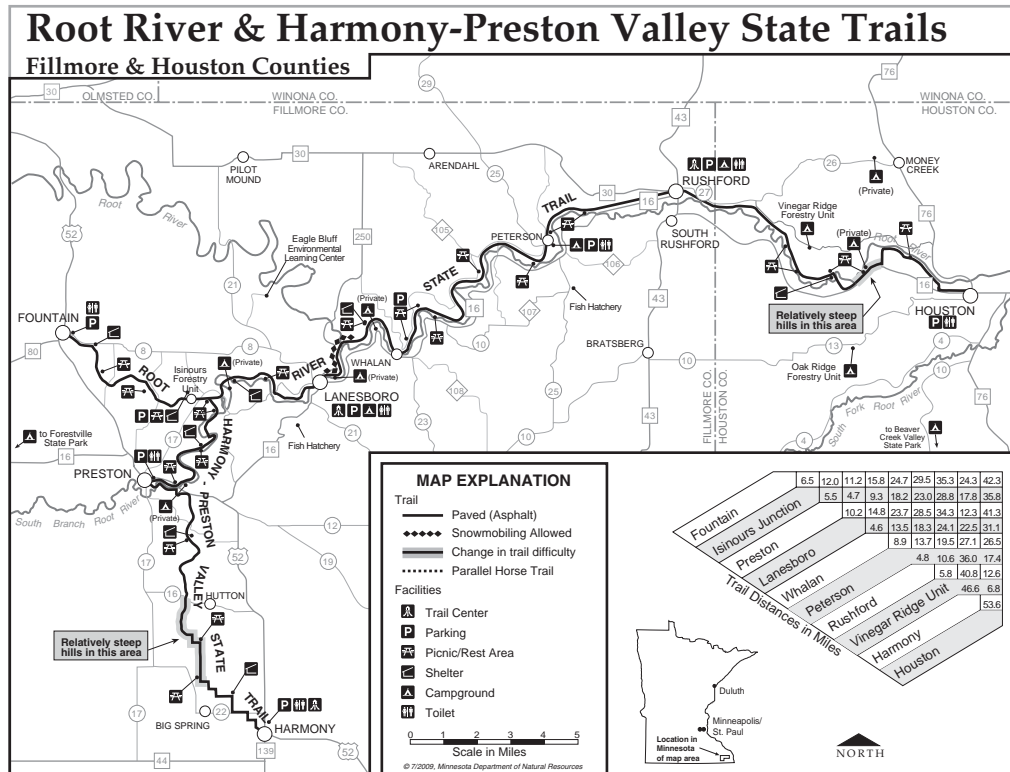
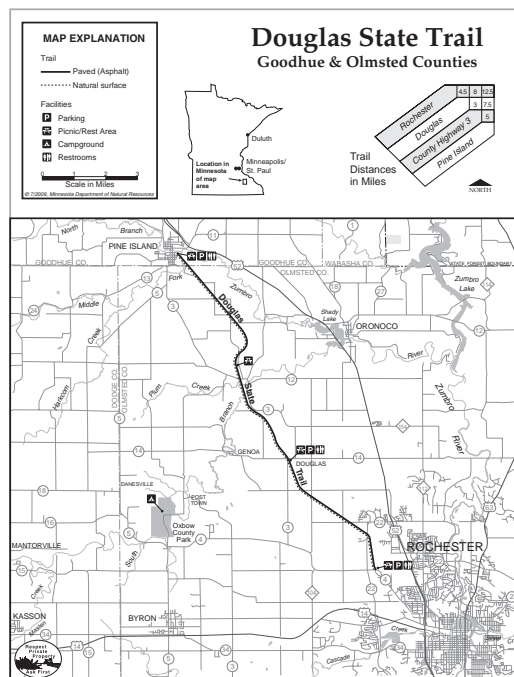


Figure 4



Trail use trends

Trend information is available for the state trails and regional trails in the Twin Cities (Table 8). When viewing the use trends on Table 8, it is important to keep a few methodology details in mind:

1. Trends are assessed over the same trail and trail segments. For example, trail segments added between studies are excluded when trends are assessed. This is a standard approach. It is the same trend method retailers apply when they report “same-store” sales change.
2. For Twin Cities regional trails (part B of Table 8), use monitoring has expanded to more and more trails since the late 1990s, which is why more trails are included in the trend analysis in the years following 1998.
3. Trail studies are done over different lengths of time. To adjust for this—so changes can be compared between trails—each trend is put on a ten-year basis by assuming a constant linear change in user-hours per year.

Trail-use trends are generally—though not entirely—negative for both state trails and Twin Cities regional trails (Table 8). The use declines tend to be larger for the tourist trails (Paul Bunyan, Heartland, and Root River & Harmon-Preston Valley), although some local-use trails (Gateway and regional trails in Twin Cities) are comparable. One reason offered for a broad downward trends in use is the expansion of trail opportunities (which has occurred), and resulting spread of trail use among more trails. Unfortunately, it is not possible to estimate the contribution of expanded opportunities to trail-use decline, because the information required for such an estimate is not available.

The Douglas Trail is different; it has a sizable increase in use. The reason(s) for the Douglas increase is unknown, but speculation centers on three factors: a recent community fitness public-relations campaign, expansion of City of Rochester out along the trail (the trail segment nearest Rochester has the largest increase), and attractiveness of the trail to potential users. When first studied in the 1990s, the surface of the Douglas was in poor condition, and users rated the Douglas the lowest of all the trails. The surface was repaved prior to the recent study and, trail users now rate it favorably and similar to the other trails.

Also different, it appears, is the segment of the Paul Bunyan Trail near Lake Bemidji State Park and City of Bemidji. Between studies, the comparable segment (north segment) had a drop in use, but the drop was not statistically significant (all other trends on the state trails are statistically significant at the .05

Table 8

Recent use trends for non-motorized trails

A. Summer use trends on state trails*

<u>Trail, study years, and comparable segment</u>	<u>First study Total summer user hours</u>	<u>Second study Total summer user hours</u>	<u>Percent change</u>	<u>Standardized 10-year trend:** Percent change</u>
Paul Bunyan, 1996 to 2007, Baxter to Hackensack	148,760	69,838	-53%	-48%
Heartland, 1998 to 2007-08, Park Rapids to Walker	118,337	60,878	-49%	-54%
Root River & Harmony-Preston Valley (RR & HPV), 1997 to 2008-09, Fountain to Preston and Isinours to Money Creek Woods	178,762	111,580	-38%	-34%
Gateway, 1997 to 2003, Cayuga Street to Pine Point Park	181,952	148,062	-19%	-31%
Douglas, 1997 to 2009, Rochester to Pine Island	45,810	64,869	42%	35%
Paul Bunyan State Trail Near Lake Bemidji State Park, 1998 to 2009, Mississippi River to northern terminus	17,488	14,524	-17%	-15%

* Summer extends from the Saturday of Memorial Day weekend to Labor Day. Because summers vary in length, and because this affects comparability between studies, summer length is set by the second study.

** Assumes the same linear change in user-hours per year.

B. Annual use trends on Twin Cities metropolitan regional trails

<u>Metro regional trails (annual occasions in 000's)</u>	<u>First year</u>	<u>Year 2007</u>	<u>Percent change</u>	<u>Standardized 10-year trend:** Percent change</u>
Nine trails from 1998 to 2007	3,941	3,516	-11%	-12%
Eleven trails from 1999 to 2007	5,256	3,980	-24%	-30%
Thirteen trails from 2000 to 2007	5,052	4,209	-17%	-24%
Fifteen trails from 2001 to 2007	5,437	4,547	-16%	-27%

** Assumes the same linear change in user-hours per year.

level; trends on regional trails in the Twin Cities have not been assessed statistically). In other words, trail use is stable from a statistical perspective.

The state-trail use declines tend to be larger on weekends/holidays than on weekdays, and the increases are correspondingly smaller on weekends/holidays (Table 9). The segment of the Paul Bunyan near Bemidji is an exception to this pattern, and exhibits a larger decline on weekdays. The new southern segment of this trail—added after the 1990s study—is heavily used on weekdays and may have drawn a fair amount of weekday use away from the northern segment, which is the segment compared between studies.

Table 9

Percent change in summer use (1996-98 to 2007-09) by day of week and activity

(trends are assessed over trail segments that existed in both the earlier and later studies; segments added between studies are excluded from trend statistics)

Trail use measure	Combined	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan*	Heartland*	RR-HPV*	Douglas*	PB-BSP*
Overall	-37%	-53%	-49%	-38%	42%	-17%
By Day of Week						
Weekends/Holidays	-45%	-60%	-60%	-46%	35%	6%
Weekdays	-27%	-47%	-37%	-24%	47%	-35%
By Trail Activity						
Bike	-43%	-58%	-56%	-39%	29%	-2%
Skate	-72%	-79%	-67%	-84%	-4%	-70%
Walk/hike	1%	-2%	-27%	1%	54%	-14%
Run/jog	111%	49%	83%	187%	206%	-23%
Walk/hike + Run/jog	13%	4%	-21%	6%	83%	-16%

* Paul Bunyan, 1996 & 2007, Baxter to Hackensack.

* Heartland, 1998 & 2007-08, Park Rapids to Walker

* RR-HPV, 1997 & 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Money Creek Woods (Root River) and Preston to Root River Trail (Harmony-Preston Valley)

* Douglas, 1997 & 2009, Rochester to Pine Island

* PB-BSP, 1998 & 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji; segment from Mississippi River to northern terminus

By activity, the declines are sharpest for in-line skating (Table 9). Only on the Douglas trail—with had a sizable increase in overall use—did in-line skating not drop substantially. Biking tends to decrease the second most, or increase the second least. The pedestrian activities involving walking and running tend to show either an increase or a small decrease. Once again, the segment of the Paul Bunyan near Bemidji is the exception, likely for the same reason noted above. The new southern segment of the trail may have drawn off a large amount of pedestrian activity that is more heavily concentrated on weekdays (e.g., routine exercise).

Market area has a large effect on trends in trail use (Table 10). Use declines the least (or increases the most) for the local market, and declines the most (or increases the least) for the longer-distance markets. This market effect is connected to the preceding activity and day of week trends: Locals, who exhibited the smallest decline in use (or largest increase), dominate walking/jogging, routine exercise activities mainly done on weekdays. Tourists dominate biking, and are more likely than locals to use the trail on weekends/holidays.

Table 10

Percent change in summer use (1996-98 to 2007-09) by travel distance from permanent home
(trends are assessed over trail segments that existed in both the earlier and later studies; segments added between studies are excluded from trend statistics)

Travel measure	Combined	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan*	Heartland*	RR-HPV*	Douglas*	PB-BSP*
Overall	-37%	-53%	-49%	-38%	42%	-17%
Travel distance						
10 miles or less	-9%	-46%	-28%	-2%	48%	-12%
10.1 to 100 miles	-55%	-61%	-72%	-53%	17%	-32%
over 100 miles	-41%	-55%	-43%	-28%	17%	-18%

* Paul Bunyan, 1996 & 2007, Baxter to Hackensack.

* Heartland, 1998 & 2007-08, Park Rapids to Walker

* RR-HPV, 1997 & 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Money Creek Woods (Root River) and Preston to Root River Trail (Harmony-Preston Valley)

* Douglas, 1997 & 2009, Rochester to Pine Island

* PB-BSP, 1998 & 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji; segment from Mississippi River to northern terminus

For ages, children and teens (under 19) have the steepest decline (or smallest increase) in use, while adults over 40 have the smallest decline (or largest increase)(see Table 11). One consequence of this age-class change is a rise in the median age of the trail user population. The largest increase in median age is nearly nine years (8.8 years) on the Root River & Harmony-Preston Valley Trail, and the smallest is 4.6 years on the Douglas. For perspective, the general Minnesota population has a median-age increase of 2.5 years over these same years. The trail user populations are aging faster than the general population, and this is also the case for the one trail (Douglas) that has a sharp increase in use.

A portion of the age-class use change is accounted for by age-class gains and losses in the general population (e.g., aging of the baby boomers). To control for this, trail use trends by age class are assessed on a per-capita basis (final column of Table 11). On a per-capita basis, the same general conclusions are found: children and teens have the steepest decline in use, while adults over 40 have the smallest decline. The differences between age classes, however, are notably smaller, and even the older age classes are declining on a per-capita basis.

A trail user population that is aging faster than the general population is one instance of a broad-based trend affecting nature-based outdoor recreation activities. This pattern of age change extends to nature-based parks, fishing, hunting, and wildlife watching, which are all the activities that can be reliably

Table 11

Percent change in summer use (1996-98 to 2007-09) by age class

(trends are assessed over trail segments that existed in both the earlier and later studies; segments added between studies are excluded from trend statistics)

All trail users and no normalization for population growth between studies							Per-capita use by Minnesotans
Age grouping	Combined	----- Tourist trails -----			----- Local-use trails -----		Combined
		Paul Bunyan*	Heartland*	RR-HPV*	Douglas*	PB-BSP*	
Overall	-30%		-49%	-38%	42%	-17%	-35%
Age class		age classes in 1996 are not consitent with later studies					
12 or younger	-51%		-71%	-52%	2%	-40%	-44%
13 to 18	-61%		-84%	-58%	-10%	-3%	-54%
19 to 40	-42%		-56%	-55%	27%	-37%	-38%
41 to 65	-15%		-30%	-25%	70%	4%	-35%
over 65	4%		-24%	-3%	164%	103%	-25%
Change in median age of trail users (years)	6.7		7.4	8.8	4.6	5.7	4.5

* Paul Bunyan, 1996 & 2007, Baxter to Hackensack.

* Heartland, 1998 & 2007-08, Park Rapids to Walker

* RR-HPV, 1997 & 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Money Creek Woods (Root River) and Preston to Root River Trail (Harmony-Preston Valley)

* Douglas, 1997 & 2009, Rochester to Pine Island

* PB-BSP, 1998 & 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji; segment from Mississippi River to northern terminus

assessed for age-class trends (Reference 4). Furthermore, the trend is evident in Minnesota and the nation as a whole.

Trends in use are shared across trail segments. Each trail segment trends in the same direction as the entire trail (Table 12). It is interesting to note that there is a tendency for the most intensely used segments in the 1990s to decline the least or increase the most. On the Paul Bunyan, the most intensely used segment in the 1990s (Merrifield to Pequot Lakes) declined the least; the same is found for the most intensely used segment on the Heartland (Park Rapids to Nevis), while on the Root River & Harmony-Preston Valley the most intensely used segment (Isinours to Whalan) has the second lowest decline. On the Douglas, the most intensely used segment in the 1990s (Rochester to Douglas) increased the most.

Table 12

Percent change in summer use by trail segment

(trends are assessed over trail segments that existed in both the earlier and later studies;
segments added between studies are excluded from trend statistics)

Trail and segment	Earlier study: Total summer user hours	Later study: Total summer user hours	Percent change
A. Paul Bunyan, 1996 to 2007			
Overall Segment	148,760	69,838	-53%
Baxter to Merrifield	37,841	15,812	-58%
Merrifield to Pequot Lakes	58,820	34,687	-41%
Pequot Lakes to Pine River	25,505	10,573	-59%
Pine River to Backus	13,687	3,656	-73%
Backus to Hackensack	12,907	5,111	-60%
B. Heartland, 1998 to 2007-08			
Overall Segment	118,337	60,878	-49%
Park Rapids to Nevis	55,997	40,255	-28%
Nevis to Akeley	24,747	9,791	-60%
Akeley to Walker	37,594	10,832	-71%
C. Root River & Harmony-Preston Valley, 1997 to 2008-09			
Overall Segment	178,762	111,580	-38%
Fountain to Preston	37,978	21,690	-43%
Isinours to Whalan	83,958	64,820	-23%
Whalan to Peterson	31,922	14,599	-54%
Peterson to Rushford	18,580	5,384	-71%
Rushford to Money Creek Woc	6,324	5,086	-20%
D. Douglas, 1997 to 2009			
Overall Segment	45,810	64,869	42%
Rochester to Douglas	22,905	36,169	58%
Douglas to Pine Island	22,906	28,700	25%
E. Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji, 1998 to 2009			
Overall Segment	17,488	14,524	-17%
North (Mississippi River to northern terminus)	17,488	14,524	-17%

Experience while using the trail

When asked what they like most about the trail, four items rise to the top in virtually every case: the trail is scenic, quite/peaceful, a good place for exercise, and has no motorized vehicles (Table 13).

Table 13						
What did you like most about the trail? (respondents could check multiple responses)						
Response	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Scenery, wildlife, wildflowers, birds, trees	87%	85%	86%	93%	80%	90%
Quiet, peaceful	86%	80%	91%	85%	87%	88%
It's a good place for exercise, to work out, to keep in shape	78%	83%	83%	66%	87%	86%
No cars or motorized vehicles	73%	70%	75%	72%	74%	81%
Well-maintained, clean	66%	66%	65%	65%	68%	73%
It's fun	64%	56%	63%	70%	59%	74%
Like the trail surface	63%	62%	65%	63%	60%	71%
Easy, flat trail,	63%	62%	73%	58%	62%	63%
Little development, not commercial	63%	56%	70%	65%	58%	64%
Using the trail reduces tension, stress	59%	61%	60%	54%	62%	69%
Like the length	56%	54%	59%	56%	56%	54%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trail users experience few problems with other users. Some 80 to 90 percent checked “no problem” from a list of that response and 14 potential-problem responses (Table 14). Users of the local-use trails (Douglas and segment of Paul Bunyan near Bemidji) are more likely to report having a problem or conflict. When they did have a problem, the leading ones are trail users blocking traffic, users passing without warning, and problems with other people’s pets. These leading problems tend to be the same for each trail.

Another potential problem is crowding, but nearly all trail users (94% or higher) indicated that it was not a concern during their outing (Table 15).

Table 14

Did you have any problems or conflicts with other users?
(respondents could check multiple responses)

Response	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
● No problems with other trail users	86%	90%	91%	87%	77%	82%
<i>Problems/conflicts with other users</i>						
● Other trail users blocking traffic, not keeping right	6%	5%	2%	8%	8%	8%
● Other trail users passing without warning	5%	5%	1%	4%	9%	4%
● Problems with other people's pets	3%	3%	0%	2%	8%	5%
● Other trail users going too fast	2%	1%	1%	2%	5%	1%
● Unfriendly, discourteous behavior by others	2%	1%	1%	1%	4%	3%
● Irresponsible or unsafe behavior by others	1%	2%	0%	1%	2%	3%
● Other trail users created feelings of insecurity, or concerns about personal safety	1%	1%	1%	0%	1%	1%
● Non-permitted trail uses (i.e., all-terrain vehicles, cars, motorcycles)	1%	1%	0%	0%	1%	1%
● Problems with large groups or special events on the trail	0%	0%	0%	1%	1%	2%
● Vandalism	0%	0%	0%	1%	1%	1%
● Graffiti	0%	0%	0%	0%	1%	0%
● Discharge of firearms by other trail users	0%	1%	0%	0%	1%	0%
● Conflicts with trail users not using the treadway designated for their use	0%	0%	0%	0%	1%	0%
● Other trail users going too slow	0%	0%	0%	1%	0%	1%
● Other	3%	2%	5%	1%	2%	6%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trail users give high marks in the recent studies to their overall trail experience (Table 16). Positive ratings of “excellent” and “good” are reported by nearly all trail users. And “excellent” ratings are well above “good” ratings, which is a rating pattern trail providers want to achieve. At present, the trails are rather uniformly rated, with “excellent” ratings reported by 61 to 71 percent of users. Consistent with the high ratings is the finding that virtually all users (99.7% in total) would recommend the trail to a friend.

Uniformity of ratings, however, was not experienced in the 1990s (Table 16). Then, the three tourist trails (Paul Bunyan, Heartland, and Root River & Harmony-Preston Valley) received superlative user ratings, some of the highest MN DNR has ever recorded for any activity or facility over the last 20 years. By

Table 15

Was the trail too crowded for your enjoyment?

Response	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
● No	96%	96%	100%	94%	95%	97%
● Yes, but I used the trail anyway	3%	3%	0%	4%	4%	2%
● Yes, so in the future I'll only use the trail at less busy times	0%	0%	0%	1%	1%	1%
● Yes, so I changed plans, used another part of the trail	0%	1%	0%	1%	0%	0%
● Yes, so I didn't use the trail for as long as originally planned	0%	0%	0%	0%	0%	1%
● Yes, too crowded, unlikely that I'd return to this trail	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>
Total	100%	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

2007-09, ratings had dropped, with nearly all the drop due to a shift from “excellent” to “good.” In contrast, ratings on the Douglas Trail went up, with nearly all of the rise due to a shift from “good” to “excellent”. The Douglas ratings from the 1990s are the lowest ever recorded by MN DNR for a trail (note: the trail surface was in poor condition). The only trail with little change in ratings is the segment of the Paul Bunyan near Lake Bemidji State Park.

The drop or rise in overall experience rating is probably due to same factor identified in the 1990s when examining ratings across nine trails (Reference 1). In the trail studies, users are asked to score their satisfaction with 20 trail facility and service items. The 20 items are made up of five safety/enforcement items, five information items, five facility items (e.g., benches), three maintenance items, and two general characteristic items (e.g., trail design).

In the 1990s studies, one, and only one, group of items (trail maintenance) is consistently associated with lower overall trail ratings. In agreement with this finding, when the change in overall ratings from the 1990s to the recent studies is compared with the 20 facility and service items, the trail maintenance group has the strongest association. Trail maintenance items are comprised of trail surface

Table 16

Change in user ratings of overall trail experience

Trail and rating	Earlier study (percent)	Later study (percent)	Change in percent
A. Paul Bunyan, 1996 to 2007			
Rating			
Excellent	82%	62%	-20%
Good	14%	37%	23%
Fair, Poor & Very Poor	<u>4%</u>	<u>0%</u>	-3%
Total	100%	100%	
B. Heartland, 1998 to 2007-08			
Rating			
Excellent	82%	69%	-12%
Good	16%	29%	12%
Fair, Poor & Very Poor	<u>2%</u>	<u>2%</u>	0%
Total	100%	100%	
C. Root River & Harmony-Preston Valley, 1997 to 2008-09			
Rating			
Excellent	82%	62%	-20%
Good	18%	36%	18%
Fair, Poor & Very Poor	<u>1%</u>	<u>2%</u>	1%
Total	100%	100%	
D. Douglas, 1997 to 2009			
Rating			
Excellent	45%	61%	17%
Good	50%	38%	-12%
Fair, Poor & Very Poor	<u>5%</u>	<u>1%</u>	-4%
Total	100%	100%	
E. Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji, 1998 to 2009			
Rating			
Excellent	67%	71%	4%
Good	32%	28%	-3%
Fair, Poor & Very Poor	<u>1%</u>	<u>0%</u>	0%
Total	100%	100%	

quality, maintenance of the trail, and management of vegetation in the trail corridor.

Although not as strongly associated with the overall trail experience, user ratings of the non-maintenance items can provide guidance on priorities for trail improvements that would improve the trail outing. Trail users are consistently most dissatisfied with two facility items: availability of drinking water and toilet facilities (Table 17).

Table 17

Priorities for trail improvements:
Percent of trail users who are "dissatisfied" or "very dissatisfied" with the facility or service

Facility or service	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Facilities						
Availability of drinking water	23%	19%	22%	17%	36%	38%
Availability of toilet facilities	21%	15%	27%	20%	16%	35%
Availability of telephones	10%	10%	12%	8%	10%	12%
Availability of benches	7%	1%	5%	10%	5%	16%
Availability of picnic areas or shelters	4%	2%	4%	4%	5%	13%
Maintenance						
Management of vegetation in the trail corridor	9%	10%	11%	7%	10%	5%
Maintenance of the trail	9%	10%	12%	9%	6%	5%
Trail surface quality	6%	5%	4%	10%	2%	1%
Information						
Trail rules, traffic signs, and etiquette signs	7%	8%	5%	6%	8%	11%
Information about trail connections	6%	5%	6%	1%	13%	11%
Information about what you can see from the trail	5%	7%	7%	3%	6%	4%
Information about what to expect about the trail	4%	4%	5%	1%	5%	4%
Information about getting to the trail	3%	2%	4%	0%	5%	6%
Safety and Enforcement						
Safety of road crossings	4%	5%	4%	2%	7%	5%
Enforcement of trail rules	4%	3%	2%	5%	6%	8%
Bridges	4%	0%	4%	5%	4%	5%
Personal safety concerns	3%	3%	4%	1%	3%	4%
Security of parking areas	1%	4%	1%	0%	1%	1%
General Characteristics						
Trail design	0%	0%	0%	0%	1%	1%
Trail location	0%	0%	0%	0%	1%	1%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trip spending

Trail users spend money on their trip. Trip spending generates jobs and income in the local economy of the trail. For the five trails, summer spending totaled nearly \$5 million (Table 18). Most of that spending (95% in total) comes from trail users who reside outside the local economy of the trail, and the spending represents “new” dollars to the local economy. Users who have traveled a long-distance to the trail, not surprising, outspend local users by a large factor (about 20) on a daily basis, which is the primary reason aggregate trip spending is so high on the tourist trails and so low on the local-use trails. Most tourist trip spending (82%) is on basics: food, travel, and overnight accommodations.

Table 18						
Trip spending associated with trail use (total spending for the summer period)						
Type of spender**	Combined	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan*	Heartland*	RR-HPV*	Douglas*	PB-BSP*
Local trail users	\$268,069	\$128,978	\$34,316	\$46,489	\$47,167	\$11,119
Tourist trail users	<u>\$4,618,786</u>	<u>\$1,113,557</u>	<u>\$1,003,119</u>	<u>\$2,230,497</u>	<u>\$165,052</u>	<u>\$106,562</u>
Total	\$4,886,855	\$1,242,534	\$1,037,436	\$2,276,986	\$212,219	\$117,681

** 'Local' is a trail user who traveled less than 30 miles to the trail from their permanent home; 'tourist' is a trail user who spend the night prior to trail use away from their permanent home (e.g., at a resort or seasonal home), or traveled over 30 miles from home.

* Paul Bunyan, 2007, Baxter to Heartland Trail
 * Heartland, 2007-08, Park Rapids to Cass Lake
 * RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)
 * Douglas, 2009, Rochester to Pine Island
 * PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

For tourists, the trail itself is a primary draw to the general area of the Root River & Harmony-Preston Valley Trail, while it is much more of a secondary draw (if a draw at all) to users of the other trails (Table 19). A high portion (69%) of tourist users of the Root River & Harmony-Preston Valley Trail indicate that the trail is “very important” in their decision to visit the area of the trail, and most of the rest (30%) indicate the trail is “somewhat important.” For the other tourist trails (Paul Bunyan and Heartland), the trail facility is less the primary draw for the area. The Paul Bunyan and Heartland Trail are situated in large lake-region tourist-destination areas that provide a wide range of outdoor-recreation opportunities to attract visitors.

Table 19

How important was the trail in your choice of visiting this area on this trip?
(asked of "tourists," who either spent the night prior to trail use away from home, or are over 30 miles from home)

Response	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Very important – the main reason I made the trip	42%	22%	36%	69%	36%	17%
Somewhat important – the trail had some influence on choosing this destination	32%	41%	30%	30%	21%	45%
Not important at all	24%	35%	30%	2%	43%	29%
Don't know	2%	2%	5%	0%	0%	9%
Total	100%	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trip characteristics

Users of the tourist trails, who are more likely to be bikers, travel further on the trail, spend more time, and tend to be in large parties than users of local-use trails (Table 20). Local users are more likely to recreate alone (e.g., getting routine exercise or walking the dog) than tourist users, and this is reflected in the party compositions of local-use and tourist trails. The segment of the Paul Bunyan Trail near Bemidji has a much higher portion of parties with children (30%) than any of the other trails (15% to 18% of parties have children). This high prevalence of children contributes to the comparatively low median age of the trail's user population.

Biking is the predominate activity on each trail, accounting for a majority of trail use. The typical biking outing covers nearly 30 miles of trail (28.2), lasts about three hours (2.9) and has a party size just under three (2.8)(see Table 20). Bikers on tourist trails, compared with bikers on local-use trails, pedal more miles, spend more time, and are in larger parties.

Table 20

Trip Characteristics

Characteristic	Combined (percent)	----- Tourist trails -----			----- Local-use trails -----	
		Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
All Activities						
Miles traveled on trail (average)	19.4	16.5	17.1	29.8	10.1	8.7
Hours spent on trail (average)	2.3	1.9	2.4	3.2	1.5	1.5
People in party (average)	2.5	2.3	2.5	2.9	2.0	2.3
Party composition (% of parties)						
1 adult (over 18)	33%	35%	35%	19%	50%	41%
2 adults	37%	37%	37%	43%	30%	24%
3 or more adults	13%	10%	10%	22%	4%	6%
Adult(s) with children (under 18)	16%	15%	16%	15%	14%	24%
Children only	2%	3%	2%	0%	2%	6%
Total percent	100%	100%	100%	100%	100%	100%
Biking						
Miles traveled on trail (average)	28.2	28.7	28.1	37.2	17.3	12.0
Hours spent on trail (average)	2.9	2.7	3.1	3.7	1.8	1.6
People in party (average)	2.8	2.8	2.9	3.1	2.1	2.3
Party composition (% of parties)						
1 adult (over 18)	30%	28%	29%	19%	49%	39%
2 adults	36%	37%	35%	42%	31%	26%
3 or more adults	15%	16%	16%	22%	6%	7%
Adult(s) with children (under 18)	17%	18%	19%	17%	12%	23%
Children only	1%	1%	1%	0%	1%	5%
Total percent	100%	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

References

1. Minnesota Department of Natural Resources. 2000. State Trail Use: Summary of Summer Trail Use and User Surveys Conducted in 1996, 1997 and 1998. (<http://files.dnr.state.mn.us/aboutdnr/reports/trails/trailuse.pdf>)
2. All population information comes from: U. S. Department of Commerce, U. S. Census Bureau.

Population estimates by age and gender are from: State Single Year of Age and Sex Population Estimates: April 1, 2000 to July 1, 2008.

From 1990 to 2000, yearly population estimates are derived through linear interpolation between decennial census years.

3. Minnesota Department of Natural Resources. 2008. 2007 Minnesota State Parks Research Summary Report. (http://files.dnr.state.mn.us/aboutdnr/reports/parks/2007_research.pdf)
4. Information on age-based trends for nature-based recreation comes from:

U.S. fishing, hunting and wildlife watching: USFWS and U.S. Census Bureau. National Survey of Fishing, Hunting and Wildlife-Associated Recreation. Survey years 1991, 1996, 2001, and 2006.

National parks: Gramann, Jim H., Steve Hollenhorst, Margaret Littlejohn, and Lena Le. 2006. Last child in the parks? Age trends in U.S. National Park visitation. Abstract of paper presented at 12th International Symposium on Society and Natural Resource Management.

Minnesota fishing and hunting: Minnesota Department of Natural Resources. 2009. Observations on Minnesota's changing resident angler and hunter populations using licensing information from 1969 to 2008. Report available from Tim Kelly, MN DNR, OMBS (tim.kelly@state.mn.us).

Minnesota state parks: Minnesota Department of Natural Resources. 2008. 2007 Minnesota State Parks Research Summary Report. (http://files.dnr.state.mn.us/aboutdnr/reports/parks/2007_research.pdf)

Appendix A:

Tables of all survey results

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Trail maps and administration of trail studies

Item	Paul Bunyan* <u>2007</u>	Heartland* <u>2007-08</u>	RR-HPV* <u>2008-09</u>	Douglas* <u>2009</u>	PB-BSP* <u>2009</u>
<u>Trail-use counts</u>					
Trail-use segment counts	199	222	226	70	66
Number of trail segments	7	6	7	2	2
Use counts per segment	28	37	32	35	33
<u>Trail-user surveys</u>					
Survey contacts	351	347	345	421	443
Valid addresses	350	343	343	409	437
Surveys returned	308	299	231	305	324
Return rate	88%	87%	67%	75%	74%

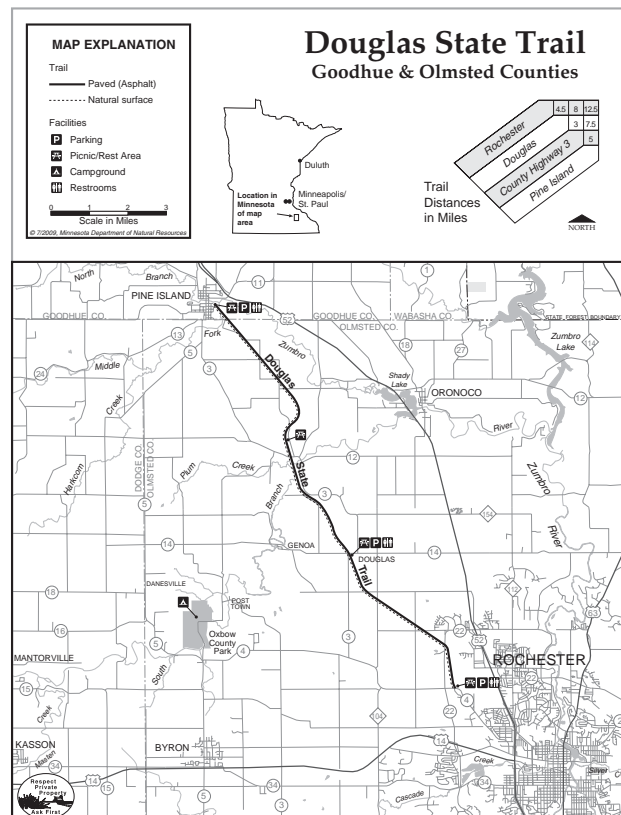
* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

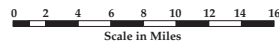
* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji



Paul Bunyan & Heartland State Trails

Beltrami, Cass, Hubbard
& Crow Wing Counties

- State Trail (paved)
- - - State Trail (unpaved)
- Cuyuna Lakes State Trail (paved)
- ***** Other Trails
- P** Parking
- PA** Rest Area
- RR** Restrooms
- A** Campground
- SH** Shelter

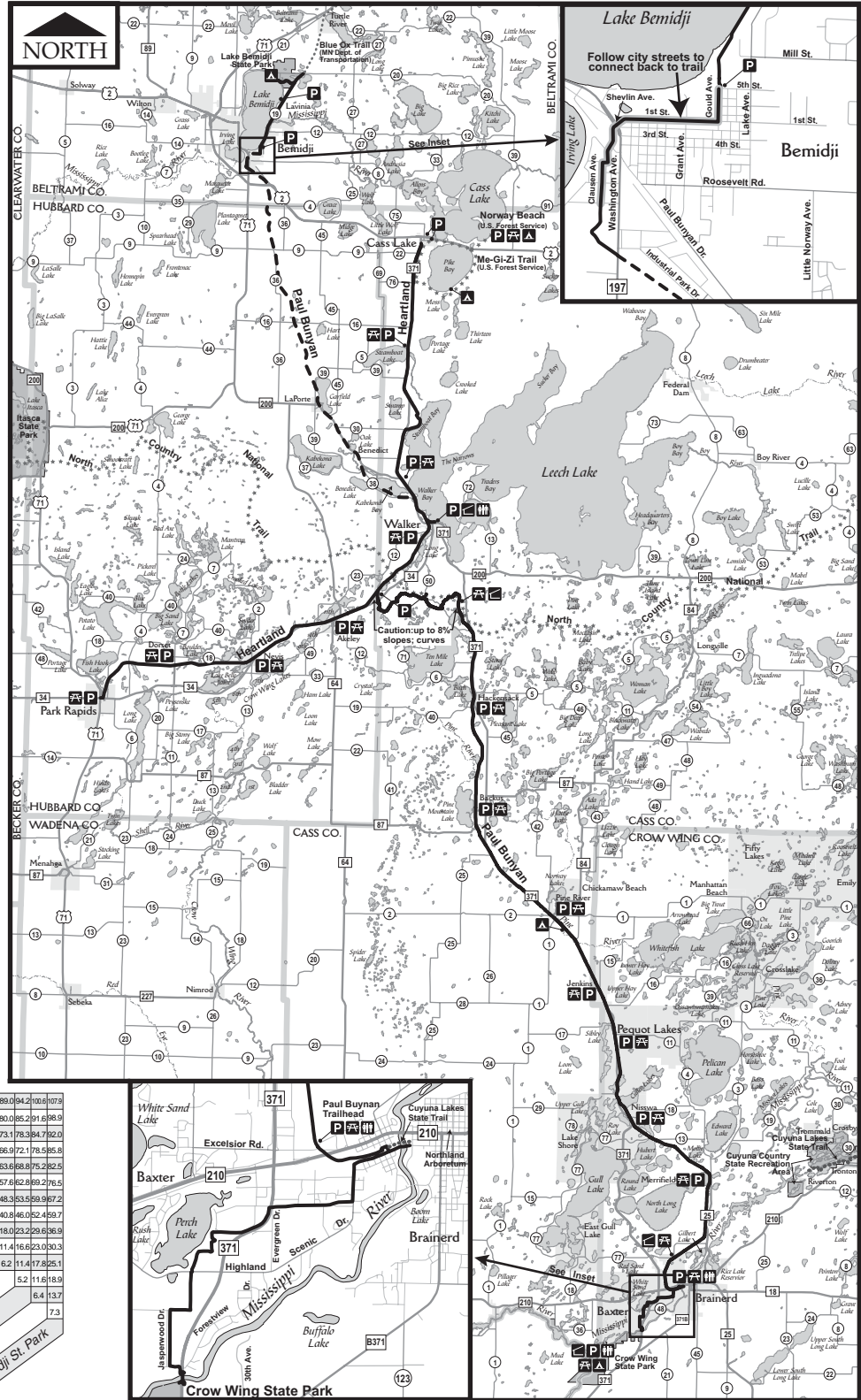


Heartland city distances in miles

Park Rapids	6.3	11.6	17.9	27.3	30.8	47
Doocey	5.3	11.6	21.0	33.5	40.7	
Newis	6.3	15.7	28.2	35.4		
Akeley	9.4	21.9	29.1			
Walker	12.5	19.7				
Wilkinson	7.2					
2 mi. south of Cass Lk.						

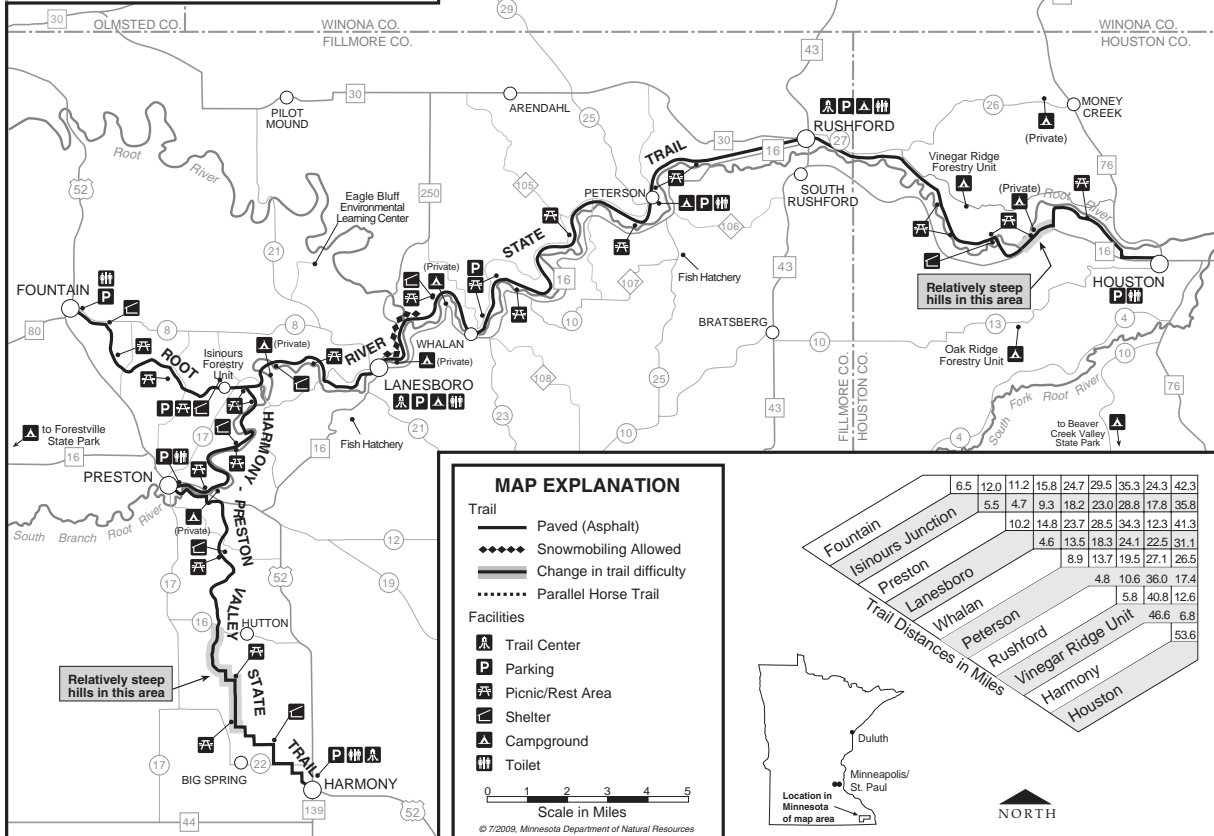
Paul Bunyan city distances in miles

Brainerd / Baxter	9.0	15.9	22.1	25.4	31.4	40.7	48.2	71.0	77.8	82.0	89.0	94.2	100.0	107.9
Morrishold	6.9	13.1	16.4	22.4	31.7	39.2	62.0	68.6	73.8	80.0	85.2	91.6	98.9	
Nisswa	6.2	9.5	15.9	24.8	32.3	35.5	61.7	66.9	73.1	78.3	84.7	92.0		
Pequot Lakes	3.3	9.3	18.6	26.1	48.9	55.5	58.0	76.9	72.1	79.5	85.8			
Jenkins	6.0	15.3	22.8	45.6	52.2	57.4	63.6	68.6	75.5	82.5				
Pine River	9.3	16.8	39.6	46.2	51.4	57.6	62.8	69.9	76.5					
Barkus	7.5	30.3	36.9	42.1	48.3	53.5	59.9	67.2						
Hackensack	22.8	29.4	34.5	40.8	46.0	52.4	59.7							
Walker	6.6	11.8	18.0	23.2	29.6	36.9								
Benedict	5.2	11.4	16.5	23.0	30.3									
Laporte	6.2	11.4	17.8	25.1										
Guthrie	5.2	11.6	18.9											
Nary	6.4	13.7												
Benidji	7.3													
Lake Bemidji St. Park														



Root River & Harmony-Preston Valley State Trails

Fillmore & Houston Counties



Summer trail use by day of week and activity

A. Paul Bunyan Trail (Baxter to Heartland Trail), 2007

	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Days of use</u>	<u>User-hours per day</u>
Overall	81,711	100%	101	809
Day of week				
Weekends/holidays	34,661	42%	34	1,019
Weekdays	47,050	58%	67	702
Activity				
Bike	53,545	66%		
Skate	4,777	6%		
Walk/hike	18,634	23%		
Run/jog	4,017	5%		
Other	738	1%		

B. Heartland Trail (Park Rapids to Cass Lake), 2007

	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Days of use</u>	<u>User-hours per day</u>
Overall	74,419	100%	101	737
Day of week				
Weekends/holidays	29,718	40%	34	874
Weekdays	44,701	60%	67	667
Activity				
Bike	48,048	65%		
Skate	2,800	4%		
Walk/hike	17,802	24%		
Run/jog	2,234	3%		
Other	3,536	5%		

Summer trail use by day of week and activity

C. Root River and Harmony-Preston Valley Trails, 2008

	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Days of use</u>	<u>User-hours per day</u>
Overall	123,410	100%	101	1,222
Day of week				
Weekends/holidays	65,683	53%	33	1,990
Weekdays	57,726	47%	68	849
Activity				
Bike	107,872	87%		
Skate	1,091	1%		
Walk/hike	13,391	11%		
Run/jog	946	1%		
Other	110	0%		

D. Douglas Trail, 2009

	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Days of use</u>	<u>User-hours per day</u>
Overall	64,869	100%	108	601
Day of week				
Weekends/holidays	28,119	43%	35	803
Weekdays	36,750	57%	73	503
Activity				
Bike	35,558	55%		
Skate	2,610	4%		
Walk/hike	18,105	28%		
Run/jog	8,281	13%		
Other	316	0%		

E. Paul Bunyan Trail segment near Lake Bemidji State Park, 2009

	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Days of use</u>	<u>User-hours per day</u>
Overall	26,352	100%	108	244
Day of week				
Weekends/holidays	13,019	49%	35	372
Weekdays	13,333	51%	73	183
Activity				
Bike	13,675	52%		
Skate	2,351	9%		
Walk/hike	6,458	25%		
Run/jog	1,560	6%		
Other	2,309	9%		

Summer trail use by trail segment

A. Paul Bunyan Trail (Baxter to Heartland Trail), 2007				
	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Miles of trail</u>	<u>User-hours per trail mile</u>
Overall	81,711	100%	64.2	1,273
Trail segment				
Baxter to Merrifield	15,812	19%	9.0	1,757
Merrifield to Pequot Lakes	34,687	42%	13.1	2,648
Pequot Lakes to Pine River	10,573	13%	9.3	1,137
Pine River to Backus	3,656	4%	9.3	393
Backus to Hackensack	5,111	6%	7.5	682
Hackensack to Trail shelter	9,531	12%	7.2	1,324
Trail shelter to Heartland Trail	2,341	3%	8.8	266

B. Heartland Trail (Park Rapids to Cass Lake), 2007				
	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Miles of trail</u>	<u>User-hours per trail mile</u>
Overall	74,419	100%	47.0	1,583
Trail segment				
Park Rapids to Dorset	21,324	29%	6.3	3,385
Dorset to Nevis	18,931	25%	5.3	3,572
Nevis to Akeley	9,791	13%	6.3	1,554
Akeley to Walker	10,832	15%	9.4	1,152
Walker to Cass CR #142	10,671	14%	8.6	1,241
Cass CR #142 to Cass Lake	2,869	4%	11.1	258

Summer trail use by trail segment

C. Root River and Harmony-Preston Valley Trails, 2008				
	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Miles of trail</u>	<u>User-hours per trail mile</u>
Overall	123,410	100%	59.9	2,060
Trail segment				
Fountain to Preston	21,690	18%	12	1,808
Preston to Harmony	5,872	5%	12.3	477
Isinours to Whalan	64,820	53%	9.3	6,970
Whalan to Peterson	14,599	12%	8.9	1,640
Peterson to Rushford	5,384	4%	4.8	1,122
Rushford to Money Creek Woods	5,086	4%	5.8	877
Money Creek Woods to Houston	5,958	5%	6.8	876

D. Douglas Trail, 2009				
	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Miles of trail</u>	<u>User-hours per trail mile</u>
Overall	64,869	100%	12.5	5,190
Trail segment				
Rochester to Douglas	36,169	56%	5.0	7,234
Douglas to Pine Island	28,700	44%	7.5	3,827

E. Paul Bunyan Trail segment near Lake Bemidji State Park, 2009				
	<u>Trail user-hours</u>	<u>Percent of user-hours</u>	<u>Miles of trail</u>	<u>User-hours per trail mile</u>
Overall	26,352	100%	7.3	3,610
Trail segment				
● North (Mississippi River to northern terminus, including segment extending into Lake Bemidji State Park)	14,524	55%	5.3	2,740
● South (Mississippi River to southern terminus)	11,828	45%	2.0	5,914

Summer trail use by travel distance from permanent home

A. Paul Bunyan Trail (Baxter to Heartland Trail), 2007			
<u>Travel distance</u>	Overall use (percent)	----- Trail activity -----	
		Bike (percent)	Walk/hike and Jog/run (percent)
10 miles or less	33%	20%	66%
10.1 to 50 miles	8%	9%	4%
50.1 to 100 miles	5%	8%	0%
over 100 miles	<u>54%</u>	<u>64%</u>	<u>30%</u>
Total percent	100%	100%	100%
<i>Median travel miles</i>	<i>120</i>	<i>140</i>	<i>6</i>

B. Heartland Trail (Park Rapids to Cass Lake), 2007			
<u>Travel distance</u>	Overall use (percent)	----- Trail activity -----	
		Bike (percent)	Walk/hike and Jog/run (percent)
10 miles or less	29%	14%	69%
10.1 to 50 miles	9%	11%	4%
50.1 to 100 miles	8%	10%	4%
over 100 miles	<u>54%</u>	<u>66%</u>	<u>22%</u>
Total percent	100%	100%	100%
<i>Median travel miles</i>	<i>125</i>	<i>168</i>	<i>1</i>

Summer trail use by travel distance from permanent home

C. Root River and Harmony-Preston Valley Trails, 2008			
<u>Travel distance</u>	Overall use (percent)	----- Trail activity -----	
		Bike (percent)	Walk/hike and Jog/run (percent)
10 miles or less	9%	5%	41%
10.1 to 50 miles	21%	20%	30%
50.1 to 100 miles	12%	14%	0%
over 100 miles	<u>58%</u>	<u>61%</u>	<u>29%</u>
Total percent	100%	100%	100%
<i>Median travel miles</i>	<i>120</i>	<i>120</i>	<i>15</i>

D. Douglas Trail, 2009			
<u>Travel distance</u>	Overall use (percent)	----- Trail activity -----	
		Bike (percent)	Walk/hike and Jog/run (percent)
10 miles or less	83%	78%	90%
10.1 to 50 miles	10%	11%	8%
50.1 to 100 miles	4%	6%	2%
over 100 miles	<u>3%</u>	<u>6%</u>	<u>0%</u>
Total percent	100%	100%	100%
<i>Median travel miles</i>	<i>3</i>	<i>4</i>	<i>3</i>

E. Paul Bunyan Trail segment near Lake Bemidji State Park, 2009			
<u>Travel distance</u>	Overall use (percent)	----- Trail activity -----	
		Bike (percent)	Walk/hike and Jog/run (percent)
10 miles or less	71%	62%	79%
10.1 to 50 miles	8%	9%	5%
50.1 to 100 miles	4%	3%	4%
over 100 miles	<u>18%</u>	<u>25%</u>	<u>11%</u>
Total percent	100%	100%	100%
<i>Median travel miles</i>	<i>5</i>	<i>5</i>	<i>3</i>

Summer trail use by origin of trail users, 2007

<u>Origin</u>	A. Paul Bunyan* (percent)	B. Heartland** (percent)
Local counties		
Cass	9%	9%
Crow Wing	26%	1%
Hubbard	<u>0%</u>	<u>24%</u>
<i>Subtotal local counties</i>	35%	33%
Seven-county Twin Cities	33%	17%
Rest of Minnesota	<u>17%</u>	<u>23%</u>
<i>Subtotal Minnesota</i>	85%	73%
Out of state	<u>15%</u>	<u>27%</u>
Total percent	100%	100%
* Baxter to Heartland Trail		
** Park Rapids to Cass Lake		

Summer trail use by origin of trail users

C. Root River and Harmony-Preston Valley Trails, 2008

<u>Origin</u>	<u>Percent</u>
Local counties	
Fillmore	9%
Houston	<u>2%</u>
<i>Subtotal local counties</i>	<i>11%</i>
Olmsted County	11%
Seven-county Twin Cities	20%
Rest of Minnesota	<u>16%</u>
<i>Subtotal Minnesota</i>	<i>59%</i>
Out of state	<u>41%</u>
Total percent	100%

D. Douglas Trail, 2009

<u>Origin</u>	<u>Percent</u>
Local counties	
Olmsted	67%
Goodhue	<u>16%</u>
<i>Subtotal local counties</i>	<i>83%</i>
Seven-county Twin Cities	6%
Rest of Minnesota	<u>8%</u>
<i>Subtotal Minnesota</i>	<i>98%</i>
Out of state	<u>2%</u>
Total percent	100%

E. Paul Bunyan Trail segment near Lake Bemidji State Park, 2009

<u>Origin</u>	<u>Percent</u>
Local counties	
Beltrami	70%
<i>Subtotal local counties</i>	<i>70%</i>
Seven-county Twin Cities	9%
Rest of Minnesota	<u>11%</u>
<i>Subtotal Minnesota</i>	<i>90%</i>
Out of state	<u>10%</u>
Total percent	100%

Summer trail use by age of trail users

<u>Age class</u>	<u>Paul Bunyan*</u> <u>2007</u>	<u>Heartland*</u> <u>2007-08</u>	<u>RR-HPV*</u> <u>2008-09</u>	<u>Douglas*</u> <u>2009</u>	<u>PB-BSP*</u> <u>2009</u>
12 or younger	8%	10%	9%	13%	16%
13 to 18	4%	4%	3%	5%	10%
19 to 40	18%	20%	21%	31%	33%
41 to 65	56%	55%	59%	44%	35%
over 65	<u>14%</u>	<u>11%</u>	<u>8%</u>	<u>8%</u>	<u>6%</u>
Total percent	100%	100%	100%	100%	100%
<i>Median age</i>	<i>50.3</i>	<i>46.5</i>	<i>50.8</i>	<i>42.7</i>	<i>32.9</i>
<hr/> * Paul Bunyan, 2007, Baxter to Heartland Trail * Heartland, 2007-08, Park Rapids to Cass Lake * RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley) * Douglas, 2009, Rochester to Pine Island * PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji					

Recent use trends for non-motorized trails

A. Summer use trends on state trails*

<u>Trail, study years, and comparable segment</u>	<u>First study Total summer user hours</u>	<u>Second study Total summer user hours</u>	<u>Percent change</u>	<u>Standardized 10-year trend:** Percent change</u>
Paul Bunyan, 1996 to 2007, Baxter to Hackensack	148,760	69,838	-53%	-48%
Heartland, 1998 to 2007-08, Park Rapids to Walker	118,337	60,878	-49%	-54%
Root River & Harmony-Preston Valley (RR & HPV), 1997 to 2008-09, Fountain to Preston and Isinours to Money Creek Woods	178,762	111,580	-38%	-34%
Gateway, 1997 to 2003, Cayuga Street to Pine Point Park	181,952	148,062	-19%	-31%
Douglas, 1997 to 2009, Rochester to Pine Island	45,810	64,869	42%	35%
Paul Bunyan State Trail Near Lake Bemidji State Park, 1998 to 2009, Mississippi River to northern terminus	17,488	14,524	-17%	-15%

* Summer extends from the Saturday of Memorial Day weekend to Labor Day. Because summers vary in length, and because this affects comparability between studies, summer length is set by the second study.

** Assumes the same linear change in user-hours per year.

B. Annual use trends on Twin Cities metropolitan regional trails

<u>Metro regional trails (annual occasions in 000's)</u>	<u>First year</u>	<u>Year 2007</u>	<u>Percent change</u>	<u>Standardized 10-year trend:** Percent change</u>
Nine trails from 1998 to 2007	3,941	3,516	-11%	-12%
Eleven trails from 1999 to 2007	5,256	3,980	-24%	-30%
Thirteen trails from 2000 to 2007	5,052	4,209	-17%	-24%
Fifteen trails from 2001 to 2007	5,437	4,547	-16%	-27%

** Assumes the same linear change in user-hours per year.

Summer use trends by day of week and activity

A. Paul Bunyan Trail (Baxter to Hackensack)

	1996	2007	
	<u>Total summer</u>	<u>Total summer</u>	<u>Percent</u>
	<u>user hours</u>	<u>user hours</u>	<u>change</u>
Overall	148,760	69,838	-53%
By Day of Week			
Weekends/Holidays	72,770	29,468	-60%
Weekdays	75,990	40,371	-47%
By Trail Activity			
Bike	106,890	44,609	-58%
Skate	22,293	4,597	-79%
Walk/hike	16,924	16,526	-2%
Run/jog	2,255	3,368	49%
<i>Walk/hike + Run/jog</i>	<i>19,179</i>	<i>19,894</i>	<i>4%</i>
Other	398	738	85%

B. Heartland Trail (Park Rapids to Walker)

	1998	2007	
	<u>Total summer</u>	<u>Total summer</u>	<u>Percent</u>
	<u>user hours</u>	<u>user hours</u>	<u>change</u>
Overall	118,337	60,878	-49%
By Day of Week			
Weekends/Holidays	59,084	23,385	-60%
Weekdays	59,254	37,493	-37%
By Trail Activity			
Bike	92,979	41,339	-56%
Skate	6,928	2,287	-67%
Walk/hike	17,071	12,498	-27%
Run/jog	1,038	1,898	83%
<i>Walk/hike + Run/jog</i>	<i>18,109</i>	<i>14,395</i>	<i>-21%</i>
Other	320	2,857	792%

Summer use trends by day of week and activity

C. Root River & Harmony-Preston Valley Trails (Fountain to Preston and Isinours to Money Creek Woods)

	1997	2008	
	Total summer user hours	Total summer user hours	Percent change
Overall	178,762	111,580	-38%
By Day of Week			
Weekends/Holidays	110,154	59,199	-46%
Weekdays	68,608	52,381	-24%
By Trail Activity			
Bike	161,877	98,915	-39%
Skate	4,711	758	-84%
Walk/hike	10,844	10,905	1%
Run/jog	311	892	187%
<i>Walk/hike + Run/jog</i>	<i>11,155</i>	<i>11,796</i>	<i>6%</i>
Other	1,019	110	-89%

D. Douglas Trail (Rochester to Pine Island)

	1997	2009	
	Total summer user hours	Total summer user hours	Percent change
Overall	45,810	64,869	42%
By Day of Week			
Weekends/Holidays	20,876	28,119	35%
Weekdays	24,934	36,750	47%
By Trail Activity			
Bike	27,642	35,558	29%
Skate	2,731	2,610	-4%
Walk/hike	11,746	18,105	54%
Run/jog	2,709	8,281	206%
<i>Walk/hike + Run/jog</i>	<i>14,454</i>	<i>26,386</i>	<i>83%</i>
Other	983	316	-68%

E. Paul Bunyan State Trail Near Lake Bemidji State Park (Mississippi River to northern terminus)

	1998	2009	
	Total summer user hours	Total summer user hours	Percent change
Overall	17,488	14,524	-17%
By Day of Week			
Weekends/Holidays	7,779	8,210	6%
Weekdays	9,709	6,314	-35%
By Trail Activity			
Bike	8,217	8,089	-2%
Skate	4,187	1,245	-70%
Walk/hike	3,933	3,363	-14%
Run/jog	852	652	-23%
<i>Walk/hike + Run/jog</i>	<i>4,785</i>	<i>4,015</i>	<i>-16%</i>
Other	299	1,174	293%

Summer use trends by trail segment

A. Paul Bunyan Trail (Baxter to Hackensack)

	1996	2007	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	148,760	69,838	-53%
Segment			
Baxter to Merrifield	37,841	15,812	-58%
Merrifield to Pequot Lakes	58,820	34,687	-41%
Pequot Lakes to Pine River	25,505	10,573	-59%
Pine River to Backus	13,687	3,656	-73%
Backus to Hackensack	12,907	5,111	-60%

B. Heartland Trail (Park Rapids to Walker)

	1998	2007	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	118,337	60,878	-49%
Segment			
Park Rapids to Nevis	55,997	40,255	-28%
Nevis to Akeley	24,747	9,791	-60%
Akeley to Walker	37,594	10,832	-71%

Summer use trends by trail segment

C. Root River & Harmony-Preston Valley Trails (Fountain to Preston and Isinours to Money Creek Woods)

	1997	2008	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	178,762	111,580	-38%
Segment			
Fountain to Preston	37,978	21,690	-43%
Isinours to Whalan	83,958	64,820	-23%
Whalan to Peterson	31,922	14,599	-54%
Peterson to Rushford	18,580	5,384	-71%
Rushford to Money Creek Woc	6,324	5,086	-20%

D. Douglas Trail (Rochester to Pine Island)

	1997	2009	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	45,810	64,869	42%
Segment			
Rochester to Douglas	22,905	36,169	58%
Douglas to Pine Island	22,906	28,700	25%

E. Paul Bunyan State Trail Near Lake Bemidji State Park (Mississippi River to northern terminus)

	1998	2009	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	17,488	14,524	-17%
Segment			
North (Mississippi River to	17,488	14,524	-17%

Summer use trends by travel distance from permanent home

A. Paul Bunyan Trail (Baxter to Hackensack)

	1996 Total summer <u>user hours</u>	2007 Total summer <u>user hours</u>	Percent <u>change</u>
Overall	148,760	69,838	-53%
Travel distance			
10 miles or less	44,941	24,337	-46%
10.1 to 100 miles	21,899	8,575	-61%
over 100 miles	81,920	36,927	-55%

B. Heartland Trail (Park Rapids to Walker)

	1998 Total summer <u>user hours</u>	2007 Total summer <u>user hours</u>	Percent <u>change</u>
Overall	118,337	60,878	-49%
Travel distance			
10 miles or less	26,335	18,838	-28%
10.1 to 100 miles	36,695	10,394	-72%
over 100 miles	55,307	31,647	-43%

Summer use trends by travel distance from permanent home

C. Root River & Harmony-Preston Valley Trails (Fountain to Preston and Isinours to Money Creek Woods)

	1997	2008	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	178,762	111,580	-38%
Travel distance			
10 miles or less	11,017	10,781	-2%
10.1 to 100 miles	78,223	36,666	-53%
over 100 miles	89,521	64,133	-28%

D. Douglas Trail (Rochester to Pine Island)

	1997	2009	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	45,810	64,869	42%
Travel distance			
10 miles or less	36,470	53,916	48%
10.1 to 100 miles	7,551	8,863	17%
over 100 miles	1,789	2,090	17%

E. Paul Bunyan State Trail Near Lake Bemidji State Park (Mississippi River to northern terminus)

	1998	2009	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent <u>change</u>
Overall	17,488	14,524	-17%
Travel distance			
10 miles or less	9,763	8,591	-12%
10.1 to 100 miles	2,886	1,974	-32%
over 100 miles	4,839	3,958	-18%

Summer use trends by age class

A. Paul Bunyan Trail (Baxter to Hackensack)

	1996	2007	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent or year <u>change</u>
Overall	148,760	69,838	-53%
Age class			
12 or younger	17,463	6,598	-62%
13 to 18	13,583	2,672	-80%
over 18	117,713	60,569	-49%
<i>Median age</i>	<i>(no data)</i>	<i>49.3</i>	

B. Heartland Trail (Park Rapids to Walker)

	1998	2007	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent or year <u>change</u>
Overall	118,337	60,878	-49%
Age class			
12 or younger	21,679	6,349	-71%
13 to 18	12,168	1,987	-84%
19 to 40	28,605	12,721	-56%
41 to 65	45,960	32,304	-30%
over 65	9,926	7,517	-24%
<i>Median age</i>	<i>39.7</i>	<i>47.1</i>	<i>7.4</i>

Summer use trends by age class

C. Root River & Harmony-Preston Valley Trails (Fountain to Preston and Isinours to Money Creek Woods)

	1997	2008	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent or year <u>change</u>
Overall	178,762	111,580	-38%
Age class			
12 or younger	21,457	10,276	-52%
13 to 18	7,553	3,157	-58%
19 to 40	54,657	24,467	-55%
41 to 65	85,031	63,936	-25%
over 65	10,063	9,744	-3%
<i>Median age</i>	<i>42.7</i>	<i>51.5</i>	<i>8.8</i>

D. Douglas Trail (Rochester to Pine Island)

	1997	2009	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent or year <u>change</u>
Overall	45,810	64,869	42%
Age class			
12 or younger	8,048	8,187	2%
13 to 18	3,266	2,943	-10%
19 to 40	15,626	19,919	27%
41 to 65	16,985	28,844	70%
over 65	1,885	4,976	164%
<i>Median age</i>	<i>38.1</i>	<i>42.7</i>	<i>4.6</i>

E. Paul Bunyan State Trail Near Lake Bemidji State Park (Mississippi River to northern terminus)

	1998	2009	
	Total summer <u>user hours</u>	Total summer <u>user hours</u>	Percent or year <u>change</u>
Overall	17,488	14,524	-17%
Age class			
12 or younger	3,121	1,877	-40%
13 to 18	1,726	1,670	-3%
19 to 40	6,429	4,027	-37%
41 to 65	5,695	5,901	4%
over 65	517	1,049	103%
<i>Median age</i>	<i>34.6</i>	<i>40.3</i>	<i>5.7</i>

Trends in per-capita summer trail use by Minnesotans
(use hours from Minnesotans per 1000 Minnesotans)

A. Paul Bunyan Trail (Baxter to Hackensack)

	1996	2007	
	User-hours <u>per capita</u>	User-hours <u>per capita</u>	<u>Percent change</u>
Overall	27.6	11.4	-59%
Age class			
12 or younger	17.3	6.9	-60%
13 to 18	27.7	5.1	-81%
over 18	30.3	13.2	-56%

B. Heartland Trail (Park Rapids to Walker)

	1998	2007	
	User-hours <u>per capita</u>	User-hours <u>per capita</u>	<u>Percent change</u>
Overall	18.5	8.9	-52%
Age class			
12 or younger	17.8	6.0	-66%
13 to 18	22.4	3.6	-84%
19 to 40	12.7	6.6	-48%
41 to 65	25.7	13.2	-49%
over 65	15.4	10.2	-34%

Trends in per-capita summer trail use by Minnesotas
(use hours from Minnesotans per 1000 Minnesotans)

C. Root River & Harmony-Preston Valley Trails (Fountain to Preston
and Isinours to Money Creek Woods)

	1997	2008	
	User-hours <u>per capita</u>	User-hours <u>per capita</u>	Percent <u>change</u>
Overall	24.6	12.8	-48%
Age class			
12 or younger	15.6	8.5	-45%
13 to 18	7.5	4.8	-37%
19 to 40	23.9	9.4	-61%
41 to 65	41.6	22.4	-46%
over 65	14.2	5.8	-59%

D. Douglas Trail (Rochester to Pine Island)

	1997	2009	
	User-hours <u>per capita</u>	User-hours <u>per capita</u>	Percent <u>change</u>
Overall	9.4	12.1	29%
Age class			
12 or younger	8.9	8.8	-1%
13 to 18	7.9	6.8	-13%
19 to 40	9.8	12.8	31%
41 to 65	12.4	15.9	29%
over 65	3.5	8.2	135%

E. Paul Bunyan State Trail Near Lake Bemidji State Park
(Mississippi River to northern terminus)

	1998	2009	
	User-hours <u>per capita</u>	User-hours <u>per capita</u>	Percent <u>change</u>
Overall	3.4	2.4	-28%
Age class			
12 or younger	3.1	2.1	-33%
13 to 18	3.5	3.9	11%
19 to 40	3.6	2.1	-43%
41 to 65	4.2	2.9	-31%
over 65	1.0	1.4	43%

How did you first hear about the trail?

Response	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
I live or work nearby	53%	45%	26%	77%	70%
From family or friends – by word of mouth	19%	26%	46%	17%	20%
Tourism, chamber of commerce, or convention & visitors bureau information	9%	5%	7%	1%	2%
Internet website	5%	7%	3%	2%	1%
DNR brochure, map or DNR Information Center	2%	5%	4%	1%	3%
From newspapers, magazines, radio, or TV	2%	1%	7%	0%	1%
Other	<u>10%</u>	<u>11%</u>	<u>7%</u>	<u>2%</u>	<u>3%</u>
Total	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

What did you like most about the trail?
(respondents could check multiple responses)

Response	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Scenery, wildlife, wildflowers, birds, trees	85%	86%	93%	80%	90%
Quiet, peaceful	80%	91%	85%	87%	88%
It's a good place for exercise, to work out, to keep in shape	83%	83%	66%	87%	86%
No cars or motorized vehicles	70%	75%	72%	74%	81%
Well-maintained, clean	66%	65%	65%	68%	73%
It's fun	56%	63%	70%	59%	74%
Like the trail surface	62%	65%	63%	60%	71%
Easy, flat trail,	62%	73%	58%	62%	63%
Little development, not commercial	56%	70%	65%	58%	64%
Using the trail reduces tension, stress	61%	60%	54%	62%	69%
Like the length	54%	59%	56%	56%	54%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trends in Paul Bunyan Trail user ratings of overall trail experience

A. All users			
<u>Rating of overall experience</u>	<u>1996 (percent)</u>	<u>2007 (percent)</u>	<u>Change in percent: 1996 to 2007</u>
Excellent	82%	62%	-20%
Good	14%	37%	23%
Fair	2%	0%	-2%
Poor	1%	0%	-1%
Very Poor	<u>0%</u>	<u>0%</u>	0%
Total	100%	100%	

B. By travel distance from permanent home ("excellent" ratings only)			
	----- <i>"Excellent" ratings</i> -----		
<u>Distance</u>	<u>1996 (percent)</u>	<u>2007 (percent)</u>	<u>Change in percent: 1996 to 2007</u>
10 miles or less	80%	55%	-25%
10.1 to 100 miles	95%	61%	-34%
over 100 miles	83%	72%	-11%

C. By trail activity ("excellent" ratings only)			
	----- <i>"Excellent" ratings</i> -----		
<u>Activity</u>	<u>1996 (percent)</u>	<u>2007 (percent)</u>	<u>Change in percent: 1996 to 2007</u>
Bike	84%	69%	-14%
Skate	60%	51%	-9%
Walk/hike or run/jog	99%	57%	-42%

Trends in Heartland Trail user ratings of overall trail experience

A. All users

<u>Rating of overall experience</u>	<u>1997 (percent)</u>	<u>2007 (percent)</u>	<u>Change in percent: 1997 to 2007</u>
Excellent	82%	69%	-12%
Good	16%	29%	12%
Fair	1%	1%	0%
Poor	0%	0%	0%
Very Poor	<u>1%</u>	<u>1%</u>	0%
Total	100%	100%	

B. By travel distance from permanent home ("excellent" ratings only)

	----- "Excellent" ratings -----		
<u>Distance</u>	<u>1997 (percent)</u>	<u>2007 (percent)</u>	<u>Change in percent: 1997 to 2007</u>
10 miles or less	78%	66%	-13%
10.1 to 100 miles	79%	66%	-12%
over 100 miles	86%	75%	-12%

C. By trail activity ("excellent" ratings only)

	----- "Excellent" ratings -----		
<u>Activity</u>	<u>1997 (percent)</u>	<u>2007 (percent)</u>	<u>Change in percent: 1997 to 2007</u>
Bike	85%	71%	-14%
Skate	65%	47%	-18%
Walk/hike or run/jog	76%	70%	-6%

Trends in Root River and Harmony-Preston Valley Trail user ratings of overall trail experience

A. All users			
<u>Rating of overall experience</u>	<u>1997 (percent)</u>	<u>2008 (percent)</u>	<u>Change in percent: 1997 to 2008</u>
Excellent	82%	62%	-20%
Good	18%	36%	18%
Fair	1%	2%	1%
Poor	0%	0%	0%
Very Poor	<u>0%</u>	<u>0%</u>	0%
Total	100%	100%	

B. By travel distance from permanent home ("excellent" ratings only)			
----- "Excellent" ratings -----			
<u>Distance</u>	<u>1997 (percent)</u>	<u>2008 (percent)</u>	<u>Change in percent: 1997 to 2008</u>
10 miles or less	71%	40%	-31%
10.1 to 100 miles	79%	63%	-16%
over 100 miles	87%	68%	-19%

C. By trail activity ("excellent" ratings only)			
----- "Excellent" ratings -----			
<u>Activity</u>	<u>1997 (percent)</u>	<u>2008 (percent)</u>	<u>Change in percent: 1997 to 2008</u>
Bike	83%	66%	-17%
Skate	84%	(no data)	
Walk/hike or run/jog	74%	50%	-24%

Trends in Douglas Trail user ratings of overall trail experience

A. All users

<u>Rating of overall experience</u>	<u>1997 (percent)</u>	<u>2009 (percent)</u>	<u>Change in percent: 1997 to 2009</u>
Excellent	45%	61%	17%
Good	50%	38%	-12%
Fair	5%	1%	-3%
Poor	1%	0%	-1%
Very Poor	<u>0%</u>	<u>0%</u>	0%
Total	100%	100%	

B. By travel distance from permanent home ("excellent" ratings only)

	----- "Excellent" ratings -----		
<u>Distance</u>	<u>1997 (percent)</u>	<u>2009 (percent)</u>	<u>Change in percent: 1997 to 2009</u>
10 miles or less	45%	63%	18%
10.1 to 100 miles	43%	52%	9%
over 100 miles	44%	61%	17%

C. By trail activity ("excellent" ratings only)

	----- "Excellent" ratings -----		
<u>Activity</u>	<u>1997 (percent)</u>	<u>2009 (percent)</u>	<u>Change in percent: 1997 to 2009</u>
Bike	43%	60%	17%
Skate	22%	81%	59%
Walk/hike or run/jog	49%	62%	13%

Trends in user ratings of overall trail experience for segment of Paul Bunyan
Trail near Lake Bemidji State Park

A. All users			
<u>Rating of overall experience</u>	<u>1998</u> (percent)	<u>2009</u> (percent)	<u>Change in percent:</u> <u>1998 to 2009</u>
Excellent	67%	71%	4%
Good	32%	28%	-3%
Fair	1%	0%	0%
Poor	0%	0%	0%
Very Poor	<u>0%</u>	<u>0%</u>	0%
Total	100%	100%	

B. By travel distance from permanent home ("excellent" ratings only)			
	----- "Excellent" ratings -----		
<u>Distance</u>	<u>1998</u> (percent)	<u>2009</u> (percent)	<u>Change in percent:</u> <u>1998 to 2009</u>
10 miles or less	69%	66%	-3%
10.1 to 100 miles	78%	77%	-1%
over 100 miles	63%	84%	22%

C. By trail activity ("excellent" ratings only)			
	----- "Excellent" ratings -----		
<u>Activity</u>	<u>1998</u> (percent)	<u>2009</u> (percent)	<u>Change in percent:</u> <u>1998 to 2009</u>
Bike	76%	76%	0%
Skate	50%	71%	22%
Walk/hike or run/jog	68%	68%	-1%

Paul Bunyan satisfaction ratings for trail facilities and services, 2007

Group / Facility or service	2007 mean satisfaction (value from 1 to 5)	1996 to 2007 change in mean satisfaction (value)	Very satisfied (=5) (percent)	Satisfied (=4) (percent)	Neutral (=3) (percent)	Dissatisfied (=2) (percent)	Very Dissatisfied (=1) (percent)	Not applicable (percent)	Total (percent)	
General characteristics										
Trail location	4.8	Note: comparable data were not collected in the 1996 study	80%	19%	1%	0%	0%	0%	100%	
Trail design	4.7		71%	26%	3%	0%	0%	0%	100%	
Maintenance										
Trail surface quality	4.4		55%	36%	4%	5%	0%	0%	100%	
Maintenance of the trail	4.1		40%	44%	6%	9%	1%	1%	100%	
Management of vegetation in the trail corridor	4.0		35%	45%	9%	7%	3%	2%	100%	
Safety and enforcement										
Safety of road crossings	4.2		41%	43%	11%	4%	0%	0%	100%	
Security of parking areas	4.2		39%	33%	9%	3%	2%	15%	100%	
Bridges	4.3		36%	25%	10%	0%	0%	28%	100%	
Personal safety concerns	4.2		39%	37%	13%	2%	1%	8%	100%	
Enforcement of trail rules	4.0		25%	40%	19%	3%	0%	14%	100%	
Information										
Information about getting to the trail	4.1	Note: comparable data were not collected in the 1996 study	27%	38%	13%	2%	0%	20%	100%	
Trail rules, traffic signs, and etiquette signs	4.0		28%	45%	14%	7%	1%	6%	100%	
Information about what to expect about the trail	4.0		23%	41%	15%	4%	0%	17%	100%	
Information about trail connections	3.9		20%	42%	14%	5%	0%	18%	100%	
Information about what you can see from the trail	3.8		23%	34%	23%	6%	0%	13%	100%	
Facilities										
Availability of benches	4.2		33%	43%	15%	1%	0%	9%	100%	
Availability of picnic areas or shelters	3.9		19%	35%	21%	2%	0%	22%	100%	
Availability of telephones	3.4		12%	13%	25%	8%	3%	39%	100%	
Availability of toilet facilities	3.6		21%	31%	24%	10%	5%	8%	100%	
Availability of drinking water	3.4		20%	23%	24%	14%	5%	14%	100%	

Heartland satisfaction ratings for trail facilities and services, 2007, and trends from 1998

Group / Facility or service	2007 mean satisfaction (value from 1 to 5)	1998 to 2007 change in mean satisfaction (value)	Very satisfied (=5) (percent)	Satisfied (=4) (percent)	Neutral (=3) (percent)	Dissatisfied (=2) (percent)	Very dissatisfied (=1) (percent)	Not applicable (percent)	Total (percent)
General characteristics									
Trail location	4.8	0.0	79%	21%	0%	0%	0%	0%	100%
Trail design	4.7	-0.1	69%	30%	1%	0%	0%	0%	100%
Maintenance									
Trail surface quality	4.4	-0.4	48%	45%	3%	4%	0%	0%	100%
Maintenance of the trail	4.0	-0.5	34%	45%	7%	11%	1%	0%	100%
Management of vegetation in the trail corridor	3.9	-0.3	28%	47%	10%	10%	2%	4%	100%
Safety and enforcement									
Safety of road crossings	4.3	-0.2	47%	41%	7%	2%	2%	0%	100%
Security of parking areas	4.2	-0.1	34%	35%	14%	1%	0%	16%	100%
Bridges	4.2	-0.2	33%	31%	10%	4%	0%	21%	100%
Personal safety concerns	4.2	-0.1	35%	43%	11%	1%	3%	7%	100%
Enforcement of trail rules	3.8	0.0	20%	28%	33%	2%	0%	17%	100%
Information									
Information about getting to the trail	4.0	0.0	27%	30%	16%	4%	1%	23%	100%
Trail rules, traffic signs, and etiquette signs	4.0	-0.1	27%	43%	18%	4%	0%	7%	100%
Information about what to expect about the trail	3.9	0.0	24%	25%	22%	5%	0%	24%	100%
Information about trail connections	3.9	0.2	23%	33%	21%	6%	0%	16%	100%
Information about what you can see from the trail	3.7	0.0	20%	25%	26%	6%	2%	22%	100%
Facilities									
Availability of benches	4.1	0.6	34%	37%	14%	4%	1%	11%	100%
Availability of picnic areas or shelters	3.8	0.1	19%	26%	26%	4%	0%	26%	100%
Availability of telephones	3.1	-0.1	8%	7%	32%	8%	4%	40%	100%
Availability of toilet facilities	3.1	-0.3	12%	17%	23%	20%	7%	21%	100%
Availability of drinking water	3.1	0.0	9%	12%	31%	18%	4%	25%	100%

Root River and Harmony-Preston Valley satisfaction ratings for trail facilities and services, 2008, and trends from 1997

Group / Facility or service	2008 mean satisfaction (value from 1 to 5)	1997 to 2008 change in mean satisfaction (value)	Very satisfied (=5) (percent)	Satisfied (=4) (percent)	Neutral (=3) (percent)	Dissatisfied (=2) (percent)	Very dissatisfied (=1) (percent)	Not applicable (percent)	Total (percent)
General characteristics									
Trail location	4.7	0.0	68%	29%	2%	0%	0%	1%	100%
Trail design	4.7	-0.1	70%	28%	2%	0%	0%	0%	100%
Maintenance									
Trail surface quality	4.1	-0.6	39%	45%	6%	9%	1%	0%	100%
Maintenance of the trail	4.1	-0.3	40%	42%	8%	8%	1%	0%	100%
Management of vegetation in the trail corridor	4.1	-0.1	37%	49%	6%	6%	1%	0%	100%
Safety and enforcement									
Safety of road crossings	4.3	-0.2	44%	41%	12%	2%	0%	0%	100%
Security of parking areas	4.2	-0.1	36%	34%	15%	0%	0%	15%	100%
Bridges	4.4	-0.2	51%	40%	3%	4%	1%	0%	100%
Personal safety concerns	4.3	0.0	40%	41%	12%	1%	1%	6%	100%
Enforcement of trail rules	3.9	0.0	24%	36%	24%	4%	1%	11%	100%
Information									
Information about getting to the trail	4.3	0.2	35%	50%	7%	0%	0%	7%	100%
Trail rules, traffic signs, and etiquette signs	4.0	0.0	29%	49%	15%	5%	1%	1%	100%
Information about what to expect about the trail	4.1	0.0	29%	48%	15%	1%	0%	7%	100%
Information about trail connections	4.1	0.0	28%	45%	20%	0%	0%	7%	100%
Information about what you can see from the trail	3.9	-0.1	22%	42%	26%	3%	0%	7%	100%
Facilities									
Availability of benches	3.7	-0.2	18%	43%	21%	10%	1%	8%	100%
Availability of picnic areas or shelters	3.7	-0.1	17%	39%	29%	3%	2%	11%	100%
Availability of telephones	3.4	-0.2	8%	15%	31%	7%	1%	38%	100%
Availability of toilet facilities	3.4	-0.2	12%	34%	28%	20%	1%	6%	100%
Availability of drinking water	3.4	-0.1	9%	35%	30%	14%	2%	9%	100%

Douglas satisfaction ratings for trail facilities and services, 2009, and trends from 1997

Group / Facility or service	2009 mean satisfaction (value from 1 to 5)	1997 to 2009 change in mean satisfaction (value)	Very satisfied (=5) (percent)	Satisfied (=4) (percent)	Neutral (=3) (percent)	Dissatisfied (=2) (percent)	Very dissatisfied (=1) (percent)	Not applicable (percent)	Total (percent)
General characteristics									
Trail location	4.7	0.2	68%	31%	1%	1%	0%	0%	100%
Trail design	4.5	0.2	59%	37%	3%	1%	0%	0%	100%
Maintenance									
Trail surface quality	4.4	0.8	45%	48%	5%	2%	0%	0%	100%
Maintenance of the trail	4.2	0.4	35%	51%	7%	4%	2%	1%	100%
Management of vegetation in the trail corridor	3.9	-0.1	30%	45%	14%	7%	3%	1%	100%
Safety and enforcement									
Safety of road crossings	4.2	0.2	38%	45%	8%	5%	1%	2%	100%
Security of parking areas	4.2	0.2	30%	41%	13%	0%	0%	15%	100%
Bridges	4.3	0.1	44%	45%	6%	4%	0%	1%	100%
Personal safety concerns	4.0	0.1	27%	46%	15%	2%	1%	8%	100%
Enforcement of trail rules	3.6	0.0	15%	32%	36%	4%	2%	11%	100%
Information									
Information about getting to the trail	3.6	-0.1	12%	27%	26%	4%	1%	30%	100%
Trail rules, traffic signs, and etiquette signs	3.8	0.0	20%	49%	18%	6%	3%	5%	100%
Information about what to expect about the trail	3.6	0.0	11%	28%	28%	4%	1%	28%	100%
Information about trail connections	3.4	-0.1	11%	22%	31%	11%	2%	23%	100%
Information about what you can see from the trail	3.6	0.0	13%	21%	31%	5%	1%	29%	100%
Facilities									
Availability of benches	3.8	0.1	17%	40%	24%	5%	1%	14%	100%
Availability of picnic areas or shelters	3.7	0.0	11%	37%	24%	4%	1%	21%	100%
Availability of telephones	3.1	0.1	4%	8%	33%	9%	1%	46%	100%
Availability of toilet facilities	3.4	-0.1	9%	33%	30%	14%	2%	12%	100%
Availability of drinking water	2.7	-0.3	6%	11%	28%	26%	10%	19%	100%

Satisfaction ratings for trail facilities and services for segment of Paul Bunyan Trail near Lake Bemidji State Park, 2009, and trends from 1998

Group/Facility or service	2009 mean satisfaction (value from 1 to 5)	1998 to 2009 change in mean satisfaction (value)	Very satisfied (=5) (percent)	Satisfied (=4) (percent)	Neutral (=3) (percent)	Dissatisfied (=2) (percent)	Very dissatisfied (=1) (percent)	Not applicable (percent)	Total (percent)
General characteristics									
Trail location	4.7	0.1	76%	21%	2%	1%	0%	0%	100%
Trail design	4.6	0.1	65%	30%	4%	1%	0%	0%	100%
Maintenance									
Trail surface quality	4.6	0.0	63%	33%	3%	1%	0%	0%	100%
Maintenance of the trail	4.3	0.0	47%	45%	4%	4%	1%	0%	100%
Management of vegetation in the trail corridor	4.2	-0.1	40%	42%	10%	4%	1%	3%	100%
Safety and enforcement									
Safety of road crossings	4.3	0.4	43%	39%	6%	5%	0%	7%	100%
Security of parking areas	4.1	0.2	25%	30%	16%	1%	0%	29%	100%
Bridges	4.3	0.1	47%	33%	7%	4%	1%	7%	100%
Personal safety concerns	4.1	0.2	33%	41%	13%	3%	1%	9%	100%
Enforcement of trail rules	3.7	0.0	19%	31%	26%	4%	3%	17%	100%
Information									
Information about getting to the trail	3.8	0.0	19%	26%	26%	6%	1%	22%	100%
Trail rules, traffic signs, and etiquette signs	3.8	-0.1	22%	39%	20%	8%	2%	9%	100%
Information about what to expect about the trail	3.7	0.1	17%	25%	31%	4%	0%	23%	100%
Information about trail connections	3.6	0.1	20%	27%	28%	10%	1%	15%	100%
Information about what you can see from the trail	3.7	0.0	17%	25%	32%	3%	1%	21%	100%
Facilities									
Availability of benches	3.6	0.5	20%	29%	18%	12%	4%	16%	100%
Availability of picnic areas or shelters	3.3	0.0	11%	13%	29%	10%	3%	34%	100%
Availability of telephones	2.9	-0.1	3%	5%	33%	7%	5%	47%	100%
Availability of toilet facilities	2.7	-0.4	7%	8%	25%	24%	11%	24%	100%
Availability of drinking water	2.5	-0.2	5%	6%	22%	29%	10%	29%	100%

Would you recommend this trail to a friend?

<u>Response</u>	<u>Paul Bunyan*</u> <u>(percent)</u>	<u>Heartland*</u> <u>(percent)</u>	<u>RR-HPV*</u> <u>(percent)</u>	<u>Douglas*</u> <u>(percent)</u>	<u>PB-BSP*</u> <u>(percent)</u>
Yes	100%	100%	99%	100%	100%
No	0%	0%	1%	0%	0%
Total	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Which trail surface do you like best for your type of trail use on the day of the survey?

NOTE: All these trails are currently paved with asphalt.

<u>Response</u>	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Asphalt paving	94%	97%	90%	90%	92%
Concrete	2%	2%	4%	4%	4%
Natural surface – grass or dirt	3%	0%	2%	4%	2%
Compacted crushed limestone	2%	1%	3%	2%	1%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Priorities for trail improvements:
Percent of trail users who are "dissatisfied" or "very dissatisfied" with the facility or service

<u>Facility or service</u>	<u>Paul Bunyan*</u> <u>(percent)</u>	<u>Heartland*</u> <u>(percent)</u>	<u>RR-HPV*</u> <u>(percent)</u>	<u>Douglas*</u> <u>(percent)</u>	<u>PB-BSP*</u> <u>(percent)</u>
Facilities					
Availability of drinking water	19%	22%	17%	36%	38%
Availability of toilet facilities	15%	27%	20%	16%	35%
Availability of telephones	10%	12%	8%	10%	12%
Availability of benches	1%	5%	10%	5%	16%
Availability of picnic areas or shelters	2%	4%	4%	5%	13%
Maintenance					
Management of vegetation in the trail corridor	10%	11%	7%	10%	5%
Maintenance of the trail	10%	12%	9%	6%	5%
Trail surface quality	5%	4%	10%	2%	1%
Information					
Trail rules, traffic signs, and etiquette signs	8%	5%	6%	8%	11%
Information about trail connections	5%	6%	1%	13%	11%
Information about what you can see from the trail	7%	7%	3%	6%	4%
Information about what to expect about the trail	4%	5%	1%	5%	4%
Information about getting to the trail	2%	4%	0%	5%	6%
Safety and Enforcement					
Safety of road crossings	5%	4%	2%	7%	5%
Enforcement of trail rules	3%	2%	5%	6%	8%
Bridges	0%	4%	5%	4%	5%
Personal safety concerns	3%	4%	1%	3%	4%
Security of parking areas	4%	1%	0%	1%	1%
General Characteristics					
Trail design	0%	0%	0%	1%	1%
Trail location	0%	0%	0%	1%	1%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Was the trail too crowded for your enjoyment?

<u>Response</u>	<u>Paul Bunyan*</u> <u>(percent)</u>	<u>Heartland*</u> <u>(percent)</u>	<u>RR-HPV*</u> <u>(percent)</u>	<u>Douglas*</u> <u>(percent)</u>	<u>PB-BSP*</u> <u>(percent)</u>
● No	96%	100%	94%	95%	97%
● Yes, but I used the trail anyway	3%	0%	4%	4%	2%
● Yes, so in the future I'll only use the trail at less busy times	0%	0%	1%	1%	1%
● Yes, so I changed plans, used another part of the trail	1%	0%	1%	0%	0%
● Yes, so I didn't use the trail for as long as originally planned	0%	0%	0%	0%	1%
● Yes, too crowded, unlikely that I'd return to this trail	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>
Total	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Did you have any problems or conflicts with other users?
(respondents could check multiple responses)

Response	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
● No problems with other trail users	90%	91%	87%	77%	82%
<i>Problems/conflicts with other users</i>					
● Other trail users blocking traffic, not keeping right					
● Other trail users passing without warning	5%	2%	8%	8%	8%
● Problems with other people's pets	5%	1%	4%	9%	4%
● Other trail users going too fast	3%	0%	2%	8%	5%
● Unfriendly, discourteous behavior by others	1%	1%	2%	5%	1%
	1%	1%	1%	4%	3%
● Irresponsible or unsafe behavior by others					
● Other trail users created feelings of insecurity, or concerns about personal safety	2%	0%	1%	2%	3%
● Non-permitted trail uses (i.e., all-terrain vehicles, cars, motorcycles)	1%	1%	0%	1%	1%
● Problems with large groups or special events on the trail	0%	0%	1%	1%	2%
● Vandalism	0%	0%	1%	1%	1%
● Graffiti	0%	0%	0%	1%	0%
● Discharge of firearms by other trail users	1%	0%	0%	1%	0%
● Conflicts with trail users not using the treadway designated for their use	0%	0%	0%	1%	0%
● Other trail users going too slow	0%	0%	1%	0%	1%
● Other	2%	5%	1%	2%	6%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trip Characteristics

<u>Characteristic</u>	<u>Paul Bunyan*</u>	<u>Heartland*</u>	<u>RR-HPV*</u>	<u>Douglas*</u>	<u>PB-BSP*</u>
All Activities					
Miles traveled on trail (average)	16.5	17.1	29.8	10.1	8.7
Hours spent on trail (average)	1.9	2.4	3.2	1.5	1.5
People in party (average)	2.3	2.5	2.9	2.0	2.3
Party composition (% of parties)					
1 adult (over 18)	35%	35%	19%	50%	41%
2 adults	37%	37%	43%	30%	24%
3 or more adults	10%	10%	22%	4%	6%
Adult(s) with children (under 18)	15%	16%	15%	14%	24%
Children only	<u>3%</u>	<u>2%</u>	<u>0%</u>	<u>2%</u>	<u>6%</u>
Total percent	100%	100%	100%	100%	100%
Biking					
Miles traveled on trail (average)	28.7	28.1	37.2	17.3	12.0
Hours spent on trail (average)	2.7	3.1	3.7	1.8	1.6
People in party (average)	2.8	2.9	3.1	2.1	2.3
Party composition (% of parties)					
1 adult (over 18)	28%	29%	19%	49%	39%
2 adults	37%	35%	42%	31%	26%
3 or more adults	16%	16%	22%	6%	7%
Adult(s) with children (under 18)	18%	19%	17%	12%	23%
Children only	<u>1%</u>	<u>1%</u>	<u>0%</u>	<u>1%</u>	<u>5%</u>
Total percent	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
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* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Where did you stay when you used the trail?

<u>Place</u>	<u>Paul Bunyan*</u> <u>(percent)</u>	<u>Heartland*</u> <u>(percent)</u>	<u>RR-HPV*</u> <u>(percent)</u>	<u>Douglas*</u> <u>(percent)</u>	<u>PB-BSP*</u> <u>(percent)</u>
● My permanent home, less than 30 miles from the trail	47%	41%	23%	92%	75%
● My permanent home, more than 30 miles away from the trail	3%	5%	21%	2%	2%
● My seasonal home	22%	16%	2%	0%	9%
● Resort, motel, or bed and breakfast inn	13%	18%	28%	3%	3%
● With friends or family	12%	12%	4%	2%	4%
● Campground, RV park, or park	<u>2%</u>	<u>7%</u>	<u>22%</u>	<u>1%</u>	<u>8%</u>
Total	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Trip spending associated with trail use
(total spending for the summer period)

<u>Type of spender*</u>	<u>Paul Bunyan**</u>	<u>Heartland**</u>	<u>RR-HPV**</u>	<u>Douglas**</u>	<u>PB-BSP**</u>
Local trail users	\$128,978	\$34,316	\$46,489	\$47,167	\$11,119
Tourist trail users	<u>\$1,113,557</u>	<u>\$1,003,119</u>	<u>\$2,230,497</u>	<u>\$165,052</u>	<u>\$106,562</u>
Total	\$1,242,534	\$1,037,436	\$2,276,986	\$212,219	\$117,681

* 'Local' is a trail user who traveled less than 30 miles to the trail from their permanent home; 'tourist' is a trail user who spend the night prior to trail use away from their permanent home (e.g., at a resort or seasonal home), or traveled over 30 miles from home.

** Paul Bunyan, 2007, Baxter to Heartland Trail

** Heartland, 2007-08, Park Rapids to Cass Lake

** RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

** Douglas, 2009, Rochester to Pine Island

** PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Profile of tourist spending associated with trail use
(a "tourist" either spent the night prior to trail use away from home, or is over 30 miles from home)

Expenditure Category	Five-trail composite (percent)	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Overnight lodging/camping	35%	26%	31%	40%	59%	28%
Restaurant food/beverage, snacks	25%	29%	26%	24%	18%	20%
Groceries	8%	11%	9%	6%	4%	20%
Gasoline	14%	14%	18%	11%	14%	19%
Entertainment, tickets, festivals	3%	1%	1%	5%	2%	1%
Shopping, souvenirs	12%	15%	12%	11%	1%	11%
Equipment rental/repair	<u>3%</u>	<u>3%</u>	<u>3%</u>	<u>3%</u>	<u>2%</u>	<u>2%</u>
Total	100%	100%	100%	100%	100%	100%
<i>Dollars spent per person per day</i>	<i>\$59.01</i>	<i>\$48.31</i>	<i>\$53.73</i>	<i>\$76.06</i>	<i>\$51.17</i>	<i>\$26.62</i>

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

How important was the trail in your choice of visiting this area on this trip?
(asked of tourists, who either spent the night prior to trail use away from home, or are over 30 miles from home)

Response	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Very important – the main reason I made the trip	22%	36%	69%	36%	17%
Somewhat important – the trail had some influence on choosing this destination	41%	30%	30%	21%	45%
Not important at all	35%	30%	2%	43%	29%
Don't know	<u>2%</u>	<u>5%</u>	<u>0%</u>	<u>0%</u>	<u>9%</u>
Total	100%	100%	100%	100%	100%

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Age distribution of trail users from Minnesota
(for party sizes of 10 people or less)

<u>Age Class</u>	<u>Minnesota Pop- ulation, 2008** (percent)</u>	<u>Paul Bunyan* (percent)</u>	<u>Heartland* (percent)</u>	<u>RR-HPV* (percent)</u>	<u>Douglas* (percent)</u>	<u>PB-BSP* (percent)</u>
12 or younger	17%	9%	12%	11%	12%	17%
13 to 18	8%	4%	4%	3%	5%	11%
19 to 40	30%	19%	22%	21%	31%	33%
41 to 65	33%	55%	51%	61%	44%	34%
over 65	<u>12%</u>	<u>14%</u>	<u>11%</u>	<u>5%</u>	<u>8%</u>	<u>5%</u>
Total	100%	100%	100%	100%	100%	100%

** Population estimates from U.S. Census Bureau.

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Gender of trail users from Minnesota
(based on gender of survey respondent)

<u>Age Class</u>	<u>Minnesota Pop- ulation, 2008** (percent)</u>	<u>Paul Bunyan* (percent)</u>	<u>Heartland* (percent)</u>	<u>RR-HPV* (percent)</u>	<u>Douglas* (percent)</u>	<u>PB-BSP* (percent)</u>
Female	50%	54%	51%	45%	42%	57%
Male	<u>50%</u>	<u>46%</u>	<u>49%</u>	<u>55%</u>	<u>58%</u>	<u>44%</u>
Total	100%	100%	100%	100%	100%	100%

** Population estimates from U.S. Census Bureau.

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
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* Douglas, 2009, Rochester to Pine Island

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Race and ethnic distribution of trail users from Minnesota
(based on race and ethnicity of survey respondent)

	MN population, 2008** (percent)	Paul Bunyan* (percent)	Heartland** (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Race						
White	89.0%	99.7%	98.3%	95.7%	98.4%	95.6%
Non-white	11.0%	0.3%	1.7%	4.3%	1.6%	4.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ethnicity						
Hispanic/Latino	4.1%	0.0%	0.7%	0.3%	0.2%	0.6%
Non-Hispanic/Latino	95.9%	100.0%	99.3%	99.7%	99.8%	99.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Race & Ethnicity						
White, Non-Hispanic/Latino	85.4%	99.7%	98.1%	95.7%	98.2%	95.2%
Non-white and/or Hispanic/Latino	14.6%	0.3%	1.9%	4.3%	1.8%	4.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

** Source: U.S. Census Bureau.

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Educational attainment of trail users (age 25+) from Minnesota
(based on education of survey respondent)

Educational attainment group	MN population, 2007** (percent)	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
High school graduate or higher	91%	100%	99%	100%	99%	100%
Bachelor's degree or higher	31%	63%	65%	65%	68%	67%

** Source: U.S. Census Bureau, Current Population Reports. 2009. Educational Attainment in the United States: 2007.

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River)
and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Household income of trail users from Minnesota (based on household income of survey respondent)

Income class	Minnesota, 2007-08** (percent)	Paul Bunyan* (percent)	Heartland* (percent)	RR-HPV* (percent)	Douglas* (percent)	PB-BSP* (percent)
Under \$20,000	no detail	7%	8%	2%	3%	9%
\$20,000 to \$29,999		6%	5%	2%	2%	8%
\$30,000 to \$39,999		6%	9%	5%	7%	10%
\$40,000 to \$49,999		9%	7%	7%	6%	9%
\$50,000 to \$59,999		9%	5%	15%	11%	11%
\$60,000 to \$74,999		16%	18%	14%	12%	13%
\$75,000 to \$99,999		19%	20%	23%	18%	15%
Over \$100,000		<u>29%</u>	<u>27%</u>	<u>32%</u>	<u>41%</u>	<u>26%</u>
Total	100%	100%	100%	100%	100%	100%
Median	\$57,607	Near \$75,000	Near \$75,000	\$75,000 to \$99,999	\$75,000 to \$99,999	\$60,000 to \$74,999

** Income estimates from U.S. Census Bureau.

* Paul Bunyan, 2007, Baxter to Heartland Trail

* Heartland, 2007-08, Park Rapids to Cass Lake

* RR-HPV, 2008-09, Root River and Harmony-Preston Valley Trail: Fountain to Houston (Root River) and Harmony to Root River Trail (Harmony-Preston Valley)

* Douglas, 2009, Rochester to Pine Island

* PB-BSP, 2009, Paul Bunyan segment near Lake Bemidji State Park and city of Bemidji

Special trail-user survey questions related to Lake Bemidji State Park
for users of the segment of Paul Bunyan Trail near the Park

<i>Question</i>	<i>Percent responding "yes" or indicating preference</i>
<i>On this trip, did you use the trail segment inside Bemidji State Park?</i>	57%
<i>Did you begin this trail trip inside Bemidji State Park?</i>	22%
<i>On the day of this trail trip, were you staying overnight in Bemidji State Park?</i>	9%
<i>Do you have any interest in staying overnight in Bemidji State Park?</i>	46%
<i>(IF HAVE AN INTEREST) What type of overnight facilities do you prefer? (check all that apply)</i>	
- Drive-in campsite	76%
- Walk-in/cart-in campsite	28%
- Camper cabin	15%
<i>(IF HAVE AN INTEREST) What type of amenities do you want near where you are staying overnight? (check all that apply)</i>	
- Toilet building with running water	76%
- Showers	72%
- Rustic campsite with privacy	41%
- Proximity to other park facilities (e.g., park office, interpretive center, swimming beach)	39%
- Electricity at my campsite	33%

Appendix B:

1. Trail user survey instrument (6 pages)

Note: Survey instruments are standard, except for the specific places users gain access to a trail (question 5) and special questions (item 2 below).

2. Special trail-user survey questions related to Lake Bemidji State Park for users of the segment of Paul Bunyan Trail near the Park (1 page)

2007 Paul Bunyan State Trail Summer Survey

PLEASE ANSWER THE FOLLOWING QUESTIONS FOR THE TRAIL VISIT WHEN YOU AGREED TO BE PART OF THIS SURVEY:

1. Please rate your overall experience on the trail on the day of your visit. (Please check one)

- a) _____ Excellent b) _____ Good c) _____ Fair d) _____ Poor e) _____ Very poor

2. What was your main trail activity on the day of your trail visit? (Please check one)

- a) _____ Bicycling f) _____ Jogging/running
b) _____ Mountain bicycling g) _____ Wheelchair use
c) _____ In-line skating/roller skiing h) _____ Horseback riding
d) _____ Dog walking i) _____ Other (Please specify _____)
e) _____ Walking, hiking, or pushing stroller

3. How did you get to the trail? (Please check one)

- a) _____ By car e) _____ With a large group in bus or van
b) _____ On foot f) _____ Horseback riding
c) _____ On a bicycle g) _____ Other (Please specify _____)
d) _____ On in-line skates

4. What is the one-way driving distance from your permanent home to the trail?

_____ Miles (approximately)
_____ Don't know

5. Where did you get on the trail? (Please check one)

- a) _____ The Arboretum in Baxter f) _____ Backus
b) _____ Merrifield g) _____ Hackensack
c) _____ Nisswa h) _____ Walker
d) _____ Pequot Lakes i) _____ Other (Please specify _____)
e) _____ Pine River

6. Did you travel on the trail round-trip or one-way? (Please check one)

_____ Round trip, returned to my starting point on the trail
_____ One way on the trail

7. About how many miles did you travel on the trail, in total?

_____ Miles
_____ Not sure

8. What day of the week were you on the trail? (Please check one)

- a) _____ Sunday e) _____ Thursday
b) _____ Monday f) _____ Friday
c) _____ Tuesday g) _____ Saturday
d) _____ Wednesday

9. What time of day did you begin using the trail? (Please write time and circle a.m. or p.m.)
_____ a.m. / p.m.

10. About how many hours were you on the trail?

_____ Hours
_____ Not sure

11. Was the trail too crowded for your enjoyment? (Please check one)

- a) _____ No
- b) _____ Yes, but I used the trail anyway
- c) _____ Yes, so I changed plans, used another part of the trail
- d) _____ Yes, so I didn't use the trail for as long as originally planned
- e) _____ Yes, so in the future I'll only use the trail at less busy times
- f) _____ Yes, too crowded, unlikely that I'd return to this trail

12. Why did you choose to come to this trail? (Please check **all** that apply)

- a) _____ Never been here before, wanted to check it out
- b) _____ Come to this trail regularly
- c) _____ Easy to get to, convenient location
- d) _____ Safe place to ride/walk/skate
- e) _____ Vacationing in this area
- f) _____ Was recommended to me by family
- g) _____ Other (Please explain _____)

13. Did you have any problems or conflicts with other trail users? (Please check **all** that apply)

- a) _____ No problems with other trail users – *please skip to next question*
- b) _____ Other trail users blocking traffic, not keeping right
- c) _____ Other trail users passing without warning
- d) _____ Other trail users going too fast
- e) _____ Other trail users going too slow
- f) _____ Unfriendly, discourteous behavior by others
- g) _____ Irresponsible or unsafe behavior by others
- h) _____ Problems with other people's pets
- i) _____ Other trail users created feelings of insecurity, or concerns about personal safety
- j) _____ Non permitted trail uses (i.e., all-terrain vehicles, cars, motorcycles)
- k) _____ Graffiti
- l) _____ Vandalism
- m) _____ Problems with large groups or special events on the trail
- n) _____ Discharge of firearms by other trail users
- o) _____ Conflicts with trail users not using the treadway designated for their use
- p) _____ Other (Please explain _____)

14. Please rate your satisfaction or dissatisfaction with the following trail facilities or services.

Please circle VS if very satisfied, S if satisfied, N if neutral, D if dissatisfied, VD if very dissatisfied.

If it doesn't apply at all to your use of the trail, circle NA (not applicable). If you have any specific comments on how and where we could make improvements, please jot it down.

VS	S	N	D	VD	NA	Trail surface quality: _____
VS	S	N	D	VD	NA	Trail location: _____
VS	S	N	D	VD	NA	Trail design: _____
VS	S	N	D	VD	NA	Safety of road crossings: _____
VS	S	N	D	VD	NA	Security of parking areas: _____
VS	S	N	D	VD	NA	Bridges: _____
VS	S	N	D	VD	NA	Availability of drinking water: _____
VS	S	N	D	VD	NA	Availability of toilet facilities: _____
VS	S	N	D	VD	NA	Availability of benches: _____
VS	S	N	D	VD	NA	Availability of telephones: _____
VS	S	N	D	VD	NA	Availability of picnic areas or shelters: _____
VS	S	N	D	VD	NA	Information about getting to the trail: _____
VS	S	N	D	VD	NA	Information about what to expect about the trail: _____
VS	S	N	D	VD	NA	Information about what you can see from the trail: _____
VS	S	N	D	VD	NA	Information about trail connections: _____
VS	S	N	D	VD	NA	Trail rules, traffic signs, and etiquette signs: _____
VS	S	N	D	VD	NA	Maintenance of the trail: _____
VS	S	N	D	VD	NA	Personal safety concerns: _____
VS	S	N	D	VD	NA	Enforcement of trail rules: _____
VS	S	N	D	VD	NA	Management of vegetation in the trail corridor: _____

15. Are there any facilities or services missing that you expected or needed? If yes, please explain.

16. What did you like most about the trail? (Please check *all* that apply)

- a) _____ Scenery, wildlife, wildflowers, birds, trees
- b) _____ Little development, not commercial
- c) _____ Quiet, peaceful
- d) _____ No cars or motorized vehicles
- e) _____ It's fun
- f) _____ Like the trail surface
- g) _____ Easy, flat trail,
- h) _____ Like the length
- i) _____ Well-maintained, clean
- j) _____ It's a good place for exercise, to work out, to keep in shape
- k) _____ Using the trail reduces tension, stress
- l) _____ Other (Please explain _____)

17. Would you recommend this trail to a friend? (Please check one and explain briefly)

Yes: _____

No: _____

18. How many times did you use this trail in spring, summer or fall of 2006? (April 1 to November 31)

_____ Visits in spring, summer, or fall

19. How many times did you use this trail in winter 2006-07? (December 1 to March 31)

_____ Visits in winter

20. Which trail surface do you like best for your type of trail use on the day of the survey?

(Please check one)

a) _____ Natural surface – grass or dirt

b) _____ Concrete

c) _____ Asphalt paving

d) _____ Compacted crushed limestone

e) _____ Other *(please specify)* _____)

21. Including you, how many people by age class were in your party on this visit to the trail?

a) _____ Number of children under 12

b) _____ Number of teens 13-18

c) _____ Number of adults 19-40

d) _____ Number of adults 41- 65

e) _____ Number of adults over 65

22. Where did you stay when you used the trail? (Please check one)

a) _____ My permanent home, less than 30 miles from the trail *(If yes, proceed with question 23)*

23. Local residents only: How much did your party spend today? \$ _____

24. Local residents only: How many people are covered by these expenses? _____

Local residents only: Now, please skip to Question 28.

b) _____ My permanent home, more than 30 miles away from the trail

c) _____ My seasonal home

d) _____ Resort, motel, or bed and breakfast inn

e) _____ With friends or family

f) _____ Campground, RV park, or park

25. How important was the trail in your choice of visiting this area on this trip? (Please check one)

a) _____ Very important – the main reason I made the trip

b) _____ Somewhat important – the trail had some influence on choosing this destination

c) _____ Not important at all

d) _____ Don't know

26. Approximately how much did you and your party spend on travel-related expenses on the day of your trail visit? (Please fill in the approximate dollar amount for each category)

a) _____ Overnight lodging/camping

b) _____ Restaurant food/beverage, snacks

c) _____ Groceries

d) _____ Gasoline

e) _____ Entertainment, tickets, festivals

f) _____ Shopping, souvenirs

g) _____ Equipment rental/repair

27. How many people are covered by these expenditures?

_____ People

28. About how much do you spend per year on summer trail gear? (bikes, skates, shoes, sporting goods, etc.)

\$ _____ (approximately)

29. How did you first hear about the trail? *(Please check one)*

- a) ☐ I live or work nearby
- b) ☐ From family or friends – by word of mouth
- c) ☐ From newspapers, magazines, radio, or TV
- d) ☐ DNR brochure, map or DNR Information Center
- e) ☐ Tourism, chamber of commerce, or convention & visitors bureau information
- f) ☐ Internet website
- g) ☐ Other *(Please specify _____)*

30. What is your home zip code or postal code? _ _ _ _ _

31. How old are you? _____ Years

32. Which of the following best describes your race: *(Please check **all** that apply)*

- a) ☐ African American/black
- b) ☐ American Indian or Alaska Native
- c) ☐ Asian
- d) ☐ Caucasian/white
- e) ☐ Pacific Islander

33. Do you consider yourself Hispanic/Latino/Spanish? *(Please check one)* ☐ Yes ☐ No

34. Are you ☐ Male or ☐ Female

35. What is the highest level of education you have completed? *(Please check one)*

- a) ☐ Some high school
- b) ☐ Graduated from high school or GED
- c) ☐ Some vocational or technical school
- d) ☐ Graduated from vocational or technical school
- e) ☐ Some college
- f) ☐ AA college degree
- g) ☐ BA, BS college degree
- h) ☐ Some postgraduate study
- i) ☐ Postgraduate degree(s)

36. Including you, how many adults, teens, and children live in your household?

- a) ☐ Adults (over 18)
- b) ☐ Teens (13 to 18 years)
- c) ☐ Children (12 or under)

37. Please indicate your total household income before taxes last year. *(Please check one)*

- a) ☐ Under \$20,000
- b) ☐ \$20,000 - \$29,999
- c) ☐ \$30,000 - \$39,999
- d) ☐ \$40,000 - \$49,999
- e) ☐ \$50,000 - \$59,999
- f) ☐ \$60,000 - \$74,999
- g) ☐ \$75,000 - \$99,999
- h) ☐ Over \$100,000

38. What else you would like to tell us, positive or negative, about this trail or other trails in Minnesota managed by the DNR?

THAT'S THE END OF THE QUESTIONS. 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 don't respond in three weeks. Your answers are strictly confidential and will never be associated with your name.)

Special trail-user survey questions related to Lake Bemidji State Park for users of the segment of Paul Bunyan Trail near the Park

xx. On this trip, did you use the trail segment inside Bemidji State Park? (check one)

☐ Yes ☐ No ☐ Don't know/not sure

xx. Did you begin this trail trip inside Bemidji State Park? (check one)

☐ Yes ☐ No ☐ Don't know/not sure

xx. On the day of this trail trip, were you staying overnight in Bemidji State Park? (check one)

☐ Yes ☐ No ☐ Don't know/not sure

xx. Do you have any interest in staying overnight in Bemidji State Park? (check one)

☐ Yes ☐ No ☐ Don't know/not sure

(IF YES) What type of overnight facilities do you prefer? (check all that apply)

- ☐ Drive-in campsite
- ☐ Walk-in/cart-in campsite
- ☐ Camper cabin

(IF YES) What type of amenities do you want near where you are staying overnight?

(check all that apply)

- ☐ Showers
- ☐ Electricity at my campsite
- ☐ Toilet building with running water
- ☐ Proximity to other park facilities (e.g., park office, interpretive center, swimming beach)
- ☐ Rustic campsite with privacy