

# Genesee Riverway Trail Count and Survey Data Report

Supplemental report for Healthy Waterways: A Health Impact Assessment of the City of Rochester, New York's Local Waterfront Revitalization Program

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## Executive Summary

This report summarizes data collected from trail user counts and surveys conducted along the Genesee Riverway Trail (GRT) throughout the City of Rochester, NY during June and July 2012 as part of Healthy Waterways, a Health Impact Assessment (HIA) of the City of Rochester's Local Waterfront Revitalization Program (LWRP). The HIA is being conducted by the University of Rochester's Environmental Health Sciences Center with funding from the Health Impact Project – a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts.

City Department of Environmental Services staff selected twelve sampling sites along the Genesee Riverway Trail (GRT). Each site was visited at least twice between June and July 2012. Most count sites were on dedicated trails (physically separate from roads). At each site, the survey team counted the total number of trail users (bicyclists, pedestrians, and other) and invited trail users to complete a short survey. Trail count and survey methodologies were adapted from the National Bicycle and Pedestrian Documentation Project Standard Bicycle and Pedestrian Surveys.

The survey team counted 2019 trail users during 54 hours of observation. User 'density' (users per hour) was slightly higher during peak recreational hours than during commute times. Density was nearly twice as high in the Southern sampling sites as in the Central sites. Fifty-seven percent of trail users were bicycling and 74% of cyclists were male. Of the 40% of pedestrians, 59% were male. Disproportionate trail usage by males (68% of all users) may be due to the popularity of biking among men and/or due to safety concerns by women. The vast majority of trail users appeared to be adults (94%).

Two hundred sixty-five trail users completed the survey. Pedestrians were slightly overrepresented in the sample (48%, 128). About 83% (204) of survey respondents were White and 69% (162) were male. The majority of people were using the trails for exercise and recreation, with 57% (151) and 55% (145) respectively; many respondents selected both, indicating that they enjoy exercising outdoors on the trails. Most users visited the trail 10 or fewer times in the past month (60%, 158). However, many also visited the trail frequently (11 or more times in the past month, 40%, 104).

Of those walking on the trail, 37% (47) reported that they drove to get to the trail, whereas 57% (73) walked, suggesting that the trail is a significant exercise resource for those living or working near the trail. For those who walked to the trail, the average distance travelled to reach the trail was over a mile (1.21). The average trip time for all users was longer than the CDC recommendation of 30 minutes or more of physical activity (bikers, 74.72 minutes; walkers, 60.74; and others, 55.00 minutes).

The survey asked several questions about characteristics of the trail and potential improvements. Most (76%, 201) of trail users identified the safety and security along the section of trail they were on as "Good" or "Excellent." However, anecdotal reports from community members regarding crime in certain neighborhoods suggest that safety and security may be a potential limitation to trail usage. The most desirable features appeared to be "Scenic Qualities" with 65% (170) respondents selecting that response, followed by "Convenient Route" (45%, 118) and "No Cars" (35%, 92). About 22% (57) of the respondents selected "Personal Safety" as at least one of their reasons for using that particular trail. When asked about what they would like to see improved along this trail, nearly a third of respondents (32%, 81) suggested "Other" improvements that were not listed in the survey, including bathrooms, water fountains, and trash cans. Of the options listed, the most commonly selected were "Nothing" with 24% (60), "Better Surface" with 20% (50), and "Better Maintenance" with 20% (50).

This report provides additional background information and summary of data not presented in the full Healthy Waterways report, which is available online at <http://www2.envmed.rochester.edu/envmed/EHSC/outreach/coec/projects/HIA/HealthyWaterways.html>.

## Introduction

This report summarizes data collected from trail user counts and surveys conducted along the Genesee Riverway Trail (GRT) throughout the City of Rochester, NY during June and July 2012 as part of Healthy Waterways, a Health Impact Assessment (HIA) of the City of Rochester's Local Waterfront Revitalization Program (LWRP). The HIA was conducted by the University of Rochester's Environmental Health Sciences Center with funding from the Health Impact Project – a collaboration between the Pew Charitable Trusts and the Robert Wood Johnson Foundation. The City of Rochester is under contract by the New York Department of State's Division of Coastal Resources to update its Local Waterfront Revitalization Program by 2013. Rochester's LWRP guides decisions affecting areas of the city adjacent to the Erie Canal, along the Genesee River from the canal north to Lake Ontario, and around the Ontario and Durand Eastman beaches. Separate planning processes address activities in the Port of Rochester.

HIA is a voluntary policy and planning tool for providing decision-makers in non-health sectors with information and recommendations on how their proposed plans and policies will likely impact the health of the communities they serve (for more information, see [www.healthimpactproject.org](http://www.healthimpactproject.org)). HIA has developed in response to growing awareness that many kinds of policies and decisions – including those affecting land use, education, criminal justice, transportation, and environment – significantly affect human health. The overall goal of HIA is to ensure that health is considered when decisions are made in order to maximize positive health impacts and minimize negative health impacts for all affected populations, particularly those groups that are already at higher risk for health problems.

The Genesee Riverway trail system extends from Genesee Valley Park north to Lake Ontario, along both sides of the Genesee River, as well as along the lakefront near Ontario and Durand Eastman beaches. Given the potential importance of trails to a community's health – including opportunities for recreation, transportation, and physical activity – the Healthy Waterways study team decided to assess potential trail changes as part of this study.<sup>1</sup> Likewise, given the extent of riverfront property dedicated to trails, the LWRP is likely to affect the GRT in some way. For example, the LWRP may address sections of trail that follow roadways, particularly within city limits.

Understanding the importance of such benefits, the city has committed many resources to developing, maintaining and improving this trail system. Despite the city's dedicated investment of resources, there exists little information on trail use. There is not a lot of data regarding how many people are using the system annually, which sections of trail are most used, where users are coming from, how they use the trails, and what barriers they may face to using them more. In order to better understand potential health impacts of changes to the trail system, it is essential to first understand these characteristics of trail users.

As a first step in answering these questions, the study team conducted trail counts and surveys to collect information on trail users. Surveys also asked users about current trail conditions and possible changes they would like to see along the trails (see Appendix 1 for the survey). This report summarizes data collected through the trail counts and surveys. This report provides additional background information and summary of data not presented in the full Healthy Waterways report, which is available online at <http://www2.envmed.rochester.edu/envmed/EHSC/outreach/coec/projects/HIA/HealthyWaterways.html>.

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<sup>1</sup> For information on the many health benefits of parks and open spaces (e.g., trail systems), visit [http://www.humanimpact.org/evidencebase/category/parks\\_and\\_open\\_spaces](http://www.humanimpact.org/evidencebase/category/parks_and_open_spaces). A more detailed analysis of physical activity will also be included in the final Healthy Waterways Project Report.

## Methods

City Department of Environmental Services staff selected twelve sampling sites: Genesee Valley Park West, Genesee Valley Park East, Erie-Lackawanna Railroad Bridge, Ford St. Bridge near Mt. Hope, South Ave. underneath Route 490, Cataract St. at Pont de Rennes Bridge, Scrantom St. at St. Paul St., Maplewood Park at Bridgeview Drive, Zoo Rd. at Seneca Park Blvd., Turning Point Park, Intersection of the Lake Ontario State Parkway and the Genesee Riverway Trails on River St., and Irondequoit Lakeside Trail at Durand Eastman Park. These locations were divided into three groups for analysis: South, Central and North (Figure 1). The South sites are clustered around Genesee Valley Park, the University of Rochester, and the recently-opened Erie Lackawanna Pedestrian Bridge that connects the University to neighborhoods in Southwest Rochester. The Central sites encompass the urban downtown area through several inner city residential neighborhoods. The majority of the North sites are in or near parks, including those near Ontario and Durand beaches. Most count sites were on dedicated trails (physically separate from roads); however, the Lake Ontario State Parkway, Scrantom Street and Zoo Road sites were on a portion of the trail that is marked on a city street.

Figure 1 – Trail Count and Survey Locations

## South:

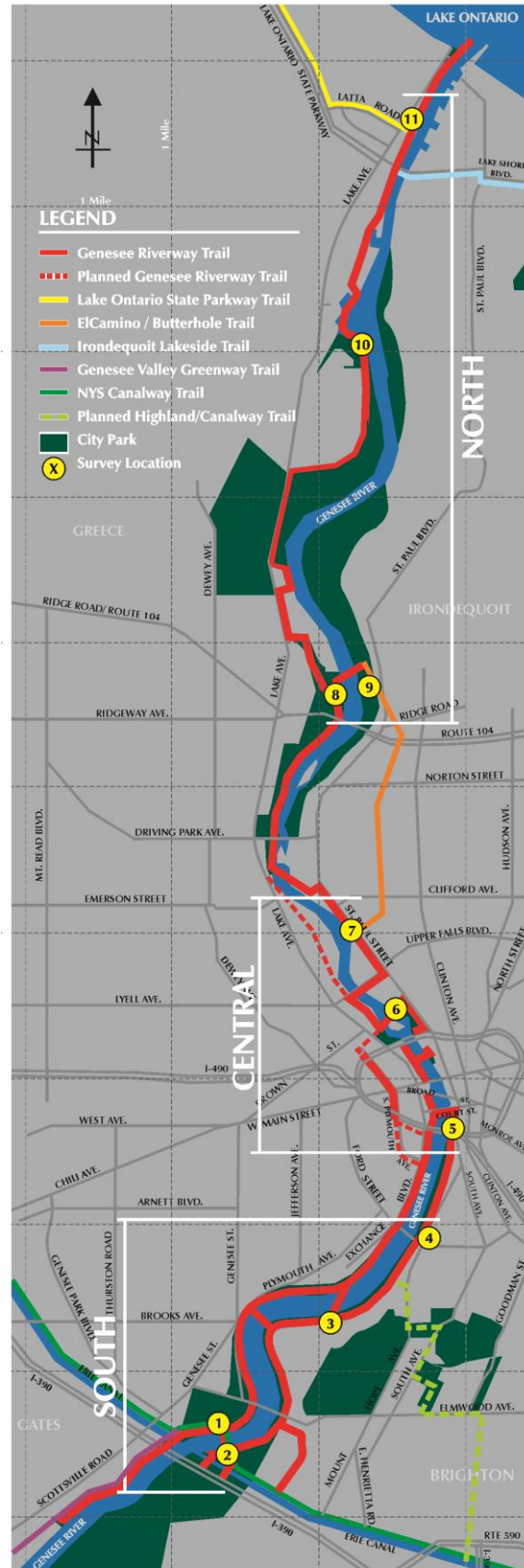
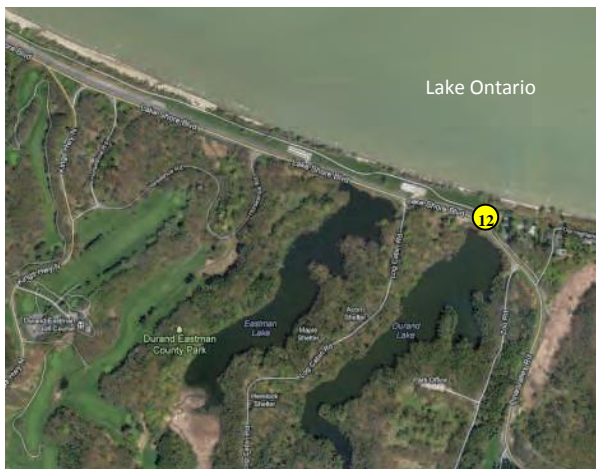
1. Genesee Valley Park (West)
2. Genesee Valley Park (East)
3. Erie-Lackawanna Railroad Bridge
4. Ford St. Bridge near Mt. Hope

## Central:

5. South Ave., underneath Route 490
6. Cataract St. at Pont de Rennes Bridge
7. Scrantom St. at St. Paul St.

## North

8. Maplewood Park at Bridgeview Dr.
9. Zoo Rd. at Seneca Park Blvd.
10. Turning Point Park
11. Intersection of Lake Ontario State Parkway and the Genesee Riverway Trails at River St.
12. Irondequoit Lakeside Trail at Durand Eastman Park



Trail count and survey methodologies were adapted from the National Bicycle and Pedestrian Documentation Project Standard Bicycle and Pedestrian Surveys (Appendixes 1 and 2).<sup>1</sup> Each site was visited during at least one commute time and at least one recreation time. Commute times were Tuesday through Thursday from 4:00PM to 6:00PM; recreation times were Saturday and Sunday from 10:00AM to 12:00PM, or 1:00PM to 3:00PM. The study team attempted an additional “commute” time of 7:00AM to 9:00AM at the Erie-Lackawanna Railroad Bridge, however there seemed to be fewer people using the trail at this time of day. Therefore, we conducted the remaining counts between 4 and 6 PM. In addition to this morning commute time, the Erie-Lackawanna Railroad Bridge was visited four times: two evening commute times and two recreational use times. This was done in order to assess trail use before and after the pedestrian bridge across the Genesee River opened in July. All counts and surveys were conducted during fair weather conditions during summer months.

Counts and surveys were conducted in two-hour time blocks with counts recorded in fifteen-minute increments. Trail users were identified as a pedestrian, biker, or other in the count, separated by gender. Individuals walking a bicycle were recorded as pedestrians. It was also noted by project staff if the user appeared to be under 18 (marked as “Y” for youth). The use category “other” included all users who were not walking, running, or biking, including children in strollers and passengers on bicycles. For bikers, whether or not they wore a helmet was also recorded.

City staff were additionally interested in the direction of travel at six sites. To provide this information, the study team adapted the NBPD intersection count form to record the direction of travel for each user at Genesee Valley Park East and West, Erie-Lackawanna Railroad Bridge, Scrantom St at St. Paul Blvd., Maplewood Park at Bridgeview Drive, and the intersection of Lake Ontario State Parkway and Genesee Riverway Trails. Direction data are summarized in Appendix 3.

For safety reasons, a minimum of two people staffed each sampling location. This made it convenient for one to focus on counts while the other(s) conducted surveys to help ensure accurate counts. Staff conducting surveys carried multiple clipboards to allow multiple users to complete the survey simultaneously. When supplies were available, participants were offered granola bars after taking the survey. However, the survey team did not notice a difference in tendency to respond when granola bars were unavailable.

Project staff developed the trail user survey using the National Bicycle and Pedestrian Documentation Project Standard Bicycle and Pedestrian Surveys,<sup>1</sup> the Parks and Trails NY Trail User Survey,<sup>2</sup> and the Portland State University Trail Use Survey.<sup>3</sup> Questions addressed the duration of physical activity, residence of users, reasons for selecting the trail over others, barriers to trail use, helmet use, and fish consumption. Demographic information, improvements users would like to see, perception of safety, and factors influencing frequency of use were also included. Survey questions regarding fish consumption are not summarized in this report, but are available upon request.

Trail users were stopped by members of the study team and asked if they would like to take a 5-10 minute voluntary survey. While staff did not record the total number of rejections, they observed that most walkers, joggers and others were readily willing to stop. In many cases, cyclists did not have sufficient time to stop, or were in too much of a hurry. Thus, cyclists are slightly underrepresented in these results. Staff found that posting signs (stating “Trail User Survey”) near them on the trail or around blind corners was helpful in some cases, however this technique was only used a few times as it was implemented late in the study.



The survey was conducted with trail users eighteen years or older. Respondents had the option to fill out the survey themselves or have a member of the field team read it and record their answers. Most users seemed to prefer having the survey read out loud, since they often had their hands full. We developed an online survey and made cards with a link to the survey on them to hand out to users who were in a rush. However, we noted that most users either willingly took the survey on-site or did not stop long enough to even receive a card, so this option was not implemented and no online surveys were collected.

Survey staff recorded field notes during each sampling event including changes in the weather, large groups/organized events (such as a Segway Tour), and unusual events. At one site (Durand), the team noticed that at the original sampling location, many of the people they counted were simply traversing the trail to get to the beach. As a result, this sampling site was located farther down the trail to capture actual trail users. At the Scrantom Street site, only users of the designated trail were counted, not pedestrians on the other side of the street.

After collection, surveys were coded with an ID number, copied, and entered into a database. A different team member re-entered the data to identify and fix entry errors. Trail counts were conducted over a total of 56 hours, including 2 hours for piloting the survey. The total survey effort included approximately 249 person hours (on average, three people spent about 83 hours each commuting to sites and collecting surveys). In addition to time spent in the field, approximately 70-80 person hours were spent organizing, copying, entering and summarizing results.

## **Results – Trail Counts**

This section of the report includes information gathered by the trail counts, including totals, activity, demographics, and helmet use. Users were counted using hash marks (or a “Y” for people appearing under 18) on forms divided into 15-minute intervals (Appendix 2). Different forms were used for straight trails (screenline) and intersections (recording direction). Data was later entered into Microsoft Excel as individual entries (a separate entry for each trail user to record use type, helmet use, gender, and observer-judged age (youth or adult) for analysis. City of Rochester staff suggested grouping the results by site location. The project team agreed that it made sense to divide the results by sites 1-4 (“South”), 5-7 (“Central”) and 8-12 (“North”). The Southern sites encompassed the recreational areas around Genesee Valley Park through the University of Rochester and the 19<sup>th</sup> Ward/Southwest Rochester neighborhoods. The Central sites were loosely grouped around downtown Rochester. The Northern sites included recreation and park areas near Ontario and Durand Beaches, Turning Point Park, Maplewood, and the Seneca Park Zoo.

Table 1 – Trail Count User Data by Site

Site	Total	Commute Time Total		Recreation Time Total		Times Staff Visited	Avg. People / Hr.
		#	%	#	%		
<b>1 - GVP West</b>	235	99	42%	136	58%	2	58.75
<b>2 - GVP East</b>	362	167	46%	195	54%	2	90.50
<b>3 - ELRR</b>	222	109	49%	113	51%	5	22.20
<b>4 - Ford St</b>	195	92	47%	103	53%	2	48.75
<b>5 - South Ave</b>	195	100	51%	95	49%	2	48.75
<b>6 - Cataract St</b>	90	61	68%	29	32%	2	22.50
<b>7 - Scrantom St</b>	44	24	55%	20	45%	2	11.00
<b>8 - Maplewood</b>	112	55	49%	57	51%	2	28.00
<b>9 - Zoo</b>	73	36	49%	37	51%	2	18.25
<b>10 - Turning Pt</b>	151	37	25%	114	75%	2	37.75
<b>11 - LOSP</b>	137	54	39%	83	61%	2	34.25
<b>12 - Durand</b>	203	68	33%	135	67%	2	50.75
<b>Total</b>	2019	902	45%	1117	55%	27	37.39

Table 2 – Trail Count User Data Grouped by Location

Site	Total	Commute Time Total		Recreation Time Total		Times Staff Visited	Avg. People / Hr.
		#	%	#	%		
<b>Sites 1-4 (“South”)</b>	1014	467	46%	547	54%	11	46.09
<b>Sites 5-7 (“Central”)</b>	329	185	56%	144	44%	6	27.42
<b>Sites 8-12 (“North”)</b>	676	250	37%	426	63%	10	33.80
<b>Total</b>	2019	902	45%	1117	55%	27	37.39

The above tables include trail counts by site (Table 1) and grouped by location (Table 2), time of day (commute versus recreation), and the number of times each site was visited. “Commute” and “recreation” are used to describe the selected sampling time, and do not represent the users’ purpose for the trip. The average number of people per hour was calculated to demonstrate overall density of use during sampling times. Staff counted the fewest people per hour at Sites 6 (Cataract St., 22.5), 7 (Scrantom St., 11.00), and 9 (Zoo, 18.25) (Table 1). Sites in the “Central” group had a lower density overall (27.42) than the “North” and “South” sites (Table 2). Overall there were slightly more people during recreation times than commute times with 55% (1117) and 45% (902) respectively. The largest differences were Site 12 (Durand) with 33% (68) commute and 67% (135) recreation and Site 11 (LOSP) with 39% (54) commute and 61% (83) recreation (Table 1). In general, sites in the “North” group appear to be more often used during weekend hours than during commute times (63%, 426 and 37%, 250, respectively) (Table 2).

Table 3 – Activity

Site (Overall Total)	Pedestrians		Bicycles		Other	
	#	%	#	%	#	%
<b>1 - GVP West (N=235)</b>	74	31%	157	67%	4	2%
<b>2 - GVP East (N=362)</b>	122	34%	224	62%	16	4%
<b>3 - ELRR (N=222)</b>	72	32%	150	68%	0	0%
<b>4 - Ford St 9 (N=195)</b>	70	36%	119	61%	6	3%
<b>5 - South Ave (N=195)</b>	78	40%	113	58%	4	2%
<b>6 - Cataract St (N=90)</b>	56	62%	32	36%	2	2%
<b>7 - Scrantom St (N=44)</b>	11	25%	33	75%	0	0%
<b>8 - Maplewood (N=112)</b>	42	38%	66	59%	4	4%
<b>9 - Zoo (N=73)</b>	28	38%	43	59%	2	3%
<b>10 - Turning Pt (N=151)</b>	95	63%	43	28%	13*	9%
<b>11 - LOSP (N=137)</b>	41	30%	94	69%	2	1%
<b>12 - Durand (N=203)</b>	116	57%	86	42%	1	0%
<b>Total (N=2019)</b>	805	40%	1160	57%	54	3%

\*A Segway tour passed through the site twice, resulting in a high “other” count

Table 3 contains activity information gathered in the trail counts. Overall, 57% (1160) of the people seen were bicyclists, 40% (805) were pedestrians, and 3% (54) were other. The majority of trail users were on bicycles at all sites except Cataract St., Turning Point, and Durand. These results are compared to trail surveys later in this report (See *Table 12 – Activity Comparison between Counts and Surveys* on page 17).

Table 4 – Demographics

Site (Total)	Male		Female		Adult		Youth*	
	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=235)</b>	162	69%	73	31%	220	94%	15	6%
<b>2 - GVP East (N=362)</b>	243	67%	119	33%	339	94%	23	6%
<b>3 - ELRR (N=222)</b>	147	66%	75	34%	204	92%	18	8%
<b>4 - Ford St 9 (N=195)</b>	130	67%	65	33%	191	98%	4	2%
<b>5 - South Ave (N=195)</b>	144	74%	51	26%	192	98%	3	2%
<b>6 - Cataract St (N=90)</b>	70	78%	20	22%	82	91%	8	9%
<b>7 - Scrantom St (N=44)</b>	41	93%	3	7%	43	98%	1	2%
<b>8 - Maplewood (N=112)</b>	70	63%	42	38%	90	80%	22	20%
<b>9 - Zoo (N=73)</b>	50	68%	23	32%	64	88%	9	12%
<b>10 - Turning Pt (N=151)</b>	104	69%	47	31%	151	100%	0	0%
<b>11 - LOSP (N=137)</b>	102	74%	35	26%	127	93%	10	7%
<b>12 - Durand (N=203)</b>	111	55%	92	45%	186	92%	17	8%
<b>Total (N=2019)</b>	1374	68%	645	32%	1889	94%	130	6%

\*Users who appeared to be under the age of 18 were marked on the data sheet with a “Y” instead of a hash mark

Table 4 includes demographic information collected during trail counts. Overall, trail users were predominately male (68%, 1374); 32% (645) were female. There were more adults 94% (1889) than youth 6% (130). The survey team observed that approximately equal numbers of youth were using the trail as part of a family group and by themselves. According to transportation specialists, biking tends to be a male dominated sport. It is also possible that this gender distribution was influenced by perceptions of personal safety, particularly at sites such as Scrantom St. (only 7% female).

Table 5 – Gender by Activity and Location

Pedestrians					
	N	Females		Males	
		#	%	#	%
<b>Sites 1-4 (“South”)</b>	338	153	45%	185	55%
<b>Sites 5-7 (“Central”)</b>	145	40	28%	105	72%
<b>Sites 8-12 (“North”)</b>	322	135	42%	187	58%
<b>Total</b>	805	328	41%	477	59%

Bicyclists					
		Females		Males	
	N	#	%	#	%
<b>Sites 1-4 ("South")</b>	650	174	27%	476	73%
<b>Sites 5-7 ("Central")</b>	178	34	19%	144	81%
<b>Sites 8-12 ("North")</b>	332	95	29%	237	71%
<b>Total</b>	1160	303	26%	857	74%

The study team also looked at gender by activity (Table 5). Overall, a larger percentage of bicyclists were male (74%) than were pedestrians (59%) ( $p < 0.01$ ). Similarly, there appears to be a geographic difference in the gender ratios. There is a higher proportion of males to females at the "Central" sites than the "North" and "South" sites for both bicyclists and pedestrians. Thus, while safety concerns may contribute to the relatively low number of women using the trail, particularly in certain areas, the disproportionate number of men involved in the sport of biking likely contributes to the high overall rate of male trail users.

Table 6 – Helmet Use

Site (Total)	Helmet		No Helmet		Adult Helmet		Youth Helmet	
	#	%	#	%	#	%*	#	%*
<b>1 - GVP West (N=157)</b>	103	66%	54	34%	101	65%	2	100%
<b>2 - GVP East (N=224)</b>	147	66%	77	34%	142	65%	5	83%
<b>3 - ELRR (N=150)</b>	96	64%	54	36%	91	64%	5	71%
<b>4 - Ford St 9 (N=119)</b>	84	71%	35	29%	81	70%	3	100%
<b>5 - South Ave (N=113)</b>	58	51%	55	49%	58	51%	0	0%**
<b>6 - Cataract St (N=32)</b>	11	34%	21	66%	11	34%	0	0%**
<b>7 - Scrantom St (N=33)</b>	14	42%	19	58%	14	44%	0	0%**
<b>8 - Maplewood (N=66)</b>	46	70%	20	30%	45	73%	1	25%
<b>9 - Zoo (N=43)</b>	26	60%	17	40%	26	62%	0	0%**
<b>10 - Turning Pt (N=43)</b>	26	60%	17	40%	26	60%	0	0%**
<b>11 - LO SP (N=94)</b>	52	55%	42	45%	44	51%	8	100%
<b>12 - Durand (N=86)</b>	51	59%	35	41%	46	62%	5	42%
<b>Total (N=1160)</b>	714	62%	446	38%	685	61%	29	66%

\* Based on total number of adults and youth, respectively (i.e., 100% (2) of youth at site 1 were wearing helmets)

\*\*Staff counted 1 youth at both Scrantom St. (site 7) and the Zoo (site 9); no youth bicyclists were counted at sites 5 (South Ave), 6 (Cataract St.) or 10 (Turning Point Park).

Table 6 summarizes helmet information collected via trail counts. Helmet information was only collected for people on bicycles. Overall, 62% (714) of bikers wore helmets, whereas 38% (446) did not. Several sites appear to have had lower helmet usage, including Sites 5 (South Ave.) with 51% (58), 6 (Cataract St.) with 34% (11), and 7 (Scrantom St.) with 42% (14) of users wearing helmets. Of all adult bicyclists, 61% (685) wore helmets. Sixty-six percent (29) of youth on bicycles wore helmets. The lowest proportion of adults wearing helmets was at Site 6 (Cataract St.) with 34% (11). Excluding sites where we only saw one youth in total, the lowest proportion of youth wearing helmets was at Site 8 (Maplewood) with 25% (1).

## Results – Trail Surveys

This section of the report summarizes information collected by the trail surveys. All information was double entered and analyzed in Microsoft Excel.

Table 7 – Gender

Site (Total Answered)	Male		Female		Times Staff Visited
	#	%	#	%	
<b>1 - GVP West (N=16)</b>	10	63%	6	38%	2
<b>2 - GVP East (N=14)</b>	12	86%	2	14%	2
<b>3 - ELRR (N=54)</b>	34	63%	20	37%	5
<b>4 - Ford St 9 (N=17)</b>	12	71%	5	29%	2
<b>5 - South Ave (N=21)</b>	14	67%	7	33%	2
<b>6 - Cataract St (N=27)</b>	24	89%	3	11%	2
<b>7 - Scrantom St (N=12)</b>	11	92%	1	8%	2
<b>8 - Maplewood (N=19)</b>	10	53%	9	47%	2
<b>9 - Zoo (N=7)</b>	7	100%	0	0%	2
<b>10 - Turning Pt (N=17)</b>	7	41%	10	59%	2
<b>11 - LOSP (N=17)</b>	12	71%	5	29%	2
<b>12 - Durand (N=14)</b>	9	64%	5	36%	2
<b>Total (N=235)</b>	162	69%	73	31%	27

Of 265 people surveyed, only 235 (89%) indicated a gender. Surveys where responses were recorded by the field team had the gender section filled out automatically based on observations. However, when respondents filled the surveys out on their own, it was logistically difficult for the study team to ensure gender was completed (e.g., if several people filled out the survey and handed them all in at once).

Many more males took the survey (162, 69%) (Table 7). The higher percentage of male respondents was attributed to the higher concentration of male trail users. Generally speaking, response rates did not seem to be gender-based. Sites that did not seem to follow this trend are Site 8 (Maplewood) with 53% (10) males and 47% (9) females, and Site 10 (Turning Point) with 41% (7) male and 59% (10) females. Project staff observed more females traveling in groups along the trails than males. A gender-

based comparison of safety and security responses follows the safety and security table below (page 15).

Table 8 – Race

Site (Total Answered)	White		Black		Other*	
	#	%	#	%	#	%
<b>1 - GVP West (N=18)</b>	13	72%	3	17%	2	11%
<b>2 - GVP East (N=15)</b>	11	73%	2	13%	2	13%
<b>3 - ELRR (N=58)</b>	52	90%	3	5%	3	5%
<b>4 - Ford St 9 (N=17)</b>	13	76%	4	24%	0	0%
<b>5 - South Ave (N=23)</b>	17	74%	5	22%	1	4%
<b>6 - Cataract St (N=27)</b>	18	67%	7	26%	2	7%
<b>7 - Scrantom St (N=11)</b>	7	74%	3	27%	1	9%
<b>8 - Maplewood (N=15)</b>	15	100%	0	0%	0	0%
<b>9 - Zoo (N=7)</b>	5	71%	1	14%	1	14%
<b>10 - Turning Pt (N=17)</b>	17	100%	0	0%	0	0%
<b>11 - LOSP (N=21)</b>	21	100%	0	0%	0	0%
<b>12 - Durand (N=18)</b>	15	83%	2	11%	1	6%
<b>Total (N=247)</b>	204	83%	30	12%	13	5%

\* Includes respondents specifying a different race than those listed, those who indicated more than one race, and Asians (these were included with “Other” due to a low response rate (2%, 5).

About 93% (247) of respondents provided their race. Table 8 indicates that survey respondents were predominately White, with 204 White respondents (83%), 30 Black responses (12%), and 13 Other respondents (5%). The field team further noted in their field observations that most people on the trails were White, although this was not directly measured. Survey staff noted that Whites did not appear to be more or less likely to complete the survey than other racial groups. However, survey refusals were not recorded so this observation cannot be quantified.

Table 9 – Ethnicity

Site (Total Answered)	Non-Hispanic		Hispanic or Latino	
	#	%	#	%
1 – GVP West (N=12)	11	92%	1	8%
2 – GVP East (N=8)	7	88%	1	13%
3 – ELRR (N=28)	26	93%	2	7%
4 – Ford St 9 (N=9)	7	78%	2	22%
5 – South Ave (N=11)	10	91%	1	9%
6 – Cataract St (N=16)	14	88%	2	13%
7 – Scrantom St (N=10)	8	80%	2	20%
8 – Maplewood (N=9)	6	67%	3	33%
9 – Zoo (N=6)	5	83%	1	17%
10 – Turning Pt (N=17)	17	100%	0	0%
11 – LOSP (N=9)	8	89%	1	11%
12 – Durand (N=8)	7	88%	1	13%
<b>Total (N=143)</b>	<b>126</b>	<b>88%</b>	<b>17</b>	<b>12%</b>

Only about 54% (143) of people provided an ethnicity. The field team observed that many people did not see a difference between Race and Ethnicity, and felt both questions were satisfied after answering Race. Respondents were primarily Non-Hispanic (88%, 126) (Table 9).

Approximately 77% (203) of respondents provided a household income response. More than two-thirds of respondents reported household incomes over \$35,000 (\$35,000 - \$74,999 with 28% (56) and \$75,000 or more with 41% (83) (Table 10)). Fifteen percent earned under \$15,000. When compared with U.S. Census Bureau data, the survey data indicates that the income distribution of trail users is more consistent with Monroe County than to the City of Rochester.



Table 10 – Household Income

Site (Total Answered)	Less than \$10,000		\$10,000 - \$14,999		\$15,000 - \$24,999		\$25,000 - \$34,999		\$35,000 - \$74,999*		\$75,000 or more	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>1 – GVP West (N=15)</b>	1	7%	0	0%	2	13%	1	7%	3	20%	8	53%
<b>2 – GVP East (N=11)</b>	1	9%	0	0%	0	0%	1	9%	4	36%	5	45%
<b>3 – ELRR (N=47)</b>	8	17%	2	4%	3	6%	3	6%	13	28%	18	38%
<b>4 – Ford St 9 (N=14)</b>	3	21%	0	0%	0	0%	2	14%	3	21%	6	43%
<b>5 – South Ave (N=15)</b>	3	20%	1	7%	4	27%	2	13%	1	7%	4	27%
<b>6 – Cataract St (N=22)</b>	3	14%	1	5%	2	9%	1	5%	7	32%	8	36%
<b>7 – Scrantom St (N=10)</b>	4	40%	0	0%	1	10%	1	10%	2	20%	2	20%
<b>8 – Maplewood (N=16)</b>	0	0%	1	6%	0	0%	3	19%	6	38%	6	38%
<b>9 – Zoo (N=4)</b>	0	0%	0	0%	0	0%	0	0%	1	25%	3	75%
<b>10 – Turning Pt (N=15)</b>	0	0%	0	0%	0	0%	2	13%	5	33%	8	53%
<b>11 – LOSP (N=19)</b>	1	5%	1	5%	0	0%	2	11%	6	32%	9	47%
<b>12 – Durand (N=15)</b>	1	7%	0	0%	2	13%	1	7%	5	33%	6	40%
<b>Total (N=203)</b>	25	12%	6	3%	14	7%	19	9%	56	28%	83	41%
<b>Monroe County** (N=293,104)</b>	24,280	8%	13,925	5%	31,378	11%	32,145	11%	93,518	32%	97,758	33%
<b>City of Rochester** (N=86,009)</b>	15,031	18%	7,191	8%	13,795	16%	11,958	14%	24,924	29%	13,110	15%

\* The categories \$35,000 - \$39,000 and \$40,000 - \$74,999 were combined to \$35,000 - \$74,999 for comparison to 2010 U.S. Census Bureau data for Rochester, NY.

\*\*Monroe County and City of Rochester demographic data are from the 2011 American Community Survey 5-year Estimate, U.S. Census Bureau, Table DP03 Selected Economic Characteristics

Table 11 – Activity

Site (Total Answered)	Walking		Biking		Other	
	#	%	#	%	#	%
<b>1 - GVP West (N=18)</b>	7	39%	11	61%	0	0%
<b>2 - GVP East (N=16)</b>	8	50%	6	38%	2	13%
<b>3 - ELRR (N=63)</b>	25	40%	38	60%	0	0%
<b>4 - Ford St 9 (N=19)</b>	11	58%	7	37%	1	5%
<b>5 - South Ave (N=25)</b>	10	40%	15	60%	0	0%
<b>6 - Cataract St (N=29)</b>	15	52%	14	48%	0	0%
<b>7 - Scrantom St (N=12)</b>	4	33%	8	67%	0	0%
<b>8 - Maplewood (N=19)</b>	6	32%	13	68%	0	0%
<b>9 - Zoo (N=7)</b>	5	71%	2	29%	0	0%
<b>10 - Turning Pt (N=17)</b>	11	65%	5	29%	1	6%
<b>11 - LOSP (N=21)</b>	11	52%	10	48%	0	0%
<b>12 - Durand (N=19)</b>	15	79%	4	21%	0	0%
<b>Total (N=265)</b>	128	48%	133	50%	4	2%

Respondents were asked to identify the activity they were engaged in at the time of the survey, disregarding ways in which the respondent uses the trail at other times. This information was also recorded by the field team on the trail user count form. Forty-eight percent (128) of people surveyed were walking, 50% (133) people were biking, and 2% (4) were doing some other activity such as rollerblading, skateboarding, riding as a passenger on a bicycle, or riding in a stroller (Table 11). Individuals walking a bicycle were recorded as pedestrians. Table 12 compares screenline (non-directional) count activity records to the survey results.

Table 12 – Activity Comparison between Counts and Surveys

Site	Trail Counts							Trail Surveys						
	N	Walking		Biking		Other		N	Walking		Biking		Other	
	#	#	%	#	%	#	%	#	#	%	#	%	#	%
<b>1 - GVP West</b>	235	74	31%	157	67%	4	2%	18	7	39%	11	61%	0	0%
<b>2 - GVP East</b>	362	122	34%	224	62%	16	4%	16	8	50%	6	38%	2	13%
<b>3 - ELRR</b>	222	72	32%	150	68%	0	0%	63	25	40%	38	60%	0	0%
<b>4 - Ford St 9</b>	195	70	36%	119	61%	6	3%	19	11	58%	7	37%	1	5%
<b>5 - South Ave</b>	195	78	40%	113	58%	4	2%	25	10	40%	15	60%	0	0%
<b>6 - Cataract St</b>	90	56	62%	32	36%	2	2%	29	15	52%	14	48%	0	0%
<b>7 - Scrantom St</b>	44	11	25%	33	75%	0	0%	12	4	33%	8	67%	0	0%
<b>8 - Maplewood</b>	112	42	38%	66	59%	4	4%	19	6	32%	13	68%	0	0%
<b>9 - Zoo</b>	73	28	38%	43	59%	2	3%	7	5	71%	2	29%	0	0%
<b>10 - Turning Pt</b>	151	95	63%	43	28%	13	9%	17	11	65%	5	29%	1	6%
<b>11 - LOSP</b>	137	41	30%	94	69%	2	1%	21	11	52%	10	48%	0	0%
<b>12 - Durand</b>	203	116	57%	86	42%	1	0%	19	15	79%	4	21%	0	0%
<b>Total</b>	2019	805	40%	1160	57%	54	3%	265	128	48%	133	50%	4	2%

Project staff counted 805 (40%) people walking. However, walkers comprised 48% (128) of the trail surveys, suggesting that walkers stopped to take the survey more often than bikers did (Table 12). Project staff observed through trail counts that 57% (1160) of users were biking, whereas only 50% (133) of trail survey respondents were bicyclists.

Table 13 – What best describes the purpose of this trip (check all that apply)?\*

Site (Total Answered)	Exercise		Work Commute		School		Recreation		Shopping / running errands		Personal (medical, visiting friends, etc.)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>1 – GVP West (N=18)</b>	6	33%	1	6%	1	6%	16	89%	0	0%	1	6%
<b>2 – GVP East (N=16)</b>	10	63%	0	0%	0	0%	10	63%	0	0%	0	0%
<b>3 – ELRR (N=63)</b>	43	68%	12	19%	0	6%	29	46%	4	6%	2	3%
<b>4 – Ford St 9 (N=19)</b>	9	47%	3	16%	0	5%	9	47%	1	5%	2	11%
<b>5 – South Ave (N=25)</b>	12	48%	7	28%	0	4%	11	44%	1	4%	6	24%
<b>6 – Cataract St (N=29)</b>	14	48%	1	3%	1	3%	18	62%	2	7%	4	14%
<b>7 – Scrantom St (N=12)</b>	3	25%	5	42%	0	0%	3	25%	1	8%	1	8%
<b>8 – Maplewood (N=19)</b>	11	58%	3	16%	0	0%	12	63%	0	0%	1	5%
<b>9 – Zoo (N=7)</b>	4	57%	0	0%	0	0%	2	29%	0	0%	2	29%
<b>10 – Turning Pt (N=17)</b>	8	47%	0	0%	0	0%	12	71%	0	0%	0	0%
<b>11 – LOSP (N=21)</b>	17	81%	0	0%	0	0%	12	57%	0	0%	3	14%
<b>12 – Durand (N=19)</b>	14	74%	2	11%	0	0%	11	58%	0	0%	2	11%
<b>Total (N=265)</b>	151	57%	34	13%	2	1%	145	55%	9	3%	24	9%

\* Multiple responses allowed

Table 13 summarizes responses to the question, “What best describes the purpose of this trip?” which had a 100% response rate.

Overall, it appears that the majority of people were using the trails for exercise and recreation, with 57% (151) and 55% (145) respectively; many respondents selected both, indicating that they enjoy exercising outdoors on the trails. The next most frequent responses were “Work commute” (13%, 34) and “Personal” (9%, 24). Three percent (9) answered that they were shopping/running errands. “School” had the lowest selection with only 1% (2); the study team was surveying in the summer and did not survey anyone under 18.

Table 14 – If you were not using the trail for this trip, how would you be traveling?

Site (Total Answered)*	Car		Carpool		Transit (Bus)		Would not make this trip**	
	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=14)</b>	8	57%	0	0%	1	7%	5	36%
<b>2 - GVP East (N=14)</b>	1	7%	0	0%	1	7%	12	86%
<b>3 - ELRR (N=48)</b>	15	31%	0	0%	6	13%	27	56%
<b>4 - Ford St 9 (N=12)</b>	1	8%	1	8%	1	8%	9	75%
<b>5 - South Ave (N=18)</b>	6	33%	0	0%	6	33%	6	33%
<b>6 - Cataract St (N=26)</b>	11	42%	0	0%	2	8%	13	40%
<b>7 - Scrantom St (N=11)</b>	2	18%	0	0%	4	36%	5	45%
<b>8 - Maplewood (N=15)</b>	2	18%	0	0%	0	0%	13	87%
<b>9 - Zoo (N=7)</b>	1	14%	0	0%	0	0%	6	86%
<b>10 - Turning Pt (N=13)</b>	5	38%	0	0%	0	0%	8	62%
<b>11 - LOSP (N=18)</b>	9	50%	0	0%	0	0%	9	50%
<b>12 - Durand (N=17)</b>	2	12%	0	0%	0	0%	15	88%
<b>Total (N=213)</b>	63	30%	1	0%	21	10%	128	60%

\* “Don’t Know” responses are excluded from this table

\*\* Respondents stating they would exercise somewhere else or use a different trail were included in “Would not make this trip.”

Table 14 summarizes responses to the question, “If you were not using the trail for this trip, how would you be traveling?” with a response rate of 80% (213). The most common response was “Would not make this trip” with 60% (128); the lowest response rate was for Carpool with less than 0.5% (1). This question aimed to identify whether other transportation methods were being replaced or supplemented by the trail, and was therefore geared towards trail users who had a destination. The high response rate for “Would not make this trip” reinforces that the majority of people using the trail did not have a destination. This is consistent with responses to the trip purpose question, where a majority of participants reported using the trail for exercise and/or recreation.

Table 15 – In the past month, about how often have you used this trail (check all that apply)?\*

Site (Total Answered)	First time		0 - 5 times		6 – 10 times		11 – 20 times		21 – 29 times		Daily	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=18)</b>	4	22%	4	22%	2	11%	2	11%	1	6%	5	28%
<b>2 - GVP East (N=16)</b>	2	13%	2	13%	4	25%	2	13%	2	13%	4	25%
<b>3 - ELRR (N=62)</b>	11	18%	18	29%	9	15%	11	18%	5	8%	8	13%
<b>4 - Ford St 9 (N=19)</b>	2	11%	2	11%	6	32%	2	11%	2	11%	5	26%
<b>5 - South Ave (N=24)</b>	2	8%	5	21%	3	13%	4	17%	2	8%	8	33%
<b>6 - Cataract St (N=29)</b>	7	24%	10	34%	4	14%	3	10%	2	7%	3	10%
<b>7 - Scrantom St (N=12)</b>	2	17%	2	17%	4	33%	1	8%	1	8%	2	17%
<b>8 - Maplewood (N=18)</b>	2	11%	8	44%	0	0%	5	28%	0	0%	3	17%
<b>9 - Zoo (N=7)</b>	1	14%	1	14%	1	14%	1	14%	1	14%	2	29%
<b>10 - Turning Pt (N=17)</b>	6	35%	5	29%	3	18%	1	6%	0	0%	2	12%
<b>11 - LOSP (N=21)</b>	1	5%	6	29%	6	29%	4	19%	0	0%	4	19%
<b>12 - Durand (N=19)</b>	1	5%	9	47%	3	16%	2	11%	1	5%	3	16%
<b>Total (N=262)</b>	41	16%	72	27%	45	17%	38	15%	17	6%	49	19%

\*Multiple answers allowed

Table 15 summarizes responses to the survey question, “In the past month, about how often have you used this trail?” with a response rate of 99% (262). The most common response was “0 – 5 times” with 27% (72) and “Daily” with 19% (49). At Site 10 (Turning Point), however, “First Time” had the largest response with 35% (6); “Daily” was the most common response at Site 5 (South Ave.) with 33% (8).

Table 16 – Please check the seasons in which you use the trail\*

Site (Total Answered)	All year**		Summer		Fall		Winter		Spring	
	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=17)</b>	3	18%	12	71%	10	59%	0	0%	9	53%
<b>2 - GVP East (N=16)</b>	6	38%	10	63%	7	44%	1	6%	6	38%
<b>3 - ELRR (N=62)</b>	18	29%	44	71%	29	47%	0	0%	28	45%
<b>4 - Ford St 9 (N=19)</b>	7	37%	10	53%	10	53%	1	5%	7	37%
<b>5 - South Ave (N=23)</b>	9	39%	14	61%	13	57%	0	0%	14	61%
<b>6 - Cataract St (N=27)</b>	12	44%	14	52%	7	26%	2	7%	8	30%
<b>7 - Scrantom St (N=12)</b>	3	25%	9	75%	5	42%	1	8%	7	58%
<b>8 - Maplewood (N=19)</b>	8	42%	10	53%	10	53%	0	0%	10	53%
<b>9 - Zoo (N=7)</b>	4	57%	3	43%	0	0%	1	14%	0	0%
<b>10 - Turning Pt (N=17)</b>	4	24%	12	71%	7	41%	1	6%	5	29%
<b>11 - LOSP (N=21)</b>	11	52%	10	48%	6	29%	0	0%	7	33%
<b>12 - Durand (N=19)</b>	4	21%	14	74%	8	42%	1	5%	8	42%
<b>Total (N=259)</b>	89	34%	162	63%	112	43%	8	3%	109	42%

\* Multiple answers allowed

\*\*Respondents who selected all seasons were recorded only as “All Year.”

Table 16 includes all data collected for the question, “Please check the seasons in which you use the trail” with a response rate of 98% (259). Trails are used most often in summer with 63% (162). Fall, spring and all year were all selected with about the same frequency with 43% (112), 42% (109), and 34% (89), respectively. Some respondents (3%, 8) who do not use the trail year-round do use it in the winter. The most “All Year” responses were recorded at Site 9 (Zoo) with 57% (4) and Site 6 (Cataract St.) with 44% (12).

Table 17 – How did you get to this trail today (check all that apply)?\*

Site (Total Answered)	Drove		Walked		Biked		Took the bus	
	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=18)</b>	5	28%	3	17%	11	61%	0	0%
<b>2 - GVP East (N=16)</b>	5	31%	5	31%	7	44%	1	6%
<b>3 - ELRR (N=63)</b>	11	17%	16	25%	31	49%	2	3%
<b>4 - Ford St 9 (N=19)</b>	2	11%	9	47%	6	32%	0	0%
<b>5 - South Ave (N=25)</b>	1	4%	9	36%	15	60%	0	0%
<b>6 - Cataract St (N=29)</b>	4	14%	11	38%	13	45%	1	3%
<b>7 - Scrantom St (N=12)</b>	2	17%	3	25%	8	67%	1	8%
<b>8 - Maplewood (N=19)</b>	7	37%	2	11%	10	53%	0	0%
<b>9 - Zoo (N=7)</b>	0	0%	5	71%	2	29%	0	0%
<b>10 - Turning Pt (N=17)</b>	11	65%	4	24%	2	12%	0	0%
<b>11 - LOSP (N=21)</b>	7	33%	8	38%	7	33%	0	0%
<b>12 - Durand (N=19)</b>	14	74%	3	16%	2	11%	0	0%
<b>Total (N=265)</b>	69	26%	78	29%	114	43%	5	2%

\*Multiple answers allowed

Table 17 summarizes responses to the question “How did you get to the trail today?” which had a 100% (265) response rate. The majority of people (43%, 114) biked to the trail. Others walked (29%, 78) or drove (26%, 69); few took the bus (2%, 5). However, more people walked to sites 4 (Ford St., 47%, 9) and 9 (Zoo, 71%, 5). This difference may be a result of trail use, or may indicate that fewer bicyclists stopped for surveys at these locations.

It is likely that those biking or walking on the trail are likely to use different methods of transport to get to the trail. The following table breaks down transportation to the trail by activity type.



Table 18 – How did you get to this trail today (check all that apply)? (Walkers)

Site	Drove		Walked		Biked		Took the bus		Other	
	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=7)</b>	5	71%	2	29%	0	0%	0	0%	0	0%
<b>2 - GVP East (N=8)</b>	3	38%	4	50%	1	13%	0	0%	0	0%
<b>3 – ELRR (N=25)</b>	6	24%	16	64%	0	0%	0	0%	3	12%
<b>4 - Ford St (N=11)</b>	1	9%	8	73%	1	9%	0	0%	2	18%
<b>5 - South Ave (N=10)</b>	1	10%	9	90%	0	0%	0	0%	0	0%
<b>6 - Cataract St (N=15)</b>	4	27%	10	67%	0	0%	1	7%	0	0%
<b>7 - Scrantom St (N=4)</b>	1	25%	2	50%	0	0%	1	25%	0	0%
<b>8 – Maplewood (N=6)</b>	4	67%	2	33%	0	0%	0	0%	0	0%
<b>9 – Zoo (N=5)</b>	0	0%	5	100%	0	0%	0	0%	0	0%
<b>10 - Turning Pt (N=11)</b>	7	64%	4	36%	0	0%	0	0%	0	0%
<b>11 – LOSP (N=11)</b>	3	27%	8	73%	0	0%	0	0%	0	0%
<b>12 – Durand (N=15)</b>	12	80%	3	20%	0	0%	0	0%	0	0%
<b>Total (N=128)</b>	47	37%	73	57%	2	2%	2	2%	5	4%

Table 19 – How did you get to this trail today (check all that apply)? (Bikers)

Site	Drove		Walked		Biked		Took the bus		Other	
	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=11)</b>	0	0%	1	9%	11	100%	0	0%	1	9%
<b>2 - GVP East (N=6)</b>	1	17%	0	0%	5	83%	0	0%	0	0%
<b>3 – ELRR (N=38)</b>	5	13%	0	0%	31	82%	2	5%	0	0%
<b>4 - Ford St (N=7)</b>	1	14%	1	14%	5	71%	0	0%	0	0%
<b>5 - South Ave (N=15)</b>	0	0%	0	0%	15	100%	0	0%	0	0%
<b>6 - Cataract St (N=14)</b>	0	0%	1	7%	13	93%	0	0%	0	0%
<b>7 - Scrantom St (N=8)</b>	1	13%	1	13%	8	100%	0	0%	0	0%
<b>8 – Maplewood (N=13)</b>	3	23%	0	0%	10	77%	0	0%	0	0%
<b>9 – Zoo (N=2)</b>	0	0%	0	0%	2	100%	0	0%	0	0%
<b>10 - Turning Pt (N=5)</b>	3	60%	0	0%	2	40%	0	0%	0	0%
<b>11 – LOSP (N=10)</b>	4	40%	0	0%	7	70%	0	0%	0	0%
<b>12 – Durand (N=4)</b>	2	50%	0	0%	2	50%	0	0%	0	0%
<b>Total (N=133)</b>	20	15%	4	3%	111	83%	2	2%	1	1%

When results are broken down by activity, it appears as though more walkers (37%, 47) drive to access the trails than bikers (15%, 20) (Tables 18 and 19). The majority of bikers traveled to the trail by bicycle (83%, 111) (Table 19).

Table 20 – Average Distance Traveled to Trail by Mode of Transportation

	Drove	Walked	Biked	Took the bus
<b>Average Distance Traveled to Trail (miles)</b>	9.45	1.21	4.28	7.38

Table 20 includes the averages of answers collected for the question, “How far did you travel to get to the trail today?” People who drove traveled the farthest at 9.45 miles on average, followed by people who took the bus (7.38 miles), bikers (4.28 miles), and walkers (1.21 miles).

Table 21 – Average Time on Trip by Activity

	Walked	Biked	Other
<b>Average Time on Trip (minutes)</b>	60.74	74.72	55.00

Table 21 includes the averages of answers collected for the question, “How long will you be on this trip?” Overall, bikers were on their trips the longest (for 74.72 minutes on average), followed by walkers (60.74 minutes) and others (55.00 minutes). The CDC recommends that adults engage in moderate-intensity physical activity for 30 minutes or more on 5 or more days of the week. On average, trail users are exercising longer than the CDC recommendation of at least 30 minutes.

Table 22 – Safety and Security

Site (Overall Total)	Excellent		Good		Fair		Poor		Don't Know	
	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=18)</b>	3	17%	11	61%	3	17%	0	0%	1	6%
<b>2 - GVP East (N=16)</b>	5	31%	8	50%	3	19%	0	0%	0	0%
<b>3 - ELRR (N=62)</b>	8	13%	34	55%	15	24%	0	0%	5	8%
<b>4 - Ford St 9 (N=19)</b>	3	16%	13	68%	3	16%	0	0%	0	0%
<b>5 - South Ave (N=25)</b>	5	20%	14	56%	5	20%	0	0%	1	4%
<b>6 - Cataract St (N=29)</b>	8	28%	16	55%	5	17%	0	0%	0	0%
<b>7 - Scrantom St (N=12)</b>	2	17%	8	67%	1	8%	0	0%	1	8%
<b>8 - Maplewood (N=19)</b>	4	21%	11	58%	2	11%	0	0%	2	11%
<b>9 - Zoo (N=7)</b>	0	0%	3	43%	3	43%	0	0%	1	14%
<b>10 - Turning Pt (N=17)</b>	5	29%	6	35%	3	18%	0	0%	3	18%
<b>11 - LOSP (N=21)</b>	8	38%	9	43%	1	5%	2	10%	1	5%
<b>12 - Durand (N=18)</b>	7	39%	10	56%	1	6%	0	0%	0	0%
<b>Total (N=263)</b>	58	22%	143	54%	45	17%	2	1%	15	6%

Responses to the question “In your opinion the safety and security along this trail is...,” which had a 99% response rate (263), are summarized in Table 22. Most (54%, 143) trail users identified the safety and security along the section of trail they were on as “Good,” followed by “Excellent” (22%, 58) and “Fair” (17%, 45). Very few users (1%, 2) found the safety and security where they were traveling to be “Poor,” while some were not sure – 6% (15) responded with “Don’t Know.” “Excellent” was most frequently selected at Sites 12 (Durand) with 39% (7) and 11 (LOSP) with 38% (8). Interestingly, the only site where respondents answered “Poor” was also LOSP (10%, 2). “Fair” was most commonly selected at Site 9 (Zoo) with 43% (3). Considering anecdotal reports from community members regarding crime in certain

neighborhoods, the study team considered safety and security as a potential contributor to the unequal gender distribution of trail users. Tables 23 and 24 summarize safety and security responses by gender.

*Table 23 – Safety and Security by Gender: Males*

Site	Excellent		Good		Fair		Poor		Don't know	
	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=10)</b>	2	20%	6	60%	1	10%	0	0%	1	10%
<b>2 - GVP East (N=12)</b>	4	33%	6	50%	2	17%	0	0%	0	0%
<b>3 – ELRR (N=34)</b>	5	15%	16	47%	11	32%	0	0%	2	6%
<b>4 - Ford St (N=12)</b>	3	25%	8	67%	1	8%	0	0%	0	0%
<b>5 - South Ave (N=14)</b>	3	21%	6	43%	4	29%	0	0%	1	7%
<b>6 - Cataract St (N=24)</b>	7	29%	13	54%	4	17%	0	0%	0	0%
<b>7 - Scrantom St (N=11)</b>	2	18%	8	73%	0	0%	0	0%	1	9%
<b>8 – Maplewood (N=10)</b>	3	30%	7	70%	0	0%	0	0%	0	0%
<b>9 – Zoo (N=7)</b>	0	0%	3	43%	3	43%	0	0%	1	14%
<b>10 - Turning Pt (N=7)</b>	3	43%	2	29%	2	29%	0	0%	0	0%
<b>11 – LOSP (N=12)</b>	7	58%	4	33%	1	8%	0	0%	0	0%
<b>12 – Durand (N=9)</b>	3	33%	6	67%	0	0%	0	0%	0	0%
<b>Total (N=162)</b>	42	26%	85	52%	29	18%	0	0%	6	4%

*Table 24 – Safety and Security by Gender: Females*

Site	Excellent		Good		Fair		Poor		Don't know	
	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=6)</b>	0	0%	4	67%	2	33%	0	0%	0	0%
<b>2 - GVP East (N=2)</b>	0	0%	1	50%	1	50%	0	0%	0	0%
<b>3 – ELRR (N=20)</b>	3	15%	12	60%	3	15%	0	0%	2	10%
<b>4 - Ford St (N=5)</b>	0	0%	4	80%	1	20%	0	0%	0	0%
<b>5 - South Ave (N=7)</b>	1	14%	6	86%	0	0%	0	0%	0	0%
<b>6 - Cataract St (N=3)</b>	1	33%	1	33%	1	33%	0	0%	0	0%
<b>7 - Scrantom St (N=1)</b>	0	0%	0	0%	1	100%	0	0%	0	0%
<b>8 – Maplewood (N=9)</b>	1	11%	4	44%	2	22%	0	0%	2	22%
<b>9 – Zoo (N=0)</b>	0	0%	0	0%	0	0%	0	0%	0	0%
<b>10 - Turning Pt (N=10)</b>	2	20%	4	40%	1	10%	0	0%	3	30%
<b>11 – LOSP (N=5)</b>	1	20%	2	40%	0	0%	2	40%	0	0%
<b>12 – Durand (N=4)</b>	1	25%	2	50%	1	25%	0	0%	0	0%
<b>Total (N=72)</b>	10	14%	40	56%	13	18%	2	3%	7	10%

Females accounted for only 19% of those who reported that the safety and security along the trails is “Excellent”. Looking within each gender, a greater proportion of males (26%, 42) selected “Excellent,” while only 14% (10) of females did. Although both males and females selected “Good” (52% and 56%, respectively) and “Fair” (18% of both genders) at about the same frequency, no males selected “Poor”

compared to 3% (2) of females. Females also more frequently answered that they “Don’t Know” about the safety and security of the trail than males (10% versus 4%, respectively).

Twenty-two percent (57) of the respondents selected “Personal Safety” as at least one of their reasons for using that particular trail, but this may indicate either that the trail is safer than riding on a road or that they are not concerned about crime in this area (Table 25). Overall the most desirable features appeared to be “Scenic Qualities” with 65% (170) of respondents selecting it, followed by “Convenient Route” (45%, 118), and “No Cars” (35%, 92). “Connection to Transit” appeared to be the lowest contributor with 1% (2). Site 6 (Cataract St.) is one exception to “Convenient Route.” It is not surprising that only 14% (4) selected this feature at Site 6, which currently serves as more of a ‘destination’ trail. Visitors to this site often walk out onto the Pont de Rennes bridge to view the falls, but there is limited connectivity on the east side of the river with an unclearly marked trail.

Sites where “Scenic Qualities” was least often selected were Sites 7 (Scrantom St) with 33% (4) and 9 (Zoo) with 29% (2). “Personal Safety” was selected most often at Site 2 (GVP East, 60%, 9), and least often at Site 10 (Turning Pt, 12%, 2).

Table 25 – Why This Trail?\*

Site (Total Answered)	Accessible / no stairs		Scenic qualities		Less crowded		Personal safety		Level / flat		Convenient route		Wider lanes / path		Bike lanes		Heard about it		Connects to transit (bus)		No cars		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>1 - GVP West (N=18)</b>	3	17%	13	72%	3	17%	5	28%	6	33%	14	78%	3	17%	4	22%	2	11%	1	6%	6	33%	3	17%
<b>2 - GVP East (N=15)</b>	3	20%	11	73%	7	47%	9	60%	3	20%	11	73%	3	20%	4	27%	0	0%	0	0%	7	47%	2	13%
<b>3 - ELRR (N=61)</b>	11	18%	47	77%	29	48%	10	16%	13	21%	26	43%	10	16%	19	31%	3	5%	0	0%	28	46%	4	7%
<b>4 - Ford St 9 (N=19)</b>	2	11%	10	53%	10	53%	7	37%	8	42%	11	58%	5	26%	2	11%	1	5%	0	0%	11	58%	2	11%
<b>5 - South Ave (N=25)</b>	3	12%	16	64%	3	12%	4	16%	2	8%	15	60%	3	12%	9	36%	0	0%	1	4%	12	48%	1	4%
<b>6 - Cataract St (N=29)</b>	5	17%	15	52%	4	14%	4	14%	2	7%	4	14%	2	7%	4	14%	0	0%	0	0%	5	17%	4	14%
<b>7 - Scrantom St (N=12)</b>	5	42%	4	33%	0	0%	3	25%	0	0%	3	25%	1	8%	2	17%	0	0%	0	0%	2	17%	3	25%
<b>8 - Maplewood (N=18)</b>	2	11%	13	72%	6	33%	4	22%	3	17%	8	44%	4	22%	4	22%	3	17%	0	0%	5	28%	3	17%
<b>9 - Zoo (N=7)</b>	2	29%	2	29%	1	14%	1	14%	0	0%	2	29%	0	0%	0	0%	0	0%	0	0%	3	43%	1	14%
<b>10 - Turning Pt (N=17)</b>	2	12%	8	47%	4	24%	2	12%	1	6%	7	41%	2	12%	1	6%	4	24%	0	0%	1	6%	8	47%
<b>11 - LOSP (N=21)</b>	2	10%	17	81%	7	33%	4	19%	2	10%	9	43%	4	19%	4	19%	1	5%	0	0%	7	33%	3	14%
<b>12 - Durand (N=18)</b>	0	0%	14	78%	1	6%	4	22%	2	11%	8	44%	4	22%	2	11%	0	0%	0	0%	5	28%	4	22%
<b>Total (N=260)</b>	40	15%	170	65%	75	29%	57	22%	42	16%	118	45%	41	16%	55	21%	14	5%	2	1%	92	35%	38	15%

\* Multiple answers allowed

Table 26 – Improvements?\*

Site (Total Answered)	Wider Path		Better surface		Better street crossing		More shade trees		Benches		Access to shops, etc.		Better maintenance		Signs		Better lighting		Plowing in winter		Nothing		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=17)	1	6%	2	12%	0	0%	0	0%	3	18%	3	18%	3	18%	2	12%	4	24%	2	12%	3	18%	5	29%
2 - GVP East (N=15)	0	0%	4	27%	2	13%	4	27%	2	13%	0	0%	4	27%	0	0%	1	7%	2	13%	5	33%	1	7%
3 - ELRR (N=62)	3	5%	20	32%	3	5%	10	16%	10	16%	0	0%	15	24%	10	16%	8	13%	15	24%	12	19%	17	27%
4 - Ford St (N=17)	2	12%	3	18%	0	0%	2	12%	3	18%	1	6%	4	24%	0	0%	2	12%	5	29%	3	18%	5	29%
5 - South Ave (N=25)	2	8%	7	28%	4	16%	4	16%	6	24%	1	4%	5	20%	3	12%	7	28%	5	20%	3	12%	9	36%
6 - Cataract St (N=28)	2	7%	3	11%	2	7%	3	11%	1	4%	0	0%	7	25%	4	14%	2	7%	3	11%	10	36%	6	21%
7 - Scrantom St (N=11)	0	0%	0	0%	1	9%	1	9%	1	9%	0	0%	0	0%	2	18%	2	18%	1	9%	5	45%	2	18%
8 - Maplewood (N=19)	0	0%	7	37%	0	0%	0	0%	1	5%	0	0%	3	16%	2	11%	2	11%	1	5%	3	16%	7	37%
9 - Zoo (N=7)	0	0%	1	14%	2	29%	1	14%	0	0%	0	0%	2	29%	0	0%	1	14%	0	0%	2	29%	2	29%
10 - Turning Pt (N=17)	1	6%	0	0%	0	0%	0	0%	2	12%	0	0%	2	12%	1	6%	2	12%	1	6%	7	41%	10	59%
11 - LOSP (N=18)	2	11%	3	17%	1	6%	3	17%	2	11%	1	6%	1	6%	4	22%	3	17%	3	17%	4	22%	7	39%
12 - Durand (N=19)	1	5%	0	0%	1	5%	4	21%	4	21%	1	5%	4	21%	1	5%	1	5%	3	16%	3	16%	10	53%
<b>Total (N=255)</b>	<b>14</b>	<b>5%</b>	<b>50</b>	<b>20%</b>	<b>16</b>	<b>6%</b>	<b>32</b>	<b>13%</b>	<b>35</b>	<b>14%</b>	<b>7</b>	<b>3%</b>	<b>50</b>	<b>20%</b>	<b>29</b>	<b>11%</b>	<b>35</b>	<b>14%</b>	<b>41</b>	<b>16%</b>	<b>60</b>	<b>24%</b>	<b>81</b>	<b>32%</b>

\* Multiple answers allowed

Table 27 – Would Use Trail More Often If...\*

Site (Overall Total)	I had more time		I did not have to travel with small children		It was easier to cross major streets		Places weren't too far away		It was better connected to other places		I felt safer / more secure		I didn't have things to carry		The trail was in better condition		I normally take a different trail		I already use this trail as often as I want		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1 - GVP West (N=17)	9	53%	0	0%	0	0%	3	18%	1	6%	1	6%	0	0%	1	6%	0	0%	5	29%	2	12%
2 - GVP East (N=16)	7	44%	1	6%	1	6%	3	19%	1	6%	1	6%	0	0%	0	0%	0	0%	5	31%	1	6%
3 - ELRR (N=58)	22	38%	0	0%	1	2%	1	2%	6	10%	7	12%	1	2%	3	5%	6	10%	21	36%	7	12%
4 - Ford St 9 (N=18)	7	39%	0	0%	0	0%	0	0%	1	6%	1	6%	0	0%	1	6%	0	0%	9	50%	1	6%
5 - South Ave (N=24)	8	33%	0	0%	2	8%	0	0%	2	8%	3	13%	1	4%	2	8%	0	0%	10	42%	1	4%
6 - Cataract St (N=28)	10	36%	0	0%	2	7%	0	0%	1	4%	2	7%	1	4%	1	4%	0	0%	9	32%	5	18%
7 - Scrantom St (N=12)	3	25%	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	5	42%	3	25%
8 - Maplewood (N=18)	3	17%	0	0%	2	11%	0	0%	3	17%	1	6%	0	0%	0	0%	0	0%	10	56%	4	22%
9 - Zoo (N=7)	3	43%	0	0%	1	14%	0	0%	1	14%	0	0%	0	0%	1	14%	0	0%	4	57%	1	14%
10 - Turning Pt (N=17)	2	12%	1	6%	0	0%	1	6%	1	6%	0	0%	0	0%	0	0%	0	0%	9	53%	4	24%
11 - LOSP (N=19)	7	37%	0	0%	0	0%	0	0%	2	11%	3	16%	0	0%	0	0%	1	5%	8	42%	2	11%
12 - Durand (N=19)	12	63%	0	0%	0	0%	0	0%	2	11%	0	0%	1	5%	1	5%	1	5%	4	21%	2	11%
<b>Total (N=253)</b>	<b>93</b>	<b>37%</b>	<b>2</b>	<b>1%</b>	<b>10</b>	<b>4%</b>	<b>8</b>	<b>3%</b>	<b>21</b>	<b>8%</b>	<b>19</b>	<b>8%</b>	<b>4</b>	<b>2%</b>	<b>10</b>	<b>4%</b>	<b>8</b>	<b>3%</b>	<b>99</b>	<b>39%</b>	<b>33</b>	<b>13%</b>

\*Multiple answers allowed.

About 96% (255) responded to the question, “What would you like to see improved along this trail?” Overall, the most frequently given responses were “Other” with 32% (81), “Nothing” with 24% (60), “Better Surface” with 20% (50), and “Better Maintenance” with 20% (50) (Table 26). The fewest people responded that they would like to see improvements such as “Access to Shops, etc.” (3%, 7), “Better Street Crossings” (6%, 16), or a “Wider Path” (5%, 14).

“Other” improvements were most often suggested at Site 10 (Turning Point, 59%, 10), and least often at Site 2 (GVP East, 7%, 1). The most frequently given “Other” responses included “bathrooms,” “water fountains,” and “trash cans.” “Nothing,” was most frequently selected at Site 5 (Scrantom St) with 45% (5) and least frequently at Site 5 (South Ave) with 12% (3). Sites 8 (Maplewood), 3 (ELRR) and 5 (South Ave.) were sites where respondents most often stated that they would like the surface to be improved (37%, 32% and 28%, respectively). Users at Site 10 (Turning Point) appear to be satisfied with the trail surface, as none selected “Better Surface” for improvements they’d like to see that that site. With respect to trail maintenance, users at Site 2 (GVP East) most frequently selected that this could be improved (27%, 4), while users at Site 7 (Scrantom St.) seem most content with current maintenance (no respondents selected “Better Maintenance” at this site).

Ninety-five percent (253) of respondents answered the question “I would use the trail more often if...” Most respondents (39%, 100) answered that they already use the trail as often as they’d like. Another common response was “If I Had More Time” (37%, 93) (Table 27). Most respondents did not have issues with transporting objects or traveling with small children; only 2% (4) selected “I didn’t have things to carry,” while only 1% (2) selected “I did not have to travel with small children.” “If It Was Better Connected to Other Places” (8%, 21) and “If I Felt Safer/More Secure” (8%, 19) were the two most common non-personal factors that respondents said would make them use the trail more often.

Lastly, the survey asked bicyclists about their helmet use. Approximately half were wearing a helmet on their trip (55%, 74) (Table 28). Of those who were wearing a helmet, the vast majority did so to protect themselves in the event of a crash (97%, 69) (Table 29). Others also stated that they wore a helmet because it’s the law (10%, 7) and to set a good example for children (27%, 19). Users who reported they were not wearing a helmet were also asked to provide a reason. Of those who did not wear a helmet, 39% (27) did not own one, but only 3% (2) participants stated that helmets are too expensive. Some of the more common reasons for not wearing a helmet included the belief that helmets are not needed for some trips (22%, 15), that it was too hot outside to wear one (17%, 12), or they simply forgot to wear it (12%, 8) (Table 30).



Table 28 – Helmet Use

Site (overall total)	Helmet		No Helmet	
	#	%	#	%
1 - GVP West (N=11)	4	36%	7	64%
2 - GVP East (N=7)	4	57%	3	43%
3 – ELRR (N=37)	23	62%	14	38%
4 - Ford St (N=7)	5	71%	2	29%
5 - South Ave (N=15)	6	40%	9	60%
6 - Cataract St (N=14)	5	36%	9	64%
7 - Scrantom St (N=8)	6	75%	2	25%
8 – Maplewood (N=13)	10	77%	3	23%
9 – Zoo (N=3)	1	33%	2	67%
10 - Turning Pt (N=5)	5	100%	0	0%
11 – LOSP (N=10)	3	30%	7	70%
12 – Durand (N=4)	2	50%	2	50%
<b>Total (N=134)</b>	<b>74</b>	<b>55%</b>	<b>60</b>	<b>45%</b>

Table 29 – Reasons for Wearing a Helmet\*

Reason	# (N=71)	%
To protect myself in case of a crash	69	97%
It's the law	7	10%
To set a good example for children	19	27%
Other	2	3%

\*Multiple answers allowed.

Table 30 – Reasons for Not Wearing a Helmet

Reason	# (N=69)	%
I don't own one	27	39%
I forgot to wear it	8	12%
I have one but it doesn't fit	1	1%
They're too expensive	2	3%
It's too hot to wear one	12	17%
I don't like how it looks	7	10%
I don't like what it does to my hair	6	9%
I don't need it right now (short trip)	15	22%
Helmets don't protect you	3	4%
Other	21	30%

\*Multiple answers allowed.

## Discussion

There are several limitations to this data. In particular, the number of surveys conducted (265) and the timing of field work limit the extent to which the results can be generalized to overall trail users. Our field work took place during fair weather summer days with a limited number of visits to each site, and therefore does not necessarily reflect overall trail usage. Our goal was not to get a representative sample of trail users or to project total usage; rather, this data is most useful to get insights into patterns of trail use and trail users' opinions as a basis for future work.

As noted above, this survey was conducted in part to gain insights into how waterfront trails currently contribute to or detract from the community's health, and how future changes might affect health. Below, we summarize initial implications for the trails' impacts on physical activity, physical safety (crime), and stress.

### *Physical Activity*

A preliminary analysis indicates the majority of people using the trails are doing so for exercise and recreation. Survey respondents on average achieved 30 minutes or more of exercise when using the trails. Also considering that about 25% of users reported using this resource several times each month, and over a third reported using the trails year round, it appears as though this resource is helping residents of Rochester achieve the recommended weekly levels of physical activity.

With respect to the volume of trail use, people seem to be most attracted by scenery along the trail, separation from cars, and convenience. Improving scenery, connecting trails and providing more access points, and changing routes or improving crossings where the trail currently runs along or across streets could have a positive impact on the number of trail users. Changes in transit access to trails appear to be the smallest contributor to trail use.

Interestingly, about a third of participants stated that there do not need to be any changes made to the existing trails. Similarly, most of the responses regarding the frequency of trail use relate to factors beyond the City's control, such as "more time." However, there are some changes the city could make that might increase the frequency of trail use or enjoyment by current users. For example, those who listed "Other" when answering about frequency of use provided options such as "if I lived closer" and "the trail was better connected." Better connectivity in the "Other" category refers more to trail continuity than the trail's proximity to other locations (which was a separate option). Anecdotally, continuity appeared to be the biggest issue within city limits, particularly downtown. Responses related to proximity to the trail suggest that if more trail access points were available, users would be better able to access the trails and destinations on the other end. Along these lines, project staff were surprised to find that walkers traveled an average of 1.21 miles to the trails they were using, which is more than twice the "usershed" distance (how far people will travel to use a trail or park) of about half a mile commonly used by transportation professionals. This suggests that the Genesee Riverway Trail is a destination for users who are willing to travel relatively long distances to access its scenic qualities for recreation.

A recommendation to expand access points along the trail and improve connectivity is also supported by the result that about 13% (34) of respondents reported that they were using the trail for a work commute, and only 3% (9) were using it for running errands or other personal reasons related to accessing a specific location. Better connectivity might result in increased non-recreational use of the trail. While it is possible these results are biased in that commuters may not have time to stop for a survey, they do suggest one strategy the City can employ to increase trail use. Other strategies may be to improve the trail surface and overall maintenance, as about a fifth of participants felt these could be improved.

### *Physical Safety*

City staff and community stakeholders have noted that perceptions about crime and threats to physical safety may be a barrier to trail use. While users are attracted by natural scenery, the promotion of a wooded environment can include trail spots that are secluded and hence perceived to be dangerous. Although our preliminary analysis does not demonstrate a clear pattern regarding trail users' perceptions of safety, there appear to be certain site-specific safety concerns, such as at Site 9 (Zoo). Project staff also heard numerous anecdotal reports regarding concerns for personal safety restricting physical activity in certain neighborhoods.

Our survey and count data provide some support for this observation. The unequal distribution of males and females on the trail could reflect women's greater concerns about safety. Additionally, male trail users may rate the safety and security along trails more positively than females. This suggests that security concerns may prevent women from using the trails more than men. However, it is important to remember that surveys were conducted only with current trail users. Further investigation into the extent of concerns about safety and security along the GRT as a barrier to trail use may be warranted.

Police records do not support the perception of high crime rates along the city's trails. Better documentation and communication about the actual level of crime on the trail might help correct the public perception. Similarly, the Rochester Police Department and 911 Center could be asked to provide incident reports and calls for service from trail users and map the incidents to see where problems, if any, actually exist. Some current local efforts in Rochester also encourage the use of CPTED (Crime Prevention Through Environmental Design) principles in new and redevelopment projects. Incorporating CPTED principles into LWRP plans, particularly those pertaining to the trail system, may also help address perceived crime and safety issues.

Increasing trail usage may help to reduce actual and perceived crime. For example, careful trail design (such as improving visibility or clearing brush) can increase users' perception of safety and minimize opportunities for crime along trails. Decreased crime/violence increases personal safety, decreases physical injuries, decreases stress, and increases physical activity by increasing the number of people who use the trails.

Another opportunity for improving physical safety relates to accident-related injuries. Only about half of bicyclists surveyed were wearing helmets to protect themselves in the event of a crash. Reasons given for why users do not wear helmets suggests that users believe they are safe without one, or that users may not fully grasp the risk posed. This suggests there is also room for additional education surrounding the importance of helmet use. This finding is less likely to pertain to the LWRP, but is important for other local efforts to improve safety.

### *Stress*

Studies have demonstrated that increased stress can have numerous health consequences.<sup>4</sup> Trail use can influence stress and its associated health impacts in numerous ways. For example, increased opportunities for recreation and physical activity may reduce stress levels. Likewise, social factors such as community cohesion and personal safety can affect stress levels of individuals. Trails in a community may influence these social factors by promoting interactions between neighbors.

While a majority of people using the trails are doing so for exercise and recreation, these opportunities may also be helping to alleviate stress in the community. Changes to the trail system have the potential to positively or negatively impact stress levels, and should be considered if changes are made. For example, some members of the PLEX neighborhood identified an increase in the number of access points to the trail as a desired change, while others expressed concerns related to safety and security from such a change. If stress is introduced by an

increased perception of crime, it has the potential to cause more negative health consequences than the potential health benefits of increased used.

## References

- <sup>1</sup>Institute of Transportation Pedestrian and Bicycle Council. "National Bicycle and Pedestrian Documentation Project." 2012.Web. <<http://bikepeddocumentation.org/>>.
- <sup>2</sup>Parks and Trails New York. "Trail User Survey." No date. Survey provided by staff member of PTNY.
- <sup>3</sup>Portland State University. "Trail Use Survey." No date. Survey provided by technical assistance staff.
- <sup>4</sup>McEwen, Bruce S. "Central Effects of Stress Hormones in Health and Disease: Understanding the Protective and Damaging Effects of Stress and Stress Mediators." *European journal of pharmacology* 583.2–3 (2008): 174-85. Print.

## Appendix 1 – Trail User Survey (adapted from the National Bicycle and Pedestrian Surveys)

Location: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Survey conducted by: \_\_\_\_\_ Weather: \_\_\_\_\_ SURVEY ID # \_\_\_\_\_

**We are interested in learning about how you use Rochester’s waterfront trails. In this survey, “the trail” refers to any location along the Genesee Riverway Trail within the City of Rochester. For questions relating to trail condition and improvements, please refer to the area you are in now and how you are using the trail today.**

1. **Today I am:**     <sub>1</sub>  Walking/Running   <sub>2</sub>  Biking     <sub>3</sub>  Other (please specify): \_\_\_\_\_
2. **What best describes the purpose of this trip (check all that apply)?**  
<sub>1</sub>  Exercise                      <sub>2</sub>  Work commute                      <sub>3</sub>  School  
<sub>4</sub>  Recreation                      <sub>5</sub>  Shopping/doing errands                      <sub>6</sub>  Personal (medical, visiting friends, etc.)
3. **If you were not using the trail for this trip, how would you be traveling?**  
<sub>1</sub>  Car    <sub>2</sub>  Carpool    <sub>3</sub>  Transit (Bus)    <sub>4</sub>  I would not make this trip    <sub>5</sub>  Don’t Know
4. **In the past month, about how often have you used this trail (check only one)?**  
<sub>1</sub>  It’s my first time ever on this trail    <sub>2</sub>  0 – 5 times    <sub>3</sub>  6 – 10 times    <sub>4</sub>  11 – 20 times    <sub>5</sub>  21 – 29 times  
<sub>6</sub>  Daily                      <sub>7</sub>  Don’t Know
5. **Please check the seasons in which you use this trail:**  
<sub>1</sub>  All year    <sub>2</sub>  Summer    <sub>3</sub>  Fall    <sub>4</sub>  Winter    <sub>5</sub>  Spring    <sub>6</sub>  Don’t Know
6. **How did you get to this trail today (check all that apply)?**  
<sub>1</sub>  Drove   <sub>2</sub>  Walked    <sub>3</sub>  Biked    <sub>4</sub>  Took the bus    <sub>5</sub>  Other: \_\_\_\_\_
7. **How far did you travel to get to this trail today?** \_\_\_\_\_ miles
8. **Home address (NOTE: If you prefer not to give your address, please give an address near your house):**  
**Number:** \_\_\_\_\_ **Street:** \_\_\_\_\_ **City/State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_
9. **How long will you be [walking/biking/other] (same activity as now) on this trip?** \_\_\_\_\_ minutes
10. **How far will your trip on the trail be today (just the part of your trip that is actually on this trail)?**  
<sub>1</sub>  < ¼ mile                      <sub>2</sub>  ¼ mile to ½ mile                      <sub>3</sub>  ½ mile to 1 mile                      <sub>4</sub>  1 mile to 2 miles  
<sub>5</sub>  2 miles to 5 miles                      <sub>6</sub>  >5 miles                      <sub>7</sub>  Don’t Know
11. **Will any part of this trip be taken on public transit (such as the bus)?**  
<sub>1</sub>  Yes    <sub>2</sub>  No    <sub>3</sub>  Don’t Know
12. **Why are you using this trail instead of [walking/biking/other] (same activity as now) somewhere else (check all that apply)?**  
<sub>1</sub>  Accessible/no stairs                      <sub>2</sub>  Scenic qualities                      <sub>3</sub>  It is less crowded here  
<sub>4</sub>  Personal safety                      <sub>5</sub>  Level/flat    <sub>6</sub>  Convenient route (direct, close)  
<sub>7</sub>  Wider lanes/path                      <sub>8</sub>  Bike lanes    <sub>9</sub>  Heard about it (from friends, media, etc)  
<sub>10</sub>  Connection to transit (bus)    <sub>11</sub>  No cars                      <sub>12</sub>  Other: \_\_\_\_\_

**13. What would you like to see improved along this trail (check all that apply)?**

- Wider path                       Better surface                       Better street crossings  
 More shade trees                       Benches                       Access to shops, etc.  
 Better maintenance                       Signs                       Better lighting  
 Plowing in winter                       Nothing                       Other: \_\_\_\_\_

**14. In your opinion, the safety and security along this trail is:**

- Excellent                       Good                       Fair                       Poor                       Don't Know

**15. I would use the trail more often if (check all that apply):**

- I had more time                       I did not have to travel with small children  
 It was easier to cross major streets                       Places weren't too far away  
 It was better connected to other places                       I felt safer/more secure  
 I didn't have things to carry                       The trail was in better condition  
 I normally take a different trail                       Other: \_\_\_\_\_  
 I already use the trail as often as I want (I would not use it more often)

**16. FOR BIKERS ONLY: Are you wearing a helmet today?                       YES  NO****IF "YES": Why are you wearing a helmet today (check all that apply)?**

- To protect myself in case of a crash                       It's the law                       To set a good example for children  
 Other: \_\_\_\_\_

**IF "NO": Why are you not wearing a helmet today (check all that apply)?**

- I don't own one                       I have one but I forgot to wear it  
 I have one but it doesn't fit                       They're too expensive  
 It's too hot to wear one                       I don't like how it looks  
 I don't like what it does to my hair                       I don't need it right now (short trip)  
 Helmets don't protect you                       Other: \_\_\_\_\_

**17. Do you or your family regularly fish in waters around Rochester?                       YES  NO**

IF YES, do you ever fish in the Genesee River above (south of) Lower Falls?

- YES                       NO

**Does your family regularly eat fish caught around Rochester?                       YES  NO**

IF YES, about how often did you eat locally caught fish during the last fishing season?

\_\_\_\_\_ meals per month

**ABOUT YOU:**

**Race:**                       White                       Black                       Asian                       Other: \_\_\_\_\_

**Ethnicity:**  Non-Hispanic                       Hispanic or Latino

**Age:** \_\_\_\_\_

**Gender:** \_\_\_\_\_

**How many people currently live in your household?** \_\_\_\_\_ adults \_\_\_\_\_ children (under 18)

**What is your approximate household income?**

- Less than \$10,000                       \$20,000 - \$24,999                       \$35,000 - \$39,999  
 \$10,000 - \$14,999                       \$25,000 - \$29,999                       \$40,000 - \$74,999  
 \$15,000 - \$19,999                       \$30,000 - \$34,999                       \$75,000 or more

**Do you have any additional comments?**

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**THANK YOU FOR YOUR TIME!**

Appendix 2 – Trail Count Forms (adapted from the National Bicycle and Pedestrian Count Forms)

**STANDARD SCREENLINE COUNT FORM**

Name: \_\_\_\_\_ Location: \_\_\_\_\_  
 Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_  
 Weather: \_\_\_\_\_

Please fill in your name, count location, date, time period, and weather conditions (fair, rainy, very cold, etc.).  
 Count all bicyclists and pedestrians crossing your screen line under the appropriate categories.

- Count for two hours in 15-minute increments.
- Count the number of people on the bicycle, not the number of bicycles.
- Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.
- People using equipment such as skateboards or rollerblades should be included in the “Other” category.
- Record youth (those who look younger than college age) with a “Y” instead of a tally mark.

	Pedestrians		Bicycles				Others	
	Male	Female	Male helmet	Male no helmet	Female helmet	Female no helmet	Male	Female
<b>00-:15</b>								
<b>15-:30</b>								
<b>30-:45</b>								
<b>45-1:00</b>								
<b>1:00-1:15</b>								
<b>1:15-1:30</b>								
<b>1:30-1:45</b>								
<b>1:45-2:00</b>								
<b>Total</b>								



**STANDARD INTERSECTION COUNT FORM**

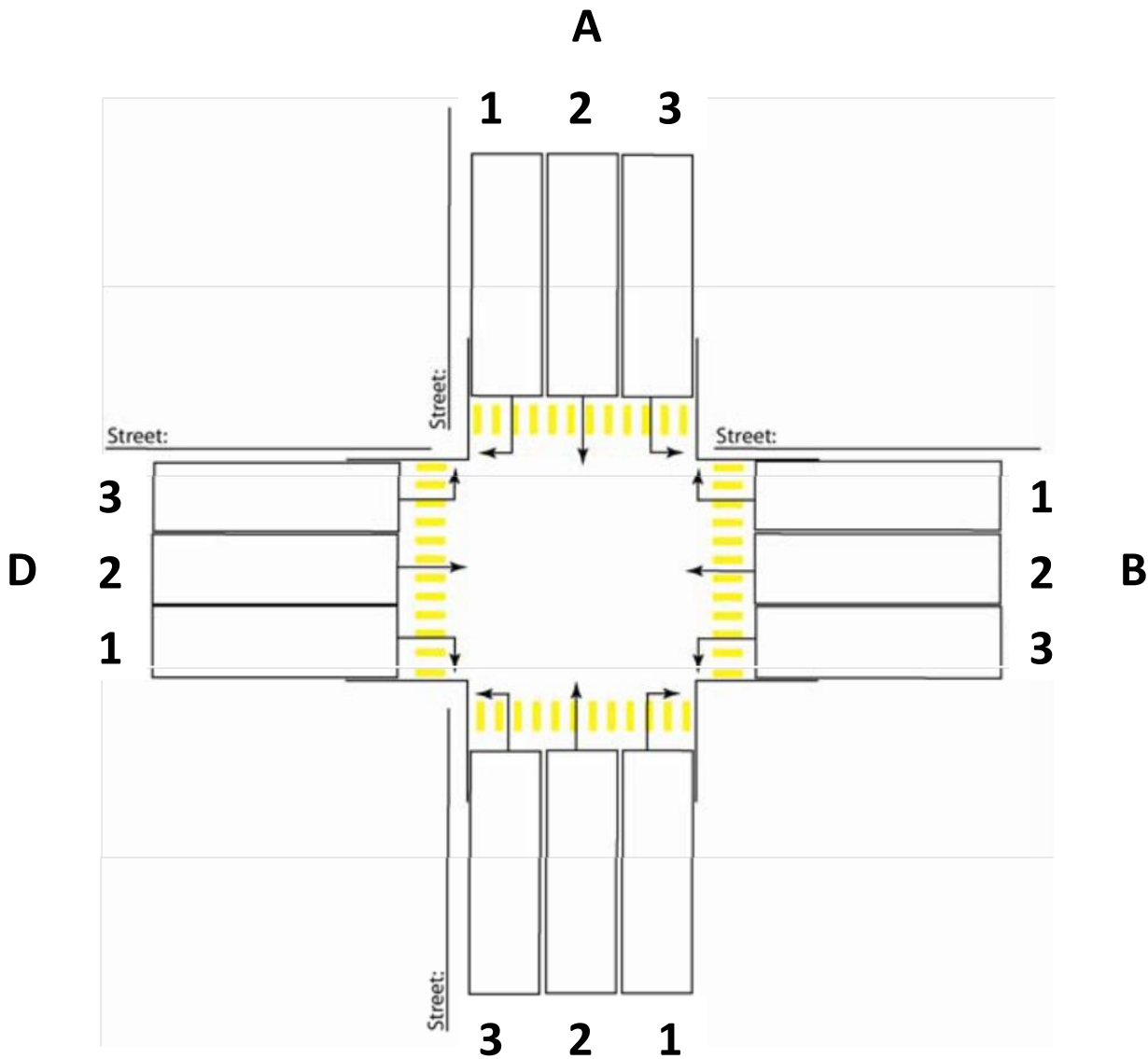
Name: \_\_\_\_\_ Location: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

Weather: \_\_\_\_\_

Please fill in your name, count location, date, time period, and weather conditions (fair, rainy, very cold, etc.). Count all bicyclists and pedestrians crossing your screen line under the appropriate categories.

- Count for two hours in 15-minute increments.
- Count the number of people on the bicycle, not the number of bicycles.
- Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.
- People using equipment such as skateboards or rollerblades should be included in the "Other" category.
- Record youth (those who look younger than college age) with a "Y" instead of a tally mark.



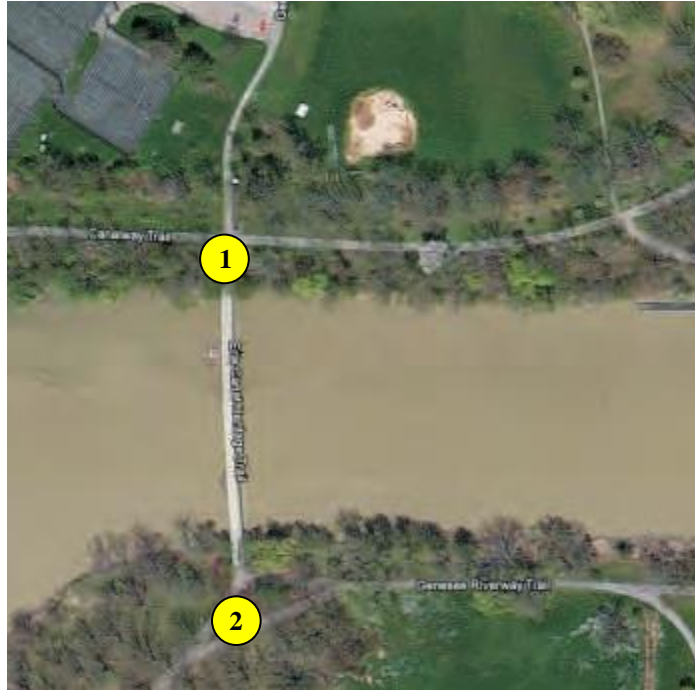
Time set: \_\_\_:\_\_\_ to \_\_\_:\_\_\_

	Pedestrians		Bicycles				Others	
	Male	Female	Male helmet	Male no helmet	Female helmet	Female no helmet	Male	Female
A1								
A2								
A3								
B1								
B2								
B3								
C1								
C2								
C3								
D1								
D2								
D3								
<b>Total</b>								

Appendix 3 – Directional Count Summaries

Site 1 – Genesee Valley Park West

	#	%
<b>North to West</b>	19	8%
<b>North to South</b>	16	7%
<b>North to East</b>	69	29%
<b>East to North</b>	53	23%
<b>East to West</b>	11	5%
<b>East to South</b>	0	0%
<b>South to East</b>	3	1%
<b>South to North</b>	17	7%
<b>South to West</b>	1	0%
<b>West to South</b>	3	1%
<b>West to East</b>	24	10%
<b>West to North</b>	19	8%
<b>Total</b>	235	



Site 2 – Genesee Valley Park East

	#	%
<b>North to West</b>	79	22%
<b>North to South</b>	0	0%
<b>North to East</b>	72	20%
<b>East to North</b>	40	11%
<b>East to West</b>	46	13%
<b>East to South</b>	0	0%
<b>South to East</b>	0	0%
<b>South to North</b>	0	0%
<b>South to West</b>	0	0%
<b>West to South</b>	0	0%
<b>West to East</b>	41	11%
<b>West to North</b>	84	23%
<b>Total</b>	362	

Users Crossing Between Sites 1 and 2 (Across the Genesee River)

Site 1	#	%
South to East (toward city)	3	14%
South to West (away from city)	1	5%
South to North (toward parking lot, Southwest Rochester)	17	81%
Site 2	#	%
North to East (toward city)	72	52%
North to West (away from city)	79	48%

Site 3 – Erie-Lackawanna Railroad Bridge

	#	%
North to West	20	17%
North to South	27	22%
North to East	0	0%
East to North	0	0%
East to West	0	0%
East to South	0	0%
South to East	0	0%
South to North	23	19%
South to West	14	12%
West to South	6	5%
West to East	0	0%
West to North	31	26%
<b>Total</b>	<b>121</b>	



Site 3 – Users of the new Erie-Lackawanna Rail Road Pedestrian Bridge

	#	%
All users on bridge	70	58%
Users traveling South to ELRR bridge	33	27%
Users traveling North from ELRR bridge	37	31%

Site 7 – Scrantom St. at St. Paul

	#	%
North to West	0	0%
North to South	23	52%
North to East	0	0%
East to North	1	2%
East to West	0	0%
East to South	1	2%
South to East	0	0%
South to North	19	43%
South to West	0	0%
West to South	0	0%
West to East	0	0%
West to North	0	0%
<b>Total</b>	<b>44</b>	



Site 8 – Maplewood

	#	%
North to West	12	11%
North to South	18	16%
North to East	14	13%
East to North	15	13%
East to West	9	8%
East to South	6	5%
South to East	11	10%
South to North	15	13%
South to West	3	3%
West to South	1	1%
West to East	8	7%
West to North	0	0%
<b>Total</b>	<b>112</b>	



Site 11 – Lake Ontario State Parkway Trail

	#	%
North to West	0	0%
North to South	26	19%
North to East	24	18%
East to North	37	27%
East to West	2	1%
East to South	5	4%
South to East	15	11%
South to North	28	20%
South to West	0	0%
West to South	0	0%
West to East	0	0%
West to North	0	0%
<b>Total</b>	<b>137</b>	

