
Who's on the Trail?

The Erie Canalway Trail User Count 2010



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Executive Summary

Extending 524 miles across New York, the Canalway Trail system brings economic, public health, tourism, and quality of life benefits to more than one million New Yorkers living in upstate canal communities. Anecdotal evidence suggests that the 366-mile Erie Canalway Trail, the most popular and well developed segment of the system, is heavily used by walkers and cyclists. In an effort to quantify and characterize that use, since 2005 the New York State Canal Corporation and Parks & Trails New York have conducted an annual Canalway Trail User Count.

In 2005 and 2006, the trail count was a loosely organized effort lacking any standard counting process. Beginning in 2007, the trail count was conducted following a protocol developed and tested by Greg Lindsey and colleagues at Indiana University. (Lindsay, Greg, Jeff Wilson, Elena Rubchinskaya, Jihui Yang, Yuling Han, 2007) Trail user counts were undertaken at five places within eastern Monroe County in that year and again in 2008 and produced estimates of between 98,000 and 190,000 annual users.

In 2009, counts were conducted using the same protocol as in 2007 and 2008 at four locations within a paved, 12-mile suburban to urban stretch of Erie Canalway Trail in Schenectady and Albany Counties. Estimates of annual trail traffic ranged from almost 57,000 to 174,000 persons depending on the nature of the count location.

In 2010, counts were conducted at five locations west of the City of Syracuse, the Centerport Aqueduct in the Town of Brutus west of Weedsport in Cayuga County, and four trailheads all within one mile of each other within the Town of Camillus Erie Canal Park in Onondaga County. Counts were also conducted within Old Erie Canal State Park in the Towns of Dewitt and Manlius, east of Syracuse, also in Onondaga County.

The counting protocol and trail traffic estimates methods outlined by the National Bicycle and Pedestrian Documentation Project (NBPD) were employed in 2010 as this methodology was judged to a more fully account for climate, season, and type of trail than the Lindsey method used from 2007-2009 (National Bicycle & Pedestrian Documentation Project Count Adjustment Factors, 2009). In addition, as many trails around the country are also using the NBPD methodology for their counts, it will allow the Erie Canalway Trail data to be added to and compared with a national database.

Results indicated the largest number of trail visitors at the Nine Mile Creek Aqueduct in Camillus. No doubt the publicity surrounding the 2010 opening of this important historic structure contributed to an annual estimate of more than 237,000 visitors, the largest estimate for annual trail usage ever found at a survey location along the trail. Nearby at the popular Sims Store, a recreated canal-era store in Erie Canal Park, trail counts generated annual estimates of almost 175,000 persons. Counts at the Route 173 trailhead, located approximately one mile east of the aqueduct, may have also been influenced by the popularity of the aqueduct as more than 165,000 annual visitors were estimated at this location. About two miles west of the Sims Store at the Newport Road trailhead in Warners, the number of annual users was significantly lower, estimated to be only about 68,000 persons.

Equally popular with the public is the section of Erie Canalway Trail east of the City of Syracuse at the entry to Old Erie Canal State Park between Butternut Drive and North Burdick St. Estimates of almost 224,000 annual users were obtained for this trail segment.

2010 Trail User Count

The lowest counts were recorded at the Centerport Aqueduct trailhead near Weedsport in the town of Brutus in Cayuga County. As this trailhead is located at the eastern end of an approximately two-mile trail segment not linked directly to trail to the east or west it is not surprising that only about 19,000 annual visitors were estimated to frequent this location.

One of the most unexpected results of the 2010 count was the finding that at all six count locations walkers outnumbered bicyclists. In every count conducted in Monroe, Oneida, Herkimer, Montgomery, Schenectady, and Albany Counties since 2005, bicyclists have always been in the majority. There is no apparent explanation for this finding.

Background

Extending 524 miles across New York, the Canalway Trail System brings economic, public health, tourism, and quality of life benefits to more than one million New Yorkers living in upstate canal communities. The most well-known and fully developed leg of the system, the Erie Canalway Trail, is growing in popularity and is on its way to becoming a premier tourist destination for cyclists and other outdoor enthusiasts.

Decisions regarding design, funding, operation, maintenance and promotion of the Erie Canalway Trail are based in large part on understanding the volume and nature of trail use. Estimates of annual trail traffic are critically important to justifying current and future expenditures for construction and maintenance as well as gauging the impact that the trail has on the economy of the counties, towns, villages, and cities along its length.

Annual user counts were initiated on the Erie Canalway Trail in Monroe County in 2005 to begin to quantify and characterize the nature of trail users at varying locations. While anecdotal evidence had suggested that the Erie Canalway Trail was popular with walkers and cyclists, Parks & Trails New York and the New York State Canal Corporation felt more objective information was needed to substantiate those claims.

Since 2005, counts have been conducted by volunteers in Monroe, Schenectady, Albany, Oneida, Herkimer, and Montgomery Counties.

The 2005 and 2006 counts did not employ standardized count protocols and pre-determined count locations and thus provided only a snapshot of trail use at the time counts were taken. No attempt was made to use this data to estimate weekly, monthly, or yearly trail traffic volume.

Beginning in 2007, in an effort to generate data with greater validity and predictive value, a new approach to counting was undertaken using the methodology and equations developed by Dr. Greg Lindsey and colleagues at Indiana University (Lindsay, Greg, Jeff Wilson, Elena Rubchinskaya, Jihui Yang, Yuling Han, 2007). Lindsey used infrared counts obtained on multi-use trails in the Indianapolis area to design a counting process that could both be easily undertaken by volunteers with a minimum of time expenditure, and also yield valid and highly accurate estimates of annual trail traffic volume. However, it was recognized that the predictive value of Lindsey's coefficients may have been compromised as they did not fully account for the rural and suburban environment and more severe winters found along the trail in Upstate New York.

As a result, in 2010 Parks & Trails New York and the New York State Canal Corporation decided to employ the count protocol and annual trail usage estimation methodology developed for the National Bicycle and Pedestrian Documentation Project (NBPD) (National Bicycle & Pedestrian Documentation Project Count Adjustment Factors, 2009). The NBPD is a nationwide effort designed to provide consistent data collection as well as adjustment factors that will produce annual usage estimates based on counts conducted on multi-use paths and pedestrian districts throughout the country. The NBPD methodology differs from that presented by Lindsey et al. in that it relies on weekend as well as weekday hourly counts. It also includes a set of Adjustment Factors that account for season (April to September or October to March), type of resource (multi-use path or pedestrian entertainment area); day of the week and month when the count was conducted; and type of climate.

Methodology

Data Collection

All data collected are available in spreadsheet format in Appendix C.

Location

In 2010, counts were conducted in Onondaga and Cayuga counties, a previously undocumented section of trail. Six locations were selected: five to the west and one to the east of the City of Syracuse. Unfortunately, no trail exists within the City of Syracuse.

Of the five west Syracuse locations, four were located within a mile of each other within Erie Canal Park in the suburban/rural Onondaga County Town of Camillus. The four-mile linear park is at the southern end of a 16-mile section of trail that extends between the Cayuga County Village of Weedsport and the Onondaga County Town of Camillus.

Counts were also conducted in the rural hamlet of Centerport in the Town of Brutus in Cayuga County about 15 miles west of Camillus.

On the east side of the city, counts were conducted in the section of trail between the western entry to Old Erie Canal State Park on Butternut Drive in the Syracuse suburb of Dewitt and North Burdick Street in the Town of Manlius, also in Onondaga County.

- **Centerport Aqueduct Park, Town of Brutus, Cayuga County**

Counts were conducted from the parking lot / seating area of the two-acre park, which serves as a trail head for a 2.2-mile section of Canalway Trail along the historic Enlarged Erie Canal. The Park also contains the local veteran's memorial and the remnants of the historic Centerport Aqueduct. The Park is one mile west of the Village of Weedsport and two miles east of the Village of Port Byron.

- **Newport Road, Camillus, Onondaga County**

Counts were conducted near the Newport Road trail head in the hamlet of Warners in the Town of Camillus, two miles west of Sims Store.

- **Devoe Rd. Camillus, Onondaga County**

Counts were conducted at the entrance to Camillus Erie Canal Park in the area of the Sims Store, a recreated nineteenth century canal store that serves as a canal museum and boarding point for canal boat cruises on the historic Enlarged Erie Canal. There is ample auto parking and rest room accommodations at this popular trail head.

- **Nine Mile Creek Aqueduct, Thompson Rd., Camillus, Onondaga County**

Counts were conducted at the newly restored c. 1840 Nine Mile Creek Aqueduct where there is also a small parking area. The aqueduct is located midway between the Sims Store and the eastern end of the park at the Route 173 trail head.

▪ **Route 173 - Amboy, Camillus, Onondaga County**

This popular trail entry point is adjacent to two residential areas and nearby a shopping district. Reed Webster Park is located close to this trail head and offers substantial parking space.

▪ **Old Erie Canal State Park, Butternut Drive, Town of DeWitt to North Burdick Street, Town of Manlius, Onondaga County**

Counts were conducted within Old Erie Canal State Park on a 1.5-mile trail section in the eastern Syracuse suburbs extending from Butternut Drive and the parking area for the Town of Dewitt's Ryder Park on the west to North Burdick Street in Manlius on the east. This section of trail is bordered by undeveloped land and the historic Enlarged Erie Canal, including the 1856 Butternut Creek aqueduct and a widewater near Cedar Bay Park.

Month

The Centerport and Old Erie Canal State Park counts were conducted in mid August. The counts at the four Camillus locations were undertaken between July 20 and July 25.

Counters

Seventeen volunteers completed 35 separate counts at the six count locations. Many of the volunteers were members of the Camillus Canal Society.

Days of the Week

As Table One indicates, counts were conducted on all days of the week with the greatest number on Wednesday and Thursday, followed by Sunday.

Table One. Number of Counts by Day of Week and Location

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Centerport Aqueduct, Brutus	2		6	2			1	11
Newport Road, Warners		1		1		1	1	4
Sims Store, Camillus		1	1	1		1	1	5
Nine Mile Creek Aqueduct, Camillus		1	1	1		1	1	5
Route 173, Camillus		1	1	1		1	1	5
Old Erie Canal State Park, DeWitt & Manlius	1		1	1	1		1	5
<i>Total</i>	<i>3</i>	<i>4</i>	<i>10</i>	<i>7</i>	<i>1</i>	<i>4</i>	<i>6</i>	<i>35</i>

Process

Volunteers were provided a count protocol similar to that developed for the 2009 counts but altered to reflect the methodology of the National Bicycle and Pedestrian Documentation Project (See Appendix A). Counters were asked to conduct three counts on successive week days during the same week or on the same days in at least three successive weeks. The protocol stipulated that weekday counts were to be conducted on Tuesday, Wednesday, and/or Thursday, and not on a holiday, Monday, or Friday. Weekend counts could be taken on either day.

As in past years, each volunteer was asked to count for at least one full hour at the hour judged to be the time of peak activity. Counters were asked to determine the time of weekday and weekend peak activity from their experience or that of others familiar with the trail.

A detailed counting form identical to that used in 2009 (see Appendix B) was employed to standardize data collection and classify the various types of users.

Trail Traffic Estimation

Estimates of annual trail traffic were derived by following the steps outlined by the National Bicycle and Pedestrian Documentation Project.

1. Calculate average weekday and weekend day peak hourly count

Every attempt was made to follow the NBPD protocol and obtain data from the peak hour on three weekdays (Tuesday to Thursday) and one or two weekend days. The NBPD strongly encourages that all estimates be based on the average of at least two and preferably three counts during the same time period and week, especially for lower volumes areas. As Table One indicates, at least four counts were obtained from each location.

The Centerport weekday average includes data from a Monday and the Old Erie Canal State Park weekday average includes a count conducted on Friday but, while not preferable, the NBPD provides adjustment factors to account for data obtained on these days of the week. Only the Newport Road average weekday peak hourly count calculation was based on only two weekday counts.

As the Centerport counts were taken during a variety of time periods it was decided to use only the weekday data from 9:00 to 10:00 a.m. for three separate days for the average weekday hourly calculation. For Centerport and Old Erie Canal State Park, the average weekend day peak hourly count was not an average as it was based solely on an hourly counting period from one weekend day.

On one weekday afternoon at the Sims Store, the West Genesee School cross county event passed by adding 151 joggers to the trail. This reading was not included in the average weekday peak hourly count.

The NBPD project recommends multiplying the calculated average weekday and weekend counts by 1.05 if the trail is used between 11:00 p.m. and 6:00 a.m. It was decided this was unnecessary because night time usage was unlikely for these relatively rural, unlighted sections of trail.

2. Estimate of total weekday and weekend daily traffic

The average weekday and weekend peak hourly counts were divided by the percentage of total daily traffic represented by the hour period when the counts were conducted. The NBPD has developed Hourly Adjustment Factors representing percentages of daily traffic for hourly intervals between 6:00 a.m. and 9:00 p.m. which vary by type of trail and season. Percentages were selected from the multi-use paths column of the April to September chart.

At the four Camillus count locations, weekend peak activity was judged to be from 10:00 to 11:00 a.m. on Saturday and 2:00 to 3:00 p.m. on Sunday. Thus the adjustment factor used was 8.5%, an average of the percentages for the two time periods.

3. Estimate of average weekly traffic volumes

To arrive at an average weekly volume, the average weekday and weekend counts were adjusted for the days of the week that counts were taken. This was accomplished by dividing each number by an average of the NBPD project's Daily Adjustment Factors for the days included in the average weekday count calculation.

The adjusted weekday and weekend counts were then added and divided by two to arrive at the average weekly volume.

4. Estimate of average monthly traffic volume

The average weekly volume was multiplied by 4.33 weeks to obtain the estimated monthly trail traffic volume.

5. Estimate of annual trail traffic volume

The average monthly volume was divided by the NBPD's Monthly Adjustment Factors for Climate Area and the month in which the counts were taken. The long winter, short summer climate area percentages for July – 13% (four Camillus locations) and August – 14% (Centerport and Old Erie Canal State Park) were used in the calculations.

Results

Modes of Use

As Figure One indicates, 55% of all trail users counted were walkers, 22% were joggers and only 21% were cyclists. In 2009, 53% of trail users were bicyclists, 30% were walkers, and 12% joggers.

As Table Three indicates, this is a very surprising finding compared to the results of every count taken since 2005. The reason for the large number of walkers as opposed to cyclists is unknown. For Centerport where only about nine percent of trail users counted were cyclists, the trail section is short, about two miles, and thus not that conducive to a cycling outing. However, the Camillus section is part of 16 miles of continuous stone dust trail and the Old Erie Canal State Park segment begins a 36-mile section of stone dust trail, each of which should be very attractive to cyclists.

As Figure Two and Table Four indicate, almost all cyclists on the trail were riding bicycles. No tandem or recumbent riders or persons on tricycles were noted at any counting location. This

2010 Trail User Count

differs from the Monroe County and Capital Region trail sections where these types of trail users were observed, albeit in small numbers.

Because the trail surface was stone dust, no in-line skaters or wheel chair users were found though two skate boarders were using the trail near the Nine Mile Creek Aqueduct.

Figure One. Trail Usage as a Percentage of Total Count

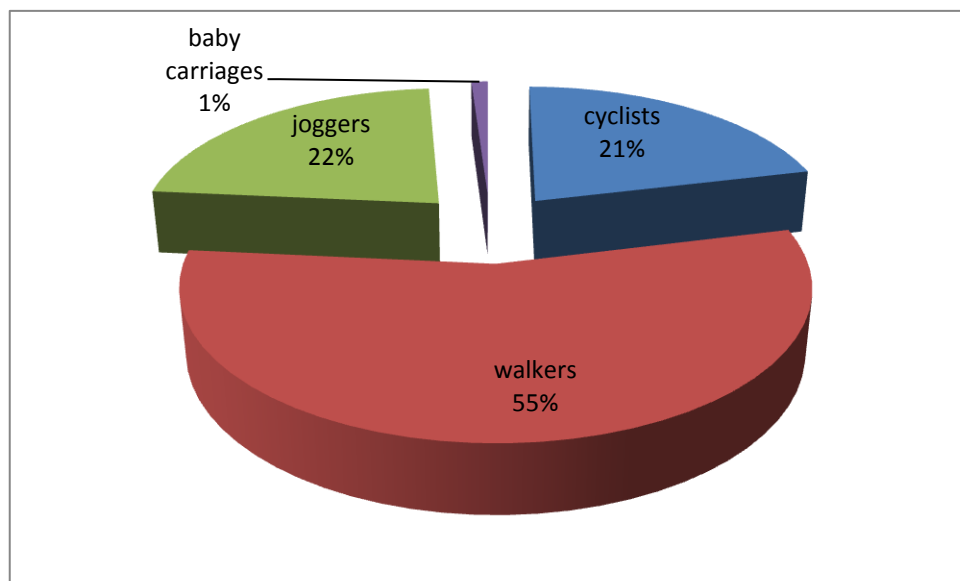


Table Two. Trail Uses by Location

	Cyclists	Walkers	Joggers	Baby Carriages	Other	Total
Centerport Aqueduct, Brutus	9	86	5	0	0	100
Newport Road, Warners	28	33	25	1	0	87
Sims Store, Camillus	76	199	175	7	0	457
Nine Mile Creek Aqueduct, Camillus	71	247	48	4	3	373
Route 173, Camillus	64	160	36	1	0	261
Old Erie Canal State Park, DeWitt & Manlius	100	169	75	4	0	348
Total	348	894	364	17	3	1626

Table Three. Modes of Trail Use Comparison, 2005-2010

<i>Type of Trail User</i>	Percentage of Total Trail Users Counted					
	2005	2006	2007	2008	2009	2010
Bicyclists*	64%	43%	49%	52%	53%	21%
Walkers	24%	36%	38%	35%	30%	55%
Joggers	8%	20%	8%	9%	12%	22%
In Line Skaters	2%	0%	2%	2%	4%	0
Baby Carriages	2%	2%	3%	2%	.3%	1%
Wheelchair Users	n/a	0%	0%	0.1%	.1%	0
Equestrians	0%	0%	0%	<0.1%	0%	0
Scooters	n/a	n/a	n/a	0.1%	n/a	0
Other	n/a	n/a	n/a	n/a	.9%	

*The Bicyclist category for 2009 and 2010 represents all cyclists including bicyclists, tri-cyclists, tandem cyclists, and bicyclists with a child seat or trailer.

Figure Two. Type and Number of Cyclists

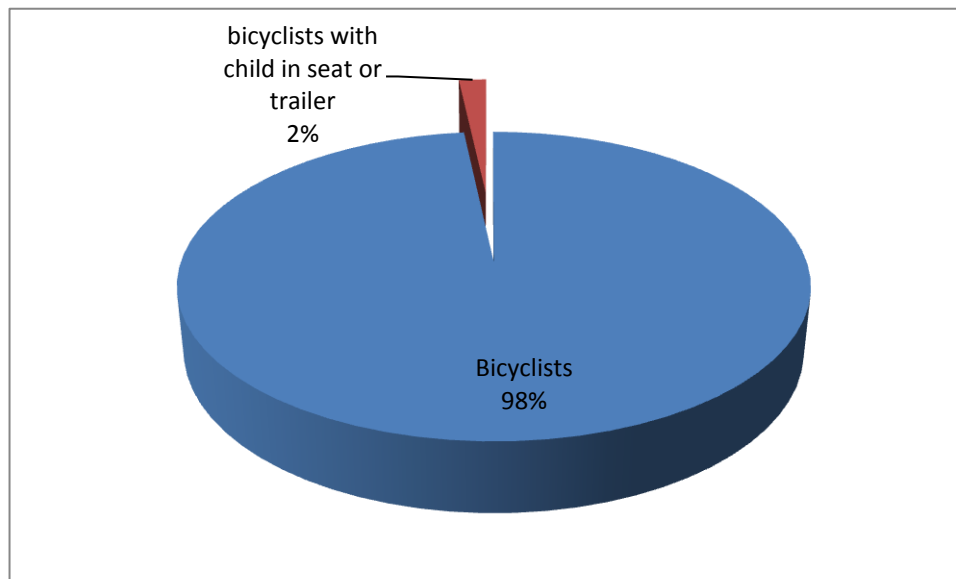


Table Four. Number and Nature of Cyclists

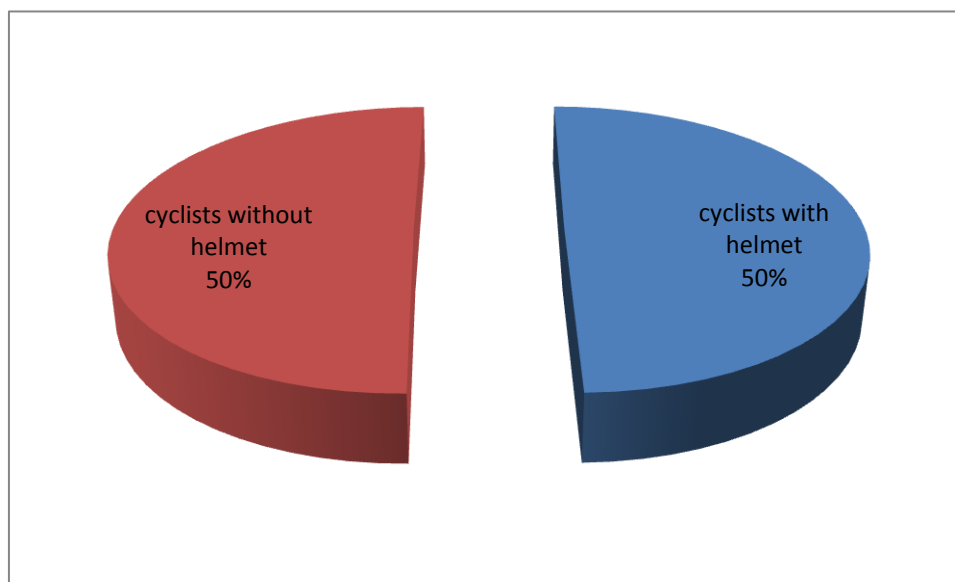
	Bicyclists with helmets	Bicyclists without helmets	Bicyclists with child in seat or trailer without helmet
Centerport Aqueduct, Brutus	2	5	2
Newport Road, Warners	14	14	4
Sims Store, Camillus	40	36	0
Nine Mile Creek Aqueduct, Camillus	36	35	0
Route 173, Camillus	22	42	0
Old Erie Canal State Park, DeWitt & Manlius	59	37	0
Total	173	169	6

Cyclists' Helmet Usage

Unfortunately, only half of the cyclists observed in this survey were wearing helmets. The percentage of riders using helmets (50%) was much less than that observed in Monroe County in 2007 (63%) and 2008 (61%) and the Capital Region in 2009 (65%).

There is no obvious reason for the decrease in helmet usage in this region. Possibly the trail's stone dust surface, slower cycling speeds, and more rural setting may create the perception that the likelihood of an accident is less.

Figure Three. Percent Helmet Usage Among Cyclists

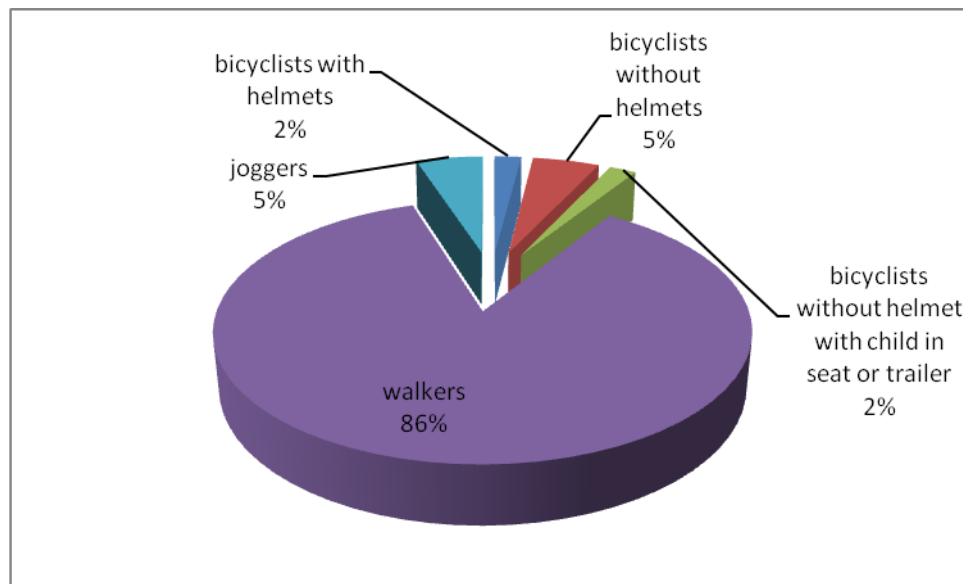


Analysis and Comparison by Location

Centerport Aqueduct, Town of Brutus

Walkers (86%) predominated at the Centerport Aqueduct which is not unexpected as it serves as a trail head for a short, 2.5-mile section of stone dust trail. The next section of off-road trail is located about 27 miles to the west in the Village of Newark and more than a mile to the east in the Village of Weedsport. As a relatively small, unconnected section of trail it would not normally draw the day trip or long-distance through cyclist.

Figure Four. Percentage of User Types – Centerport Aqueduct

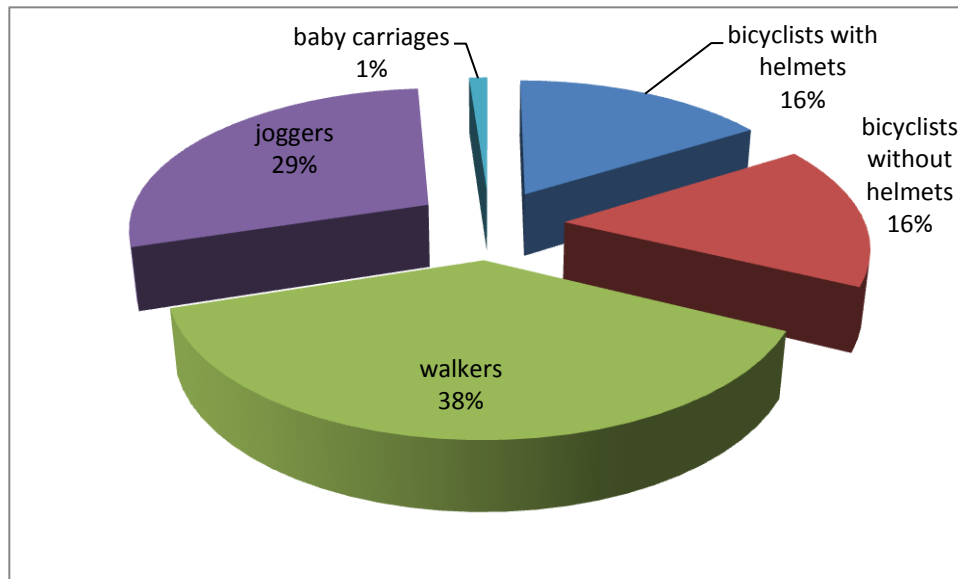


Newport Road, Warners, Town of Camillus

Walkers (38%) were also in the majority at this trail head at the northern end of Erie Canal Park in the Town of Camillus but were followed closely by cyclists (32%). From the trail head there are 12 miles of continuous trail to the west and four miles of trail to the east making it ideal for a recreational bike ride.

The percentage of joggers may be artificially inflated because it includes 25 members of the track team that passed by on a training run. However, this does represent a legitimate and no doubt recurring trail use so they were included in the calculation.

Figure Five. Percentage of User Types – Newport Road



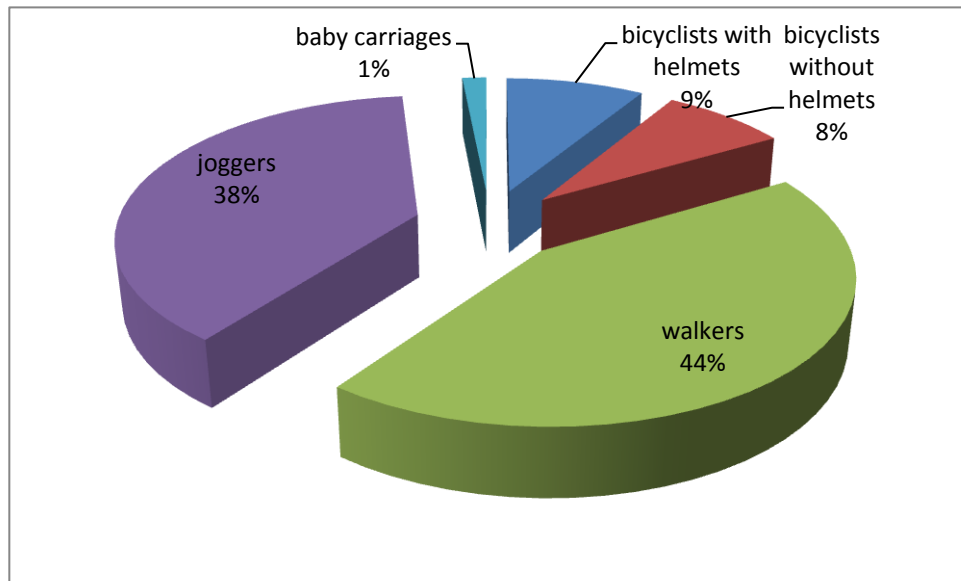
Sims Store, Erie Canal Park, Town of Camillus

In addition to people using the trail for recreation and fitness, the number of walkers at this location (44%) certainly represents persons who drive to the Sims Store, a replica of a nearby canal store, to view the exhibits, early photos and canal maps or experience the store and the Enlarged Erie Canal with a ride on a tour boat. Because the trail is literally on the Sims Store doorstep it is easy for visitors to the museum to be drawn to a walk along the canal perhaps as far as the newly restored aqueduct. For joggers (38%), the canal towpath trail offers a level, stone dust surface to enjoy a waterside outing.

At such a popular location one might expect bicyclists to represent more than 17 percent of users. Perhaps they are deterred by the large number of walkers and joggers.

Counters also noted seven kayakers and five canoeists using the adjacent canal.

Figure Six. Percentage of User Types – Sims Store

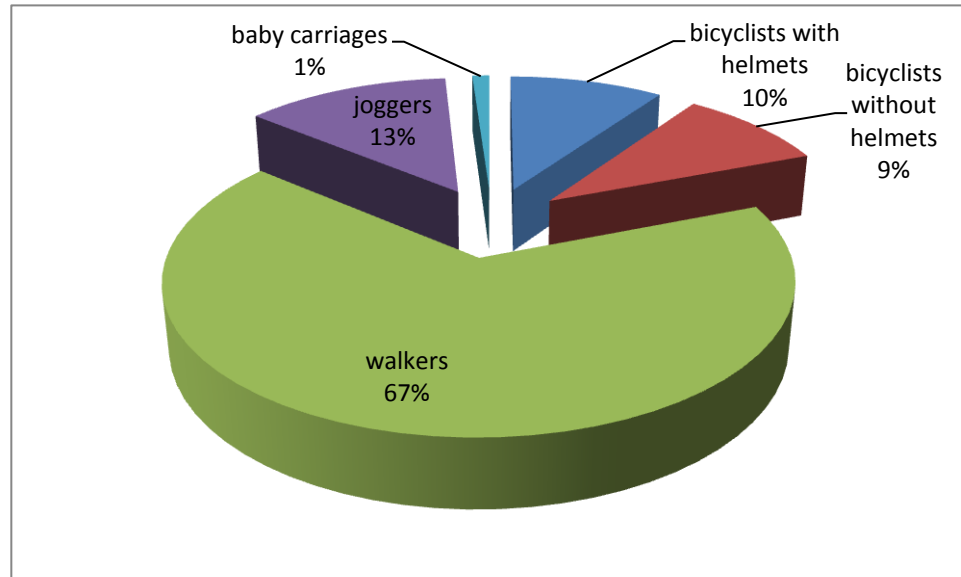


Nine Mile Creek Aqueduct, Town of Camillus

It is not surprising that such a large number of walkers (67%) were observed at this location as it most likely represents persons who came to the trailhead to visit this c. 1840, National Register-listed aqueduct which was recently restored and opened in May 2010 after more than 30 years of effort on the part of the Camillus Canal Society. Once again, cyclists (19%) are only a small percentage of trail users.

The persons in canoes and kayaks observed at Sims Store were also noted during the same day and hour at the aqueduct. Also, two persons in a canoe and two people fishing were noted on a different day and an illegal ATV was observed on another occasion.

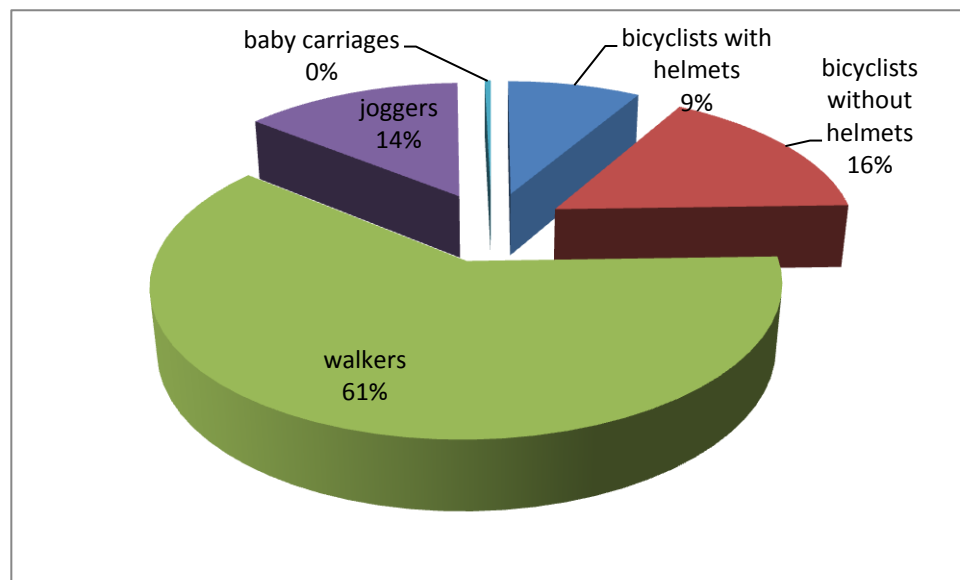
Figure Six. Percentage of User Types – Nine Mile Creek Aqueduct



Route 173, Town of Camillus

The Route 173 and Nine Mile Creek Aqueduct trail heads are about a mile apart and had similar percentages of types of trail users though there were slightly more cyclists (25%) and fewer walkers (61%) at Route 173. As the counts were conducted at these locations on the same days and times, many of the trail users counted could have been persons that passed by counters at both locations. The larger number of walkers at the Aqueduct most likely represents persons who traveled no farther than the aqueduct and environs.

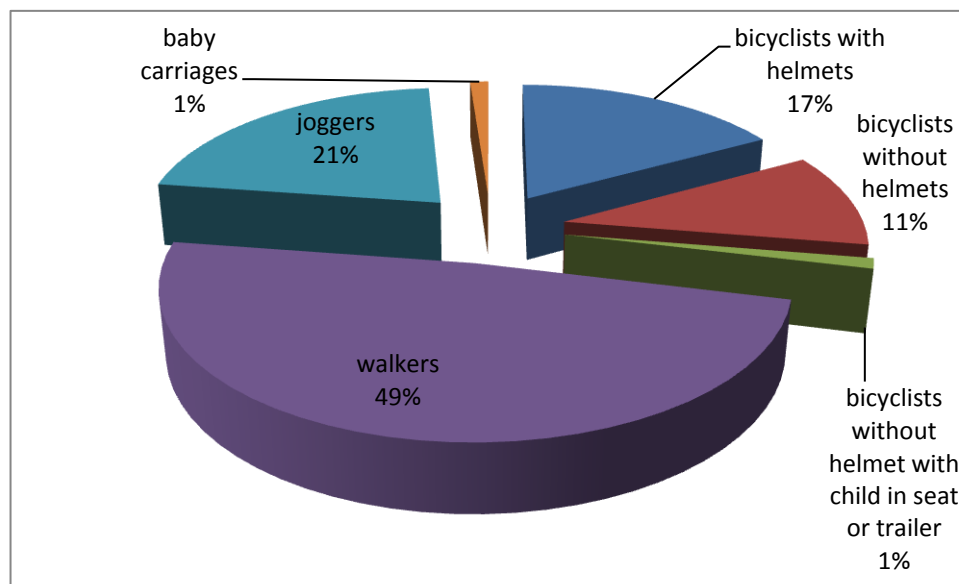
Figure Seven. Percentage of User Types – Route 173



Old Erie Canal State Park, Butternut Drive, Dewitt to Burdick Road, Manlius

The percentage of walkers (49%) on this section of trail was significantly greater than the number of cyclists (29%). This is not a typical finding for a suburban location in which 36 miles of continuous trail in a state park offers cyclists a long, unbroken stretch of attractive scenery riding adjacent to the quaint and historic Enlarged Erie Canal. Experience with other sections of Erie Canalway Trail would predict that the ample parking area and an adjacent town park at the Butternut Drive trail head would have attracted a large number of cyclists, but for some unknown reason that was not the case.

Figure Eight. Percentage of User Types – Dewitt and Manlius



Estimates of Trail Traffic Volume

Estimation of Daily, Monthly, and Annual Use

Table Five presents estimates of weekday, weekend day, monthly, and annual trail traffic volumes calculated following the five steps summarized in the Data Analysis section (see pages nine and ten) and outlined in the Methodology of the National Bicycle and Pedestrian Documentation Project (National Bicycle & Pedestrian Documentation Project Count Adjustment Factors, 2009). The annual trail traffic estimates ranged widely from less than 20,000 annual visitors at the Centerport Aqueduct in the Town of Brutus to more than 237,000 visitors at the Nine Mile Creek Aqueduct in the Town of Camillus.

Table Five. Estimated Weekly, Monthly, and Annual Trail Traffic

	Average Weekday Peak Hourly	Average Weekend Peak Hourly	Average Weekly	Average Monthly	Annual
Centerport, Brutus	5	8	584	2,529	19,453
Newport Road, Warners,	25	19	2,049	8,874	68,264
Sims Store, Camillus	59	53	5,244	22,706	174,663
Aqueduct, Camillus	98	40	7,141	30,918	237,834
Route 173, Camillus	65	33.5	4,964	21,493	165,333
Old Erie Canal State Park, DeWitt & Manlius	72	59	7,234	31,322	223,732

Conclusions

This report represents the fourth year of using trail count data to predict the amount of trail traffic at specific locations on the Erie Canalway Trail and the first in which the National Bicycle and Pedestrian Documentation Project methodology was used to generate estimates of annual trail traffic volume. This year's estimates of annual trail traffic volume range from 19,453 at the Centerport Aqueduct in the Town of Brutus in Cayuga County to 237,834 at the Nine Mile Creek Aqueduct in Camillus.

The Nine Mile Creek Aqueduct estimates are not surprising because of the amount of community interest in this newly-opened resource. Estimates for trail heads one mile to the west (Sims Store) and one mile to the east (Route 173) of the aqueduct are both similar but 60,000 to 70,000 persons lower than projected for the aqueduct. This difference may represent the number of person who came only to visit the aqueduct and did not utilize much more of the trail.

As the Newport Road estimates are less than half of those for the Sims Store it may reflect that persons use the two miles of trail between Route 173 and somewhere around the Sims Store but do not continue the additional two miles west to Newport Road. As the majority of trail users are walkers it is understandable that the distances travelled would be less than if the majority of users were bicyclists.

Based on the similarity of annual estimates for the Sims Store and Route 173 and their close proximity, one can predict that most likely between 165,000 and 174,000 persons use this two-mile stretch of trail each year.

The large numbers of trail users estimated for Old Erie Canal State Park also is understandable as it serves a populated suburban area and is located adjacent to a Dewitt town park.

The very small numbers at the Centerport Aqueduct are consistent with a local trail in a sparsely populated area.

Table Six presents the estimated annual trail traffic volumes for multiple locations derived from counts conducted between 2007 and 2010. Two of the 2010 counts were larger than any found at the Monroe County and Albany and Schenectady Counties locations. Comparing the estimates from 2007-2009 with the results from 2010 must be done cautiously because they were obtained with a different methodology. However, the NBPD protocol was chosen as it was believed to provide more accurate ,and most likely lower, annual predictions because it better accounted for minimal trail use during long winters and short summers.

Table Six. Estimated Annual Trail Traffic by Location 2007-2010

Location and Year	Estimated Annual Traffic
Centerport, Brutus, Cayuga County 2010	19,453
Kiwanis Park, Rotterdam, Schenectady County 2009	56,715
Newport Road, Warners, Onondaga County	68,264
Colonie Town Park, Albany County 2009	95,471
Genesee Valley Park, Monroe County 2007	98,240
Genesee Valley Park, Monroe County 2008	106,073
Schenectady Community College Schenectady County 2009	105,869
Schoen Place, Monroe County 2007	145,520
Perinton Park, Monroe County, 2008	156,565
Perinton Park, Monroe County, 2007	158,144
JCC/Lock 33, Monroe County 2008	163,654
Route 173, Camillus, Onondaga County 2010	165,333
Train Station, Niskayuna, Schenectady County 2009	173,927
Sims Store, Camillus, Onondaga County 2010	174,663
Schoen Place, Monroe County 2008	184,281
JCC/Lock 33, Monroe County 2007	190,591
Old Erie Canal State Park, Dewitt-Manlius, Onondaga County 2010	233,732
Nine Mile Creek Aqueduct, Camillus, Onondaga County 2010	237,834

When the estimates for many locations are grouped together a limited picture of statewide usage begins to emerge. It was decided to use the data in Table Six to calculate an average annual estimate for each of the counties or sections of a county where counts have been performed, as shown in Table Seven. If it is assumed that few users travel beyond each county or section of a county, one could add these annual estimates to begin to approximate the volume of usage across the state. Considering that these estimates do not include any data from Buffalo and western New York or the Mohawk Valley, the total of 970,075 persons may be a cautiously conservative approximation of the number of persons using the Erie Canalway Trail each year.

Table Seven. Average Annual Trail Traffic Estimates for County or County Section

Location	Average Estimated Annual Traffic
Genesee Valley Park/JCC, Monroe County	102,156
Perinton Park/Schoen Place , Monroe County,	161,127
Centerport, Brutus, Cayuga County 2010	19,453
Niskayuna Train Station/Schenectady Community College Schenectady County/	139,898
Four trail heads, Town of Camillus, Onondaga County	161,523
Old Erie Canal State Park, Dewitt-Manlius, Onondaga County	233,732
Kiwanis Park, Rotterdam, Schenectady County	56,715
Colonie Town Park, Albany County	95,471
TOTAL	970,075

Recommendations for Next Steps

Installation of automated counters

The purchase and installation of automated counters is still recommended to aid in providing another means of gathering data over a longer period of time in order to better determine time of peak hourly weekday use and validate the techniques used for trail traffic estimation. This should still be done even though recently some researchers have questioned the accuracy of data from counters as they can often be triggered by animals, blowing leaves or other items (4). Unfortunately, funds have not been available to purchase high quality counters.

Addition of new count locations

Counts need to be conducted in the Lockport to Holley area, in Tonawanda, and in the Mohawk Valley as there are no annual estimates available for these trail sections.

Demographic and economic data collection

Gathering information about trail users and their spending patterns is equally as important as determining how many people are on the trail. It is hoped that in the future it will be possible to add a trail user intercept survey to the annual trail count so volunteers can collect demographic information on the individuals they count and learn more about the nature and magnitude of their expenditures associated with their trail visit. Only with this data one can begin to more accurately assess the trail's economic impact.

Appendix A. Trail Count Protocol

Who's On the Trail? Canalway Trail User Count – 2010

Count Protocol

Location

1. Old Erie Canal State Park – Dewitt
2. Camillus Erie Canal Park
3. Port Byron

Time

1. **Counts should be conducted between July 18 and August 21.**
2. At least five counts should be taken at each location.
3. Ideally, three counts should be taken during the same week or on the same days in successive weeks.
4. Weekday counts should always be done on Tuesday, Wednesday, and/ or Thursday, and never on a holiday, Monday, or Friday.
5. Weekend counts can be done on either day.

Conducting Counts

1. Count for at least one full hour at a time – the hour judged to be the time of peak activity. You can determine the time of peak activity from your experience or that of others who are familiar with the trail. It is expected that the weekend day hour of peak activity will be different from that during the week. ***Please let Parks & Trails New York know what weekday and weekend hours of peak activity you select.***
2. Counts can be conducted on consecutive weekdays (Tuesday through Thursday) during the same week and at the peak time on the Saturday or Sunday of that week. **OR** Counts can be conducted on the same week day and weekend day in at least three consecutive weeks. Each count must be taken during the time of peak usage for weekdays and weekend days.
3. Do not worry if you count someone twice because they pass you going in both directions. The formulas used at the end will take that into consideration.

Personnel Required

1. One person can conduct the counting. If you are counting at a location with significant trail traffic, it may be advisable to have two people conduct counts and average their results.

Conducting the count

1. Use a new sheet each time you count.
2. Make a tick in the boxes for the type of trail user that passes by. For a tandem, make a tic for each rider. For someone pushing a baby carriage or stroller, make a tic for each child. Record the person pushing the carriage or stroller as a walker.
3. Stand where you do not block the trail but can easily observe users as they pass.
4. ***Send pictures (500 MB in size or larger) of volunteers taking the count and persons using the trail that we can include in publications and presentations.***

Please mail all forms to:

Canalway Trail User Count 2010
Parks & Trails New York
29 Elk Street, Albany, NY 12207
FAX to 518-427-0067

Appendix B. Trail Count Form

Who's on the Trail? The Canalway Trail User Count – 2010

Surveyor Name: _____ Phone: _____ Email: _____

Date: _____ Time conducted: _____ to _____ p.m. Location: _____ Town/Village: _____

Trail surface: asphalt ☐ stone dust ☐ Weather Conditions: sunny ☐ partly cloudy ☐ cloudy ☐ partly rainy ☐ rain ☐ Approximate temperature: _____

Make one "tic mark" for each person passing by in either direction engaged in each activity.

User Type	Counts	
Bicyclists	With helmets	Without helmets
Bicyclists with child in seat or trailer One tic for each person		
Tandem bicycles One tic for each person		
Recumbent cycles		
Tricycles		
Hand-powered cycle		
Walkers		
In-line skaters		Joggers
Baby carriages/ Strollers One tic for each person in stroller or carriage. List person pushing as a walker.		Wheelchair users
Equestrians		Other specify

Thanks for you help!!! Please return the form(s) to:

Canalway Trail User Count 2010, Parks & Trails New York, 29 Elk Street, Albany, NY, 12207, 518-434-1583, FAX 518-427-0067

Appendix C. Count Data

Centerport Aqueduct, Town of Brutus

Name	Date	Day	Time From	Time To	Weather	Approx. temp.	Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem bicyclists with helmets	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists Without helmets	Bicyclists with child in seat or trailer without helmet	Hand powered cycle	Walkers	In Line Skaters	Joggers	Equestrians	Baby Carriages	Wheelchair users	Other	Total Users
Kaci Milligan	8/11/2010	Sunday	8:00 a.m.	9:00 a.m.	2	72	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
Kaci Milligan	8/12/2010	Monday	8:00 a.m.	9:00 a.m.	3	70	2	0	0	0	0	0	2	0	0	8	0	0	0	0	0	0	10
Kaci Milligan	8/12/2010	Monday	9:00 a.m.	10:00 a.m.	3	70	1	0	0	0	0	0	1	0	0	4	0	3	0	0	0	0	5
Mary Riley	8/14/2010	Wednesday	9:00 a.m.	10:00 a.m.	1	70	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Mary Riley	8/14/2010	Wednesday	10:00 a.m.	11:00 a.m.	1	70	1	1	0	0	0	0	0	0	0	14	0	1	0	0	0	0	17
Mary Riley	8/14/2010	Wednesday	11:00 a.m.	Noon	2	65	4	0	0	0	0	0	2	2	0	15	0	2	0	0	0	0	21
Mary Riley	8/14/2010	Wednesday	Noon	1:00 p.m.	1	70	0	0	0	0	0	0	0	0	0	15	0	2	0	0	0	0	15
Susan Taylor	8/14/2010	Wednesday	1:00 p.m.	2:00 p.m.	2	70	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
Mary Riley	8/14/2010	Wednesday	2:00 p.m.	3:00 p.m.	1	75	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
Michael Riley	8/15/2010	Thursday	8:00 a.m.	9:00 a.m.	3	75	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Michael Riley	8/15/2010	Thursday	9:00 a.m.	10:00 a.m.	3	75	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	8

Newport Road, Warners

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem Bicyclists with helmet	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists without helmets	Bicyclists with child in seat or trailer without helmet	Hand powered cycle	Walkers	In Line Skaters	Joggers	Equestrians	Baby Carriages	Wheelchair users	Other	Total Users
Fenton Hanchett	7/20/2010	Tuesday	6:40 p.m.	7:40 p.m.	2	78	2	2	0	0	0	0	0	0	0	9	0	25	0	0	0	0	36
Fenton Hanchett	7/22/2010	Thursday	6:30 p.m.	7:30 p.m.	2	76	5	5	0	0	0	0	0	0	0	8	0	0	0	0	0	0	13
Pat Cooper	7/24/2010	Saturday			3	83	6	0	0	0	0	0	6	1	0	5	0	0	0	0	0	0	11
James Thrall, Jr.	7/25/2010	Sunday	2:00 p.m.	3:00 p.m.	2	75	15	7	0	0	0	0	8	0	0	11	0	0	0	1	0	0	27

Sims Store, Camillus

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem Bicyclists with helmet	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists Without helmets	Bicyclists with child in seat or trailer without helmet	Hand powered cycle	Walkers	In Line Skaters	Joggers	Equestrians	Baby Carriages	Wheelchair users	Other	Total Users
Tom Ropchak	7/20/2010	Tuesday	6:30 p.m.	7:30 p.m.	2	75	18	9	0	0	0	0	9	0	0	58	0	151	0	0	0	0	233
Tom Ropchak	7/21/2010	Wednesday	6:30 p.m.	7:30 p.m.	2	70	16	4	0	0	0	0	12	0	0	18	0	4	0	0	0	0	38
Joan Hanchett	7/22/2010	Thursday	6:20 p.m.	7:20 p.m.	2	77	14	9	0	0	0	0	5	0	0	57	0	8	0	0	0	0	80
Joan Hanchett	7/24/2010	Saturday	10:00 a.m.	11:00 a.m.	3	80	3	3	0	0	0	0	0	0	0	17	0	6	0	0	0	0	26
Patricia Welch	7/25/2010	Sunday	2:00 p.m.	3:00 p.m.	2	75	25	15	0	0	0	0	10	0	0	49	0	6	0	0	0	0	80

Nine Mile Creek Aqueduct, Camillus

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem Bicyclists with helmet	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists Without helmets	Bicyclists with child in seat or trailer without helmet	Hand powered cycle	Walkers	In Line Skaters	Joggers	Equestrians	Baby Carriages	Wheelchair users	Other	Total Users
Nadine Anagnost	7/20/2010	Tuesday	6:30 p.m.	7:30 p.m.	2	70	20	8	0	0	0	0	12	0	0	95	0	12	0	4	0	2	133
Ivor Milcarek	7/21/2010	Wednesday	6:15 p.m.	7:35 p.m.	3	80	19	11	0	0	0	0	8	0	0	39	0	3	0	0	0	1	62
Ivor Milcarek	7/22/2010	Thursday	6:15 p.m.	7:45 p.m.	1	80	16	6	0	0	0	0	10	0	0	61	0	22	0	0	0	0	99
Henry Miller	7/24/2010	Saturday	10:00 a.m.	11:00 a.m.	2	80	1	0	0	0	0	0	1	0	0	25	0	6	0	0	0	0	32
Henry Miller	7/25/2010	Sunday	2:00 p.m.		2	75	15	11	0	0	0	0	4	0	0	27	0	5	0	0	0	0	47

Route 173, Camillus

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem Bicyclists with helmet	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists Without helmets	Bicyclists with child in seat or trailer without helmet	Hand powered cycle	Walkers	In Line Skaters	Joggers	Equestrians	Baby Carriages	Wheelchair users	Other	Total Users
Betty Bacon	7/20/2010	Tuesday	6:30 p.m.	7:30 p.m.	1	80	16	5	0	0	0	0	11	0	0	56	0	16	0	1	0	0	89
Kevin Milcarek	7/21/2010	Wednesday	6:30 p.m.	7:30 p.m.	3	78	12	3	0	0	0	0	9	0	0	27	0	6	0	0	0	0	45
Kevin Milcarek	7/22/2010	Thursday	6:25 p.m.	7:30 p.m.	2	78	20	8	0	0	0	0	12	0	0	30	0	10	0	0	0	0	60
Fenton Hanchett	7/24/2010	Saturday	10:00 a.m.	11:00 a.m.	2	85	2	0	0	0	0	0	2	0	0	28	0	2	0	0	0	0	32
Carl Kraus	7/25/2010	Sunday	2:00 p.m.	3:00 p.m.	2	76	14	6	0	0	0	0	8	0	0	19	0	2	0	0	0	0	35

Old Erie Canal State Park, Dewitt to Manlius

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem Bicyclists with helmet	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists Without helmets	Bicyclists with child in seat or trailer without helmet	Hand powered cycle	Walkers	In Line Skaters	Joggers	Equestrians	Baby Carriages	Wheelchair users	Other	Total Users
Russ Andrews	8/7/2010	Wednesday	4:30 p.m.	5:44 p.m.	1	85	20	12	0	0	0	0	8	2	0	33	0	9	0	0	0	0	64
Russ Andrews	8/8/2010	Thursday	4:50 p.m.	6:00 p.m.	2	80	20	6	0	0	0	0	14	0	0	48	0	3	0	3	0	0	74
Russ Andrews	8/11/2010	Sunday	6:10 p.m.	7:15 p.m.	1	85	12	8	0	0	0	0	4	2	0	23	0	22	0	0	0	0	59
Russ Andrews	8/12/2010	Monday	6:00 p.m.	7:00 p.m.	2	80	26	24	0	0	0	0	2	0	0	25	0	14	0	1	0	0	66
Russ Andrews	8/16/2010	Friday	6:20 p.m.	7:20 p.m.	2	82	18	9	0	0	0	0	9	0	0	40	0	27	0	0	0	0	85

Works Cited

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