

Who's on the Trail?

The Erie Canalway Trail User Count 2011



Photo Courtesy of Linda Young

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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 3.7 million New Yorkers living in the 15 upstate counties the canal crosses. Anecdotal evidence suggests that the 365-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, et al, 2007)

In 2010, counts were conducted using the methodology of the National Bicycle and Pedestrian Documentation Project (NBPD, National Bicycle & Pedestrian Documentation Project Count Adjustment Factors, 2009). The decision to change the methodology from that used in previous years was made due to NBPD methodology being more adaptable to the climatic conditions of Upstate New York. 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.

Trail counts in 2011 revisited two sites first surveyed in 2010, Sims Store and the Nine Mile Creek Aqueduct in the Town of Camillus. In addition to these trailheads two new segments of the Canalway Trail were surveyed: Niawanda Park in the City of Tonawanda and Henpeck Park in the Town of Greece. While Henpeck Park is similar to many of the other suburban or rural parks studied in the past, Niawanda Park is unique in that it is the first segment of the trail to be studied in a dense, walkable, and urban context.

Resulting estimates for the four sites varied from a low of approximately 100,000 annual users at Henpeck Park to an unprecedented 605,000 users at Niawanda Park. Estimates at Sims Store and the Nine Mile Creek Aqueduct were very similar to those found last year with annual estimates for both sites calculated at approximately 200,000 users.

In a continuing trend from 2010, walkers were again the dominant users observed on the trail. All surveys prior to 2010 found that while the Canalway Trail was popular with walkers, the predominant users were bicyclists.

Understanding the volume and nature of trail use is critical when deciding how best to maintain and enhance this world-class resource. It is the hope of both the New York State Canal Corporation and Parks & Trails New York that this trail count data will be used to justify current and future levels of support for the trail, encourage local involvement in its enhancement and promotion, and provide a base from which to evaluate its impact on the local economies of the towns, villages, cities, and counties that it connects.

Background

Extending 524 miles across New York, the Canalway Trail System brings economic, public health, tourism, and quality of life benefits to the 3.7 Million New Yorkers living in the 15 upstate counties where it is located. 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 Erie, Monroe, Cayuga, Onondaga, Oneida, Herkimer, Montgomery, Schenectady, and Albany 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 paths or higher density pedestrian and entertainment areas); day of the week and month when the count was conducted; and type of climate. Additionally since NBPD methodology is becoming a national standard for these types of studies it allows the Erie Canalway Trail data to be added to and compared with a national database.

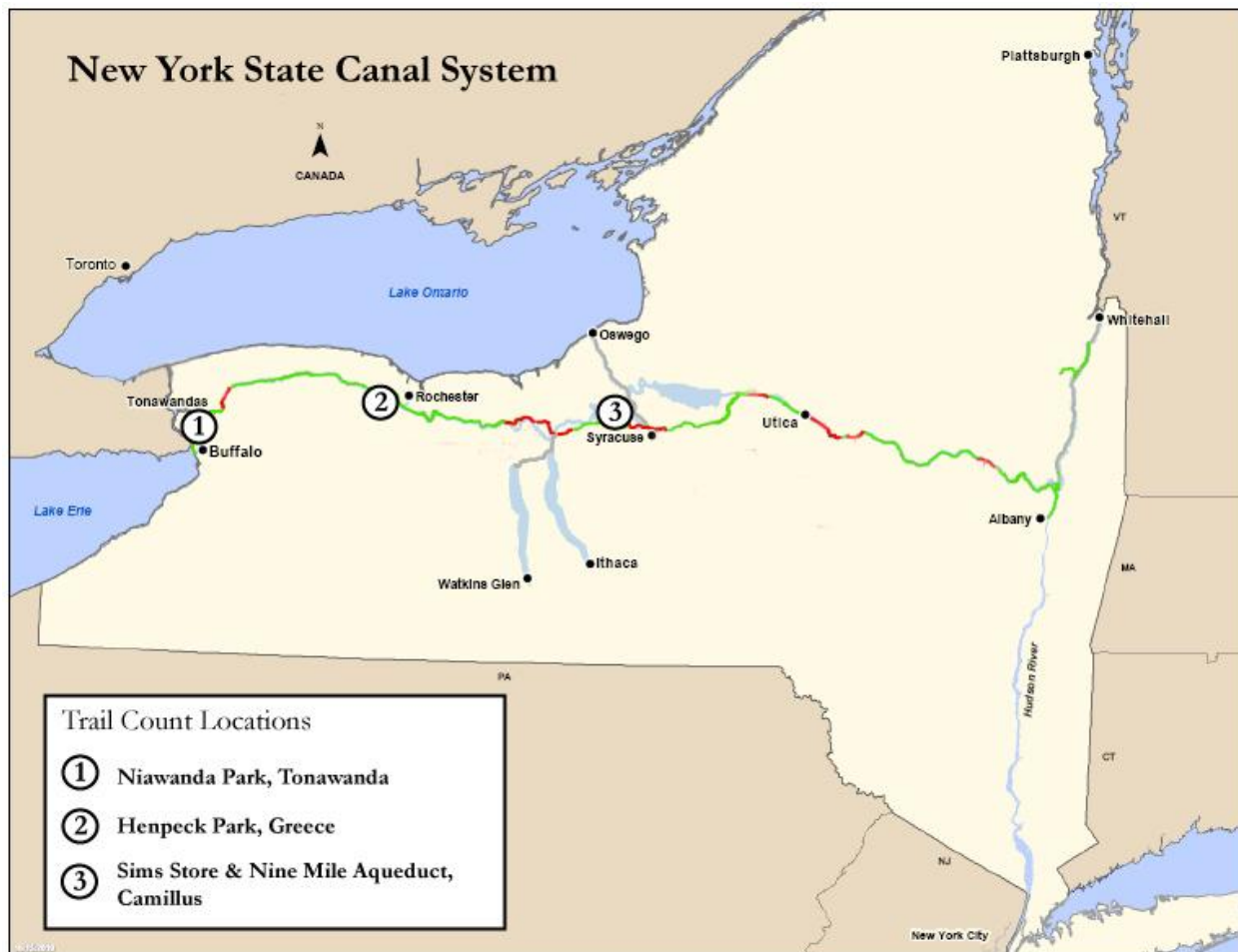
Methodology

Data Collection

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

Location

Figure One: 2011 Trail Count Locations



In 2011 counts were taken at four locations in Erie, Monroe, and Onondaga Counties. Two of these sites, Niawanda Park in the City of Tonawanda and Henpeck Park in the Town of Greece, are previously undocumented segments of the Canalway Trail. The remaining two locations, Sims Store and the Nine Mile Creek Aqueduct in the Town of Camillus were the subjects of trail counts in 2010.

- **Niawanda Park, Tonawanda, Erie County**

Counts were conducted in this linear park that lies between the Niagara River and a large residential neighborhood. During the summer months the City of Tonawanda hosts free concerts and theatre in the park creating an additional draw for residents.

- **Henpeck Park, Greece, Monroe County**

Counts were conducted within this four-acre park located in an area transitioning from rural to suburban west of Rochester. The park is located within the 85-mile Lockport to Palmyra section of the Canalway Trail, currently the longest unbroken segment of trail. The park includes a large parking lot and an access road which crosses the trail to allow boats and kayaks to reach the Canal. Immediately west of Henpeck Park is a 577-acre county-owned park that provides an extensive network of walking trails.

- **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 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.

Month

This year trail counts began in mid-August. While three of the sites completed their surveys by the end of the month, volunteers in Henpeck Park opted to conduct counts on subsequent Thursdays. As such, trail counts for that segment of Trail ended in early September.

Counters

Fifteen volunteers conducted seventeen separate counts between the four sites.

Days of the Week

The table below details the breakdown of count days at each site. Due to unfortunate circumstances, this year weekend trail counts were not able to be conducted at either of the Camillus sites.

Table One: Number of Counts by Day and Location

Count Days	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Sims Store - Camillus	0	1	1	1	0	0	0	3
Nine Mile Creek Aqueduct - Camillus	0	1	1	1	0	0	0	3
Henpeck Park - Greece	0	0	1	4	0	0	1	6
Niawanda Park - Tonawanda	0	1	1	1	0	1	1	5
Total	0	3	4	7	0	1	2	17

Process

Volunteers were provided a count protocol based on the methodology of the National Bike and Pedestrian Documentation Project (NBPD, <http://bikepeddocumentation.org/>). (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.

In a change from previous years, volunteers were asked to survey for two consecutive hours during the period they perceived as the peak time. Previously counts were conducted for one-hour periods. While this meant a greater time commitment, project staff felt that a two-hour survey period eliminated some of the variability that may be encountered with a single hour of counting.

A detailed counting form identical to that used in previous years (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 peak counts.

The NBPD methodology strongly recommends that all estimates be based on the average of at least two and preferably three counts during the same two-hour time period and week,

especially for lower volume areas. As Table One indicates, this year's trail counts achieved the minimum number of counts at each location.

Camillus Calculations

As previously stated, no weekend counts were able to be conducted at either the Aqueduct or Sims Store sites this year. Despite several attempts to contact someone associated with the NBPD project, project staff were not able to receive any guidance on how to remediate this issue. As such, the Camillus data was approached in two ways:

a. Perform the calculations without a weekend component.

This method uses only the observed count numbers in the subsequent calculations. As such, the average weekly volume is the same as the adjusted weekday count.

b. Utilize an adjustment ratio to estimate a weekend number for 2011.

For this method, the average weekday and weekend peak hour counts from last year were used to calculate the ratio of weekend to weekday use. This ratio was multiplied by the 2011 weekday counts to estimate 2011 weekend use. This estimate was then used in place of the average weekend count.

The results of methods 1a and 1b are presented in Table Six below.

Peak Period Selections

For the three rural/suburban segments of trail (Henpeck Park, Aqueduct, and Sims Store) the peak weekday period was determined to be 5:00 PM until 7:00 PM. Henpeck Park selected 2:25 PM until 4:25 PM as its weekend count period. For the purposes of estimates, this period was treated as 2:00 PM until 4:00 PM.

Due to the more urban nature of Niawanda Park, volunteers decided to perform both their weekday and weekend counts from 7:00 p.m. until 9:00 p.m.

Once the respective weekday and weekend average counts are determined, the NBPD project recommends multiplying the average counts by 1.05 if the trail is used between 11:00 p.m. and 6:00 a.m. For the relatively rural sections of trail, it was obvious that this factor could be excluded. However the application of this factor to the Niawanda numbers was considered. Upon corresponding with Linda Foels, Director of Parks & Recreation for the City of Tonawanda, it was discovered that not only does the park close at 10:00 p.m. the only lighting in the park was limited to the parking lots. While it is conceivable that some people do use the trail at night, it was decided to forgo the nighttime adjustment for Niawanda Park.

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 two-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. For the purposes of NBPD calculations, trails are considered to fall into two categories: multi-use paths (PATH) and high density pedestrian or entertainment districts (PED). The PATH percentages were utilized for the aforementioned suburban/rural segments while the PED percentages were selected for Niawanda Park.

Since each of the PATHs conducted their weekday counts between 5:00 p.m. and 7:00 p.m., the NBPD methodology considers the traffic counted during these two hours to represent 14% of each trail's daily traffic. The average daily count was divided by this percentage to determine a daily estimate for a typical weekday. The calculations were then repeated to determine daily weekend estimates which for Henpeck Park meant their count period represented 16% of weekend daily use.

Volunteers at Niawanda Park conducted their counts between 7:00 p.m. and 9:00 p.m. on both weekdays and weekends. As a PED this meant that the observed use during weekdays constituted 14% of daily weekday traffic and 16% of typical weekend daily use. The average daily count for both weekdays and weekends were divided by these percentages as discussed with the PATHs above.

3. Estimate average weekly traffic volumes.

To arrive at an average weekly volume, the daily weekday and weekend estimates were adjusted for the days of the week on which 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. As mentioned in method 1a above, the calculations for Sims Store and Nine Mile Creek Aqueduct were performed without weekend count estimates. In these two cases, the adjusted weekday count became the de facto average weekly volume.

4. Estimate average monthly traffic volumes.

The average weekly volume was multiplied by the average weeks in a month (4.33) to obtain the estimated monthly trail traffic volume.

5. Estimate average annual traffic volumes.

The average monthly volume was divided by the NBPD's Monthly Adjustment Factors for the long winter, short summer climate area and the months in which the counts were taken. In Niawanda Park, Sims Store, and the Aqueduct the counts were initiated and completed in August so 14% was used in the monthly volume calculations. Since Henpeck Park's counts were conducted between August and September, a weighted average of the monthly percentages was necessary. With four dates in August and two in September it was decided to use 13% to represent the combined Monthly Adjustment Factor.

Results

Modes of Use

Figure Two illustrates that 56% of observed trail users were walkers, 30% were cyclists, and 10% were joggers. In-line skaters and persons with baby carriages each represented 2%. Volunteers at Niawanda Park also recorded one skateboarder, which is not reflected in Figure Two.

Table Three indicates that much like 2010, walkers were again in the majority. While the percentage of cyclists increased significantly from last year, it is mirrored by a similar drop in joggers. Despite this increase, cyclists observed in 2011 were still lower than every other count year with the exception of 2010. This is difficult to explain for unlike 2010, each of these survey locations is located in the midst of large (7mi – 85mi), uninterrupted segments of Canalway Trail that should be very inviting to cyclists. No Trail-wide explanation for this lower proportion of cyclists is presently apparent.

As Figure Three and Table Four indicate, the great majority of cyclists were using bicycles. However, small numbers of recumbent cyclists, bicyclists with children on child seats, tandem cyclists, and tricyclists were noted at Henpeck and Niawanda Parks.

No wheelchair users were observed at any location despite the Canalway Trail in Niawanda Park being paved. However, this surface did seem to encourage use by 71 in-line skaters and one skateboarder.

Figure Two: Trail Usage by Mode as a Percent of Total Count

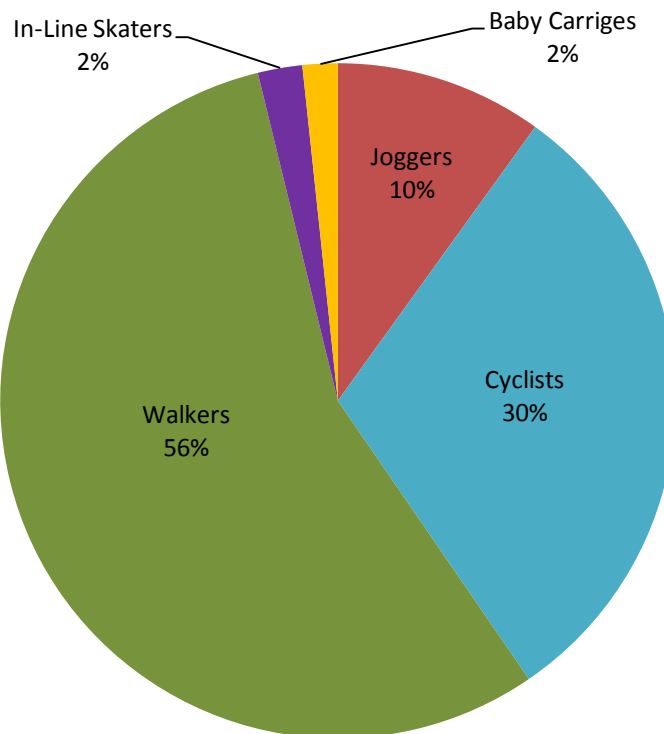


Table Two: Trail Use by Location

	Cyclists	Walkers	Joggers	In Line Skaters	Baby Carriages	Other	Total
Sims Store, Camillus	82	179	80	0	4	0	345
Nine Mile Creek Aqueduct, Camillus	83	202	168	0	0	0	453
Henpeck Park, Greece	165	228	37	0	3	0	433
Niawanda Park, Tonawanda	683	1248	46	71	49	1	2098

Table Three: Modes of Trail Use Comparison 2005 – 2011

	Percentage of Total Trail Users Counted						
<i>Type of Trail User</i>	2005	2006	2007	2008	2009	2010	2011
Bicyclists*	64%	43%	49%	52%	53%	21%	30%
Walkers	24%	36%	38%	35%	30%	55%	56%
Joggers	8%	20%	8%	9%	12%	22%	10%
In Line Skaters	2%	0%	2%	2%	4%	0	2%
Baby Carriages	2%	2%	3%	2%	0.30%	1%	2%
Wheelchair Users	n/a	0%	0%	0.10%	0.10%	0	0
Equestrians	0%	0%	0%	<0.1%	0%	0	0
Scooters	n/a	n/a	n/a	0.10%	n/a	0	0
Other	n/a	n/a	n/a	n/a	0.90%	0	<0.1%

*The Bicyclist category for 2009 - 2011 represents all cyclists including bicyclists, tri-cyclists, tandem cyclists, and bicyclists with a child seat or trailer.

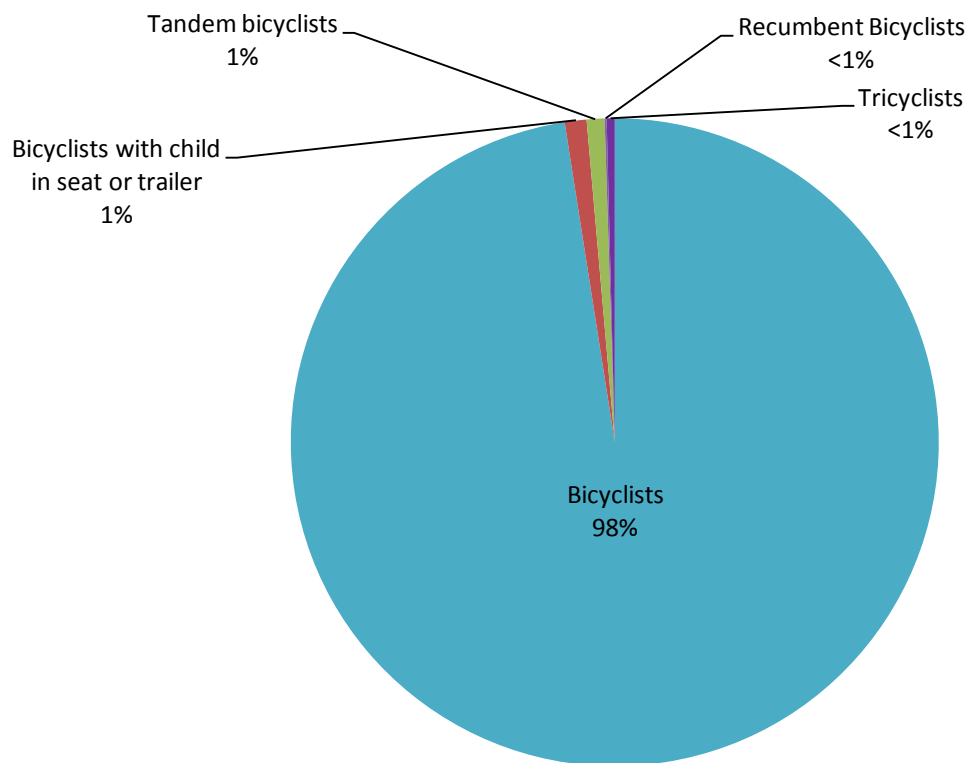
Figure Three: Type and Number of Cyclists


Table Four: Number and Nature of Cyclists

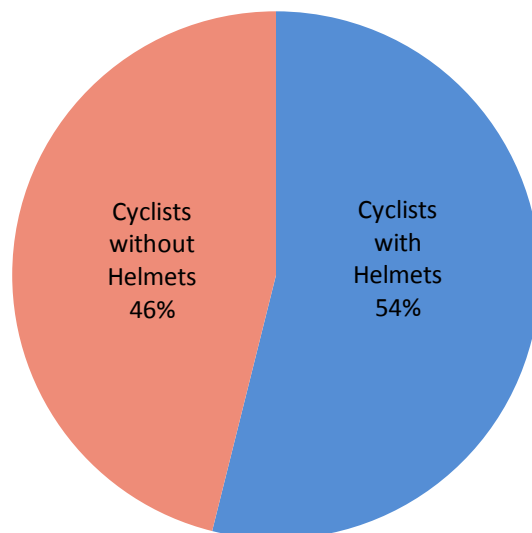
Number and Nature of Cyclists	Bicyclists with helmets	Bicyclists with child in seat or trailer with helmet	Tandem bicyclists with helmets	Recumbent Bicyclists with helmet	Tricyclists with helmet	Bicyclists Without helmets
Sims Store , Camillus	27	0	0	0	0	55
Nine Mile Creek Aqueduct, Camillus	41	0	0	0	0	42
Henpeck Park, Greece	85	6	0	1	0	73
Niawanda Park. Tonawanda	367	5	9	0	4	298
Total	520	11	9	1	4	468

Cyclists Helmet Usage

Cyclists with helmets made up 54% of those observed. While this is an increase from 2010 (50%), it is still lower than what was observed between 2007 and 2009 (63%, 61%, and 65% respectively).

As can be noted from Figures Five through Eight below, the lowest rates of helmet use were observed at the two Camillus locations. It has been suggested that the rural nature and flat, stone dust surface of the Camillus segments may provide users with the perception that the trail is safer. The fact that 2/3 of cyclists observed at Sims Store were without helmets seems to support this suggestion. However, it should be noted that helmet use at Henpeck Park, which also has a stone dust surface and is in a transitional area between rural and suburban areas, was above the yearly average at 56%.

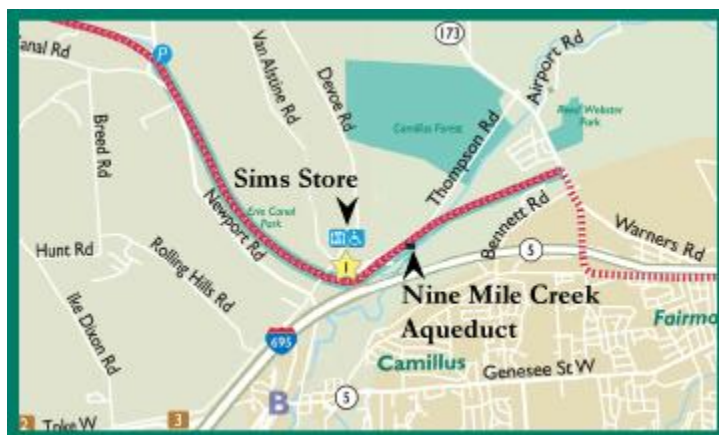
Figure Four: Percent Helmet use in Observed Cyclists



Analysis and Comparison by Location

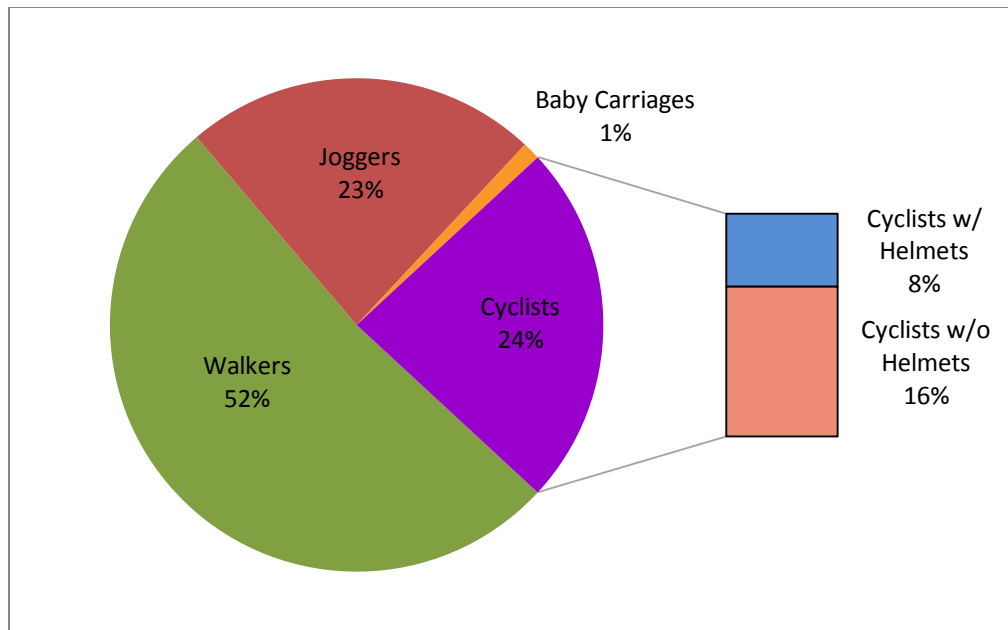
Sims Store, Erie Canal Park, Town of Camillus

For the second year in a row, pedestrians were the dominant users at the Sims Store trailhead. Visitors to the replica Sims Store or those seeking to experience the Enlarged Erie Canal by tour boat are likely to be a significant portion of the 52% of walkers noted in this year's counts. However the large number of joggers (23%) as well as those taking their families (4 strollers) or pets (14 dogs) for a walk illustrates the appeal of this trailhead for both fitness and recreation.



While the trail's flat surface and location alongside the Enlarged Erie Canal draws a significant number of pedestrians, it appears that bicyclists are beginning to use the trail at a greater rate. From 2010 to 2011 the proportion of bicyclists increased from 17% to 24%. Unfortunately, all of this increase was in bicyclists that decided not to wear helmets. As was discussed above, one suggestion has been that the site conditions at Sims Store lend a feeling of safety to riders. Another possible explanation is that the natural trail surface to the west, paired with the gap nearing Syracuse to the east may discourage long distance cyclists from selecting this segment of trail as part of an extended outing. This could result in more cyclists confining their ride within the park. This perception of riding through a rural park with a minimum of road crossings may dissuade riders from wearing their helmets.

Figure Five: Percentage of User Types – Sims Store



Nine Mile Creek Aqueduct, Erie Canal Park, Town of Camillus

Much like the adjacent Sims Store trailhead, trail use at the Nine Mile Aqueduct was predominantly pedestrian (82%). While walkers were still the majority of users (45%), joggers made up a much larger proportion (37%) than at the previous site. Walkers may be especially drawn to the restored aqueduct that opened in May of 2010 after more than thirty years of work by the Camillus Canal Society.



The volunteers at this site made special notes on the walkers who came to the site, looked briefly at the aqueduct, and walked back out. They found that 35 of the 202 walkers (17%) fell into this subcategory.

The proportion of bicyclists observed (18%) is nearly identical to 2010. The cyclists were evenly divided between those wearing helmets and those that did not.

Please refer to Table Five for a comparison of user type proportions for both the Sims Store and Nine Mile Aqueduct between 2010 and 2011.

Figure Six: Percentage of User Types – Nine Mile Aqueduct

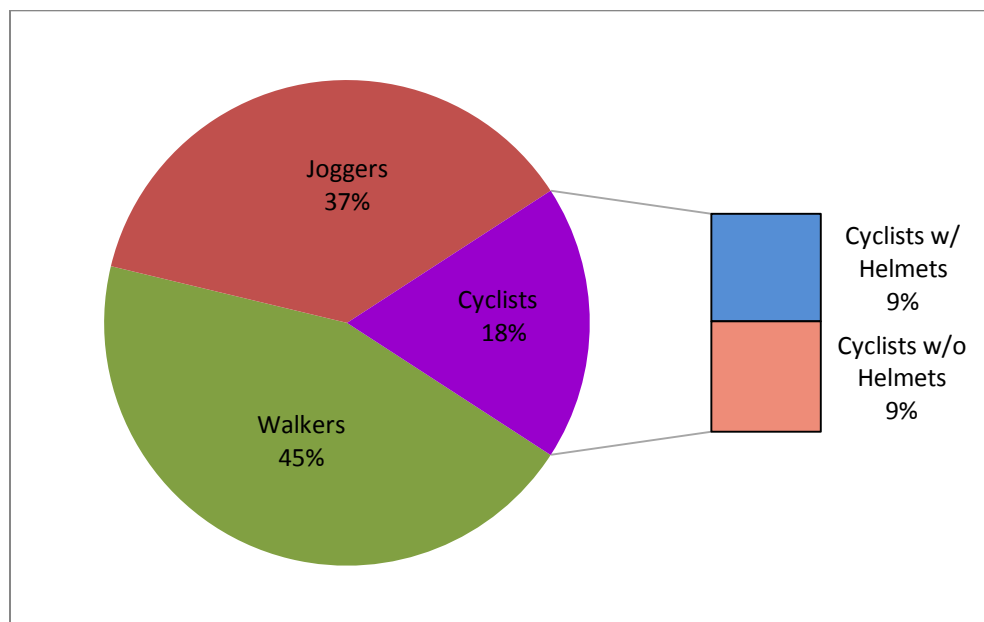


Table Five: Comparison of Mode at Sims Store & Nine Mile Aqueduct 2010-2011

Table Five below compares the proportion of user's modes at Sims Store and Nine Mile for 2010 & 2011.

	Sims Store 2010	Sims Store 2011		Aqueduct 2010	Aqueduct 2011
Cyclists w/ helmets	9%	8%		10%	9%
Cyclists w/o helmets	8%	16%		9%	9%
Walkers	44%	55%		67%	45%
Joggers	38%	23%		13%	37%
Carriages	1%	1%		1%	0%

Henpeck Park, Town of Greece

For Henpeck Park, bicyclists represented 37% of all trail users, the greatest proportion of bicyclists out of the four locations surveyed this year. Helmet wearing cyclists were a slight majority with 21% of all users while helmetless cyclists comprised 17% of all users.

Walkers were in the majority (53%) at this location despite it being ideally situated for cyclists in the midst of the 85 miles of unbroken trail between Lockport and Palmyra. Counters at this location noted anecdotally that this area was very popular with people fishing, picnicking, and walking their dogs which may explain why walkers prefer the Canalway Trail to the more hiking-oriented trails in the adjacent Greece Canal Park. Locals may also be using the Canalway Trail as a means of pedestrian access to this 577-acre park.

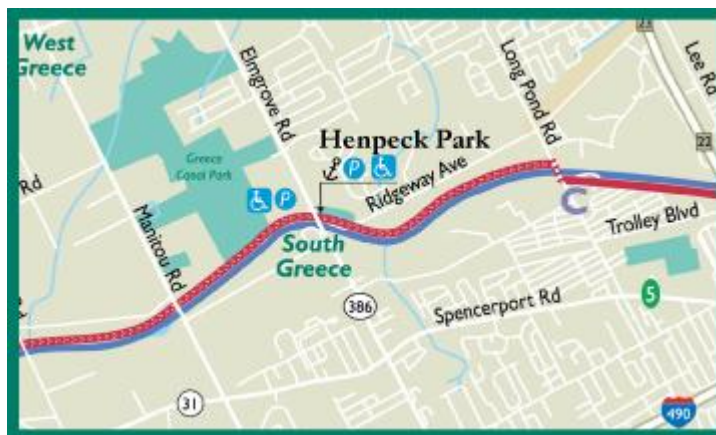
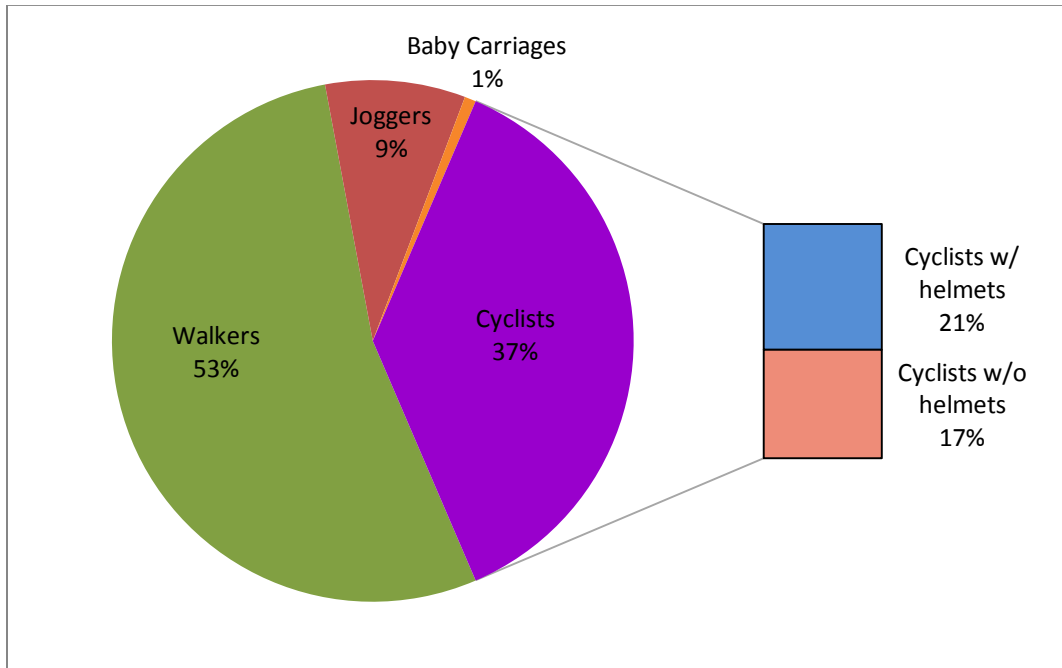


Figure Seven: Percentage of User Types – Henpeck Park



Niawanda Park, City of Tonawanda

It should be no surprise that walkers (60%) were the dominant users of this urban portion of the trail along the shores of the Niagara River.

Linda Foels, Director of Recreation at the City of Tonawanda, indicated that the Trail through Niawanda Park is very popular with couples and families during the evening but that modes of use can vary by time of

day. She mentioned that several cycling clubs often use the trail in the morning (L. Foels, personal communication, November 7, 2011). While the number of cyclists using the Riverwalk at Niawanda Park is very sizable (33%), it is overwhelmed by the number of walkers. Interestingly the large number of both cyclists and walkers may be dissuading joggers (2%) at this hour.

The flat surface and even pavement also makes the trail inviting to both in-line skaters (4%) and strollers (2%).

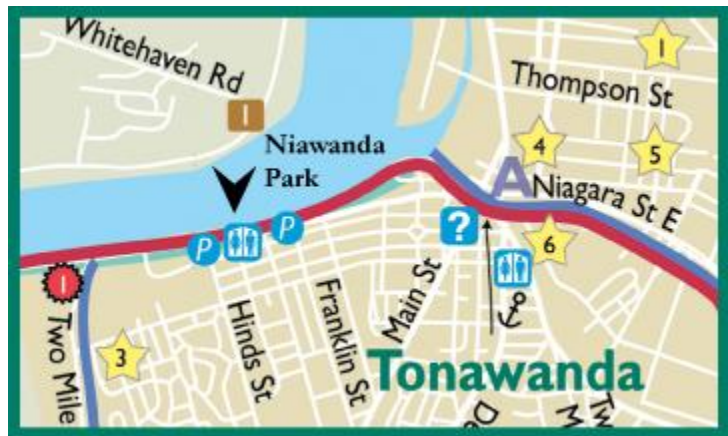
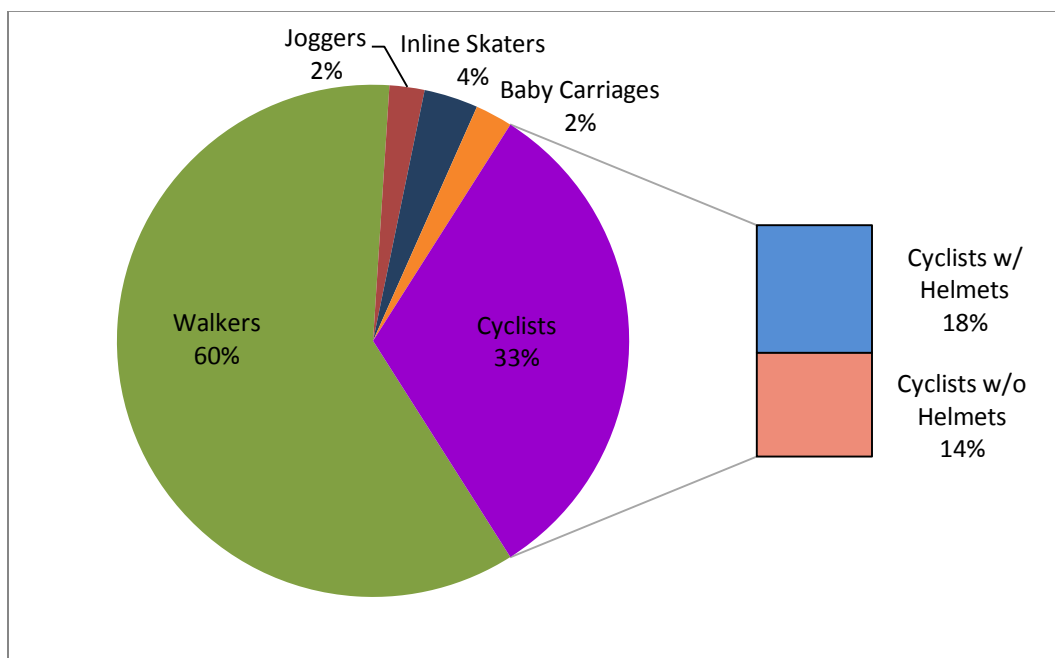


Figure Eight: Percentage of User Types – Niawanda Park



Estimates of Traffic and Trail Volumes

Table Six 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 10 through 13) 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 from approximately 100,000 annual visitors at Henpeck Park to more than 600,000 visitors at Niawanda Park.

Despite lacking weekend counts, the estimates at Sims Store were remarkably close regardless of which of the two weekend corrections were used in the estimates. This is not the case with the Aqueduct where the annual estimates varied by 70,000 users.

Table Six: Estimate of Weekly, Monthly, and Annual Use

Location	Ave weekday two-hour count	Ave weekend two-hour count	Ave weekly volume	Monthly volume	Annual Total
Sims Store, Camillus*	115	103	6,705	29,033	207,381
Sims Store, Camillus	115	0	6,678	28,917	206,550
Aqueduct, Camillus*	151	62	6,411	27,758	198,270
Aqueduct, Camillus	151	0	8,769	37,969	271,209
Henpeck Park, Greece	76	55	3,217	13,929	107,143
Niawanda Park, Tonawanda	451	373	19,562	84,705	605,033

* These entries utilized the adjustment factor discussed on page 11. Calculations determined without weekend counts are provided for the sake of comparison.

Conclusions

This report represents the fifth year of using trail count data to predict the amount of trail traffic at specific locations on the Erie Canalway Trail. The first three years utilized the Lindsay Method based on observations made in a limited geographic area, specifically the city and suburbs of Indianapolis. Last year the decision was made to switch methodologies to those set forth by the National Bicycle and Pedestrian Documentation Project due to its ability to be tailored to the climatic conditions of Western and Upstate New York. This is now the second year that the National Bicycle and Pedestrian methodology has been utilized to generate estimates of annual use. This year's estimates ranged from 107,143 annual visitors at Henpeck Park to 605,033 visitors at Niawanda Park.

The sheer scale of the Niawanda Park estimates may be surprising at first until one realizes that its location is in a dense, walkable community in a city of 15,000 people. Immediately across the canal to the north lies the city of North Tonawanda with 31,000 people. With easy access, pleasant summer evenings, and a significant population within a mile; it is not hard to imagine this segment of the trail enticing a large number of people to stroll along the Niagara River.

Both the Sims Store and Nine Mile Creek Aqueduct estimates are largely in line with the estimates from last year's study. While the lack of weekend counts clouds some of the analysis, the numbers do not depart drastically from those calculated last year. It is conceivable that the Sims Store trailhead experienced an uptick in use, while the Aqueduct trailhead may have experienced a drop in visitors now that the novelty of the restoration has worn off.

The estimates for Henpeck Park are very similar to estimates calculated in previous years for other segments of trail that bridge urban and rural areas. The Colonie Town Park, Genesee Valley Park, and Schenectady Community College estimates are all within 15,000 annual users.

Table Six presents the estimated annual trail traffic volumes for multiple locations derived from counts conducted between 2007 and 2011. While the data are equally presented here, comparison between pre and post 2010 data must be done with caution due to the use of different methodologies. While it can be conceded that the highest annual estimates occurred while using the NBPD methods, it must be noted that so did some of the lowest.

Table Seven: Estimated Annual Use by Trail Location 2007 - 2011

Location and Year	Estimated Annual Traffic
Centerport, Brutus, Cayuga County 2010	19,453
Kiwanis Park, Rotterdam, Schenectady County 2009	56,715
Newport Road (Warners), Camillus, Onondaga County 2010	68,264
Colonie Town Park, Albany County 2009	95,471
Genesee Valley Park, Monroe County 2007	98,240
Schenectady Community College Schenectady County 2009	105,869
Genesee Valley Park, Monroe County 2008	106,073
Henpeck Park, Greece, Monroe County 2011	107,143
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
Nine Mile Creek Aqueduct, Camillus, Onondaga County 2011	198,270
Sims Store, Camillus, Onondaga County 2011	207,381
Old Erie Canal State Park, Dewitt-Manlius, Onondaga County 2010	233,732
Nine Mile Creek Aqueduct, Camillus, Onondaga County 2010	237,834
Niawanda Park, Tonawanda, Erie County	605,033

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 those trail segments that are geographically close to one another, as shown in Table Eight. If it is assumed that few users travel beyond each of the regions detailed below, one could add these annual estimates to begin to approximate the volume of usage across the state. Considering that these estimates do not reflect a trail-wide assessment, nor do they account for the fact that sites within a region may be drawing different users than their neighboring sites, 1,733,504 is a very conservative approximation of persons using the Erie Canalway Trail each year.

Table Eight: Estimated Annual Use by Trail Region 2007 - 2011

Location	Average Estimated Annual Traffic
Niawanda Park, Tonawanda, Erie County	605,033
Henpeck Park, Greece, Monroe County	107,143
Genesee Valley Park/JCC, Monroe County	139,640
Perinton Park/Schoen Place, Monroe County	161,128
Centerport, Brutus, Cayuga County	19,453
Four trail heads, Camillus, Onondaga County	175,291
Old Erie Canal State Park, Dewitt-Manlius, Onondaga County	233,732
Kiwanis Park, Rotterdam, Schenectady County	56,715
Niskayuna Train Station/Schenectady Community College, Schenectady County	139,898
Colonie Town Park, Albany County	95,471
TOTAL	1,733,504

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. 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 and in the Mohawk Valley as there are no annual estimates available for these trail sections.

Revisiting previous count locations

While this year's trail estimate numbers are impressive, the lack of weekend days at both Sims Store and the Nine Mile Creek Aqueduct encourage a third year of surveying to validate the count totals. Likewise, the counts should be conducted at Niawanda Park again to confirm this spectacular level of use.

In addition to these sites surveyed using NBPD methodology, an effort should be made to perform counts at those sites in Monroe County and the Capital Region that were evaluated under the Lindsay Methodology.

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. Within the coming year Parks and Trails New York plans to conduct a trail user intercept survey that will collect demographic information on the trail users and learn more about the nature and magnitude of their expenditures associated with the trail visit. Only with this data can one begin to more accurately assess the trail's economic impact.

Appendices

Appendix A: Trail Count Protocol

Who's On the Trail? Canalway Trail User Count – 2011 Count Protocol

Locations

1. East of the Long Homestead
2. On the Niagara River

Time

1. Counts should be conducted in August.
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 two full hours at a time that you judge 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 KB in size or larger) of volunteers taking the count and persons using the trail that we can include in publications and presentations.***

THANK YOU FOR YOUR HELP!!!!

Please mail all forms to:

Canalway Trail User Count 2011
Parks & Trails New York
29 Elk Street
Albany, NY 12207
Or FAX to 518-427-0067

Appendix B: Trail Count Form

Who's on the Trail? The Canalway Trail User Count – 2011

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	
	With helmets	Without helmets
Bicyclists		
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 2011, Parks & Trails New York, 29 Elk Street, Albany, NY, 12207, 518-434-1583, FAX 518-427-0067

Appendix C: Count Data

Sims Store, Camillus

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Total 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
Betty Bacon	8/16/2011	Tuesday	5:00 P.M.	7:00 P.M.	Ptly Cloudy	75	40	15	0	0	0	0	25	0	0	88	0	43	0	4	0	0	175
Thomas H. Baker	8/17/2011	Wednesday	5:00 P.M.	7:00 P.M.	Sunny	82	16	5	0	0	0	0	11	0	0	58	0	18	0	0	0	0	92
Nadine Anagnost	8/18/2011	Thursday	5:00 P.M.	7:00 P.M.	Ptly Cloudy	80	26	7	0	0	0	0	19	0	0	33	0	19	0	0	0	0	78

Aqueduct, Camillus

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Total 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
Henry M. Miller	8/16/2011	Tuesday	5:00 P.M.	7:00 P.M.	Sunny	80	53	32	0	0	0	0	21	0	0	73	0	90	0	0	0	0	216
Linda Vishnesky	8/17/2011	Wednesday	5:00 P.M.	7:00 P.M.	Sunny	85	16	5	0	0	0	0	11	0	0	83	0	42	0	0	0	0	141
Fred Cossick	8/18/2011	Thursday	5:00 P.M.	7:00 P.M.	Partly Rainy	85	14	4	0	0	0	0	10	0	0	46	0	36	0	0	0	0	96

Henpeck Park, Greece

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Total 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
Dayle Bird	8/18/2011	Thursday	5:30 P.M.	7:30 P.M.	Ptly Cloudy	78	37	9	6	0	0	0	22	0	0	35	0	0	0	0	0	0	72
Walt & Janet Ulinski	8/20/2011	Saturday	2:25 P.M.	4:25 P.M.	Sunny	85	37	26	0	0	0	0	11	0	0	16	0	2	0	0	0	0	55
Roger Delthony	8/24/2011	Wednesday	5:30 P.M.	7:30 P.M.	Sunny	81	40	19	0	0	1	0	20	0	0	41	0	10	0	3	0	0	94
Bill Jewett	8/25/2011	Thursday	5:00 P.M.	7:00 P.M.	Sunny	65	16	7	0	0	0	0	9	0	0	63	0	8	0	0	0	0	87
Bill Jewett	9/1/2011	Thursday	5:00 P.M.	7:00 P.M.	Ptly Cloudy	75	24	16	0	0	0	0	8	0	0	41	0	7	0	0	0	0	72
Bill Jewett	9/8/2011	Thursday	5:00 P.M.	7:00 P.M.	Cloudy	67	11	8	0	0	0	0	3	0	0	32	0	10	0	0	0	0	53

Niawanda Park, Tonawanda

Name	Date	Day	Time_From	Time_To	Weather Conditions	Approx. temp.	Total 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
Elissa Hall	8/16/2011	Tuesday	7:00 P.M.	9:00 P.M.	Sunny	73	126	72	0	2	0	1	51	0	0	210	1	12	0	8	0	0	357
Apryl Silvashy	8/17/2011	Wednesday	7:00 P.M.	9:00 P.M.	Sunny	N.R	139	73	1	0	0	0	65	0	0	257	14	11	0	11	0	1	433
Linda Foels	8/18/2011	Thursday	7:00 P.M.	9:00 P.M.	Cloudy	72	145	66	0	0	0	2	77	0	0	369	30	7	0	12	0	0	563
Emily Lyons	8/20/2011	Saturday	7:00 P.M.	9:00 P.M.	Ptly Cloudy	76	183	96	4	5	0	1	77	0	0	250	26	9	0	18	0	0	486
Alisha Lavin	8/21/2011	Sunday	7:00 P.M.	9:00 P.M.	Ptly Rainy	68	90	60	0	2	0	0	28	0	0	162	0	7	0	0	0	0	259

Works Cited

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