THE UNIVERSITY OF NORTH CAROLINA
HIGHWAY SAFETY RESEARCH CENTER

National Capital Region (NCR) Trail Monitoring and Analysis Program

Annual Report

Report No. 3

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In response to:

National Capital Region National Park Service

Introduction

The National Park Service (NPS) needs to understand trail travel patterns and usage to better serve visitors. This includes those visiting on foot and by bicycle. Other local agencies around the Capital Region seek to quantify pedestrian and bicyclist travel in the region too. This project addresses these needs by providing a centralized database and dashboard to house and manage existing and future trail count data from various jurisdictions, where all can access it in a standard format. The project not only manages and maintains the data, but also encourages collaboration between agencies through quarterly meetings between NPS and local and regional agencies. In addition, the project produces quarterly and annual reports on travel patterns and monitoring system expansion, validation and maintenance and engages university partners in research activities including network volume estimation using emerging datasets.

This report is the third of our annual reports. It follows the template developed in previous years, and we continue to seek input from NPS and project partners on the type of summaries provided and the way the information is presented, to guide our future reports and efforts to automate reporting.

The report contains three sections a summary of work done during the past year by task, and an appendix with a

- data summary
- inventory of counters

The data summary lists counters and their volumes for 2018-2023 for six main trail corridors: C&O Canal Trail, Capital Crescent Trail (Georgetown), Anacostia River Trail, Mount Vernon Trail, Rock Creek Trail, and Washington & Old Dominion Trail. Summary tables include an inventory of all counters in the region as of August 2024, including name and status of whether they have been uploaded to BikePed Portal yet. Summary graphs of volume per month by trail corridor are provided for 2023. Maps of count sites by mode show 2023 pedestrian and bicycle traffic volumes relative to other sites on the trail corridors.

Work Done in Year 3 (Aug. 2023 to Aug. 2024)

Below is a summary of work done by the five Task Areas.

1. Jurisdiction Coordination
2. Maintenance of Automated Counters and Siting New Counters
3. Enhancements to Shared Regional Database and Public Dashboard and Data Monitoring
4. Analysis and Reporting
5. Exploration of Big Data Procurement and Analysis

Task Area 1. Jurisdiction Coordination

Quarterly Meetings. The team hosted four quarterly meetings (October 26, 2023, January 10, 2024, April 18, 2024, July 22, 2024). Notes and presentations from the meetings are posted in the "Quarterly Meetings" folder on the "NCA Trail Count Program" Teams account.

Monthly Meetings. The team held monthly meetings with the National Park Service (NPS) and DDOT and other special meetings as necessary. Notes from these meetings are now posted in the "Monthly Progress Meetings" folder on the "NCA Trail Count Program" Teams account.

In addition, HSRC staff responded to emails from NPS staff throughout the year and met with potential partners.

Task Area 2. Maintenance of Automated Counters and Siting New Counters

From August 2023 to August 2024, the Virginia Tech team collected video recordings of 27 counter locations for validation purposes. Before setting up the camera to record videos, the VT team conducted an onsite short validation to understand the counter performance—a process called "pre-validation." This step is crucial to move forward with the video recording. The VT team set up the camera once the counter passed the pre-validation process; otherwise, the counter was referred to troubleshooting. From August 2023 to August 2024, the VT team pre-validated 24 counters of which 7 counters did not pass the pre-validation procedure. The reasons for counters failing the pre-validation procedure included- sensitivity issues (e.g. counting bicyclist as bicyclist and pedestrian), issues with waking up the counter, undercounting bicyclists, and undercounting pedestrians.

The VT team also explored alternative cost-effective options to obtain the manual count from the recordings and initially validated 4 sites with countCLOUD, a commercial vendor. The manual count obtained from countCLOUD and the VT student raters were highly correlated. As countCLOUD is more cost effective and also has a short processing period for manual count data, the VT team started using countCLOUD for validating all the counters. To ensure the performance of countCLOUD counts, the VT team added some additional changes in the counter validation framework. These steps include crosschecking random 6 hours of video by student raters to observe any (longitudinal) change in countCLOUD performance. Also, counters that fail the validation based on countCLOUD counts and automated counts go through an additional step where student raters partially or fully validate the counters. Figure 1 shows the updated counter validation framework.

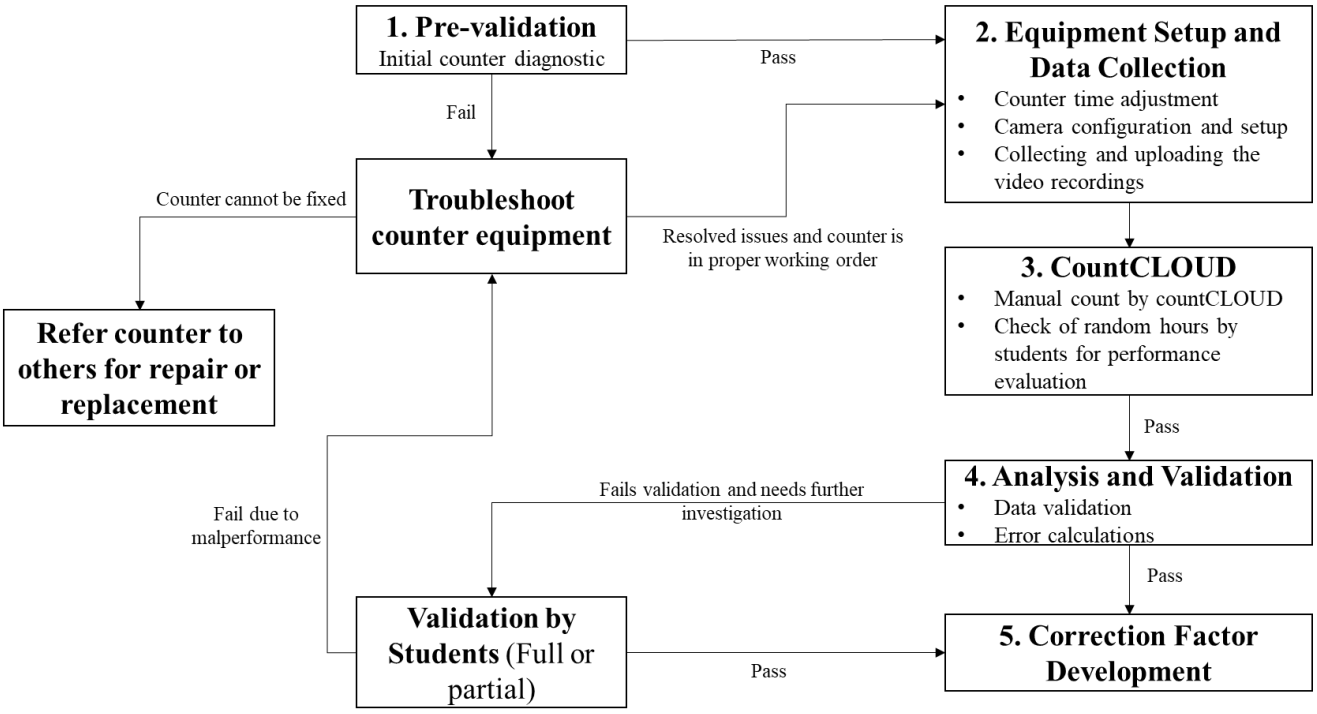


Figure 1: Updated counter validation framework

Between August 2023 and August 2024, the VT team validated 11 counters with the student raters and all the validated counters passed the validation process. Also, the VT team validated 50 counters using countCLOUD counts which included previously validated counters and new recordings. Among the newly validated counters, the pedestrian counter of 14th St Bridge, the 14th Street NW bicycle counter, both the bicycle and pedestrian counters of Four Mile Run counter, Lock 10, Anglers Bridge, and Berma Road counters that detect both bicyclists and pedestrians together did not pass the validation process.

Table 1: Summary of validation results

Number	Counter Name	Total Validated Hours	Mode	Average Hourly Count[a]	MAPE (Error)[ab]	Adjustment Factor-Rater	Adjustment Factor countCLOUD	Passed/ Failed[c]	Comments
1	River Terrace	35	Bicycle	12	13.9%	1.03	0.95	Passed	
			Pedestrian	12	20.9%	1.11	1.00	Failed	Low R^2 Value
2	Kenilworth	43	Bicycle	23	21.9%	0.91	1.06	Passed	
			Pedestrian	7	61.6%	0.46	0.47	Failed	High error rate
3	Deane Avenue	35	Bicycle	25	11.1%	1.09	1.06	Passed	
			Pedestrian	6	58%	0.72	0.61	Failed	High error rate
4	Theodore Roosevelt Island Bridge	37	Bicycle	6	15%	1.00	1.05	Passed	
			Pedestrian	10	22.5%	1.16	1.20	Passed	
5	Theodore Roosevelt Island	43	Bicycle	63	9.4%	1.06	1.10	Passed	
			Pedestrian	71	9.4%	1.04	1.08	Passed	
6	Waynewood Blvd	30	Bicycle	6	44.5%	0.84	0.97	Failed	Counter unavailable
			Pedestrian	17	38.7%	0.71	0.84	Failed	
7	P- Street	44	Bicycle	16	10.5%	0.94	1.06	Passed	
8	Pierce Mill	30	Bicycle	21	21.9%	0.91	0.96	Passed	
			Pedestrian	51	10.7%	0.95	1.01	Passed	
9	Shoreham Drive	30	Bicycle	65	16.5%	0.88	1.06	Failed	High number of bypass events
			Pedestrian	101	11.2%	1.06	1.26	Failed	
10	Piney Branch	36	Bicycle	2	35.5%	0.78	1.03	Failed	Less than 100 bike
			Pedestrian	11	6.4%	1.01	0.99	Passed	
11	Lock 5	27	Both	18	38.4%	0.74	-	Failed	Low R^2 value
12	Lock 8	40	Both	30	22.5%	1.32	1.30	Passed	
13	Mulebridge Counter	30	Both	95	11.6%	0.93	-	Passed	
14	Key Bridge East	39	Bicycle	26	32.5%	0.77	0.96	Failed	High error
			Pedestrian	123	12.5%	1.17	1.13	Passed	
15	Key Bridge West	38	Bicycle	18	40.8%	0.71	0.85	Failed	High error
			Pedestrian	52	14.5%	1.15	1.22	Passed	
16	Rosslyn Bikeometer	39	Bicycle	14	6.2%	0.98	1.03	Passed	
17	110 Trail	41	Bicycle	35	14%	0.90	0.97	Passed	
18	Memorial Bridge South	37	Bicycle	56	8.3%	0.96	0.92	Passed	
			Pedestrian	65	14%	0.99	1.04	Passed	Low R^2 but close to the accepted value
19	CCC	38	Bicycle	50	4.5%	1.01	1.06	Passed	
			Pedestrian	29	30.0%	0.79	0.99	Passed	High error rate but reliable correction factor
20	Bluemont Trail	51	Bicycle	16	7.5%	1.03	0.97	Passed	
			Pedestrian	64	8.1%	1.08	1.09	Passed	
21	Custis Bon Air	40	Bicycle	38	7.8%	0.97	0.97	Passed	
			Pedestrian	33	30.4%	0.96	0.97	Passed	
22	Custis Rosslyn	48	Bicycle	67	3.8%	1.00	1.04	Passed	
			Pedestrian	39	14.7%	1.20	1.18	Passed	
23	Columbia Pike	47	Bicycle	61	5.8%	1.03	1.06	Passed	
			Pedestrian	41	19.1%	1.03	1.05	Passed	
24	14th St Bridge	44	Bicycle	101	5.8%	-	0.96		
			Pedestrian	13	48.1%	-	0.75		
25	Memorial Bridge North	38	Bicycle	31	20.2%	-	0.87		
			Pedestrian	42	14.8%	-	1.05		
26	Washington Blvd	34	Bicycle	8	19.4%	-	1.06		
			Pedestrian	20	26.9%	-	0.95		
27	110 Trail Combo	39	Bicycle	31	7.2%	-	0.96		
			Pedestrian	46	17.7%	-	1.13		
28	Four Mile Run	44	Bicycle	29	33.8%	-	1.38		

Number	Counter Name	Total Validated Hours	Mode	Average Hourly Count[a]	MAPE (Error)[ab]	Adjustment Factor-Rater	Adjustment Factor countCLOUD	Passed/ Failed[c]	Comments
			Pedestrian	15	57.9%	-	0.62		
29	Waynewood Blvd (new)	39	Bicycle	8	2.6%	-	1.07		
			Pedestrian	8	9.0%	-	0.94		
30	Zoo Loop	43	Bicycle	40	3.8%	-	1.02		
			Pedestrian	62	4.6%	-	1.03		
31	MVT Airport	44	Bicycle	140	3.6%	-	1.00		
			Pedestrian	41	18.1%	-	1.02		
32	Oxon Run West	43	Bicycle	2	14.2%	0.97	**1.16**	Failed	Less than 100 bike
			Pedestrian	9	16.0%	0.99	**0.73**	Passed	
33	RCT Wildwood	28	Bicycle	9	10.2%	-	0.84		
			Pedestrian	35	10.4%	-	1.14		
34	11 St NW	31	Bicycle	13	36.7%	-	1.42		
35	14th St NW	37	Bicycle	5	284.9%	-	0.31		
36	Clarendon	32	Bicycle	23	32.72	-	1.48		
37	Eads NB	36	Bicycle	5	39.0%	-	1.33		
38	Eads SB	32	Bicycle	6	24.7%	-	1.30		
39	East Capitol St	42	Bicycle	26	35.8%	-	1.56		
40	Fairfax EB	36	Bicycle	9	31.8%	-	1.24		
41	Fairfax WB	37	Bicycle	14	37.8%	-	1.48		
42	Quincy SB	37	Bicycle	3	26.7%	-	1.09		
43	Wharf- Maine Avenue	38	Bicycle	24	40.2%	-	1.48		
44	Wilson Blvd	36	Bicycle	21	28.0%	-	1.38		
45	Anglers Bridge	46	Both	125	32.0%	-	1.30		
46	Berma Road	52	Both	28	35.1%	-	1.69		
47	Lock 6	51	Both	14	15.7%	-	0.97		
48	Lock 7	48	Both	9	17.6%	-	0.98		
49	Lock 10	45	Both	23	22.4	-	1.26		
50	Clarendon (after counter update)	15	Bicycle	24	25.38%	-	1.29		
51	Potomac St	37	Both	19	33.53%	-	1.30		
52	Bon Air East	15	Bicycle	75	4.33%	-	1.03		
			Pedestrian	98	13.48%	-	1.13		
53	Metropolitan Branch Trail	15	Bicycle	131	18.49%	-	1.21		
			Pedestrian	149	13.25%	-	0.94		
54	Quincy NB	28	Bicycle	3.75	33.22%	1.49	-		
55	P-Street	30	Bicycle	19	24.90%	0.78	0.99	Failed	
			Pedestrian	130	73.28%	0.48	0.52	Failed	
56	Falls Church	49	Bicycle	86	7.16%	1.07	1.08	Passed	
			Pedestrian	50	19.92%	0.90	0.88	Passed	

[a] Calculated based on the rater count when rater count was available. Otherwise, used the countCLOUD count

[b] MAPE: Mean Absolute Percentage Error

[c] Used the following criteria for validation when rater count were available: (1) an R^2 of greater than 0.975 and (i) an R^2 value is also greater than 0.975 after censing unusual events (at least 20 data points), (ii) an automated to manual count ratio between 0.7 to 1.3 for Eco-counters and .5 to 1.5 for TRAFx counters or, (2) The error based on automated to manual count ratio should be between 0.85 to 1.15.

Highlighted in blue are counters validated during 2023

Identifying Locations with High E-Scooter Use and Travel Patterns

The VT student raters also counted e-scooter users from the video recordings of more than 30 hours per counter location. Based on the number of E-scooter users, the VT team conducted an analysis to identify the travel patterns of E-scooter users in the Washington D.C. region. The VT team found the highest E-scooter volume during the spring season followed by the summer season. On the other hand, the lowest E-scooter use was observed during the fall season. Figure 2 shows that E-scooter volume was higher during afternoon peak hours than morning peak hours. The E-scooter volume followed a similar pattern to the overall trail-use pattern as higher numbers of E-scooter users were observed when bicyclist and pedestrian volumes were also higher.

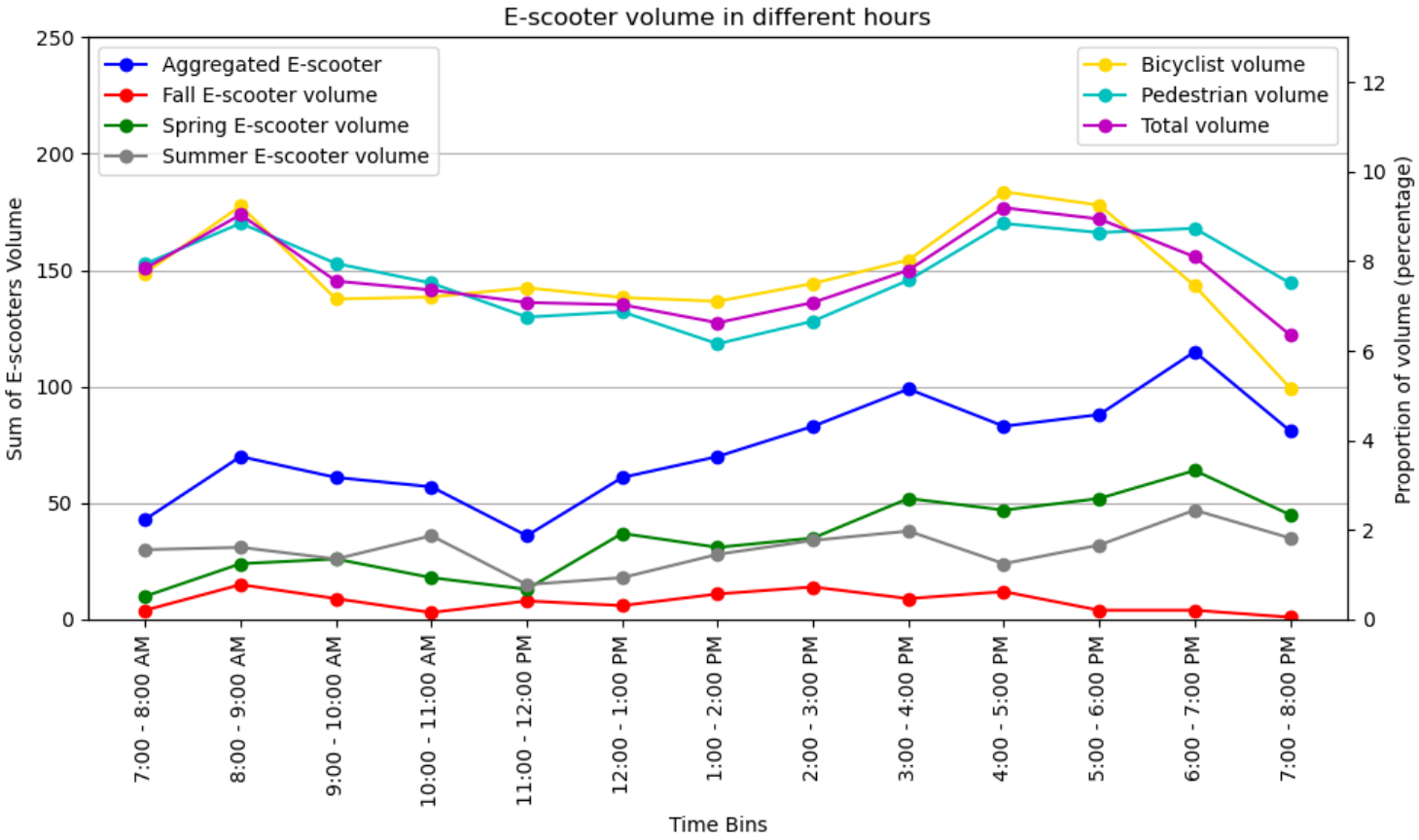


Figure 2: E-scooter use pattern (volume of E-scooter during the recording period only)

Figure 3 shows the counter locations with E-scooter volumes and proportion of E-scooter users for each counter location. Key Bridge East, Key Bridge West, P-Street, Crystal City Connector, and Custis Rosslyn were the top 5 counters with higher E-scooter volume. P-Street counter had the highest E-scooter use proportion compared to the total volume.

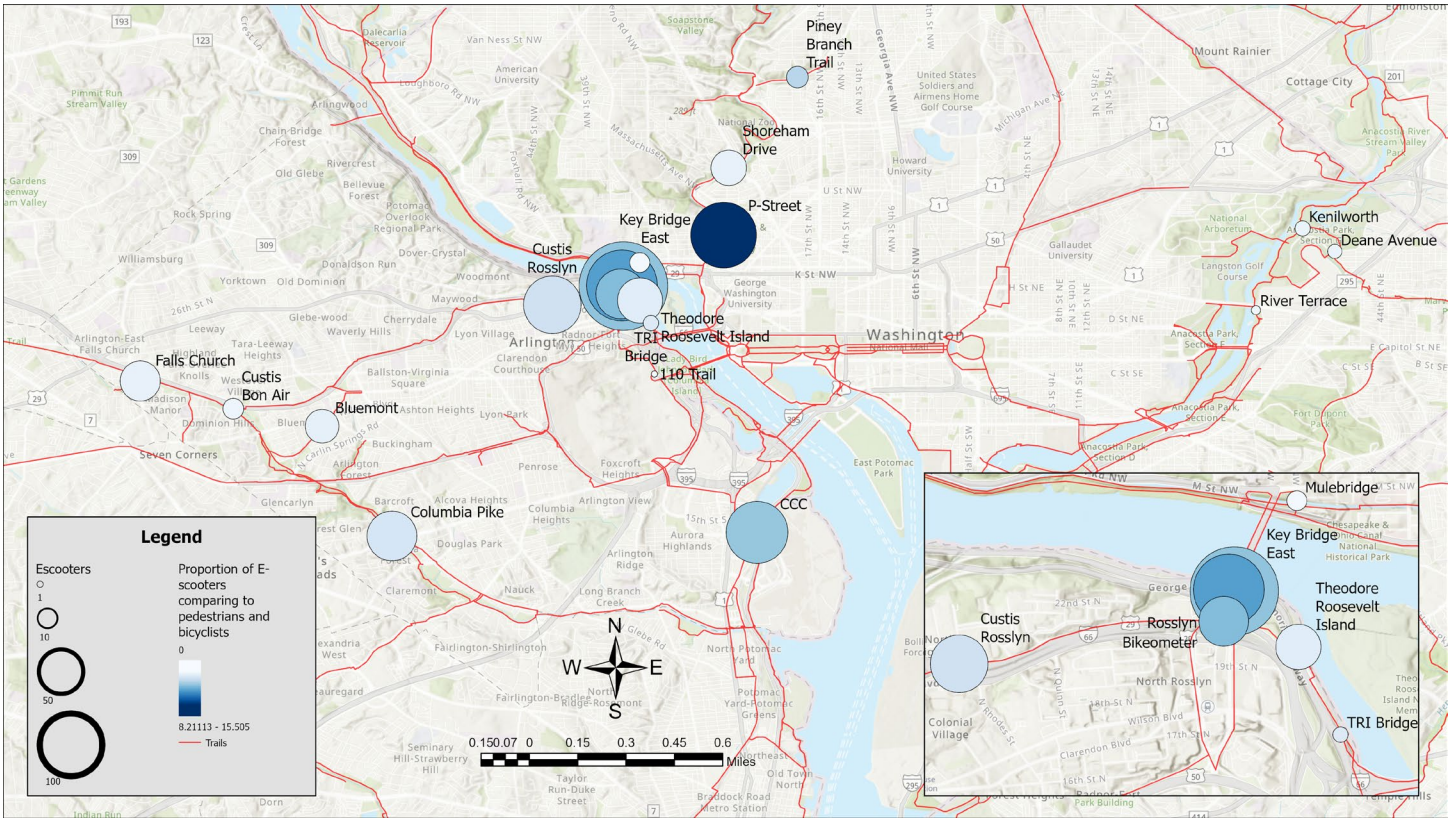


Figure 3: E-scooter volume by counter location (during recording hours)

Optimizing the Validation and Manual Count Process

Between August 2023 and August 2024, the Virginia Tech team focused on refining the validation process for pedestrian and bicycle counts by identifying the optimal number of manual count hours and determining the most efficient times for data collection. Traditional full-day recordings over multiple days could benefit from this analysis in both time-saving and cost-effective aspects. The goal was to streamline the validation process in two significant ways: first, by establishing the minimum number of hours necessary for reliable validation, and second, by identifying particular periods that yield the most reliable results.

The findings suggest that **using 12-15 hours of count data to validate automated counters is the point of diminishing return** to develop reliable correction functions for most use cases regardless of the site volume. Higher variability of the maximum absolute and relative error was observed when developing the correction function with less than 12 hours. Conducting validation studies on non-summer days with higher temperatures and no precipitation is associated with greater accuracy of the correction function for automated bicycle counters. For pedestrian counters, conducting the validation during summer or spring, as well as on early winter days with no precipitation is associated with better accuracy of the correction function.

To achieve the first objective, the team segmented the data from all validated sites into training and test datasets, which allowed for a targeted analysis of various counting durations. This approach helped to evaluate the effectiveness of shorter sessions compared to the traditional three-day counts. For the second objective, they explored how environmental and contextual factors influence data reliability at different times of the day, aiming to pinpoint optimal periods for accurate data collection.

The outcomes of these analyses have been meticulously documented. Virginia Tech PhD students presented the refined validation framework and findings at the National Travel Monitoring Exposition and Conference (NaTMEC) in Boise, Idaho, and at the Association of Collegiate Schools of Planning (ACSP) conference in Seattle, Washington. Additionally, they are finalizing an updated manuscript for submission to Transportation Research Part D, reflecting the latest advancements in optimizing manual count processes.

Task Area 3. Creation of Shared Regional Database and Public Dashboard and Data Monitoring

Portland State University's Transportation Research and Education Center (PSU TREC) now has 102 count sites and their associated data in the BikePed Portal (https://bikeped.trec.pdx.edu/) database:

- 29 TRAFx counters on C&O and Capital Crescent Trails managed by NPS
- 6 Eco-Counters on Rock Creek Park Trail and MVT
- 20 DDOT Eco-Counters
- 2 Alexandria MVT Eco-Counters
- 39 Arlington County Eco-Counters
- 6 Mongomery County Eco-Counters

Of these sites, at least 16 have been retired, but are still kept in BikePed Portal as important historical records of past bicycle and pedestrian volumes.

While the BikePed Portal publicly provides basic online data (counter location, summary graphs and statistics), additional information and features are available to those with accounts. Such accounts were provided to partner agencies. There are four levels of authorization for partner accounts: organization owner, organization user, research, and public. The features available to partners in the BikePed Portal accounts include review and editing quality checks and improved data download functionality.

The TREC team also investigated what announcement categories should be added to the BikePed Portal database to flag data for known events or issues such as construction on the trail, extreme weather events, races, or other organized events, or known maintenance issues, such as battery failure or insect infestation. The team hosted meetings with data users from DDOT and Arlington to identify the categories. This feature has been deployed and is available to data owners and partners who have been given permission to use this feature.

BikePed Portal also includes automated checks for over 48 hours of zero volumes and for over a given number of same value non-zero volumes in a row. Data were also checked manually by HSRC staff. Comparing volumes shows similar AADT values from BikePed Portal and manual calculations. Data owners can accept or reject the automated checks in the BikePed Portal User Interface.

BikePed Portal provides basic information about the count sites including AADT values, graphs of average and AADT volumes over all years for which data are available, over any given year, over any given month, and over any given day of the year by mode and direction of travel.

Current updates to the regional dashboard are available through the public dashboard interface; and through the user login site users have more options and can select data based on either the organizations or regions. Data can also be viewed on the Explore page based on the predetermined geographical location or by state. Additional functionalities to the dashboard are under development, including a user interface to make it easier to add and edit metadata. This feature was originally developed by a capstone computer science class at Portland State University and is being improved and de-bugged by the project team.

This year, BikePed Portal implemented a new tool that allows data owners to add a correction factor to the raw data based on work done to validate count data. The corrected data will be displayed by default on the user interface and the downloaded data will include both the corrected and raw data.

Additional tools under development include providing users with the MADT and AADT calculations based on raw data, corrected data, and corrected and reviewed data. Once these calculations are fully developed and deployed, users will be able access the data through the Downloads page.

Task Area 4. Analysis and Reporting

Annually and quarterly reports were provided, as well as an annual infographic.

The HSRC team has explored different ways of presenting the count data by count site, trail, and travel type (walk, bike, or both). The results of these analyses were shared informally in presentations to NPS and the larger group of partners. Annualized volume data for 2018-2023 are summarized in this document (see

Table 3) and 2023 data are summarized in the maps and graphs in the Appendix.

Note that as stated above, BikePed Portal can plot data on volumes and AADT for a given site using the “Explore” feature across years, by month for any given year, by day for any given month, and by hour for any given day of the year. Such graphs can supplement the summary graphs provided in this report if detailed information on the counter is desired. For those with BikePed Portal accounts, detailed data can also be readily downloaded for further analysis. For those without accounts, graphs and summary data are available.

Task Area 5. Explore Big Data Procurement and Analysis

Between August 2023 and August 2024, Virginia Tech has continued to advance in integrating and analyzing big data sources to enhance the estimation of bicycle and pedestrian traffic volumes across the Washington D.C. area. The team has established preliminary access to required data sources, setting the groundwork for a comprehensive analysis framework. These initial steps have enabled us to refine our data procurement strategies and ensure that the data aligns with the project's analytical needs.

In line with our objectives, literature reviews were continued to guide the integration of these emerging data sources, focusing particularly on their application in traffic volume estimation

and the identification of potential biases and limitations. This year, efforts were directed towards enhancing data processing capabilities by developing scripts for data cleaning and integration, which facilitated the handling of complex datasets from multiple sources including STRAVA, bikeshare systems, and local census data.

A significant part of this year's work involved improving preliminary pedestrian and bicycle traffic estimation models. The team leveraged the integrated data to develop and refine estimation models that utilize both count data and STRAVA data. Moreover, progress was made in mapping the entire network based on the preliminary estimation model. The ongoing integration of geographic and socio-economic data into our models has provided a richer context for understanding traffic patterns, enabling more nuanced analyses that consider demographic influences on traffic estimation.

2023 Highlights

- Analyzed validation results to streamline validation process and found
    - The findings suggest that **using 12-15 hours of count data to validate automated counters is the point of diminishing return**.
    - For bicycle counters, conducting validation studies on non-summer days with higher temperatures and no precipitation is associated with greater accuracy of the correction function.
    - For pedestrian counters, conducting the validation during summer or spring, as well as on early winter days with no precipitation is associated with better accuracy of the correction function.
- Examined e-scooter trail user volumes and found
    - E-scooters can be counted accurately using the technology we use for trail counting.
    - E-Scooters have a different travel pattern over the day from those walking and bicycling.
- Performed troubleshooting to revive and improve the accuracy of multiple count sites and catch problems in time to prevent loss of data.
- Added the ability to include the results from the validation, bias correction factors, to our BikePed Portal Database.
- Used the new BikePed Portal events feature to add known events to NPS and some other counters in the online database.
- Manually checked 2023 count data and some other years using BikePed Portal’s manual quality checking feature.
- Assembled data and began big data analysis.

APPENDIX

Data Summary

In this report, we use several standard metrics:

- Monthly traffic, which is more specifically Monthly Average Daily Traffic (MADT).
- Annual Average Daily Traffic (AADT)
- Adjusted AADT which is AADT adjusted using the correction factor computed by Virigia Tech students from their validation study.
- Monthly percent of AADT, which is MADT/AADT or where it is available (adjusted MADT)/(adjusted AADT)
- Weekend/Weekday Index (WWI)

Summary Metrics

MADT, AADT, and WWI as defined below.

Monthly Average Daily Traffic (MADT): For each day of the week for each month in each year for each segment area for each mode, compute MADT (from FHWA-PL-015-008, 201)

$$MADTm,y = \frac{1}{7}\sum_{j=7}^{1}\left[\frac{1}{n}\sum_{i=1}^{n} Vijmy\right]$$

where V = total traffic volume for i^{th} occurrence of the j^{th} day of the week within the m^{th} month, for year y.

n = the count of the j^{th} day of the week during the m^{th} month for which traffic volume is available (a number between 1 and 5)

Annual Average Daily Traffic (AADT):

$$\text{AADTy} = \frac{1}{12}\sum_{m=1}^{12} MADT_{m,y}$$

Where m is the month of the year, y

Finally, the Weekend/Weekday Index was calculated by average the total Weekend volume and the total Weekday volume and dividing the Weekend average by the Weekday average.

Weekend-Weekday Index (WWI) *(Miranda-Moreno et al. 2013)*

$$WWI = V_{we}/V_{wd}$$

where:

WWI = Weekend/Weekday Index

V_{we}=average weekend daily traffic
V_{wd}=average weekday daily traffic

Trail Volumes

Table 3 summarizes pedestrian and bicycle volumes by trail as monthly percent of AADT, which is computed as MADT divided by AADT or, where available, adjusted MADT divided by adjusted AADT. This is followed by three maps showing the trail volumes for 2022 by mode: pedestrian-only, bicycle-only, and combined pedestrian-bicycle traffic, which includes sites where pedestrians are not distinguished from bicyclists and those where pedestrians and bicyclists are counted separately but are added together for inclusion in the map.

The blanks in the AADT columns in Table 3 demonstrate the need for more consistent data collection in order to track change over time. It also shows that all trail sites have higher weekend traffic than weekday traffic (WWI>1) which is associated with recreational travel as expected on these trails. WWI is calculated for 2021.

The trail with the highest volume (bike and pedestrians combined) in 2023 on Table 3 is the Theodore Roosevelt Island Site on the Mount Vernon Trail with a combined AADT of 1,623. However, the table does not include the area bridges across major rivers like the Potomac and the Anacostia. The Key Bridge still appears to be the facility that carries the highest bicycle and pedestrian traffic in the region.

Table 3 includes a column for 2022 and 2023 adjusted volume. This value is the value in the AADT 2022 and 2023 columns are multiplied by the adjustment factor listed in Table 1, as computed from the validation conducted by Viriginia Tech where available. Not all counters have been validated yet, so not all counters show the adjusted values. We aim to eventually only use adjusted values in order to account for known bias of particular counters.

Data shown in the maps and graphs and the 2023 column of Table 3 has been manually inspected and suspicious data removed from AADT and MADT metrics. Automated checks built into BikePed Portal were used to check 2022. Data from 2021 and before were manually checked by looking at data and graphs in Excel.

Table 3: Summary of Traffic Volume for Trails

Trail	Count Site	Mode	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	2021 WWI
C&O Canal Trail	Dickerson Conservation Park	Both			128	76	34	N/A	
	Marsden Tract Foot Bridge	Both			290	213		175	3.1
	Lock 10	Both				215		225	2.2
	Lock 8	Both				342	275	256	1.6
	Glen Echo	Both			297	202		N/A	1.8
	Lock 7	Both				123		N/A	2.1
	Lock 6	Both	151	150	289			257	
	Lock 5	Both			188		152	128	
	Chain Bridge Access	Both			**786**	297		N/A	2.0
Capital Crescent Trail	Capital Crescent	Both	432	320		**729**	569	N/A	2.1
	Georgetown Mule Bridge	Both			**1,758**	**1,612**	**1,395**	N/A	2.1
	Georgetown VC (Level 3 Access)	Both				343	482	363	1.8
Anacostia River Trail	Benning	Bike		255				N/A	2.6
	Benning	Ped		87				N/A	1.8
	Benning	Both		342				N/A	2.3
	Deane Ave	Bike		194		346	249	254	2.4
	Deane Ave	Ped		45		61	55	144	1.6
	Deane Ave	Both		239		407	304	398	2.2
	Kenilworth Park	Bike		223		382		N/A	2.4
	River Terrace	Bike		167		306	234	N/A	2.2
	River Terrace	Ped		82		172		N/A	1.6
	River Terrace	Both		249		478		N/A	1.6
Mount Vernon Trail	MVT Airport	Bike	**1,459**	**1,872**	**1,737**	**1,238**		**1,223**	1.6
	MVT Airport	Ped		332	508	387		362	1.8
	MVT Airport	Both		**2,204**	**2,245**	**1,625**		**1,585**	1.7
	CC Connector	Bike	510	512	451	388	375	410	1.4
	CC Connector	Ped	493	576	416	336		345	1.3
	CC Connector	Both	**1,003**	**1,088**	**867**	**724**		**755**	1.3
	14th Street Bridge	Bike		**1,487**	**1,133**	**956**	**1,042**	**1,114**	1.4
	14th Street Bridge	Ped		339	249	245	213	216	2.0
	14th Street Bridge	Both		**1,826**	**1,382**	**1,201**	**1,255**	**1,330**	1.5
	Theodore Roosevelt Island	Bike		**1,487**	**1,133**	**956**	**651**	**692**	1.4
	Theodore Roosevelt Island	Ped					**853**	**931**	2.0
	Theodore Roosevelt Island	Both					**1,504**	**1,623**	1.5
Rock Creek Trail	Peirce Mill	Bike					327	478	
	Peirce Mill	Ped					**817**	**885**	
	Peirce Mill	Both					**1,144**	**1,363**	

Trail	Count Site	Mode	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	2021 WWI
and Vicinity	Piney Branch Trail	Bike						101	
	Piney Branch Trail	Ped						260	
	Piney Branch Trail	Both						361	
	Rose Park @ P Street	Bike					246	217	
	Shoreham Drive	Bike						509	
	Shoreham Drive	Ped						**882**	
	Shoreham Drive	Both						**1,391**	
Washington & Old Dominion Trail	Bon Air Park East	Bike	**693**	**689**	**717**	**620**	575	N/A	
	Bon Air Park East	Ped					504	N/A	
	Bon Air Park East	Both					**1,079**	N/A	
	Columbia Pike	Bike					**706**	**727**	
	Columbia Pike	Ped					**646**	**639**	
	Columbia Pike	Both					**1,352**	**1,366**	
	<200 AADT								
	200-600 AADT								
	>600 AADT								

Blue numbers are adjusted figures, taking into account validated data comparisons with recorded data. A site is considered adjusted even if only part of the year is adjusted.
Black numbers are as recorded by the equipment
N/A indicates no AADT was available for 2023, because of counter failure one or more months**.**

Figure 3: Pedestrian 2023 Trail Counter Volumes

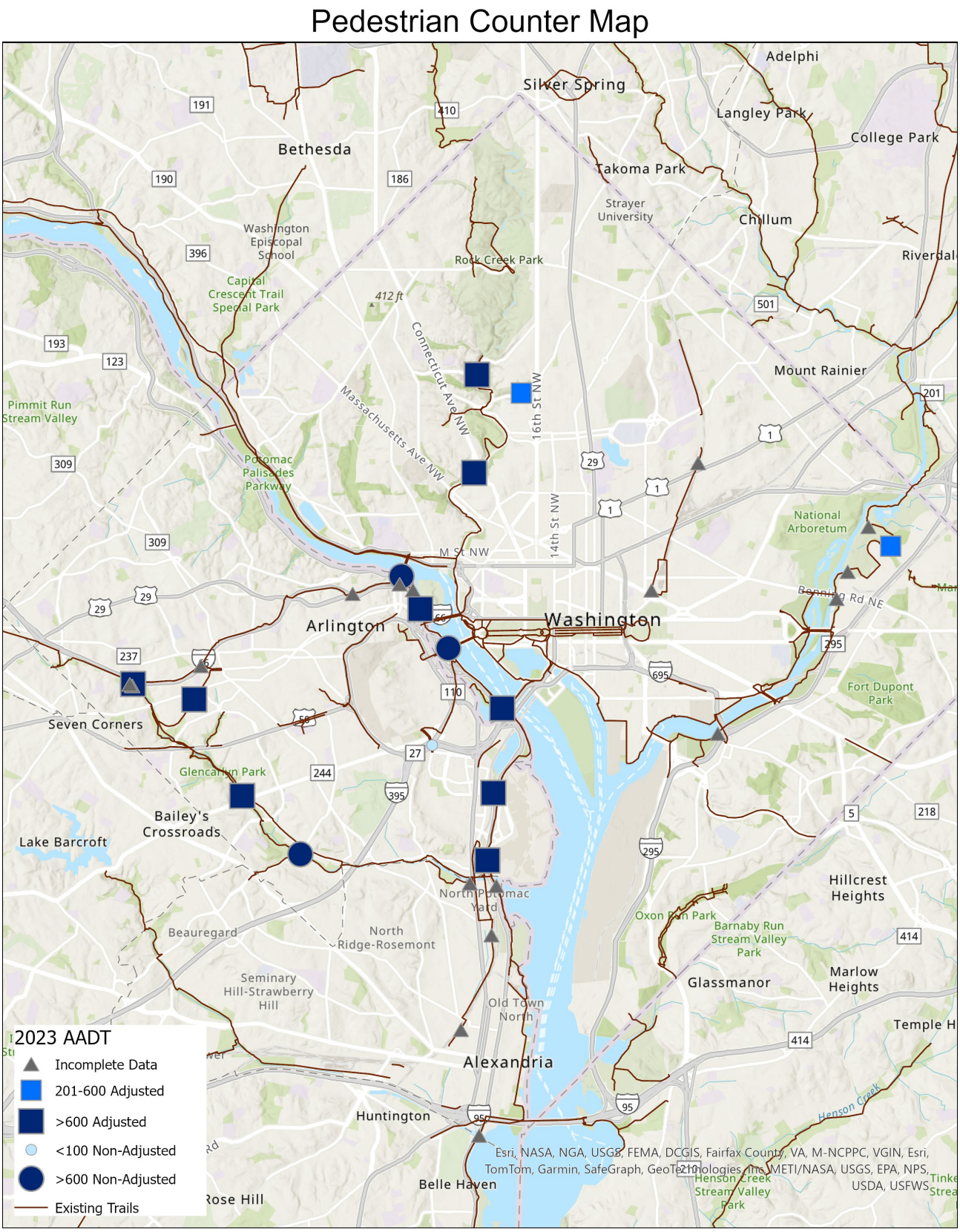


Figure 4: Bicycle 2023 Trail Counter Volumes

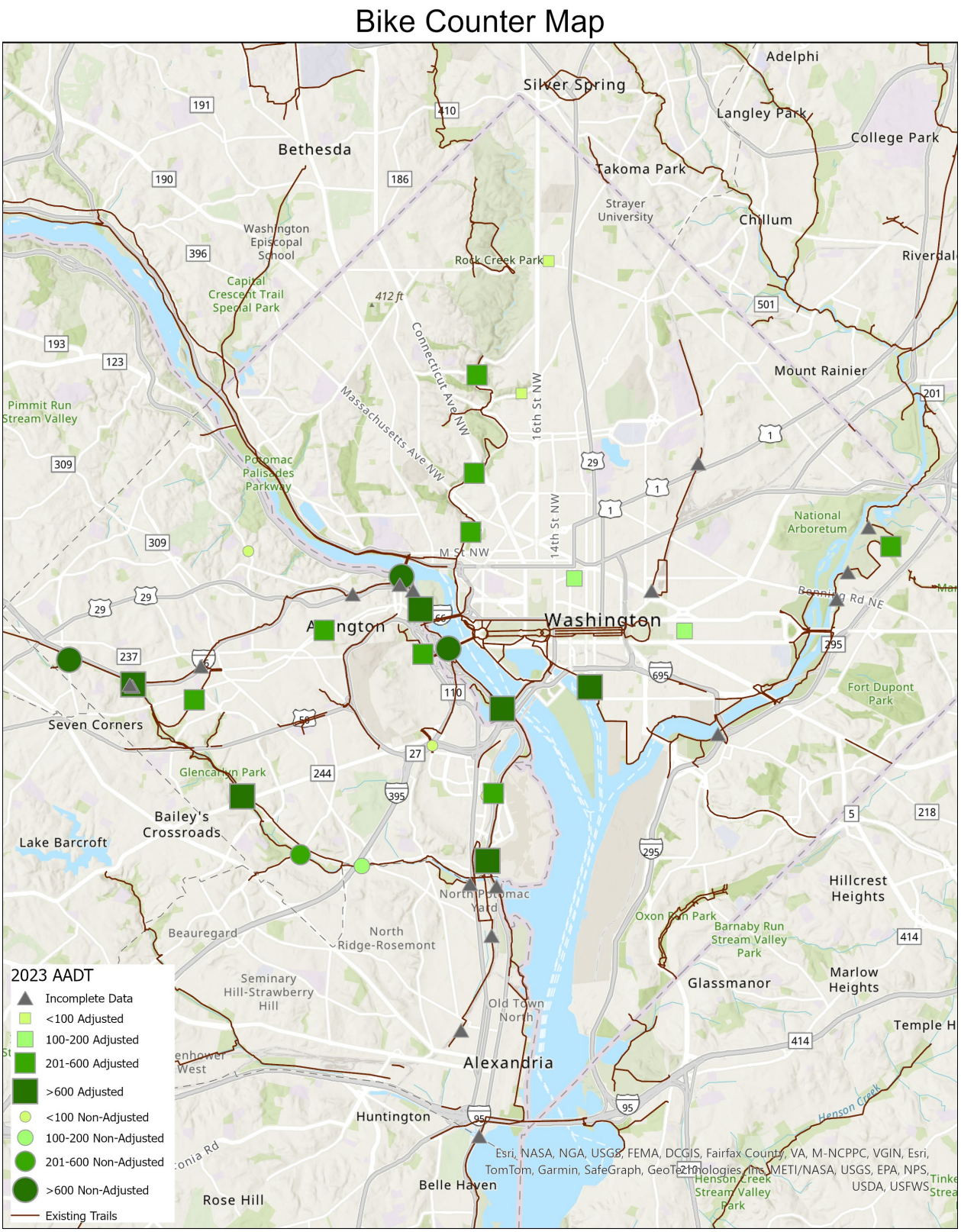
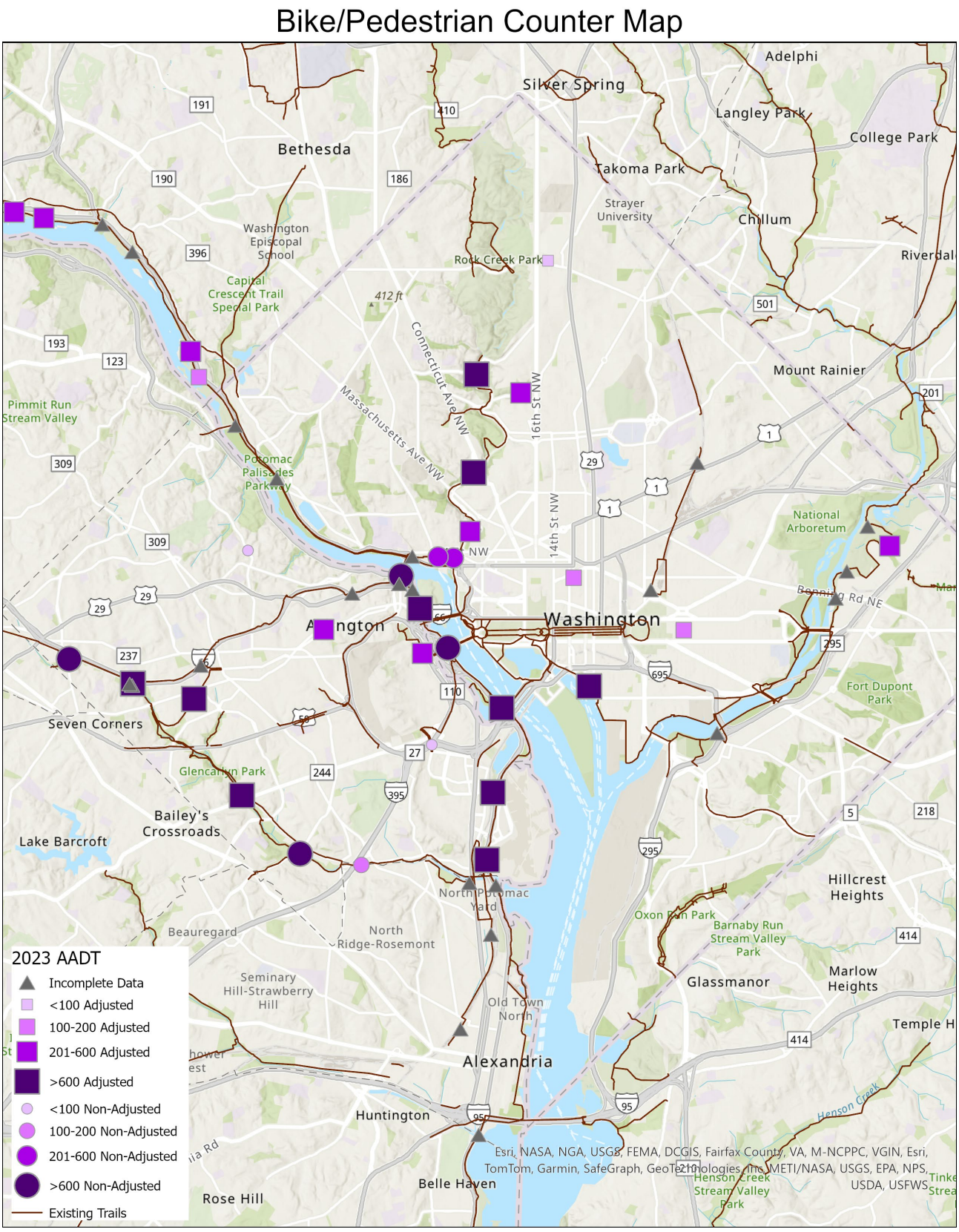


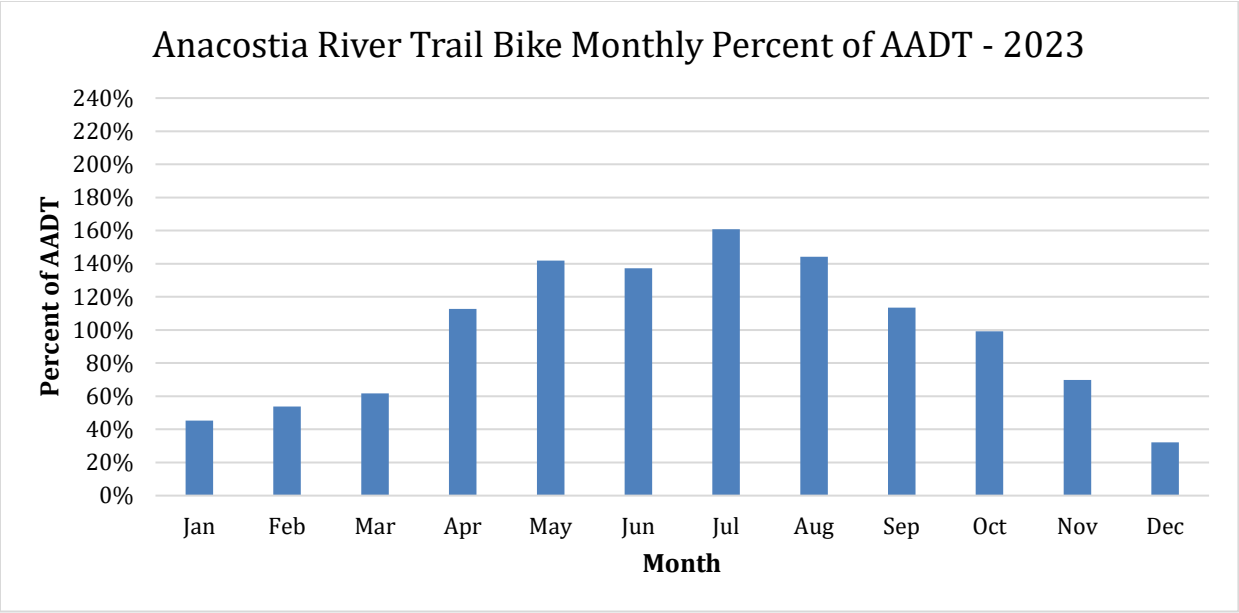
Figure 5: Combined Pedestrian and Bicycle 2023 Trail Counter Volumes



Volume Graphs by Month by Trail by Travel Mode

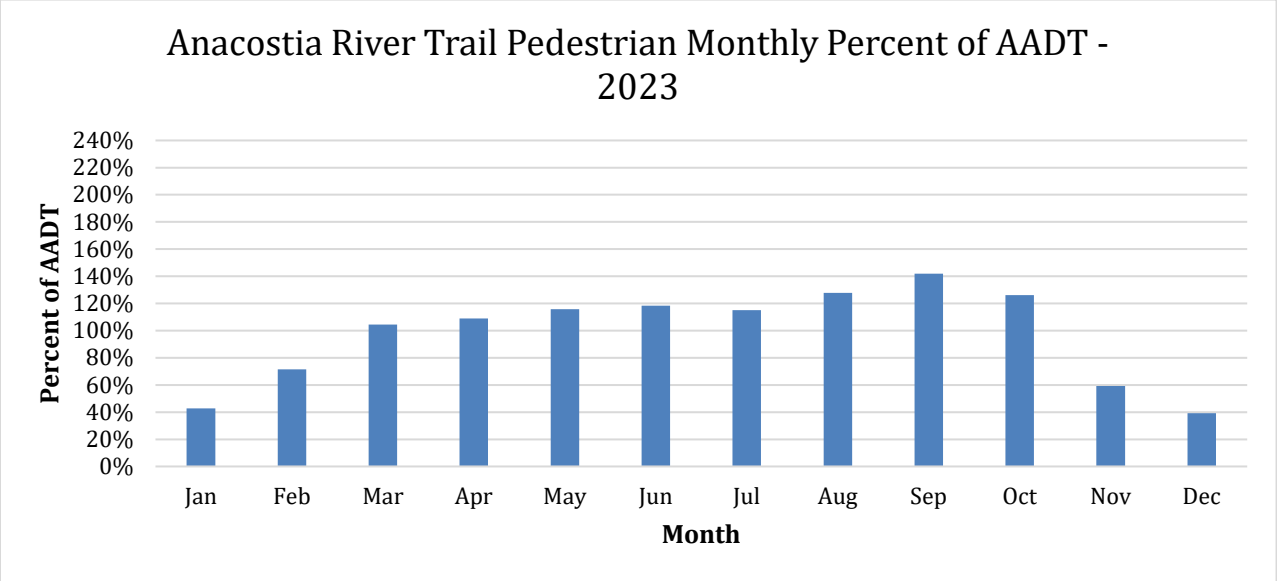
In this section we provide graphs of average trail traffic for 2023 by trail and mode by month as a percent of AADT, which is computed as MADT divided by AADT or, where available, adjusted MADT divided by adjusted AADT. The purpose of these graphs was to determine the seasonality of the travel. They show that traffic is generally highest in summer, but relatively high throughout the non-winter months (March through October). Generally pedestrian travel tends to be less seasonal (more equal throughout the year) than bicycle travel. Data in these graphs include sites where we have at least 11 months of MADT and may include sites not included in Table 3. Sites not included in Table 3 may not have been manually checked, but still include Bike Ped Portal's standard automated data checks.

Anacostia River Trail – Bike



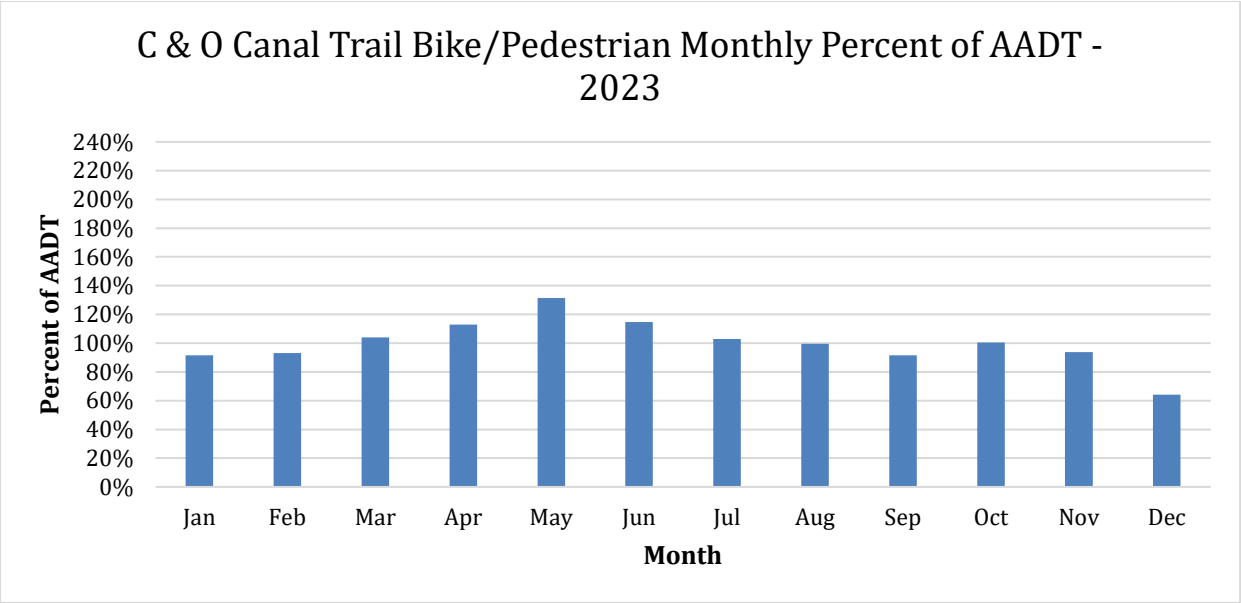
Data are from Deanne Ave and Kenilworth Park averaged.

Anacostia River Trail – Pedestrian



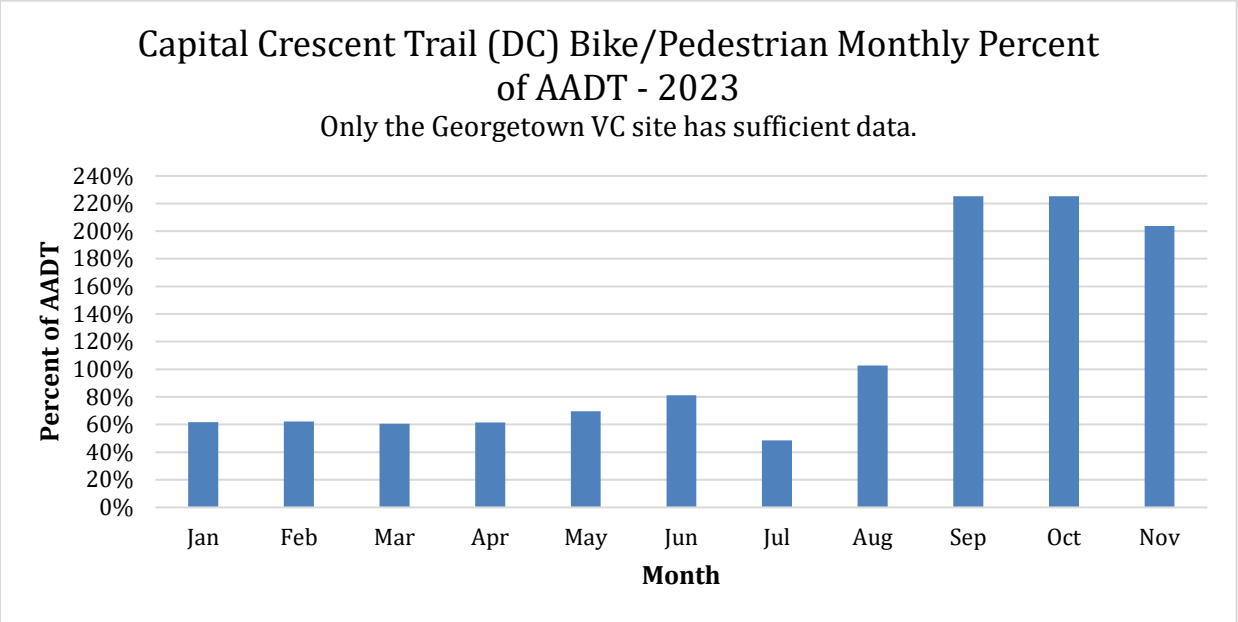
Data are from Deanne Ave and Kenilworth Park averaged.

C & O Canal Trail – Bike/Pedestrian

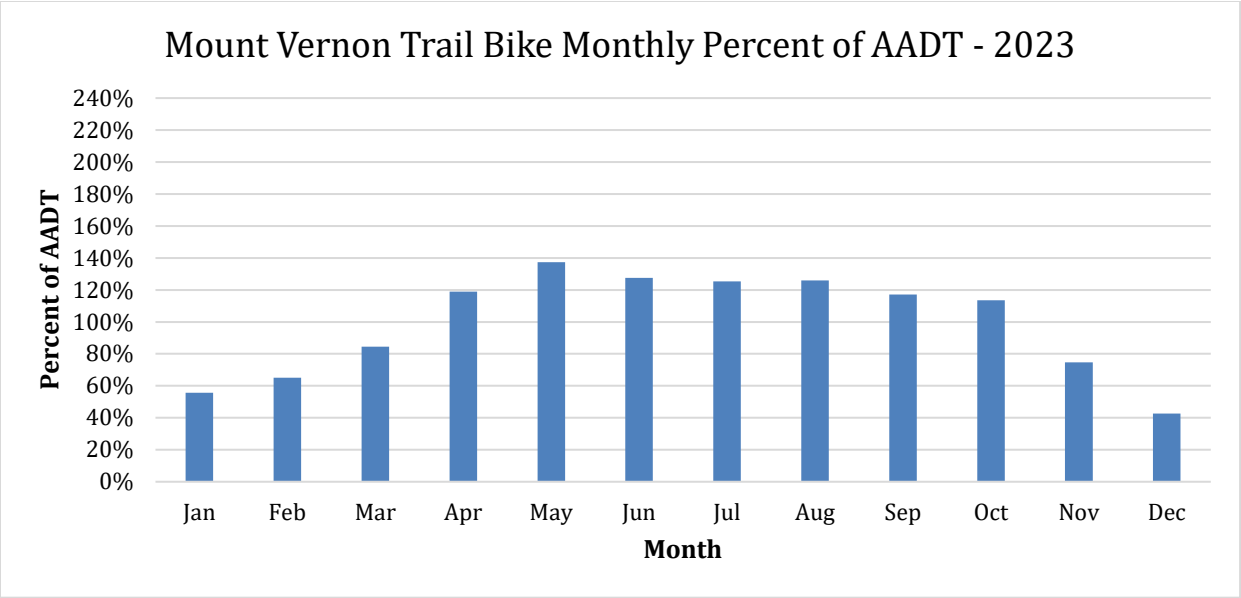


Data are from Sycamore Landing, Violettes Lock, Berma Road, Anglers, Lock 10, Lock 8, Lock 6, and Lock 5 averaged.

Capital Crescent Trail – Bike/Pedestrian

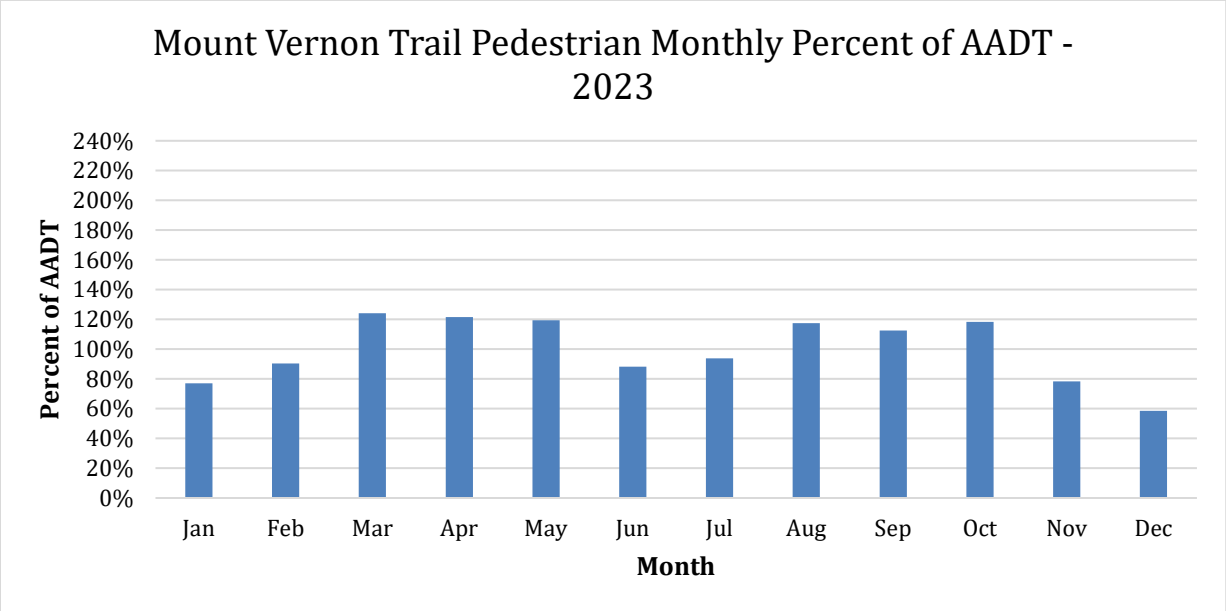


Mount Vernon Trail – Bike



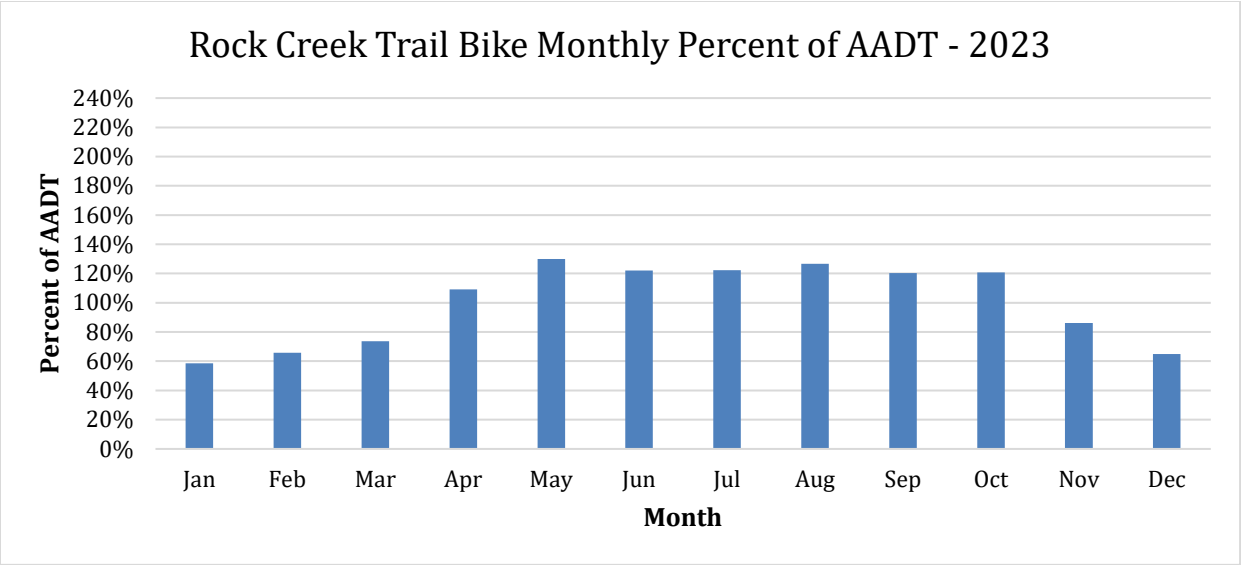
Data are from Airport South, Rochambeau Memorial Bridge, Theodore Roosevelt Bridge, Theodore Roosevelt Island, and CC Connector averaged.

Mount Vernon Trail – Pedestrian



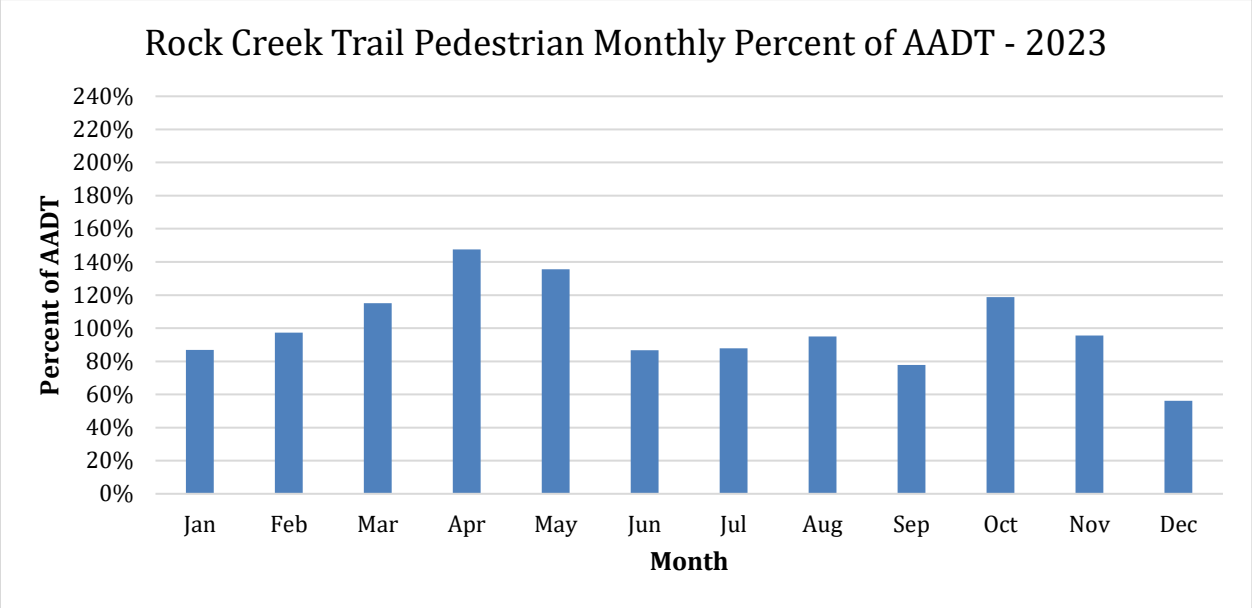
Data are from Airport South, Rochambeau Memorial Bridge, Theodore Roosevelt Island, and CC Connector averaged.

Rock Creek Trail – Bike



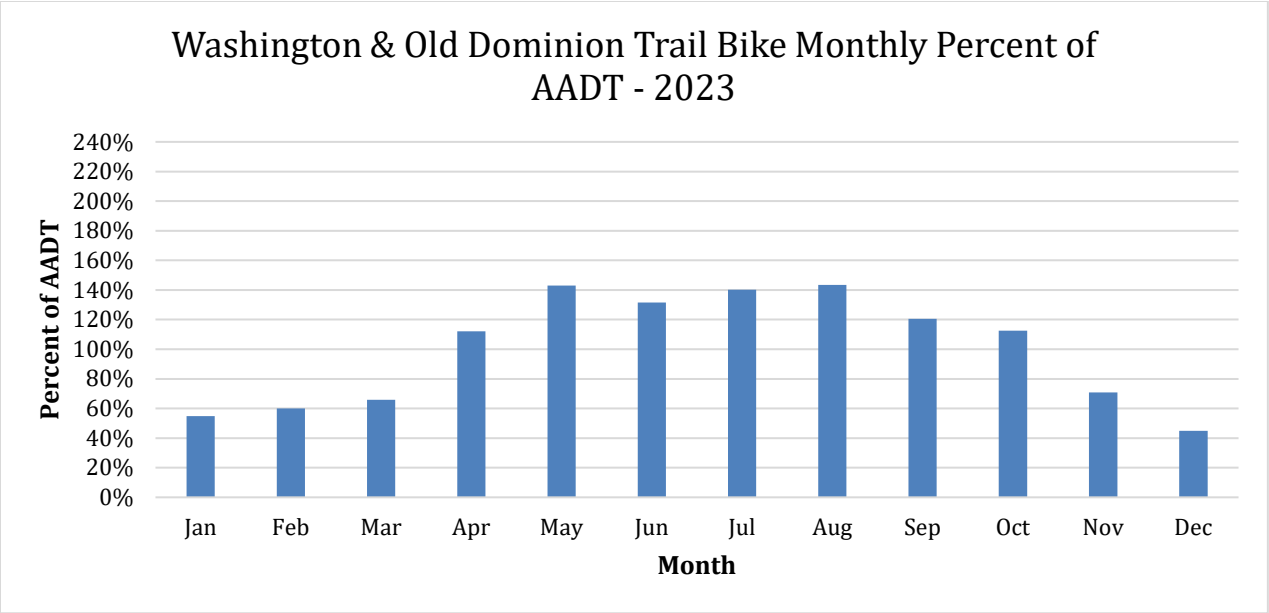
Data are from Peirce Mill, Shoreham Drive, and Rose Park Trail at P Street NW counters averaged.

Rock Creek Trail – Pedestrian



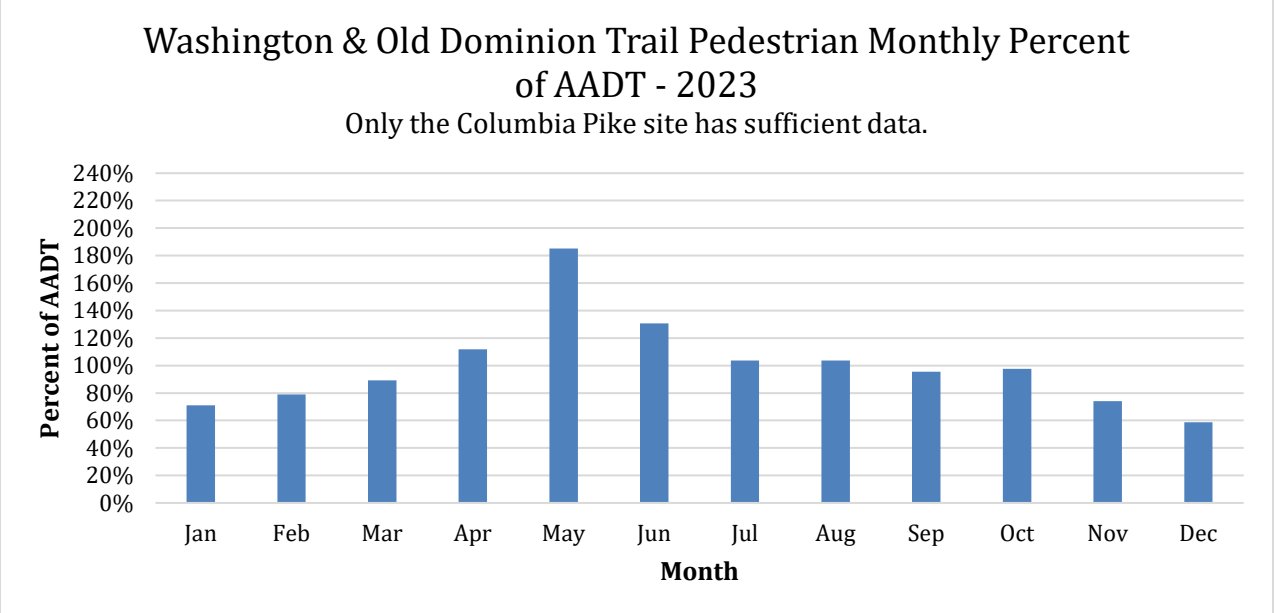
Data are from Peirce Mill and Shoreham Drive counters averaged.

Washington & Old Dominion Trail – Bike

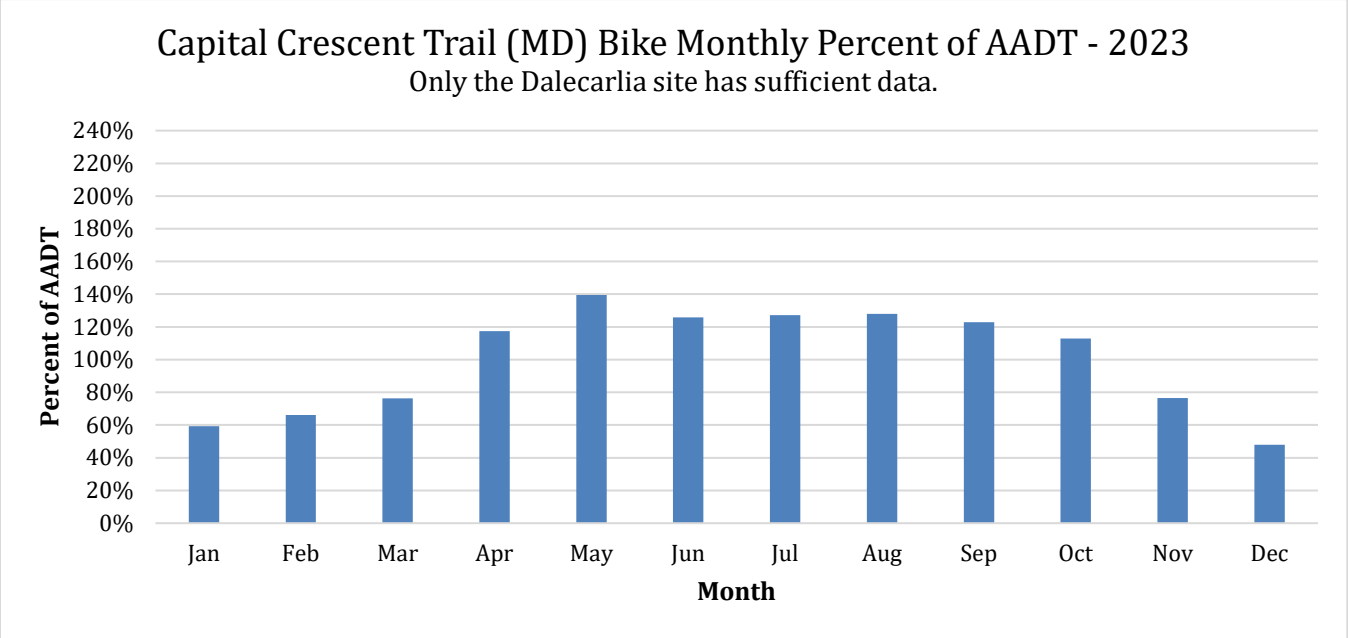


Data are from Columbia Pike and East Falls Church Park counters averaged.

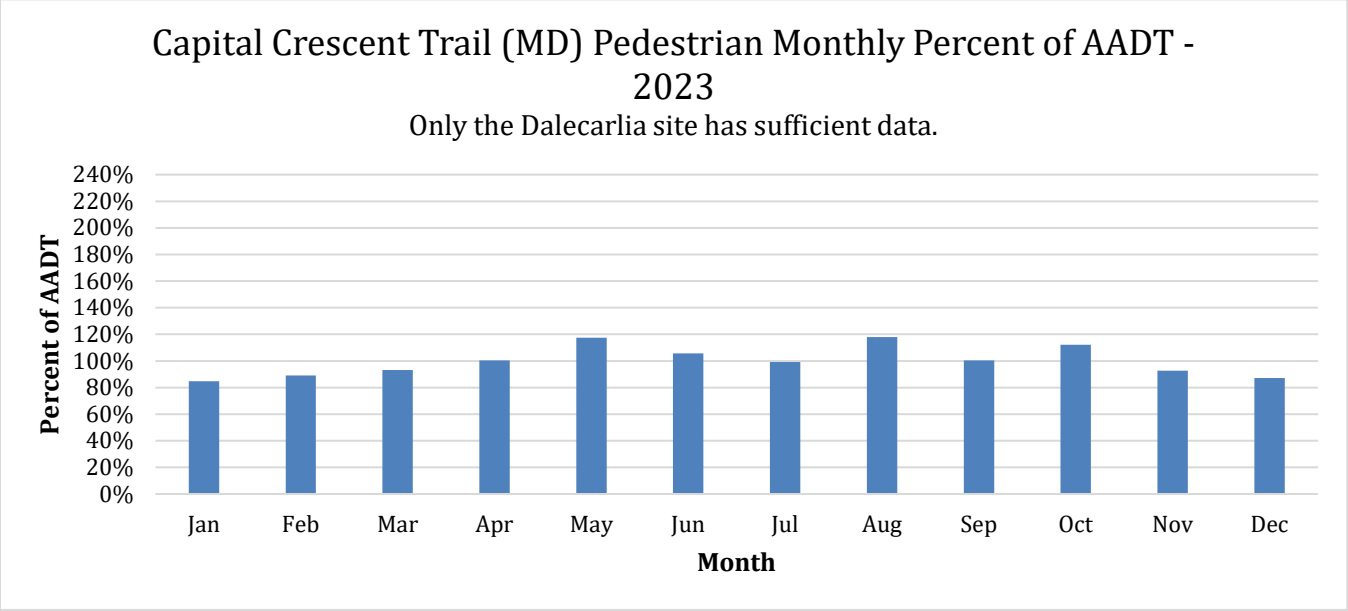
Washington & Old Dominion Trail – Pedestrian



Capital Crescent Trail (Maryland) – Bike



Capital Crescent Trail (Maryland) – Pedestrian



Inventory

Table 4 summarizes 168 counters in the National Capital Region, most of which are permanently installed. This is based on the inventory provided by Volpe and updated with newly installed counters and a column to indicate if the counter has been loaded into BikePed Portal and the Status of the counter as of August 2024. It includes 17 retired counters indicated with an asterisk next to the counter name and status of "R". Counters listed are those installed as of mid-August 2024. Inactive counters (status of "I") are those which are currently in need of repair but are planned be returned to service in the near future, as well as some where personnel changes have led to a temporary lapse in maintenance. Active counters (Status of "A") are those providing data in the August 2023 to August 2024 time period.

Table 4: Inventory of Pedestrian and Bicycle Counters in the National Capital Region

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Alexandria	Eco-Counter	Beauregard Trail	Beauregard Trail	Yes	Yes		I
Alexandria	Eco-Counter	Eisenhower Trail	Eisenhower Trail	Yes	Yes		I
Alexandria	Eco-Counter	Four Mile Trail	Four Mile Trail	Yes	Yes		I
Alexandria	Eco-Counter	Holmes Run Trail	Holmes Run Trail	Yes	Yes		I
Alexandria	Eco-Counter	Metro Linear Trail	Metro Linear Trail	Yes	Yes		I
Alexandria	Eco-Counter	MVT	Mount Vernon Trail #1	Yes	Yes	Yes	I
Alexandria	Eco-Counter	MVT	Mount Vernon Trail #2	Yes	Yes		I
Alexandria	Eco-Counter	MVT	Mount Vernon Trail #3	Yes	Yes	Yes	I
Alexandria	Eco-Counter	Old Cameron Run Trail	Old Cameron Run Trail	Yes	Yes		I
Alexandria	Eco-Counter	Onroad	Commonwealth at Mount Vernon	Yes	No - bikes only		I
Alexandria	Eco-Counter	Potomac Yard Trail	Potomac Yard Trail #1	Yes	Yes		I
Arlington	Eco-Counter	Arlington Memorial Bridge	Pyro 11 (Memorial Circle/Arlington Memorial Bridge	Yes	No	Yes	R

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
			Sidewalk Ped in BPP)*				
Arlington	Eco-Counter	Arlington Memorial Bridge	Memorial Bridge South	Yes	Yes	Yes	A
Arlington	Eco-Counter	Arlington Memorial Bridge	Memorial Bridge North	Yes	Yes	Yes	A
Arlington	Eco-Counter	Four Mile Run Trail	Four Mile Run Trail	Yes	Yes	Yes	A
Arlington	Eco-Counter	Bluemont Junction Trail	Bluemont Connector	Yes	Yes	Yes	A
Arlington	Eco-Counter	Custis Trail	Custis Bon Air	Yes	Yes	Yes	A
Arlington	Eco-Counter	Custis Trail	Ballston Connector	Yes	Yes	Yes	A
Arlington	Eco-Counter	Custis Trail	Custis Rosslyn	Yes	Yes	Yes	A
Arlington	Eco-Counter	Custis Trail	Custis Trail (Ballston Beaver Pond) *	Yes	Yes	Yes	R
Arlington	Eco-Counter	Four Mile run	Four Mile Run - piezo*	Yes	No - bikes only	Yes	R
Arlington	Eco-Counter	Four Mile run	Pyro 04 - Four Mile Run*	Yes	No	Yes	R
Arlington	Eco-Counter	Joyce Street	Joyce SB	Yes	Yes	Yes	A
Arlington	Eco-Counter	Joyce Street	Joyce NB	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	MVT Airport	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	CC Connector	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	14th Street Bridge	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	Roosevelt Bridge	Yes	Yes	Yes	A

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Arlington	Eco-Counter	MVT	TR Island	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	Bikeometer	Yes	No - bikes only	Yes	A
Arlington	Eco-Counter	MVT	Key Bridge East	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	Key Bridge West	Yes	Yes	Yes	A
Arlington	Eco-Counter	MVT	Mt. Vernon Trail (Lee Hwy & N Lynn St.) *	Yes	Yes	Yes	R
Arlington	Eco-Counter	Onroad	Crystal NB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Eads NB	No	No - bikes only		A
Arlington	Eco-Counter	Onroad	Eads SB	No	No - bikes only		A
Arlington	Eco-Counter	Onroad	Fairfax EB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Fairfax WB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Quincy SB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Quincy NB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Clarendon EB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Wilson WB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Military NB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Onroad	Military SB	No	No - bikes only	Yes	A
Arlington	Eco-Counter	Arlington National Cemetery by Rt 110	110 Trail (Medgar Evers Bike Trail)	Yes	Yes	Yes	A
Arlington	Eco-Counter	W&OD	W&OD Bon Air East	Yes	Yes	Yes	A

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Arlington	Eco-Counter	W&OD	W&OD Bon Air West	Yes	Yes	Yes	A
Arlington	Eco-Counter	W&OD	W&OD Columbia Pike	Yes	Yes	Yes	A
Arlington	Eco-Counter	W&OD	W&OD East Falls Church	Yes	Yes	Yes	A
Arlington	Eco-Counter	Washington Boulevard Trail	Washington Boulevard Trail	Yes	Yes		A
Arlington	Eco-Counter	Arlington Boulevard Trail	Arlington Boulevard Trail*			Yes	R
Arlington	Eco-Counter		Sidewalk on Campbell Avenue (outside Robeks) *			Yes	R
Arlington	Eco-Counter		Sidewalk on N Nash Street (Arlington Temple) *			Yes	R
Arlington	Eco-Counter		Trail along N Rhodes Street*			Yes	R
Arlington	Eco-Counter		W&OD (near Fire Station 6) *	Yes	Yes	Yes	R
Arlington	Eco-Counter	Four Mile Run Trail	Arlington Mill Drive	Yes	Yes	Yes	A
DDOT	Eco-Counter	ART	Anacostia River Walk Trail 11th Street	Yes	Yes	Yes	I
DDOT	Eco-Counter	ART	Anacostia River Walk Trail River Terrace	Yes	Yes	Yes	I
DDOT	Eco-Counter	ART	Anacostia River Walk Trail Benning	Yes	Yes	Yes	A
DDOT	Eco-Counter	ART	Anacostia River Walk Trail Deane Ave	Yes	Yes	Yes	A
DDOT	Eco-Counter	ART	Anacostia River Walk Trail Kenilworth Park	Yes	Yes	Yes	A
DDOT	Eco-Counter	MBT	Met Branch Trail	Yes	Yes	Yes	A

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
DDOT	Eco-Counter	Onroad	Wharf Classic - Maine Ave Cycle Track			Yes	A
DDOT	Eco-Counter	Onroad	Eye St SW bikelane*			Yes	R
DDOT	Eco-Counter	Onroad	East Capitol Street			Yes	A
DDOT	Eco-Counter	Onroad	1st St NE			Yes	I
DDOT	Eco-Counter	Onroad	Kaiser Permanente Center for Total Health*			Yes	R
DDOT	Eco-Counter	Onroad	11th St NW			Yes	A
DDOT	Eco-Counter	Onroad	15th St NW Cycletrack*			Yes	R
DDOT	Eco-Counter	Onroad	R Street NW			Yes	I
DDOT	Eco-Counter	Onroad	Columbia Rd NW			Yes	I
DDOT	Eco-Counter	Onroad	14th St NW			Yes	A
DDOT	Eco-Counter	Marvin Gaye Trail	MGT - 48th Pl (also called MG at 44th St)	Yes	Yes	Yes	A
DDOT	Eco-Counter	Marvin Gaye Trail	MGT - 60th St	Yes	Yes	Yes	A
DDOT	Eco-Counter	Oxon Run Trail E	Oxon Run Park East Bank	Yes	Yes	Yes	A
DDOT	Eco-Counter	Oxon Run Trail W	Oxon Run Park West Bank	Yes	Yes	Yes	A
Fairfax	Eco-Counter	I-66 Parallel Trail	#1 - Gallows Road	Yes	Yes		A
Fairfax	Eco-Counter	I-66 Parallel Trail	#2 - Yeonas Drive	Yes	Yes		A
Fairfax	Eco-Counter	I-66 Parallel Trail	#3 - near Vienna Metro	Yes	Yes		A
Fairfax	Eco-Counter	I-66 Parallel Trail	#4 - Platten Drive by Fairfax County Pkwy	Yes	Yes		A

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Fairfax	Eco-Counter	I-66 Parallel Trail	#5 - Route 123 near White Granite Drive	Yes	Yes	-	A
Fairfax	Eco-Counter	I-66 Parallel Trail	#6 - Route 50 near Fairfax Farms Road	Yes	Yes	-	A
Fairfax	Eco-Counter	I-66 Parallel Trail	#7 - Stringfellow Park & Ride	Yes	Yes	-	A
Fairfax	Eco-Counter	I-66 Parallel Trail	#8 - Braddock Road, East of Route 28	Yes	Yes	-	A
GBID	Eco-Counter	Onroad	1325 Wisconsin				I
GBID	Eco-Counter	Onroad	1629 Wisc (Book Hill)				I
GBID	Eco-Counter	Onroad	2929 M St				I
Montgomery	Eco-Counter	Capital Crescent Trail	CCT #1 @ Bethesda	Yes	Yes	Yes	A
Montgomery	Eco-Counter	Capital Crescent Trail	CCT @ Bradley	Yes	Yes		A
Montgomery	Eco-Counter	Capital Crescent Trail	CCT #2 @ Dalecarlia	Yes	Yes	Yes	A
Montgomery	Eco-Counter	Capital Crescent Trail	CCT @ Mass Ave	Yes	Yes		A
Montgomery	TRAFx	Capital Crescent Trail	CCT & Little Falls N	No	No		I
Montgomery	TRAFx	Capital Crescent Trail	CCT & Little Falls S	No	No		A
Montgomery	TRAFx	Capital Crescent Trail	CCT @ Loughboro Mill	No	No		I
Montgomery	TRAFx	Little Falls Parkway	LFPkwy NB Mass Av				I
Montgomery	TRAFx	Little Falls Parkway	LFPkwy SB Mass Av				I
Montgomery	TRAFx	Little Falls Parkway	Little Falls Pkwy N	No	No		I
Montgomery	TRAFx	Little Falls Parkway	Little Falls Pkwy S	No	No		I
Montgomery	Eco-Counter	Matthew Henson Trail	MHT 1@ Layhill	Yes	Yes	Yes	A

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Montgomery	Eco-Counter	Matthew Henson Trail	MHT 2 @ Winding Creek	Yes	Yes	Yes	I
Montgomery	TRAFx	Onroad	BH RP Contact Station	No	No		I
Montgomery	Eco-Counter	Paint Branch Trail	PBT @ Valley Mill	Yes	Yes		A
Montgomery	TRAFx	Powerline Trail	Powerline @ Colton	No	No		A
Montgomery	TRAFx	Powerline Trail	Powerline @ 118	No	No		A
Montgomery	TRAFx	Rock Creek Trail	Beach Dr @ Knowles	No	No		I
Montgomery	TRAFx	Rock Creek Trail	Beach Dr @ Wildwood	No	No		A
Montgomery	Eco-Counter	Rock Creek Trail	Rock Creek Trail 2 @ Baltimore	Yes	Yes	Yes	A
Montgomery	Eco-Counter	Rock Creek Trail	Rock Creek Trail 1 @ Wildwood	Yes	Yes	Yes	A
Montgomery	TRAFx	Rock Creek Trail	Rock Creek Trail @ Wildwood	No	No		A
Montgomery	Eco-Counter	Sligo Creek Parkway	SCP @ Dennis Ave	Yes	Yes		A
Montgomery	TRAFx	Sligo Creek Parkway	Sligo Creek Pkwy @ Dennis	No	No		I
Montgomery	TRAFx	Sligo Creek Parkway	Sligo Creek Pkwy @ Kennebec	No	No		I
Montgomery	TRAFx	Sligo Creek Parkway	Sligo Creek Pkwy @ Piney Branch S	No	No		I
Montgomery	TRAFx	Sligo Creek Trail	Sligo Creek Trail @ Dennis	No	No		I
Montgomery	TRAFx	Sligo Creek Trail	Sligo Creek Trail @ Kennebec	No	No		I
Montgomery	TRAFx	Sligo Creek Trail	Sligo Creek Trail @ Piney Branch S	No	No		I
Montgomery	TRAFx	Ten Mile Creek Trail	Ten Mile Creek Trail @ 121	No	No		I
Montgomery	TRAFx	Ten Mile Creek Trail	Ten Mile Creek Trail @ Old West Baltimore	No	No		I
Montgomery	TRAFx		NW Branch South of Lamberton	No	No		I

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Montgomery	TRAFx		RC Greenway South of Springbrook	No	No		I
NPS	Eco-Counter	Mount Vernon Trail	MVT at Waynewood Blvd. (Bridge 12)	Yes	Yes	Yes	A
NPS	Eco-Counter	Mount Vernon Trail	MVT at Tulane Dr. (Bridge 23)	Yes	Yes	-	A
NPS	Eco-Counter	Rock Creek Trail	Rose Park Trail @ P Street NW	Yes	Yes	Yes	A
NPS	Eco-Counter	Rock Creek Trail	RCT @ Shoreham Drive	Yes	Yes	Yes	A
NPS	Eco-Counter	Rock Creek Trail	RCT - Zoo Loop Trail	Yes	Yes	Yes	A
NPS	Eco-Counter	Rock Creek Trail	Piney Branch Trail	Yes	Yes	Yes	A
NPS	Eco-Counter	Rock Creek Trail	RCT @ Peirce Mill	Yes	Yes	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Falls Road Spur	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Chain Bridge Access	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Lock 5	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Lock 6	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Lock 7	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Glen Echo	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Lock 8	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Lock 10	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Marsden Tract Foot Bridge	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Anglers Inn	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Berma Road	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Swains Lock	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Pennyfield	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Violettes Lock	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Sycamore Landing access	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Whites Ferry	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Dickerson / Warm Water access	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Lock 31 access*	No	No		R

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
NPS CHOH	TRAFx	C&O Canal Trail	Lock 33	No	No		I
NPS CHOH	TRAFx	C&O Canal Trail	Lock 38 Lower	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	Lock 38 Upper	No	No	Yes	A
NPS CHOH	TRAFx	C&O Canal Trail	McMahon's Mill access	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Fort Frederick access*	No	No		R
NPS CHOH	TRAFx	C&O Canal Trail	Cumberland Terminal	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Cohill Station*	No	No		R
NPS CHOH	TRAFx	C&O Canal Trail	Little Pool access*	No	No		R
NPS CHOH	TRAFx	C&O Canal Trail	Billy Goat Trail A - Upstream Entrance	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Billy Goat Trail C	No	No	Yes	I
NPS CHOH	TRAFx	C&O Canal Trail	Weaverton	No	No	Yes	A
NPS CHOH	TRAFx	Capital Crescent Trail	Georgetown VC (Level 3 access)	No	No	Yes	I
NPS CHOH	TRAFx	Capital Crescent Trail	Georgetown Mule Bridge (MM-1)	No	No	Yes	I
NPS CHOH	TRAFx	Capital Crescent Trail	31st St Georgetown at C&O Trail	No	No	Yes	I
NPS CHOH	TRAFx	Capital Crescent Trail	Potomac St Georgetown at C&O Trail	No	No	Yes	I
NPS CHOH	TRAFx	Capital Crescent Trail	Capital Crescent	No	No	Yes	A
NPS CHOH	TRAFx	Capital Crescent Trail	Whites Ferry Towpath	No	No		I
Prince George's	Eco-Counter	Anacostia River Trail	ART, Bladensburg Waterfront Park	Yes			I
Prince George's	Eco-Counter	Anacostia River Trail	ART, Route 1	Yes			I
Prince George's	Eco-Counter	Anacostia River Trail	ART, Cottage City	Yes			I
Prince George's	Eco-Counter	NW Branch Trail	Riverfront West Hyattsville	Yes			A
Rockville	Eco-Counter		Rockville Town Center	Yes	No - Ped only		A

Owner Agency	Model Company	Facility Name	Counter Name	Direction Capable	Separate Bike and Ped Detection	Loaded into BikePed Portal?	Status
Rockville	Eco-Counter		Twinbrook	Yes	No - Ped only		A

Notes:

Sites with “Loaded into BikePed Portal?” column blank, indicate data are not loaded into BikePed Portal.

Last column “Status” uses the following codes: A = Active; I = Inactive; R= Retired

References

Miranda-Moreno, L., Nosal, T., Schneider, R., & Proulx, F. (2013). Classification of Bicycle Traffic Patterns in Five North American Cities. *Transportation Research Record: Journal of the Transportation Research Board*, *2339*, 68-79. https://doi.org/doi:10.3141/2339-08