

# Mount Vernon Trail Stats (Series 1 - Hourly Traffic)

**Series Index:** Series 1 - Hourly Traffic, Series 2 - Monthly Traffic, Series 3 - Other Metrics  
Quick reference guides for the 18-mile MVT

National Park Service  
U.S. Department of the Interior

George Washington Memorial Parkway  
District of Columbia/Maryland/Virginia



## Hourly Traffic at mile 13

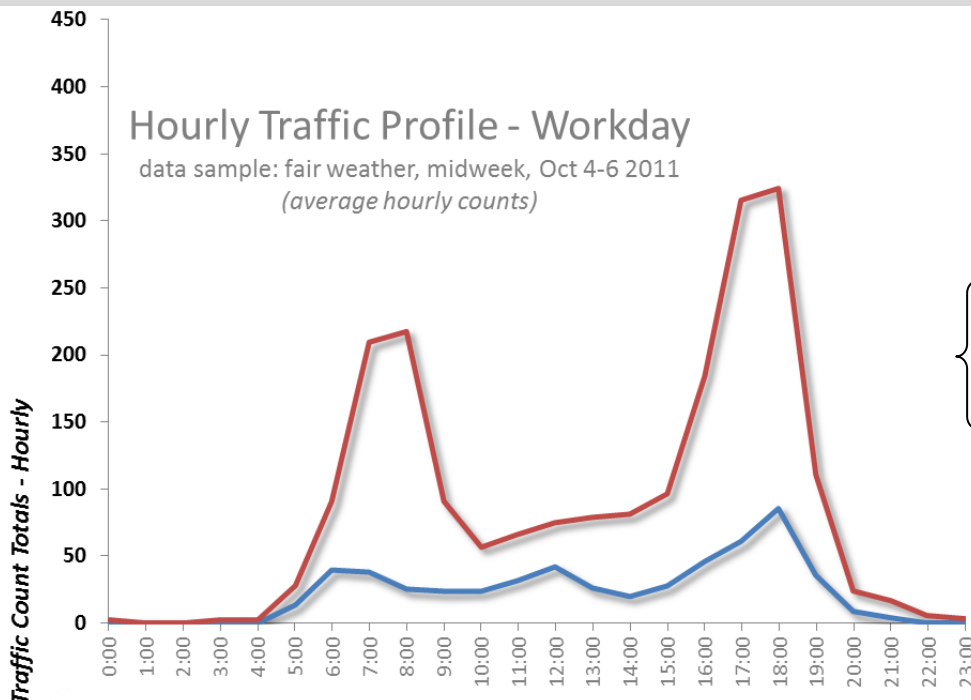
edition date: June 2012

Graphs are a **snapshot of hourly traffic** on the trail near the airport, at mile 13 (data collected by the Eco-Counter\*). Profiles are presented as a case study of fair weather, high-traffic conditions, along the segment of trail with highest observed traffic volumes (Alexandria to the 14th Street Bridge).

- Weekend volumes peak at nearly **500 counts/hour**, and exceed **4,000 daily counts**
- Workday rush hour traffic (bike commuters & fitness users) peaks at 400 counts/hour



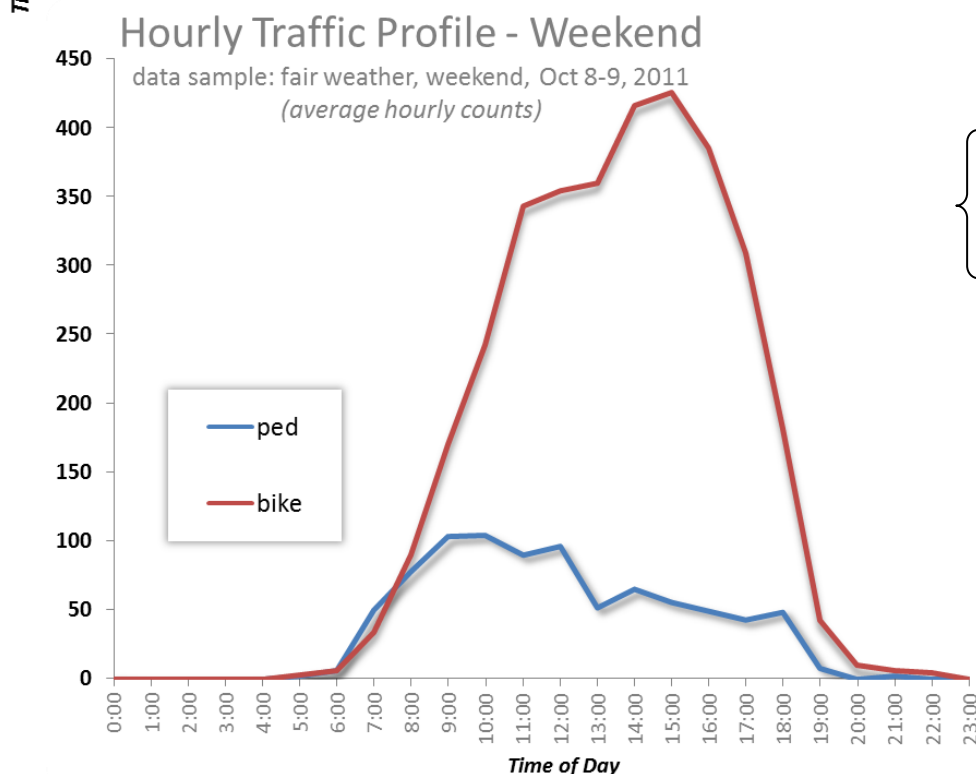
Photo at mile 14.5, Gravelly Point



**Eco-Counter (mile 13) data collected on:**

Dates:	Total daily counts:
Tue, Oct 4, 2011:	<b>529 ped, 1800 bike</b>
Wed, Oct 5, 2011:	<b>554 ped, 2287 bike</b>
Thu, Oct 6, 2011:	<b>545 ped, 2130 bike</b>

average daily counts: **2,622 ped & bike**



Dates:	Total daily counts:
Sat, Oct 8, 2011:	<b>952 ped, 3347 bike</b>
Sun, Oct 9, 2011:	<b>768 ped, 3428 bike</b>

average daily counts: **4,247 ped & bike**

\*Data courtesy of Arlington County (Eco-Counter), as part of an integrated trail counting effort by Arlington, Alexandria, and the NPS.

AASHTO LOS guidance available at <http://www.fhwa.dot.gov/publications/research/safety/pedbike/05138/>

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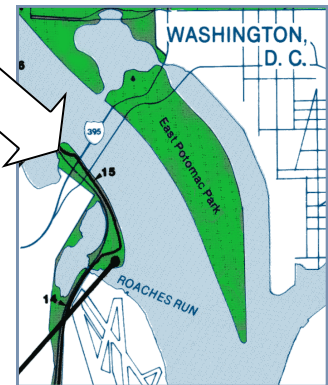


## Hourly Traffic at mile 15.5

edition date: June 2012

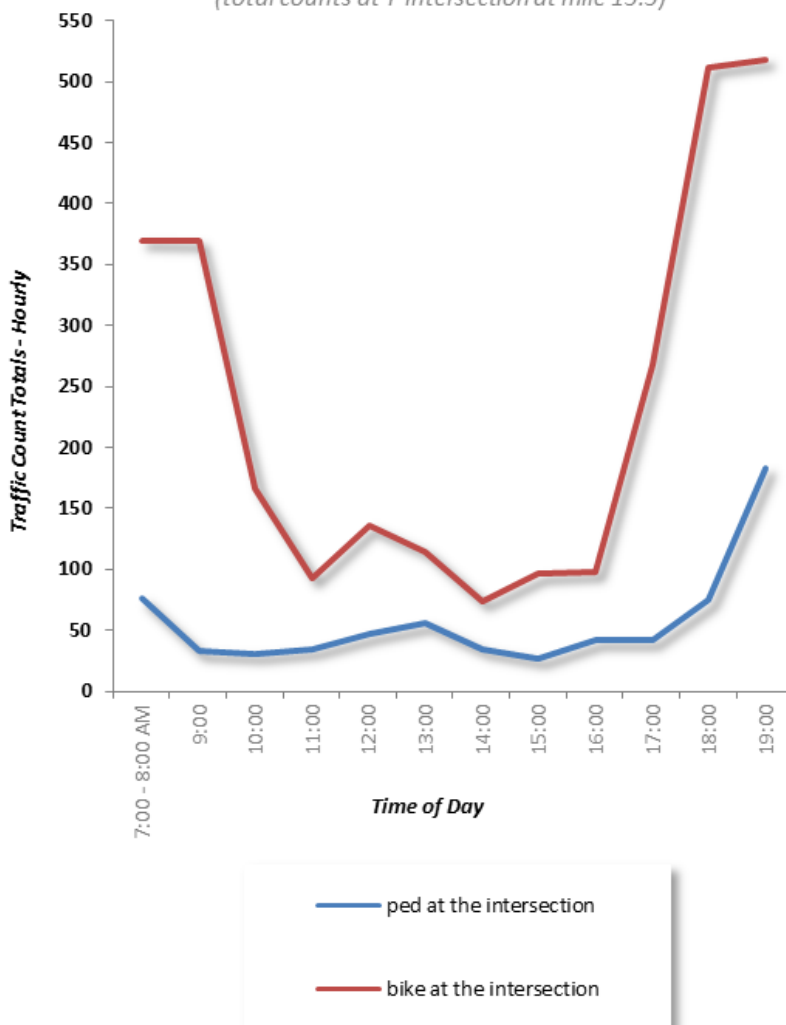
Manual counts taken by NPS staff and volunteers, stationed at the MVT intersection for the 14th St Bridge, on Tuesday, September 13, 2011. Conditions: fair weather, 75 degrees, data collected under National Bicycle and Pedestrian Documentation (NBPD) Project ([bikepeddocumentation.org](http://bikepeddocumentation.org)).

- Intersection turning movements depicted in tables, and total intersection traffic graphed below
- Peak hour traffic of **700 counts /hour** (last hour) is the highest recorded for the MVT



## Hourly Traffic Profile - Workday

data: manual count on Tuesday, Sep 13, 2011  
(total counts at T-intersection at mile 15.5)



### Intersection turning movements at mile 15.5:

time	bike through on MVT	bike joining from DC	bike leaving toward DC	total bikes at the T
7 - 8:00AM	93	58	218	369
9:00	93	47	228	368
10:00	48	19	99	166
11:00	54	15	23	92
12:00	74	24	37	135
13:00	59	22	33	114
14:00	36	23	14	73
15:00	32	24	9	95
16:00	52	33	12	97
17:00	96	129	42	267
18:00	168	259	84	511
19:00	182	256	79	517

### Intersection turning movements at mile 15.5:

time	ped through on MVT	ped joining from DC	ped leaving toward DC	total peds at the T
7 - 8:00AM	38	18	20	76
9:00	19	8	6	33
10:00	17	3	11	31
11:00	20	6	9	45
12:00	27	10	10	47
13:00	29	10	17	56
14:00	16	9	10	35
15:00	18	3	6	72
16:00	23	10	9	42
17:00	24	13	5	42
18:00	47	17	11	75
19:00	116	38	29	183

# Mount Vernon Trail Stats (Series 2 - Monthly Traffic)

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## Monthly Traffic for 12 month period (2010 - 2011)

edition date: June 2012

Data from 5 counters (Diamond Traffic Products) on the MVT, and at 2 connecting trails. Counters do not distinguish peds vs. bikes, however, counts don't=visitors. Gaps in counter locations at bridges & other trails means some aren't counted, others may pass multiple counters.

- Raw counts and ADT (Average Daily Traffic) serve as a measure of relative traffic
- Peak volumes observed between mile 12 and mile 15.5 (Alexandria - 14th St Bridge)

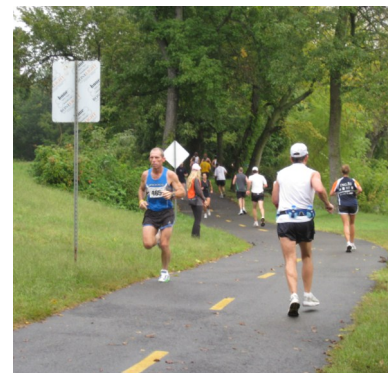


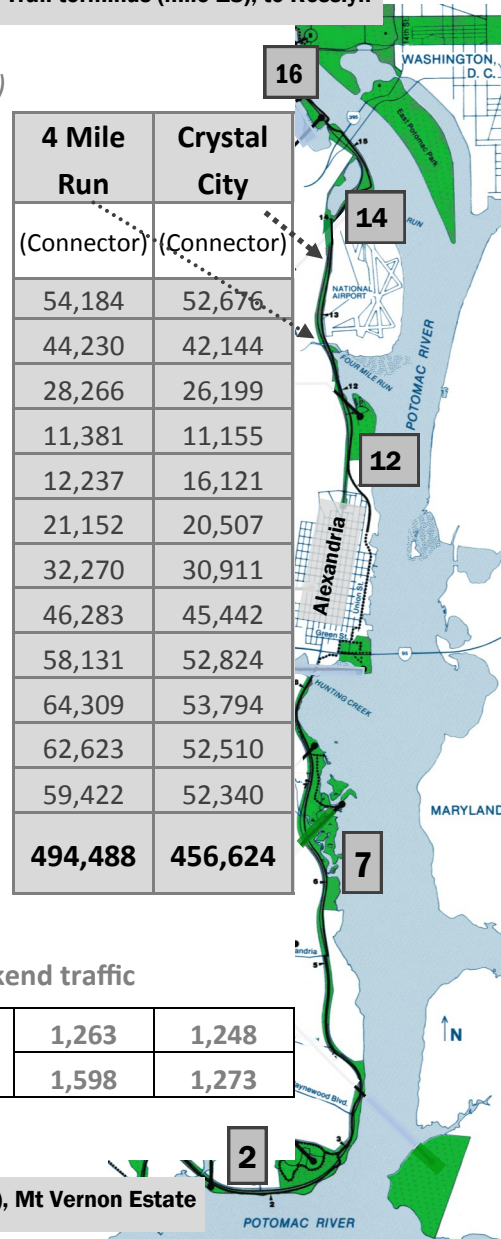
Photo at mile 6, south of Dyke Marsh

## Monthly Traffic Counts

(by NPS trail counter locations, depicted right)

	<b>mile 2</b>	<b>mile 7</b>	<b>mile 12</b>	<b>mile 14</b>	<b>mile 16</b>
	(Vernon View)	(Dyke Marsh)	(Daingerfield)	(Gravelly Point*)	(Lady Bird Park)
Sep-2010	35,052	50,982	75,510	88,901	64,880
Oct-2010	34,258	27,709	73,929	69,962	33,573
Nov-2010	27,938	24,013	44,430	62,577	27,248
Dec-2010	14,425	9,184	14,611	35,620	9,822
Jan-2011	17,255	9,896	22,777	16,093	11,329
Feb-2011	19,353	17,082	29,204	27,934	20,042
Mar-2011	20,276	26,161	43,163	56,298*	33,437
Apr-2011	25,253	38,966	61,885	68,677*	54,164
May-2011	32,984	52,069	77,037	85,989*	65,059
Jun-2011	31,806	54,588	84,178	96,170*	69,857
Jul-2011	34,174	59,351	86,958	102,123*	74,023
Aug-2011	42,812	51,170	93,173	97,394*	69,818
<b>12 month total</b>	<b>335,586</b>	<b>421,171</b>	<b>706,855</b>	<b>807,738*</b>	<b>533,252</b>

Trail terminus (mile 18), to Rosslyn



Annual **Average Daily Traffic (ADT)**, comparison of **workday vs. weekend** traffic

Workday ADT	<b>692</b>	<b>854</b>	<b>1,631</b>	<b>2,299*</b>	<b>1,176</b>	<b>1,263</b>	<b>1,248</b>
Weekend ADT	<b>1,488</b>	<b>1,901</b>	<b>2,727</b>	<b>1,997*</b>	<b>2,197</b>	<b>1,598</b>	<b>1,273</b>

Trail terminus (mile 0), Mt Vernon Estate

\*mile 14 (Gravelly Point) counter recorded data for a little more than 6-months. Remaining monthly counts at that location are estimates, using multiple linear regression. Data compilation & analysis acknowledgement: NPS volunteer Robert F. Clark

# Mount Vernon Trail Stats (Series 3 - Other Metrics)

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## Other Metrics: MVT access

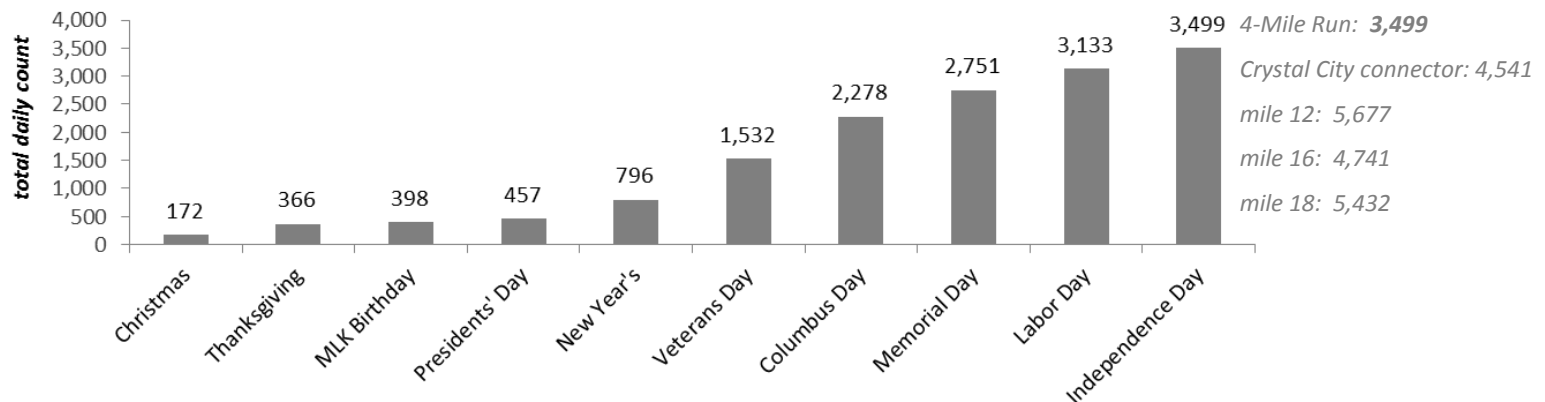
edition date: June 2012

*Playing a significant role in regional trail connectivity between Northern VA, DC, and MD, the MVT can be accessed from adjacent neighborhoods, trails, bridges, parking areas, and Metro. The trail serves a wide range of interests, for fitness / recreation, bike commuting, and touring / access to park sites and monuments. It's used year-round through various conditions, with nearly 1 in 5 trips in low light conditions (dawn, dusk, dark) during colder, darker months. Special events and holiday access benefit from this connectivity (see photo right & graph below).*



## Holiday Traffic Comparisons

daily traffic counts at 4-Mile Run connector  
(Sep 1, 2010 - Aug 31, 2011)



## Access Information, by Trail Segment

MVT mile	Trail Segment	Surrounding Jurisdiction	Connecting Trails*	Potomac River Bridges	NPS Parking (lots / spaces**)	Nearby Metro Stops
mile 0 - 9	south trail	Fairfax	2	0	5 / 330	0
mile 9 - 13	central trail	Alexandria	n/a	1 (to MD)	2 / 460	2
mile 13 - 18	north trail	Arlington	3	4 (to DC)	3 / 575	3

### Additional Notes:

\*Connecting trails listed in this table include connections to Rt. 1 (near Wilson Bridge and Mt Vernon Estate), to Crystal City, and the 4-Mile Run and Custis Trails. These connections make the MVT part of a dense trail network, however, they also introduces trail intersections, turning movements, and potential conflict points to trail users. While navigating roadway crossings (18 on the MVT) still presents the greatest risk to trail users, it is followed by risk associated with negotiating trail intersections (all intersecting trails & paths), and trail surface transitions (typically at the 31 boardwalk bridges). Source: A Study of Crashes and Injuries along a Multiple Use Trail, by Charles Opalak June, 2011 MPH Degree, Drexel University, School of Public Health.

\*\*Actual parking spaces from south to north: Mount Vernon Estate RV parking lot (73), Riverside Park (59), mile 2 lot (13), mile 7 lot (3), Belle Haven Park (183), Jones Point Park (96, opening late 2012), Daingerfield Island (365), Gravelly Point (120), Columbia Island (350), TR Island Parking (105).