

DVRPC Regional Cyclical Bicycle Count Program Summary

2014/2015

Scott Brady, MS, MCP
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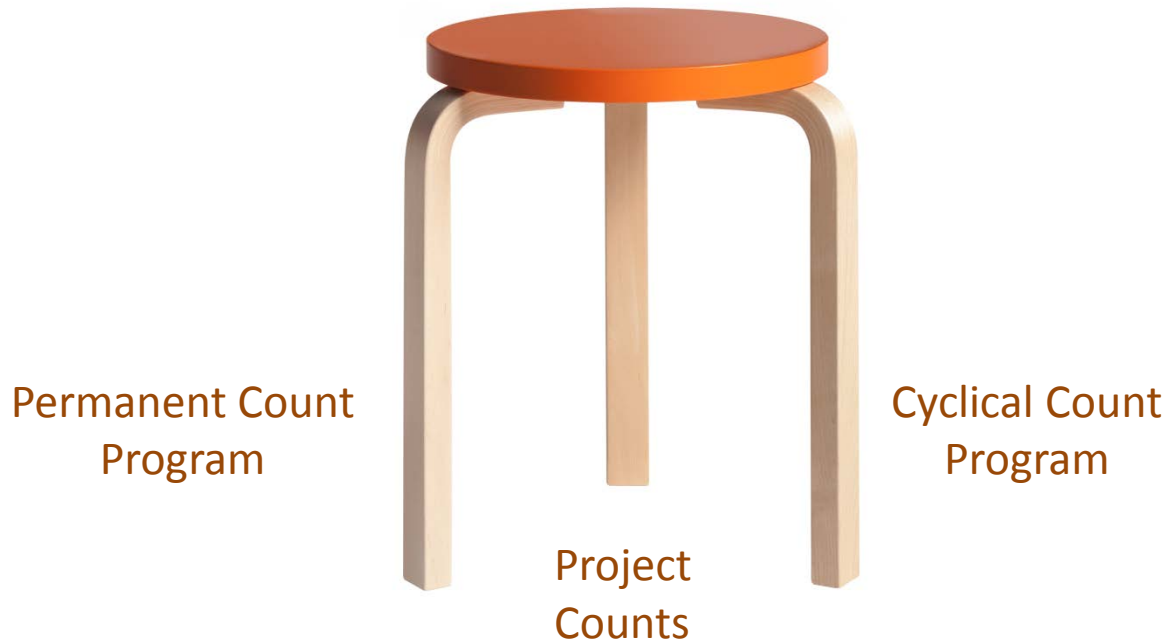
Delaware Valley Regional Planning Commission (DVRPC)

- **Metropolitan Planning Organization (MPO) for the bi-state Philadelphia region**
- **Geography: 2 states, 9 counties (including Philadelphia)**
- **Home rule region: 352 municipalities; land use power resides with local governments**
 - **Regional planning here involves more carrots than sticks: MPO as facilitator and consensus builder**
 - **We develop planning tools, conduct planning projects, and collect data for our member governments to encourage good thinking and pursue good practice**



Why have a cyclical program?

The FHWA Traffic Monitoring Guide identifies three main types of count programs



Permanent Count Stations



- 12 locations, counting 24 hours a day, 365 days a year.

Cordon Count Locations



- **72 locations, seven day counts, every five years**

The Cyclical Program

For motorized travel monitoring, cyclical program data is used for:

- **Federal gas tax state reimbursements**
- **Travel trend analysis**
- **Traffic simulation model validation**
- **Vehicle Miles of Travel (VMT) estimation**
- **Air quality modeling inputs**

For non-motorized travel monitoring, we are now thinking about the uses of the data, but some ideas:

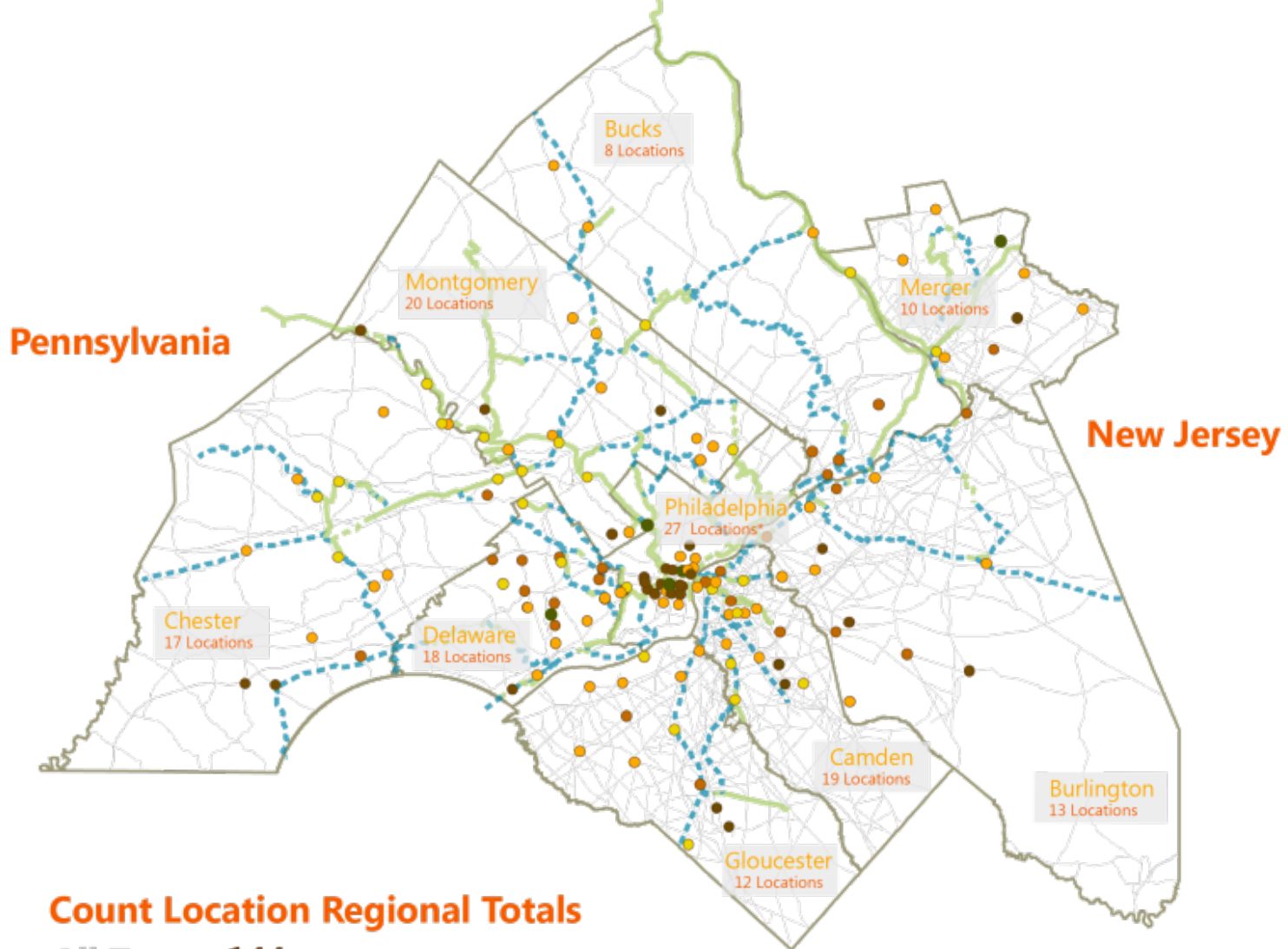
- **Travel trend analysis**
- **Traffic simulation model validation**
- **Carbon credits?**

Program Structure

- **About 150 locations for saturation count**
- **About 90 selected for ongoing counting**
- **Seven-day tube count at each location**

Program Development

- 1. Requested count location suggestions from counties, transit agencies, advocates, and TMAs**
- 2. Mapped all submitted locations and removed any that were redundant**
- 3. Asked stakeholder to review and make changes, as necessary.**



Trails and Sidepaths **29**
 Bicycle Lanes **30**
 Sharrows **5**
 Striped Shoulders **24**
 Mixed Traffic **56**

LEGEND

Circuit Trail Network

- Existing Trail Facility
- - - Proposed Trail Facility
- - - Planned Trail Facility

Types of Facilities

Trail or Sidepath



Sharrows



Striped Shoulder



Bicycle Lane



Mixed Traffic



Montgomery County

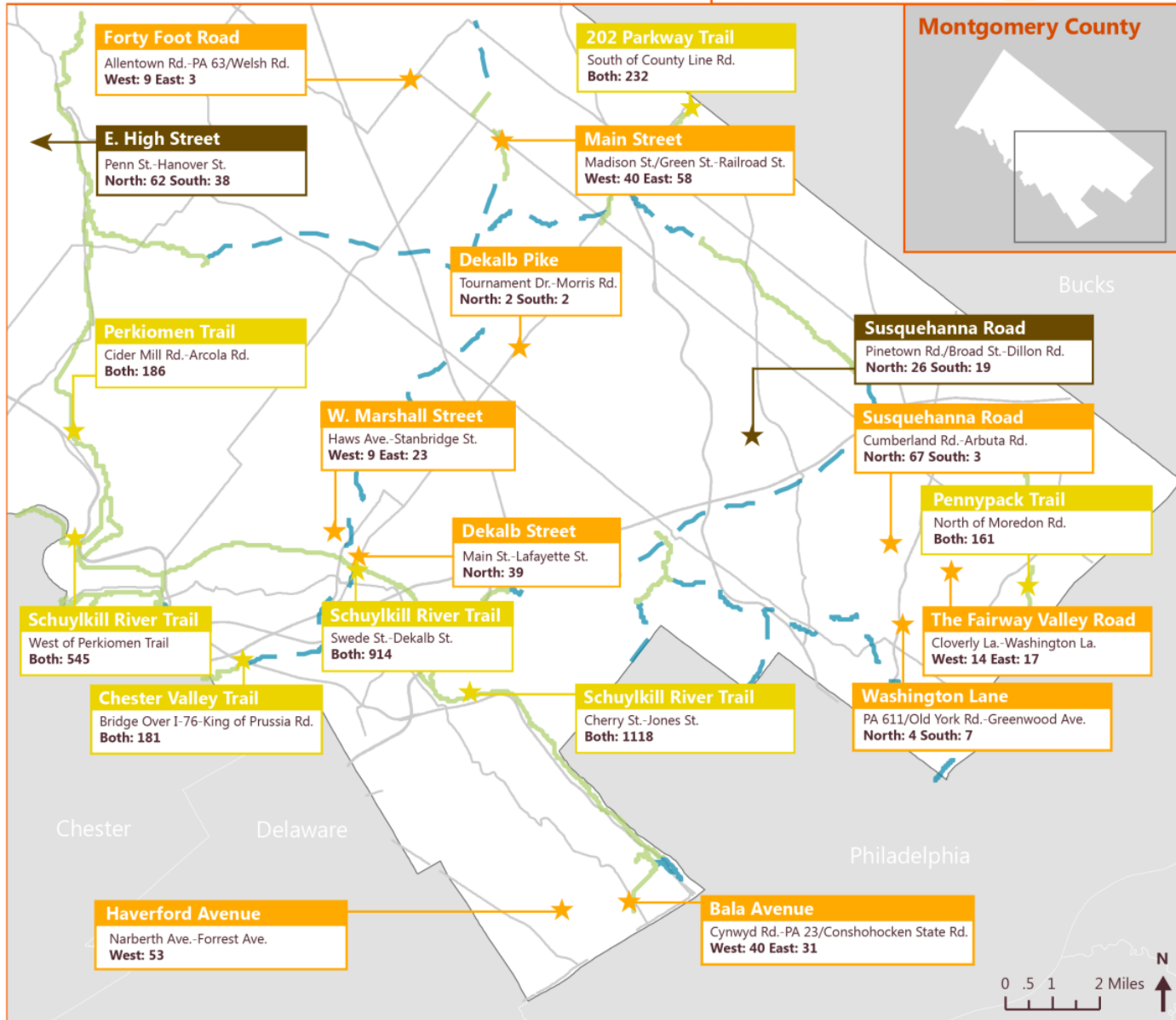
Annual Average Daily Bicycle Traffic Volumes (AADB) for Cyclical Bicycle Count Locations

Counts Taken May and June 2015

LEGEND

- | | |
|--|--|
|  Trail/Sidepath Cyclical Count |  Bicycle Lane |
|  Existing Trail Facility |  Sharrow |
|  Proposed Trail Facility |  Striped Shoulder |
|  Planned Trail Facility |  Mixed Traffic |

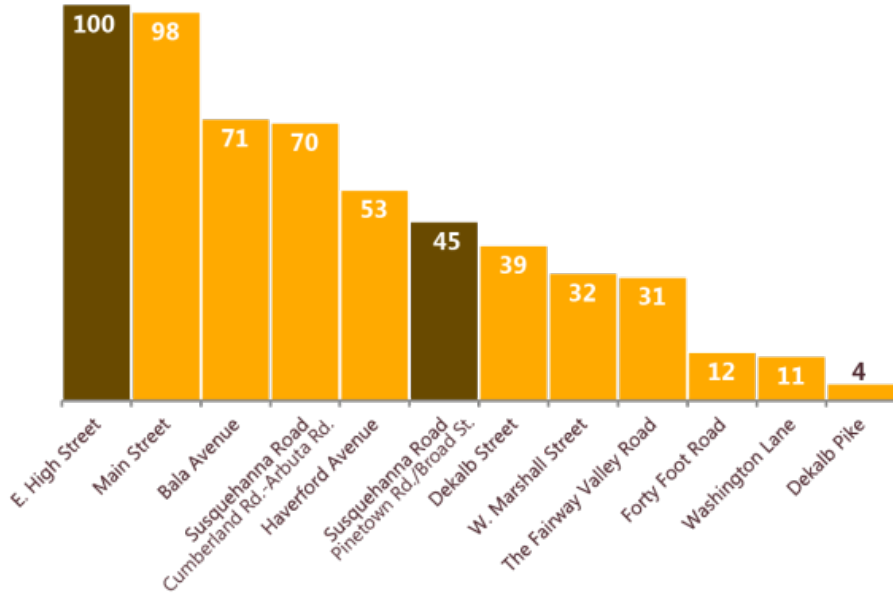
On-Road Cyclical Count



Montgomery County

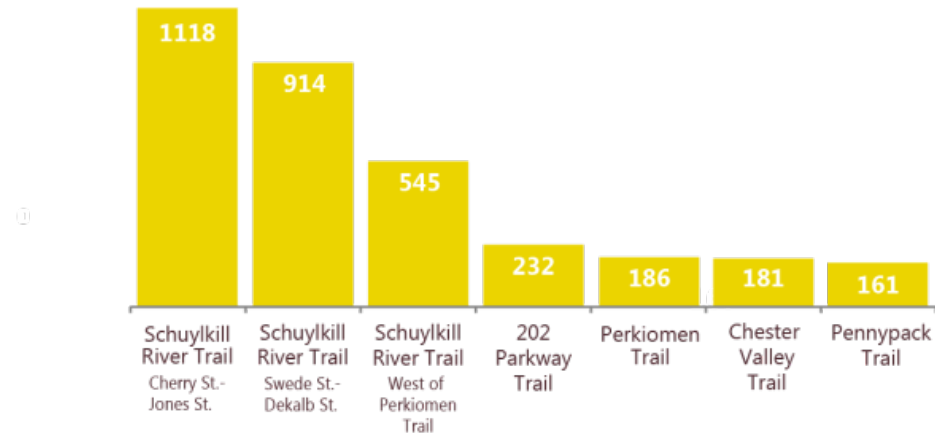
ON-ROAD FACILITIES

Bidirectional Total



TRAIL FACILITIES

Bidirectional Total



City of Philadelphia

Annual Average Daily Bicycle Traffic Volumes (AADB) for Cyclical Bicycle Count Locations

Counts Taken July and August 2015

LEGEND

- | | |
|-------------------------------|------------------------|
| Trail/Sidepath Cyclical Count | On-Road Cyclical Count |
| Existing Trail Facility | Bicycle Lane |
| Proposed Trail Facility | Sharrow |
| Planned Trail Facility | Striped Shoulder |
| | Mixed Traffic |



Trails

1 Cobbs Creek Trail Sidepath
Hadfield St.-Whitby Ave.
Both: 53

Bicycle Lanes

2 Walnut Street
44th St.-45th St.
West: 225

3 S. 44th Street
Spruce St.-Locust St.
South: 122

4 Baltimore Avenue
43rd St.-44th St.
West: 317 East: 359

5 Spruce Street
34th St.-36th St. Walk
West: 574 East: 725

6 S. 34th Street
Chestnut St.-Walnut St.
South: 263

7 South Street
Convention Blvd.-1-76 Ramps
West: 832 East: 841

8 South Street
24th St.-25th St.
West: 830

9 Spring Garden Street
Eakins Oval-Pennsylvania Ave.
West: 270

10 Washington Avenue
19th St.-20th St.
West: 269 East: 227

11 Spruce Street
18th St.-19th St.
West: 912

12 Pine Street
18th St.-19th St.
East: 1049

13 Spring Garden Street
17th St.-18th St.
West: 429 East: 436

14 Washington Avenue
6th St.-7th St.
West: 192 East: 218

15 Spring Garden Street
7th St.-8th St.
West: 522 East: 540

16 Spruce Street
6th St.-7th St.
West: 732

17 Pine Street
5th St.-6th St.
East: 544

18 Lehigh Avenue
5th St.-Orkney St.
West: 103 East: 107

19 Grays Ferry Ave Bridge
34th St.-47th St.
West: 99 East: 104

Sharrows

20 Main Street
Jamestown Ave.-Shurs La.
West: 261 East: 335

21 S. 25th Street
Spruce St.-Locust St.
North: 367

22 N. 13th Street
Spring Garden St.-Ridge Ave.
North: 161

Mixed Traffic

23 S. 20th Street
Washington Ave.-Carpenter St.
North: 197

24 S. 15th Street
Mifflin St.-Moore St.
South: 172

25 S. 13th Street
Moore St.-Morris St.
North: 244

26 N. 13th Street
Cecil B. Moore Ave.-Montgomery St.
North: 101

27 N. 3rd Street
Fairmount Ave.-Brown St.
North: 519

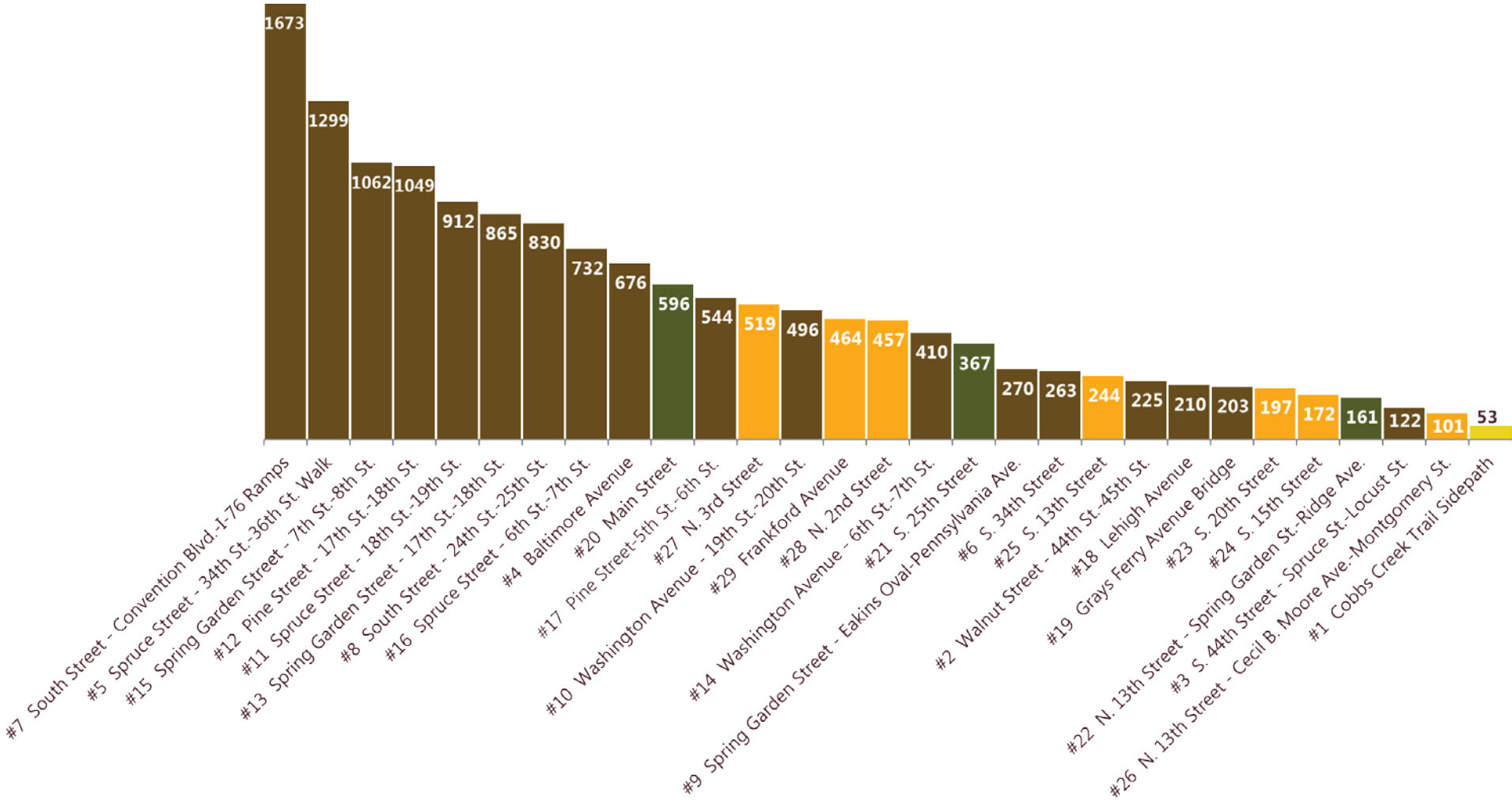
28 N. 2nd Street
Poplar St.-Brown St.
South: 457

29 Frankford Avenue
Montgomery Ave.-Berks St.
North: 212 South: 252

Philadelphia County

ON-ROAD AND TRAIL FACILITIES

Bidirectional Total











Camden County

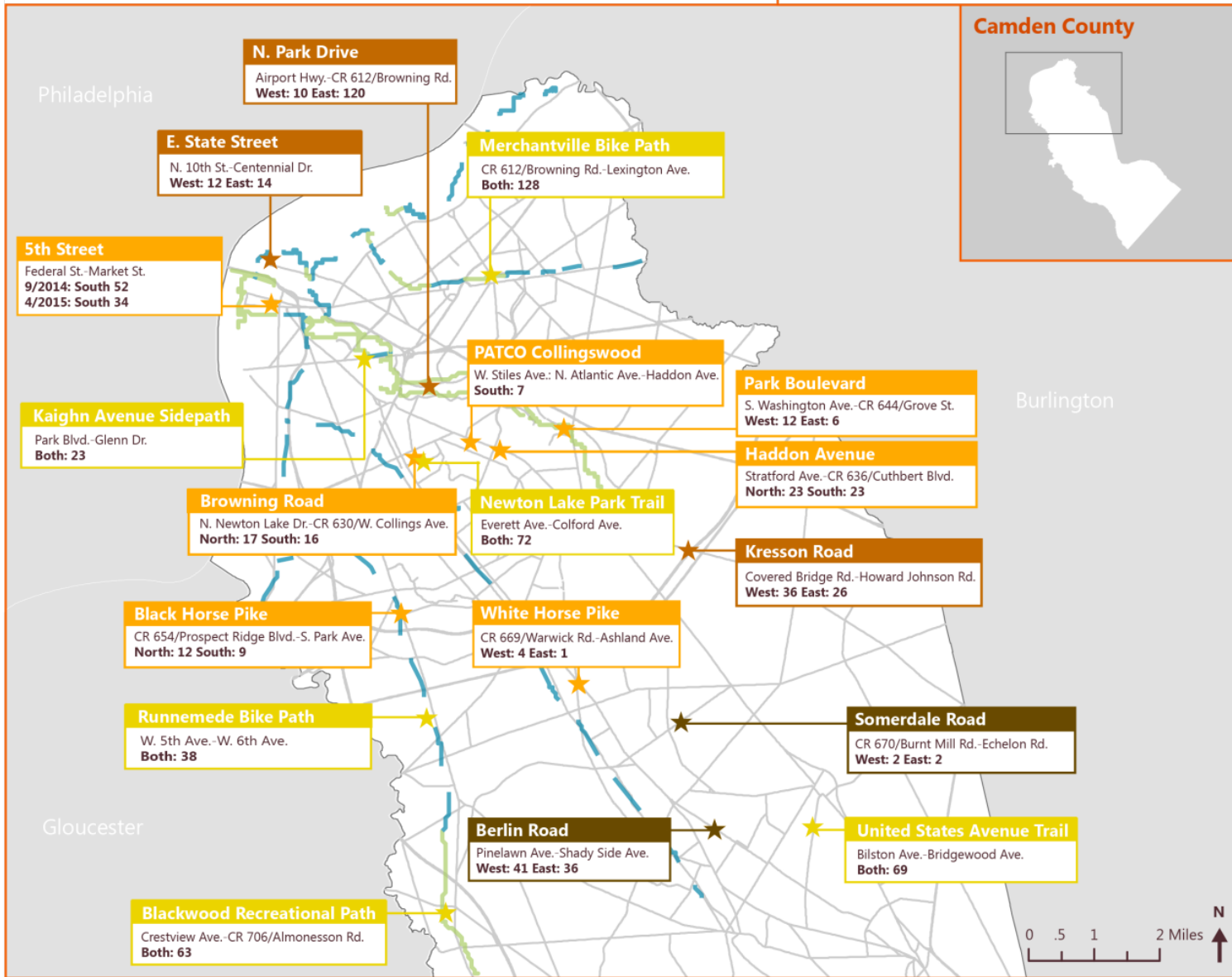
Annual Average Daily Bicycle Traffic Volumes (AADB) for Cyclical Bicycle Count Locations

Counts Taken September 2014 and April 2015

LEGEND

 Trail/Sidepath Cyclical Count	 Bicycle Lane
 Existing Trail Facility	 Sharrow
 Proposed Trail Facility	 Striped Shoulder
 Planned Trail Facility	 Mixed Traffic

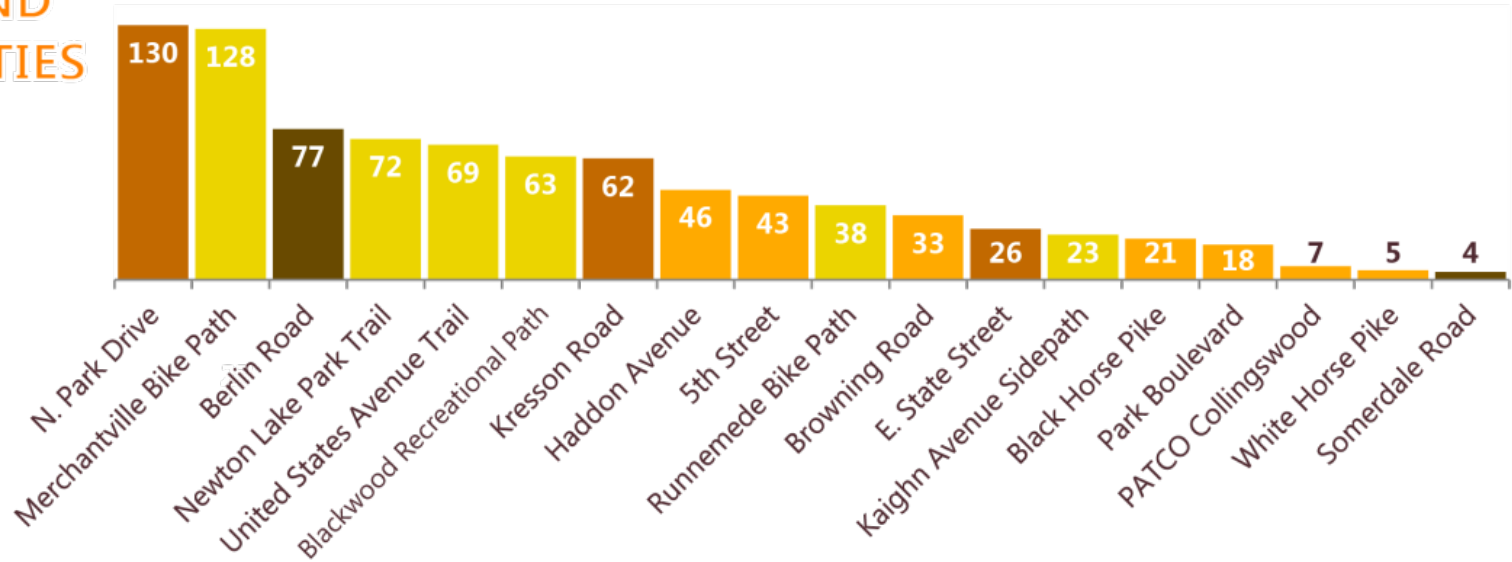
On-Road Cyclical Count



Camden County

ON-ROAD AND TRAIL FACILITIES

Bidirectional Total



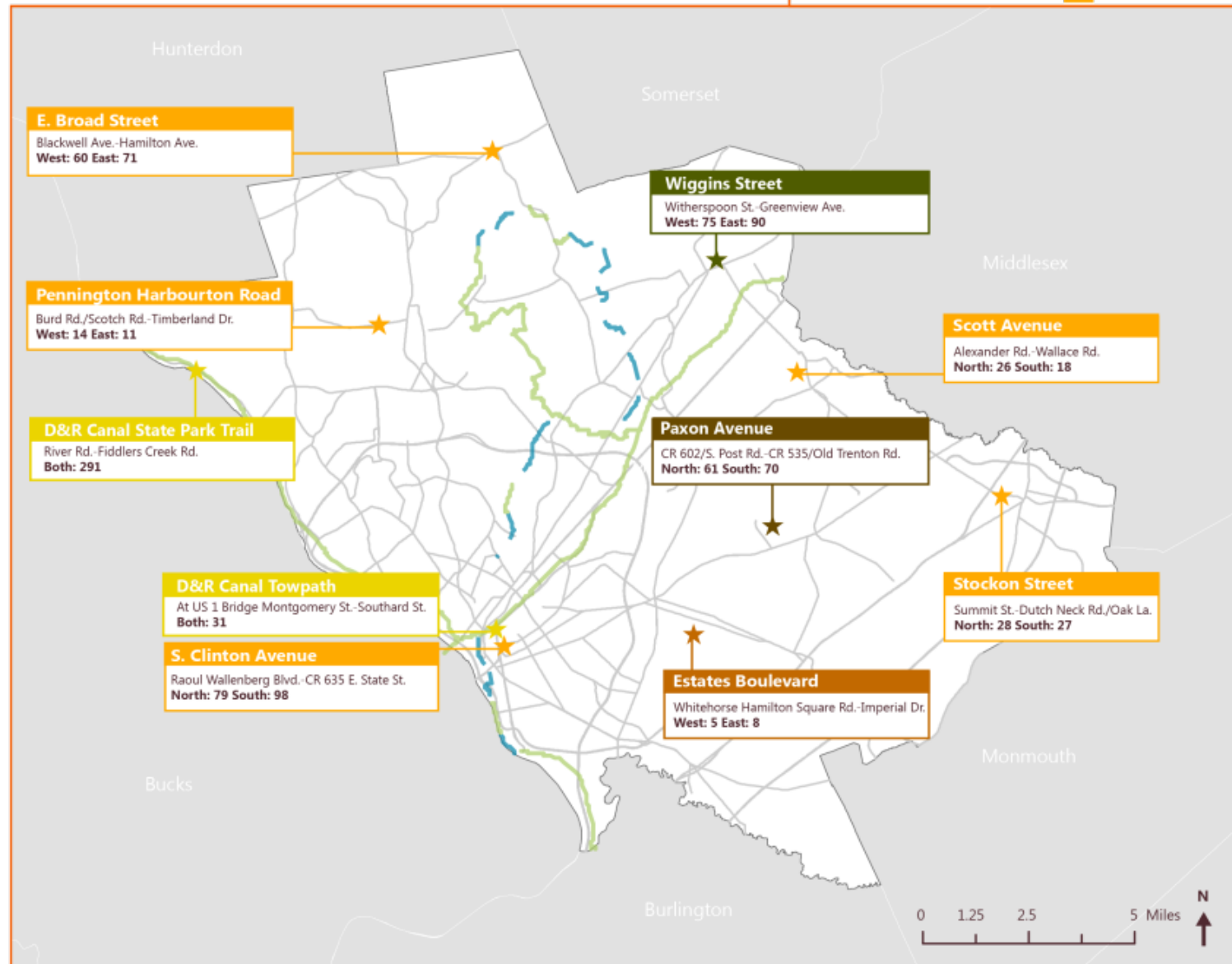
Mercer County

Annual Average Daily Bicycle Traffic Volumes (AADB) for Cyclical Bicycle Count Locations

Counts Taken April and May 2015

LEGEND

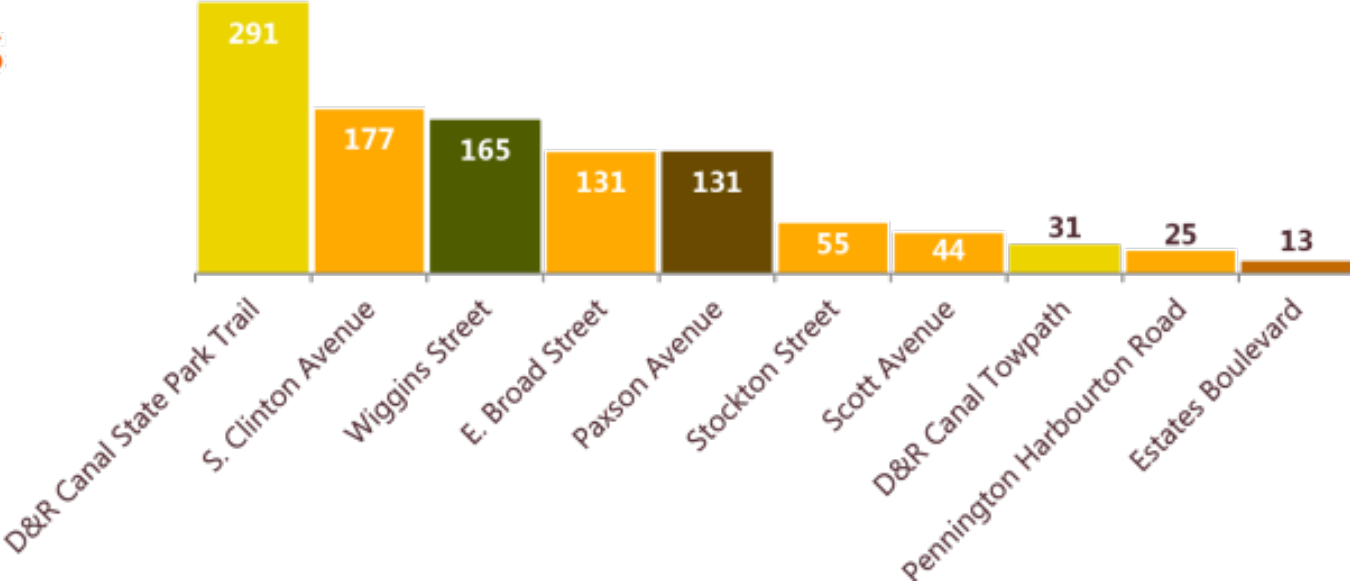
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Mercer County

ON-ROAD AND TRAIL FACILITIES

Bidirectional Total



Preliminary Results

Center City, Philadelphia

+53%

<u>2011</u>	→	<u>2015</u>
766		1173

+57%

<u>2010</u>	→	<u>2015</u>
589		925



Preliminary Results

Downtown Trenton, NJ



Next Steps

- **Assess and revise count locations**
 - Remove locations very low volumes
 - Remove locations with high variability
- **Conduct first cyclical cycle of counts**
- **Combine multiple data sets for more in depth analysis**
- **Use counts to begin to understand bicyclist safety and exposure rates**
- **Explore formation of a pedestrian cyclical count program**

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