



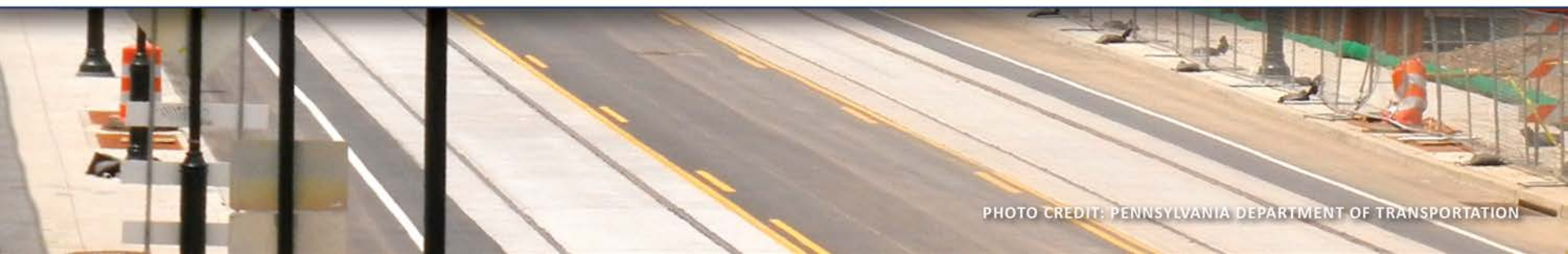
# TIP Actions

## Transportation Improvement Program

Pennsylvania TIP (FY2017-2020)

New Jersey TIP (FY2018-2021)

*April 2018*



# PennDOT Automated Red Light Enforcement (ARLE) Various Projects

*Various Counties | Approve Selections and Add to TIP*

- ▶ **Action Type:** TIP Amendment
- ▶ **Action:**
  - Approve 22 ARLE projects totaling \$9,086,000 of State 244 funds and add to the TIP
  - Additional funds to the region
- ▶ **Reason:**
  - ARLE program targets high crash intersections with use of automated system to record red light violations.
  - Violators are fined and funds are distributed by way of grant program for eligible safety improvements statewide.

# **PennDOT Automated Red Light Enforcement (ARLE)**

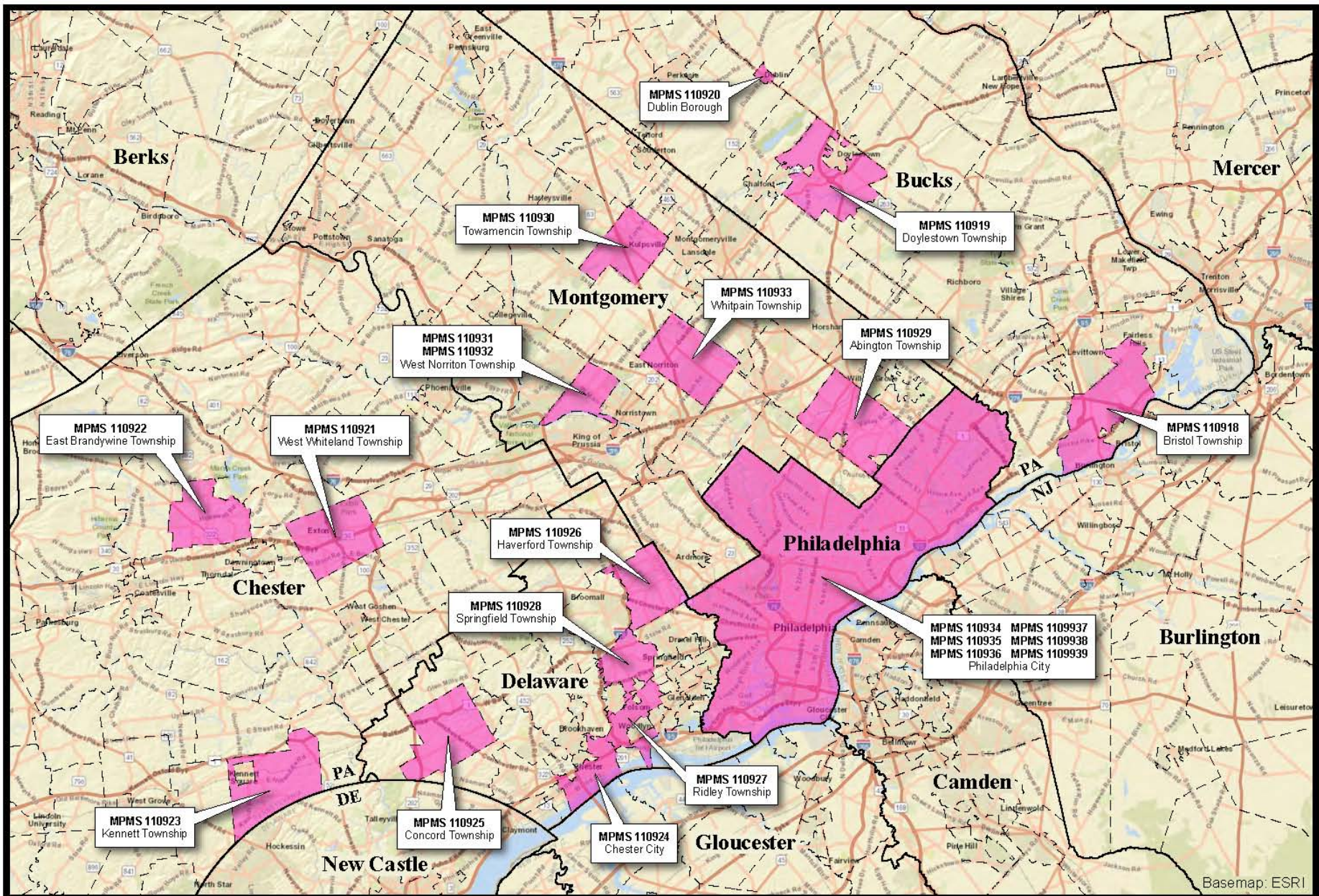
## **Various Projects**

*Various Counties | Approve Selections and Add to TIP*

### **► Background:**

- Round 7
- 143 application totaling over \$34 million requested.
- 41 projects totaling \$11.5 million statewide awarded.

# PA17-82: Approval of Automated Red-Light Enforcement (ARLE) Round 7 (2017 Funding) Projects



Basemap: ESRI



County	Project Sponsor	Project Title	Award Amount
Bucks	Bristol Twp	Bristol Traffic Signal Upgrade	\$257,000
	Doylestown Twp	Doylestown Pedestrian Improvements	\$171,000
	Dublin Boro	Dublin Pedestrian Signal Upgrades	\$117,000
Chester	East Brandywine Twp	East Brandywine Traffic Signal Upgrade	\$39,000
	Kennett Twp	Unionville Rd Corridor Improvement	\$693,000
	West Whiteland Twp	West Whiteland Pedestrian Safety Improvement	\$258,000
Delaware	City of Chester	City of Chester Traffic Signal Upgrade	\$119,000
	Concord Twp	Concord Pedestrian Improvements	\$117,000
	Haverford Twp	Haverford Pedestrian Safety Improvement	\$75,000
	Ridley Twp	Ridley Intersection Improvement	\$250,000
	Springfield Twp	Springfield Traffic Signal Improvements	\$282,000
Montgomery	Abington Twp	Abington Traffic Signal Upgrade	\$179,000
	Towamencin Twp	Towamencin Pedestrian Safety Improvements	\$84,000
	West Norriton Twp	West Norriton Traffic Signal Upgrade	\$196,000
	West Norriton Twp	West Norriton Intersection and Signal Upgrade	\$417,000
	Whitpain Twp	Whitpain Traffic Signal Upgrades	\$132,000
Philadelphia	City of Philadelphia	Citywide Traffic Calming	\$1,500,000
		Neighborhood Slow Zones	\$1,200,000
		20th St/Penrose Ave/Moyamensing Ave/Packer Ave Intersection Improvement	\$1,000,000
		Citywide Fiber Optic Expansion	\$1,000,000
		Citywide Pedestrian and Bicyclist Connections	\$500,000
		Roosevelt Blvd Bus Station Pedestrian Safety Improvements	\$500,000
<b>Total</b>			<b>\$9,086,000</b>

# TIP Action | Proposed – PA

*Approve Selected ARLE Projects and Add to TIP*

## a. PennDOT Automated Red Light Enforcement (ARLE)

That the RTC Recommend that the Board approve amending the TIP by:

- Approving the 22 selected projects totaling \$9,086,000 of State 244 funds;
- Add the 22 projects to the TIP

Note: Additional funds to the region



# PA 252 Bridge over Springton Reservoir

## *Delaware County | Increase Construction Funding*

▶ **Action Type:** TIP Amendment

▶ **Action:**

- Increase construction funding by total of \$5,949,000:  
\$2,010,000 State 581/ \$1,788,000 State 185 in FY18.  
\$2,151,000 State 581 in FY19.
- All phases will now total \$16,524,000.

▶ **Reasons:**

- National Register of Historic Places masonry dam built circa 1930 requires masonry roadside barrier and additional stone cladding.
- Partnership between AQUA and PennDOT:  
AQUA will fund design,  
PennDOT will fund ROW, utility, and construction.



-On border between Marple and Upper Providence Townships

-Current earthen embankment dam

-Minor approach work

-Bridge replaced on existing alignment



# TIP Action | Proposed – PA

## *Delaware County | Increase Construction Funding*

### b. PA 252 Bridge over Springton Reservoir

That the RTC Recommend that the Board approve amending the TIP by:

- Increase construction funding by \$5,949,000:  
\$2,010,000 State 581/ \$1,788,000 State 185 in FY18.  
\$2,151,000 State 581 in FY19.



# Ardmore Transportation Center

## *SEPTA | Increase Funding*

▶ **Action Type:** TIP Amendment

▶ **Action:**

- Overall \$5,367,000 funding increase for the Ardmore Transportation Center, now fully funded and ready to be bid in the fall pending Amtrak availability.
- Change funding scenario using additional funds to region.
- **Reasons:**
- Additional \$10,133,000 Keystone Section 5337 funds made available to the region need to be obligated immediately.
- Provides \$4,766,000 to Station Line Item for other purposes.



# TIP Action | Proposed – PA

## *Funding Increase to Ardmore Transportation Center*

### c. Ardmore Transportation Center, SEPTA

That the RTC Recommend that the Board approve amending the TIP by:

- Increasing the funding overall by \$5,367,000 for the Ardmore Transportation Center
- \$4,766,000 will be moved to Station Line Item

\* Note \$10,133,000 additional federal transit funds to the region



# Paratransit Vehicles for Various Counties in New Jersey

## *Increase Funding Made Available for Vehicle Replacement*

▶ **Action Type:** TIP Amendment

▶ **Action:**

- Increase Camden County Bus Purchase by \$1,046,000 CMAQ
- Increase Gloucester County Bus Purchase by \$92,000 CMAQ
- Increase Mercer County Bus Purchase by \$468,000 CMAQ
- Flex total \$3,485,000 CMAQ to NJ TRANSIT

▶ **Reasons:**

- SJTA, Gloucester County DTS, Mercer County TRADE, Ewing Twp, and Princeton would like to purchase additional replacement vehicles.

# TIP Action | Proposed – NJ

*Amend the NJ TIP for the Following Projects:*

## d. Paratransit Vehicle for Various Counties in New Jersey

That the RTC Recommend that the Board approve amending the TIP by:

- Increase Camden County Bus Purchase by \$1,046,000 CMAQ
- Increase Gloucester County Bus Purchase by \$92,000 CMAQ
- Increase Mercer County Bus Purchase by \$468,000CMAQ
- Flex total \$3,485,000 CMAQ to NJ TRANSIT





Transportation  
Improvement  
Program

TIP

# Thank You!

[www.dvrpc.org/TIP](http://www.dvrpc.org/TIP)

# → Regional Trails Program: Phase VI PA Grant Awards

*Regional Technical Committee, April 10, 2018*





# Proposed Grant Awards

- 1. State and Rhawn-Pennypack Trail Connector (design), City of Philadelphia Parks and Recreation – \$60k**
- 2. Wissahickon Gateway/Schuylkill River Trail Gap (acquisition), City of Philadelphia Parks and Recreation – \$100k (\$100k DCNR match)**
- 3. Manayunk Trail Gateway Enhancements (design/construction), City of Philadelphia Parks and Recreation – \$30k**
- 4. Lower Poquessing Creek Trail (feasibility), Philadelphia City Planning Commission – \$25k (\$25k DCNR match)**

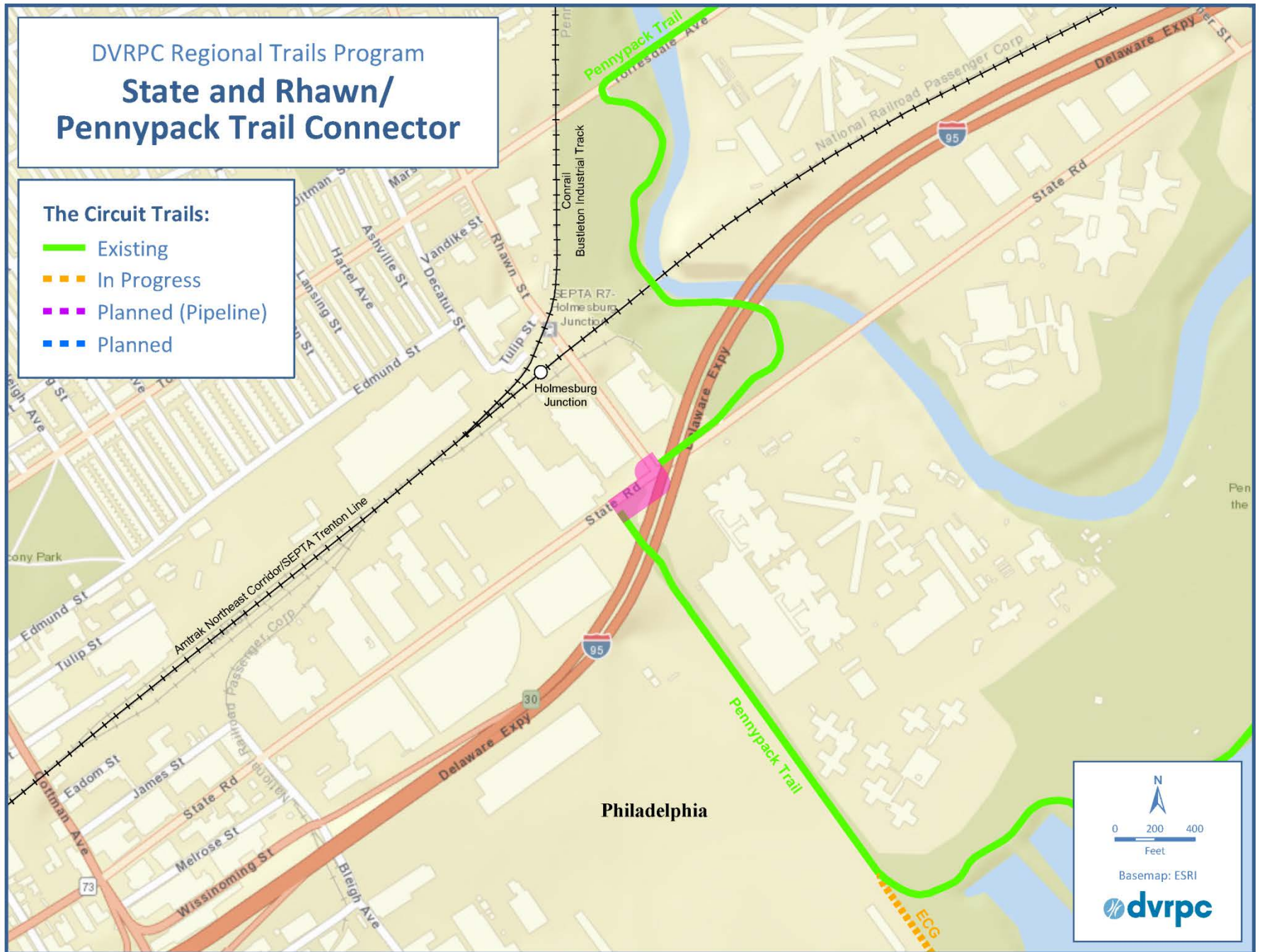
# Proposed Grant Awards

5. High Trail and Bridge (construction), The Brandywine Conservancy, Delaware County -- \$350k (\$350k DCNR match)

DVRPC Regional Trails Program  
**State and Rhawn/  
Pennypack Trail Connector**


**The Circuit Trails:**

-  Existing
-  In Progress
-  Planned (Pipeline)
-  Planned




Philadelphia

N



0 200 400  
Feet

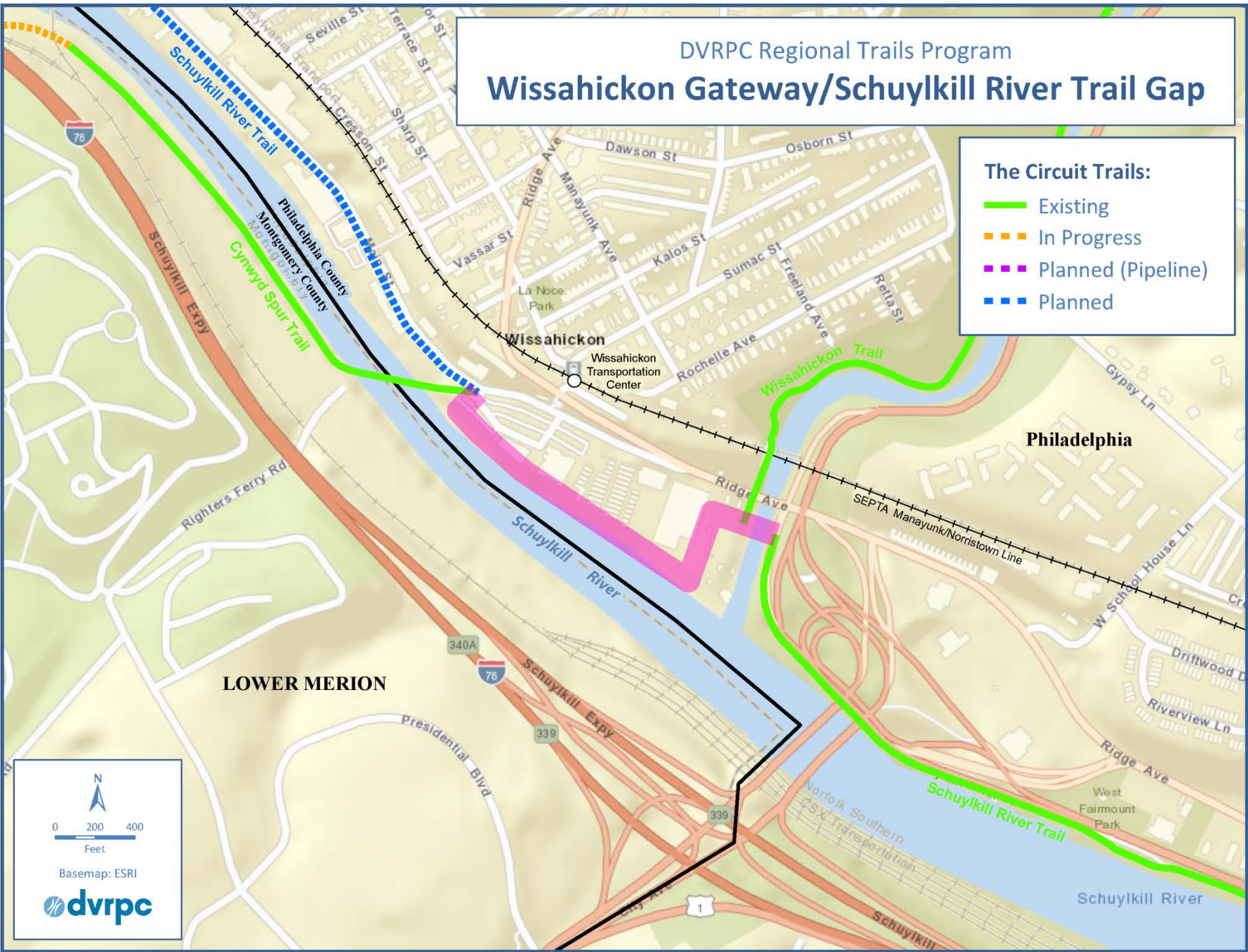
Basemap: ESRI



# DVRPC Regional Trails Program

## Wissahickon Gateway/Schuykill River Trail Gap

- The Circuit Trails:**
- Existing
  - In Progress
  - Planned (Pipeline)
  - Planned



N

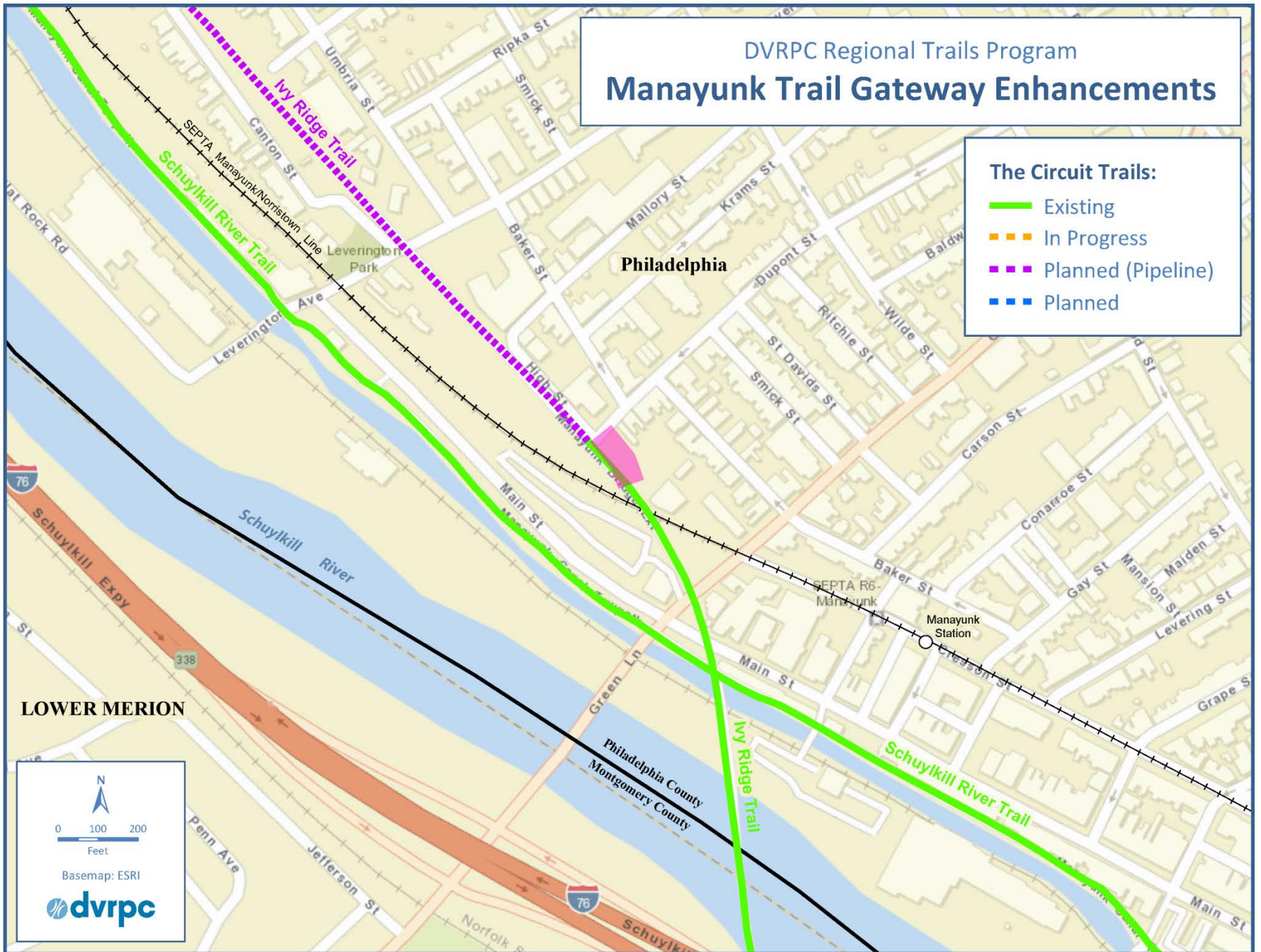
0 200 400  
Feet

Basemap: ESRI

# DVRPC Regional Trails Program Manayunk Trail Gateway Enhancements

## The Circuit Trails:

- Existing
- In Progress
- Planned (Pipeline)
- Planned



LOWER MERION

N

0 100 200  
Feet

Basemap: ESRI

# DVRPC Regional Trails Program Lower Poquessing Creek Trail

## The Circuit Trails:

- Existing
- In Progress
- Planned (Pipeline)
- Planned

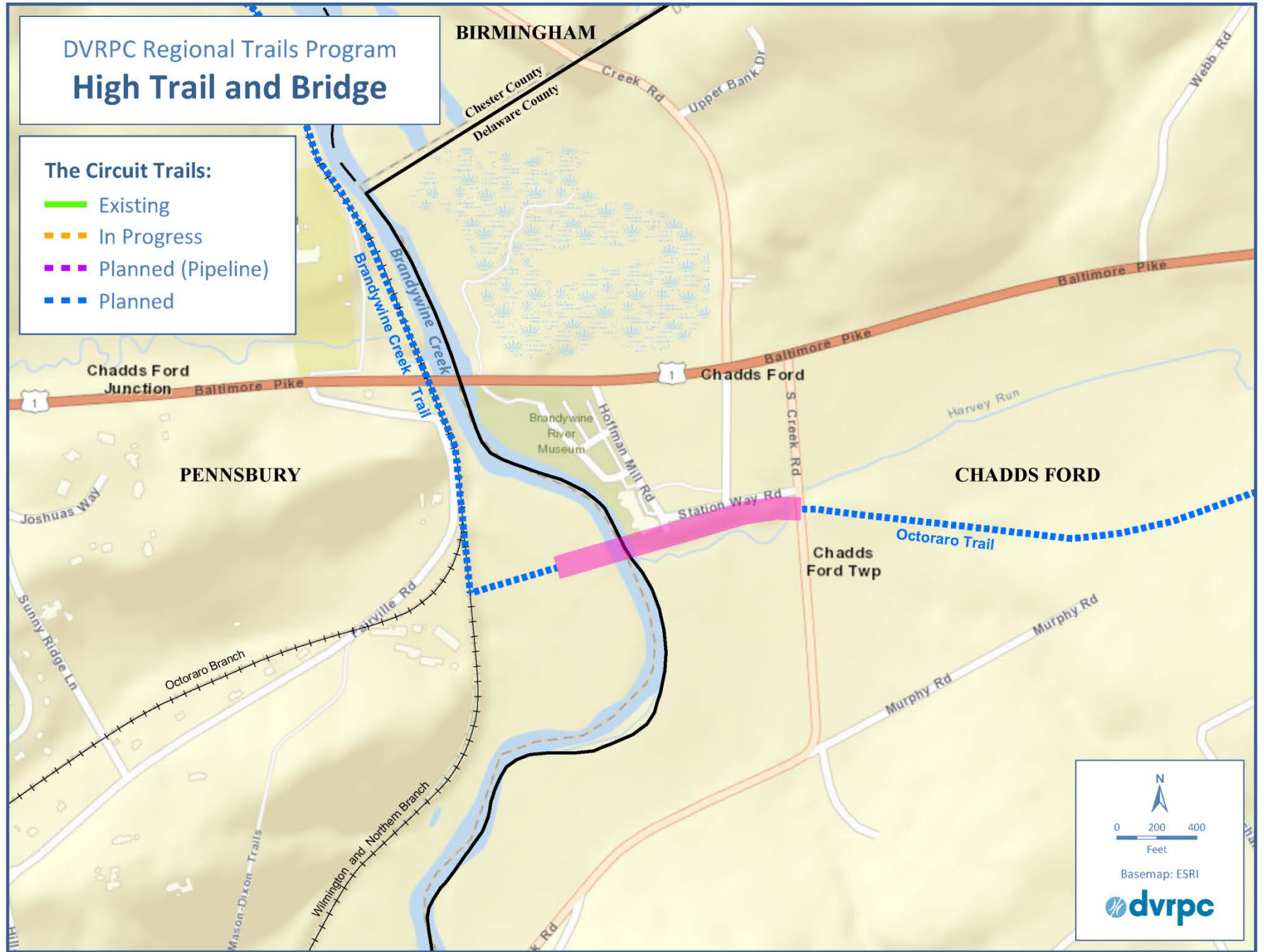


0 0.25 0.5  
Miles  
Basemap: ESRI

# DVRPC Regional Trails Program High Trail and Bridge

## The Circuit Trails:

- Existing
- In Progress
- Planned (Pipeline)
- Planned



N

0 200 400  
Feet

Basemap: ESRI

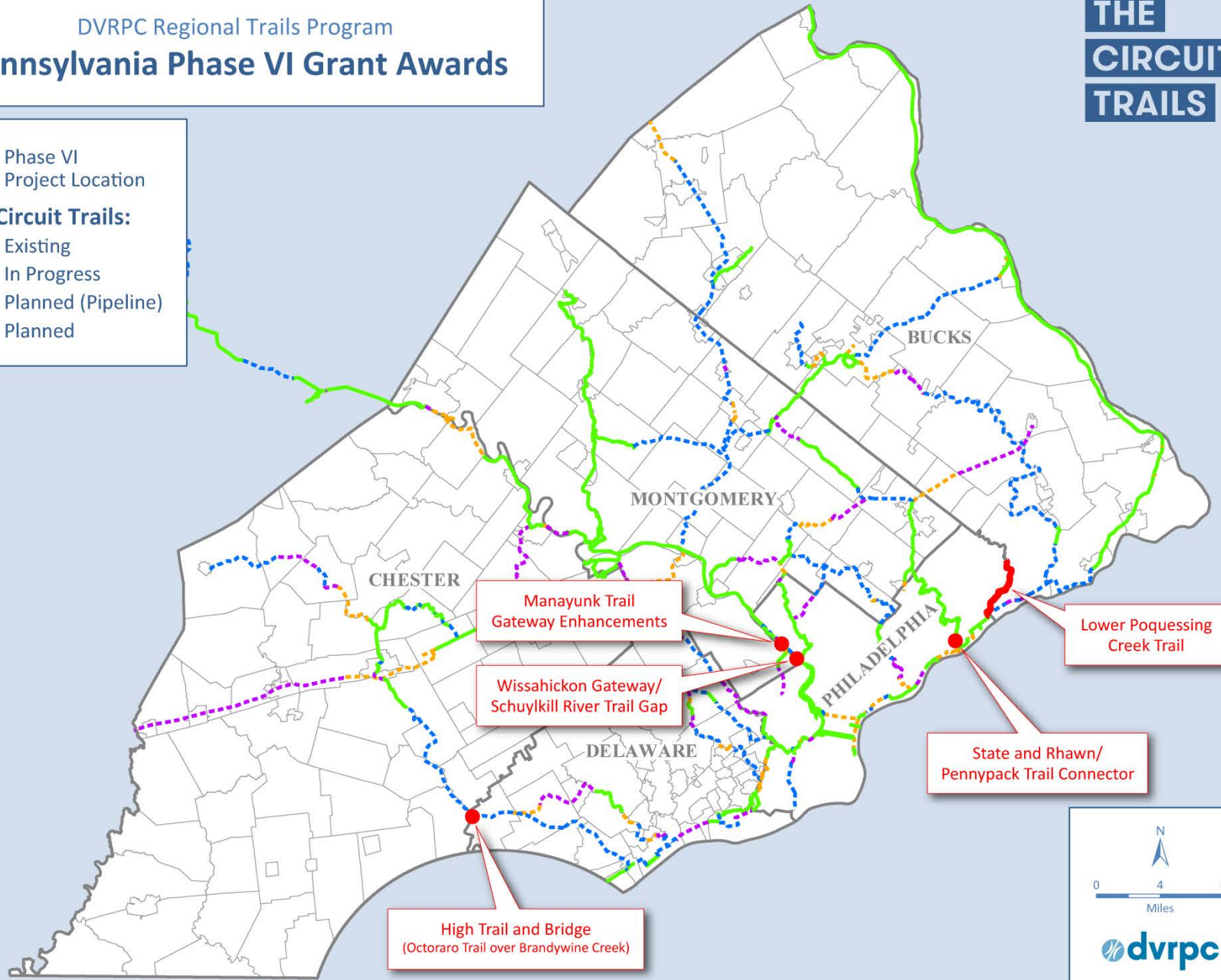
DVRPC Regional Trails Program  
**Pennsylvania Phase VI Grant Awards**

**THE  
CIRCUIT  
TRAILS**

Phase VI  
Project Location

**The Circuit Trails:**

- Existing
- In Progress
- Planned (Pipeline)
- Planned



**High Trail and Bridge**  
(Octoraro Trail over Brandywine Creek)

**Manayunk Trail  
Gateway Enhancements**

**Wissahickon Gateway/  
Schuylkill River Trail Gap**

**State and Rhawn/  
Pennypack Trail Connector**

**Lower Poquessing  
Creek Trail**

0 4 8  
Miles



# **Action Proposed**

**The RTC recommends that the Board approve these five Phase VI Pennsylvania Regional Trails Program grant awards totaling \$595,000.**

# Requested Action

Staff requests the RTC to recommend authorization to open a minimum 30-day public comment period for the purpose of gathering public and agency comments for:

- Draft FY 2019 TIP for Pennsylvania, and
- The Draft Conformity Determination of the *Connections 2045* Long-Range Plan and Draft FY 2019 TIP for Pennsylvania;

to issue proper public notifications; to publish the draft documents of the TIP, and conformity findings on the internet; to make copies available at certain public libraries; and to hold public meetings.

# Chester Valley Trail Extension to Downingtown

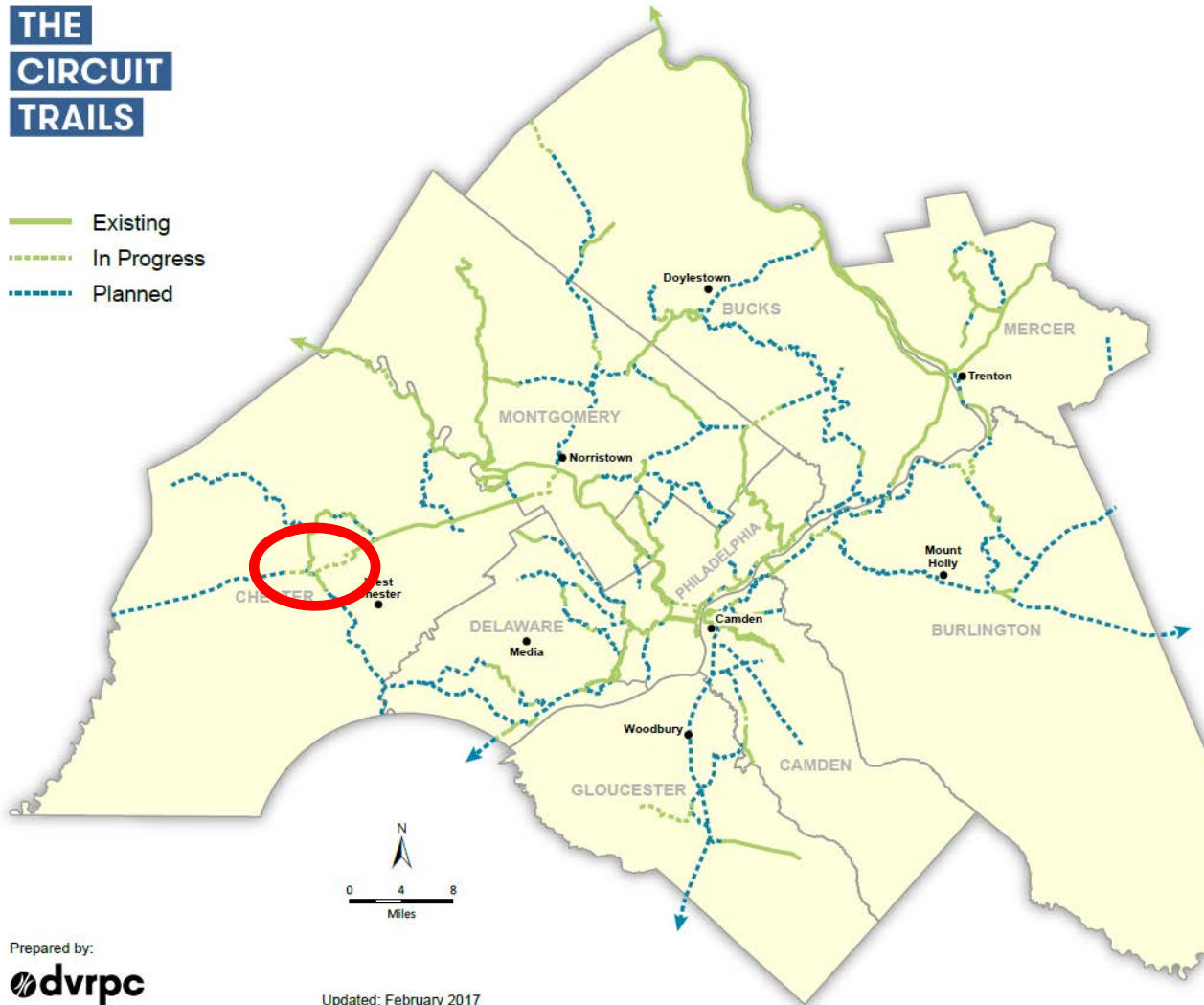


**Regional Technical Committee**  
Delaware Valley Regional Planning Commission  
April 10, 2018

# The Circuit

## THE CIRCUIT TRAILS

- Existing
- In Progress
- Planned

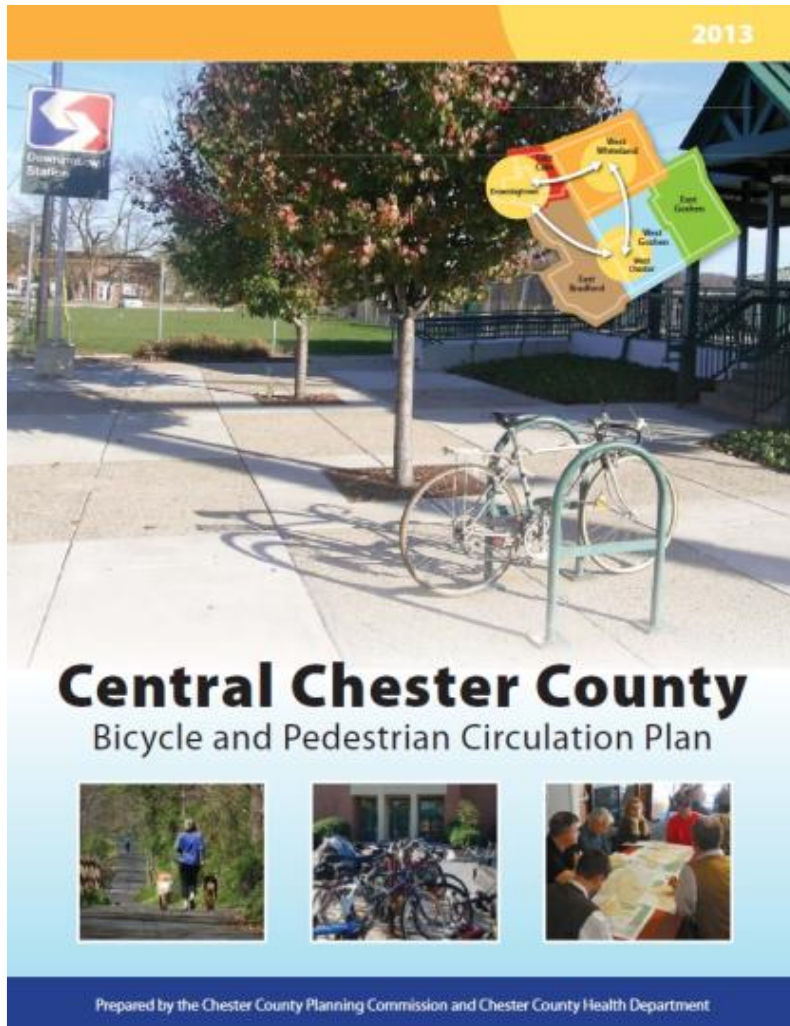


Prepared by:  
**dvrpc**

Updated: February 2017

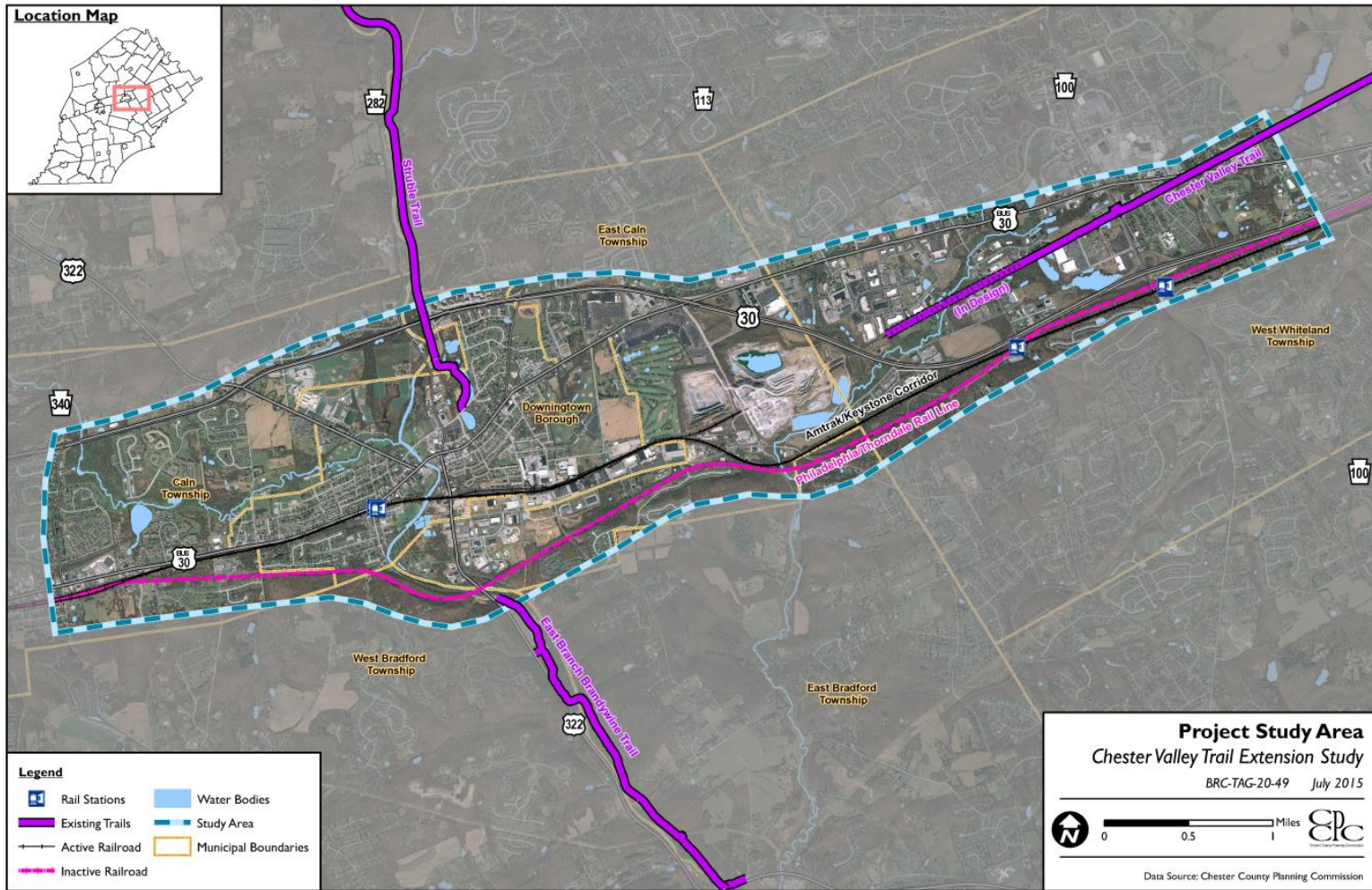
# CHESTER VALLEY TRAIL EXTENSION

# Central Chesco Bike/Ped Circulation Plan

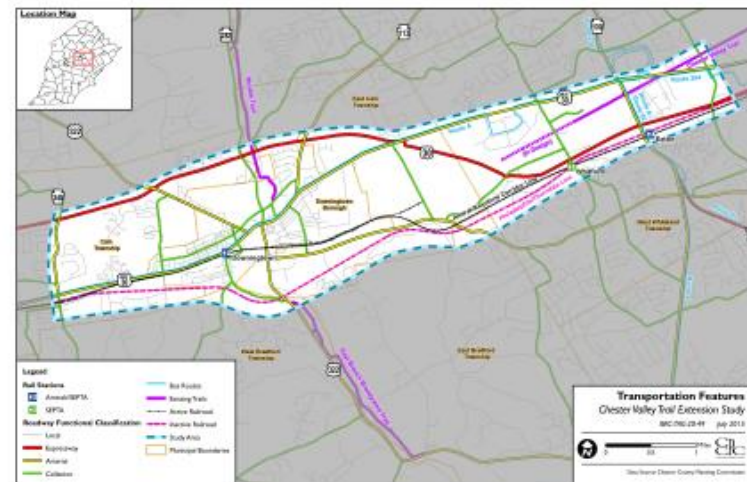
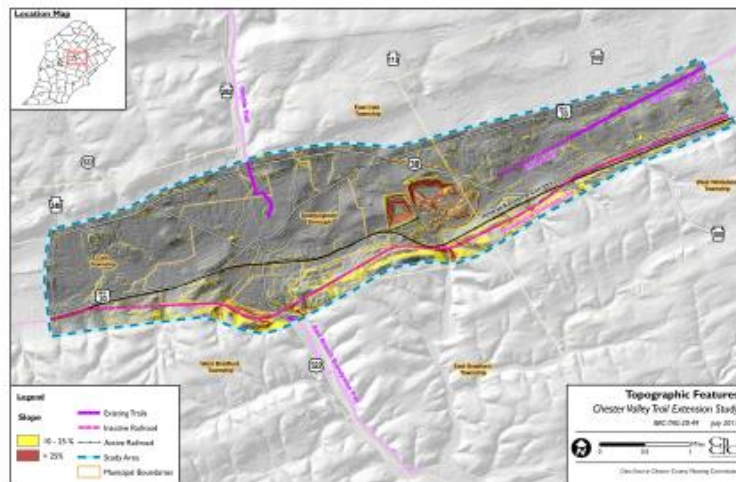
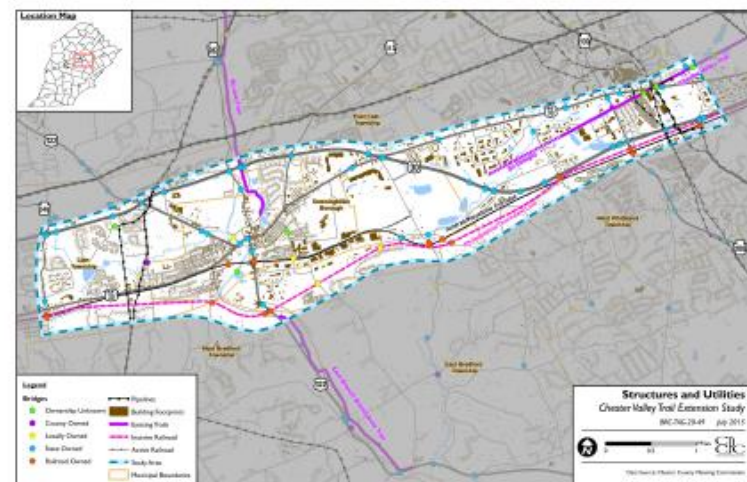
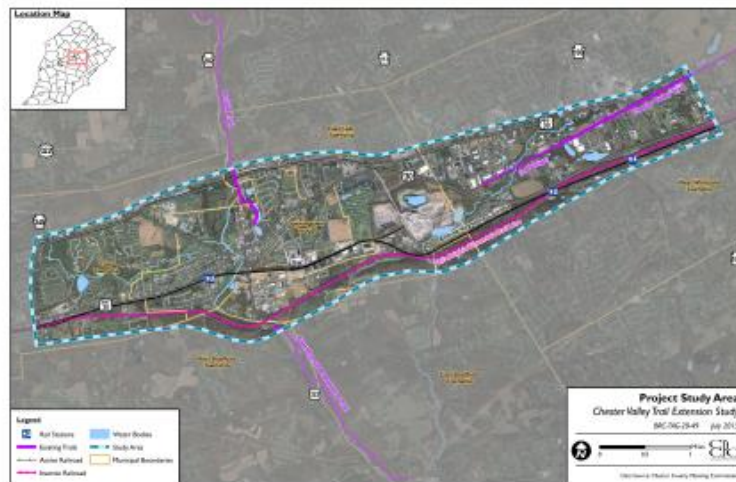


CHESTER VALLEY TRAIL EXTENSION

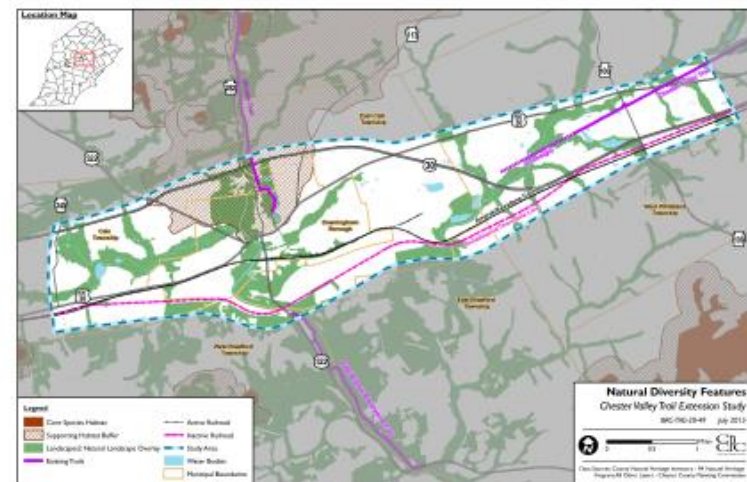
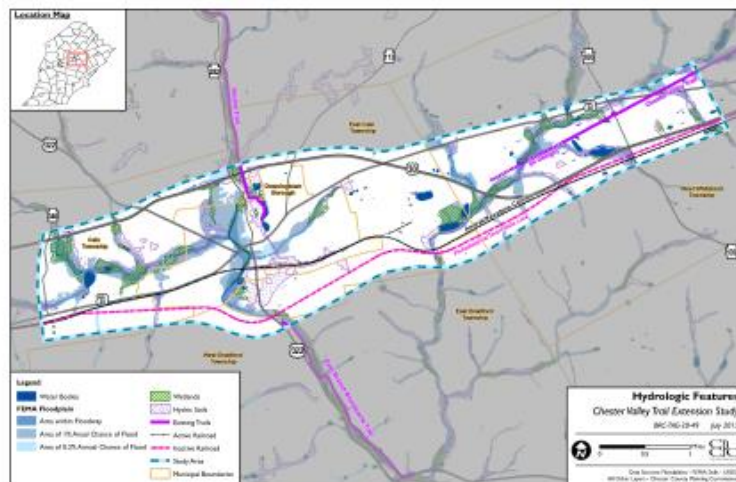
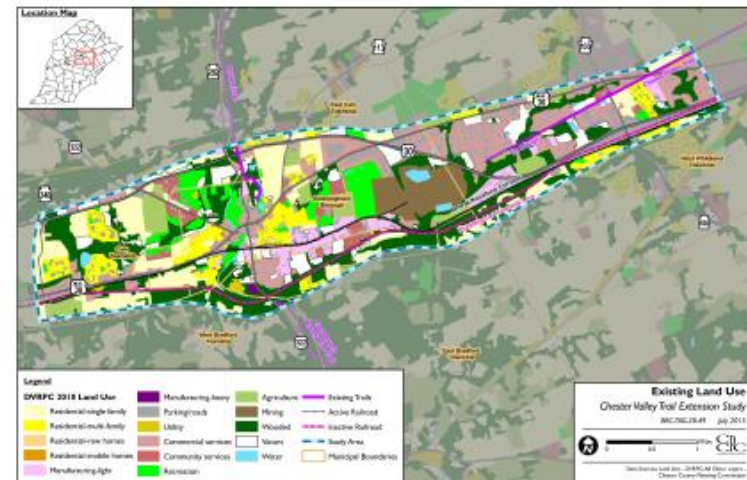
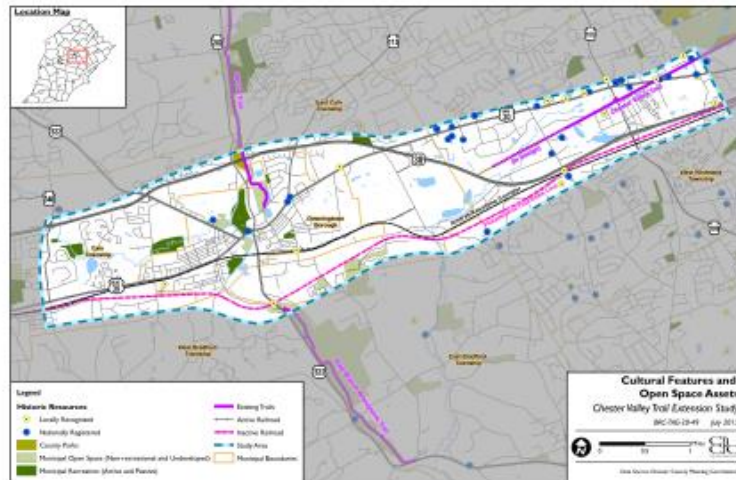
# Project Study Area



# Physical Inventory & Assessment



# Physical Inventory & Assessment

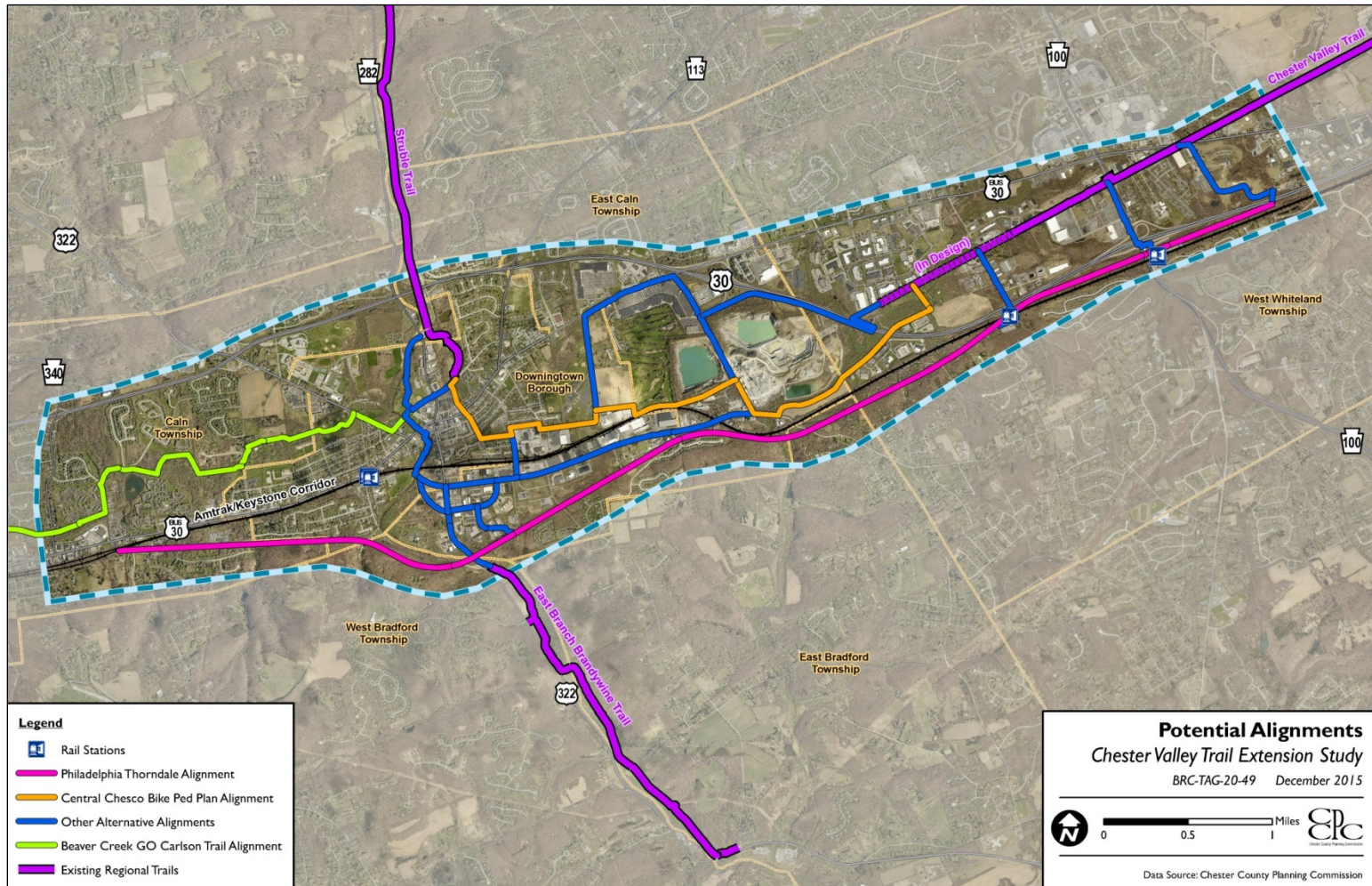




# CVTE Trail User Citizen Survey – Final Results

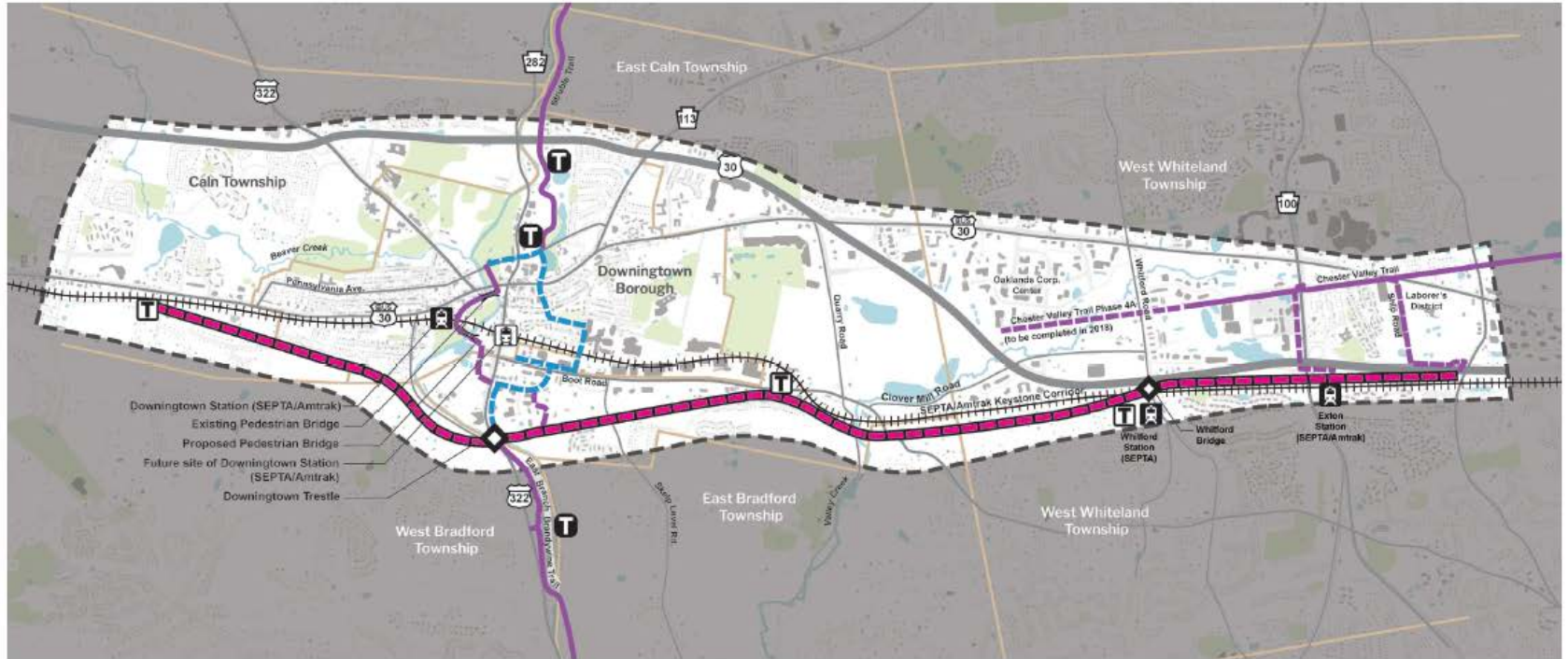
- Project website: [www.chesco.org/planning/cvte](http://www.chesco.org/planning/cvte)
- **1,136 responses** from 10/26/15 - 4/30/16
- **92%** of respondents are **Chester County residents.**
- **49%** live **within the project study area municipalities**
- **96%** of the total responses **are in favor of extending** the CVT from its current endpoint westward into Downingtown.
- **77%** of the survey respondents indicate that they **use the trail at least once a month.**
- **69%** of respondents indicated that they **would use the new CVT trail segment (from Exton to Downingtown) more than they currently use the existing CVT.**
- **446 written comments** received

# Trail Alignment Alternatives



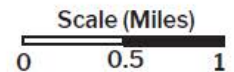
# Master Plan

## Master Plan Chester Valley Trail Extension



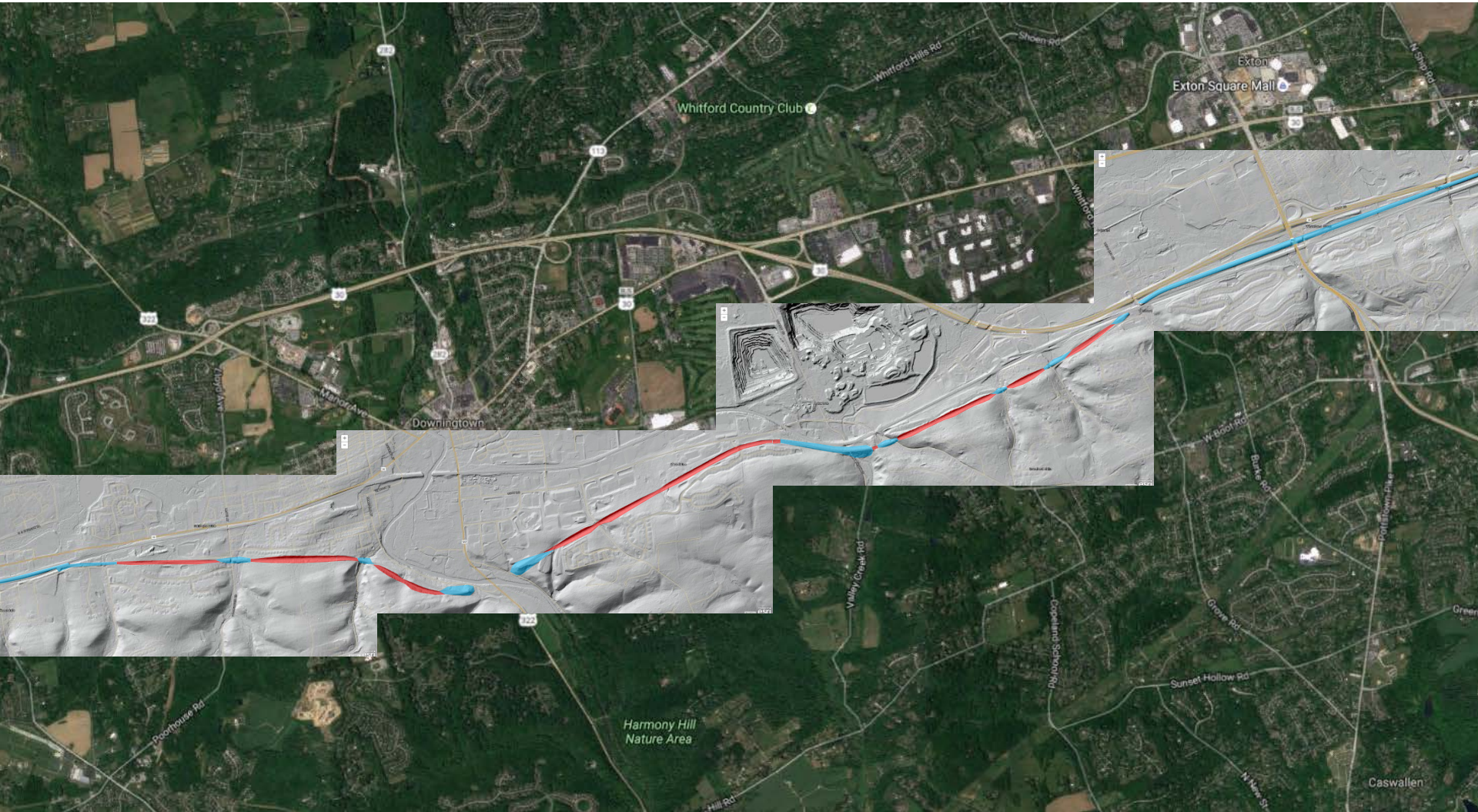
### LEGEND

- |  |                                       |  |                               |  |                                  |
|--|---------------------------------------|--|-------------------------------|--|----------------------------------|
|  | Study Area Boundary                   |  | Existing Trailhead            |  | Municipal Boundary               |
|  | Existing Multi-Use Trail              |  | Proposed Trailhead            |  | Municipal Park / Recreation Area |
|  | Proposed Multi-Use Trail              |  | Existing Rail Station         |  |                                  |
|  | Proposed P&T Corridor Multi-Use Trail |  | Proposed Rail Station         |  |                                  |
|  | Proposed Shared Roadway               |  | Proposed Structure Renovation |  |                                  |



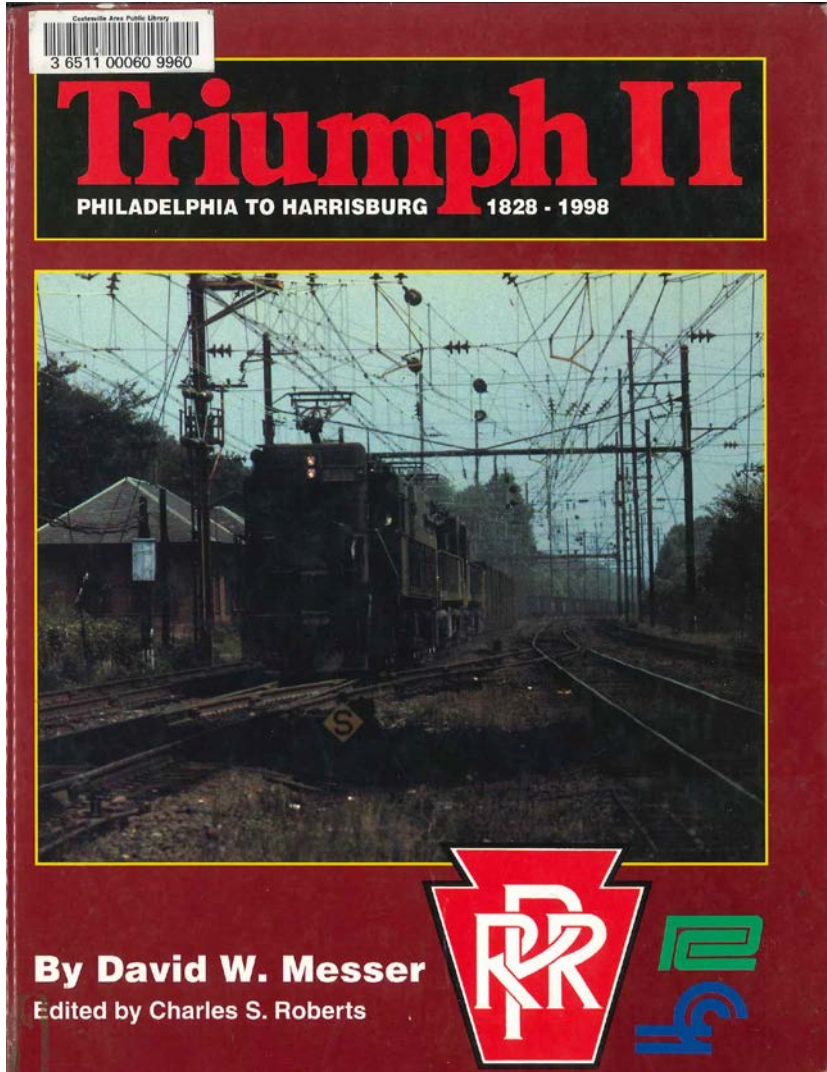
CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



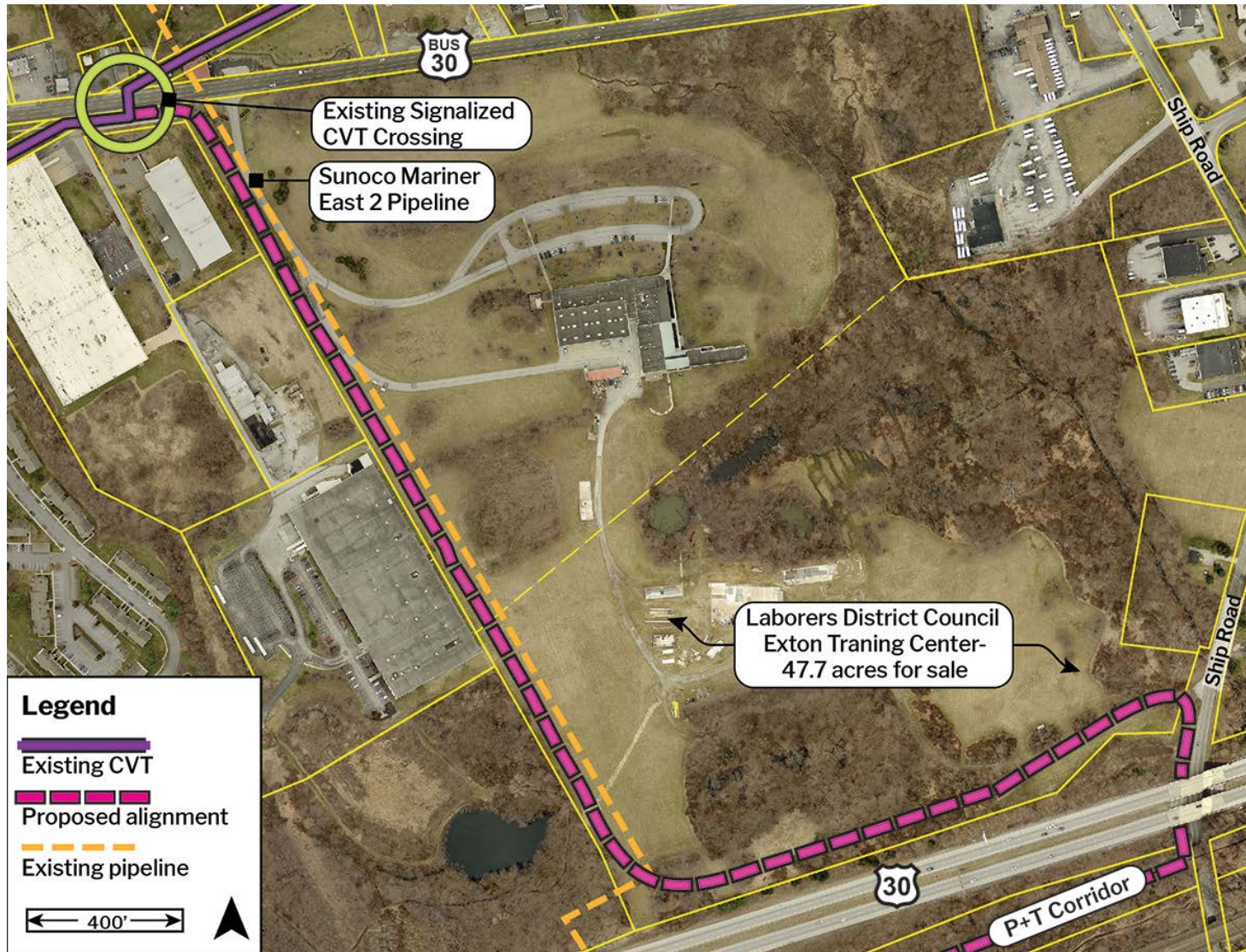
CHESTER VALLEY TRAIL EXTENSION

# Philadelphia & Thorndale Branch (P&T) Fun Facts:



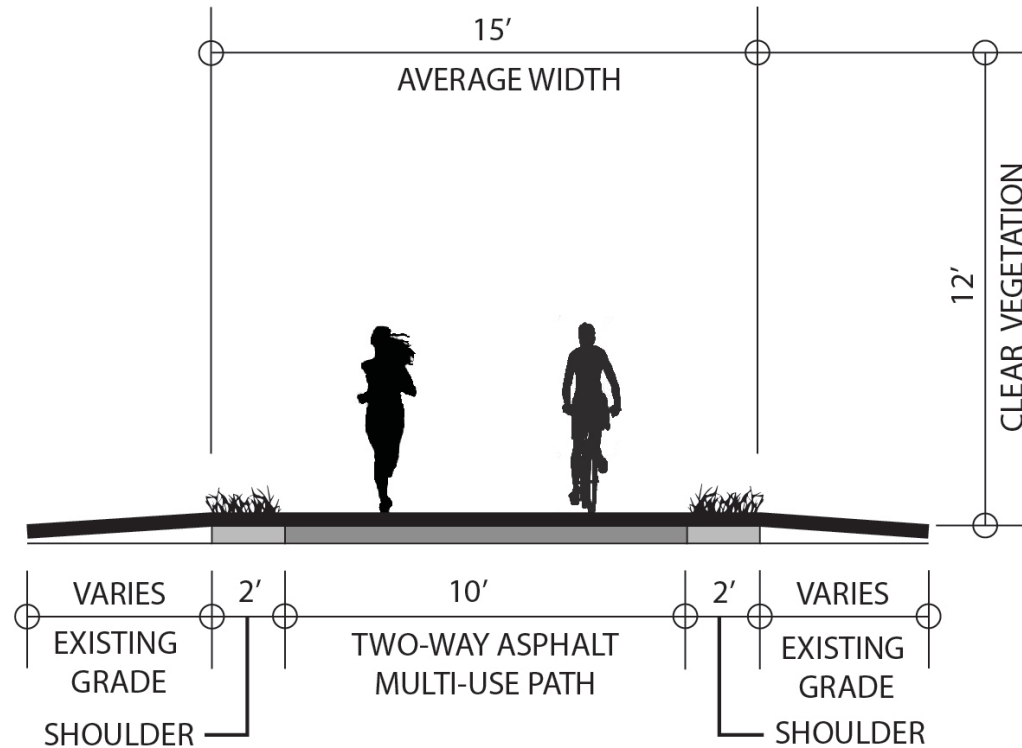
- Length: 10.5 miles from Frazer to Thorndale;
- Completed in April 1906, it took 3.25 years to construct at a cost of \$3 million;
- Involved over 2.6 million cubic yards of excavation and fill for the railbed, and 100,000 cubic yards of masonry for bridges and culverts;
- Whitford Bridge: 380 feet long Parker Truss ; and,
- Downingtown Trestle: 1,451 feet long, and 122 feet high.

# LDC parcel



CHESTER VALLEY TRAIL EXTENSION

# Trail Design Standard – connector trails



# Ship Road



CHESTER VALLEY TRAIL EXTENSION

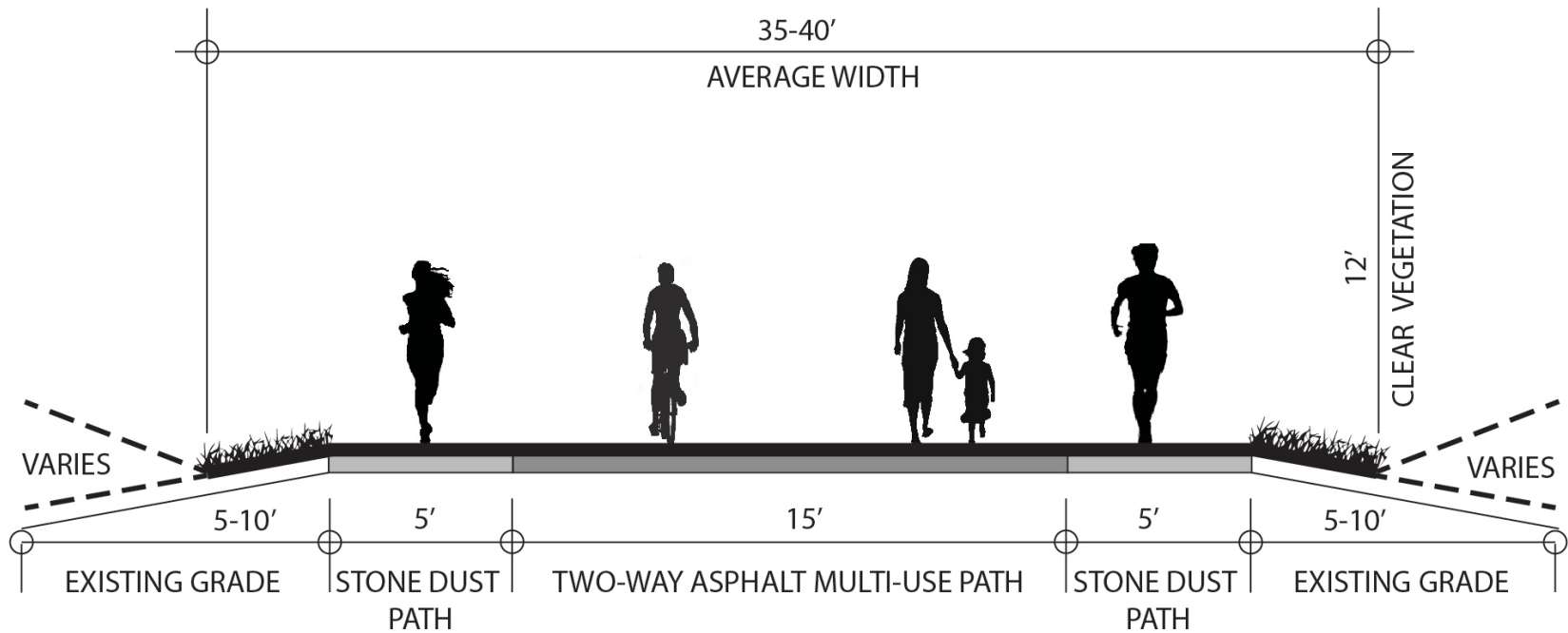


# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# Trail Design Standard – P&T Branch



# P&T Branch



© 2014 Pictometry

CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



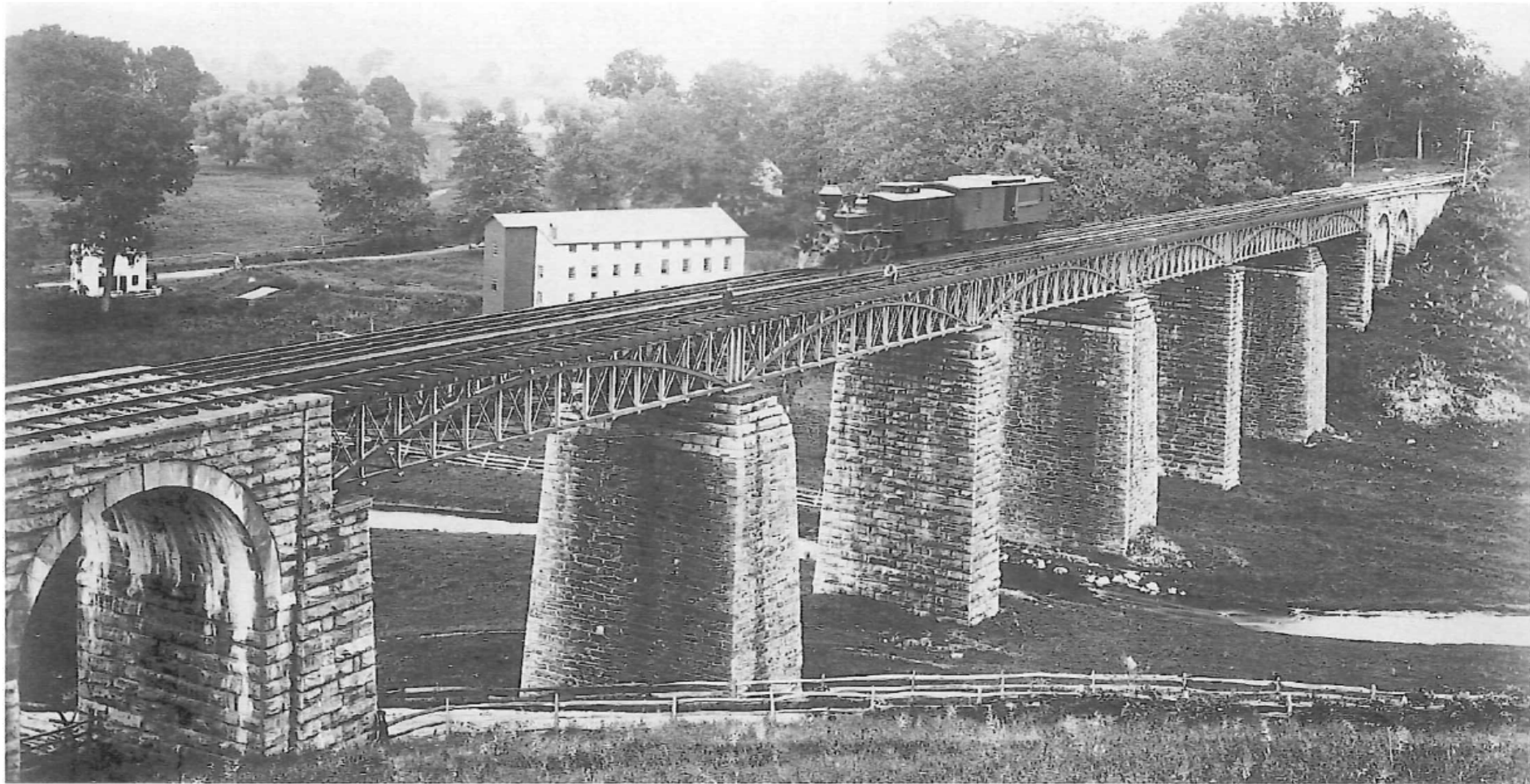
CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

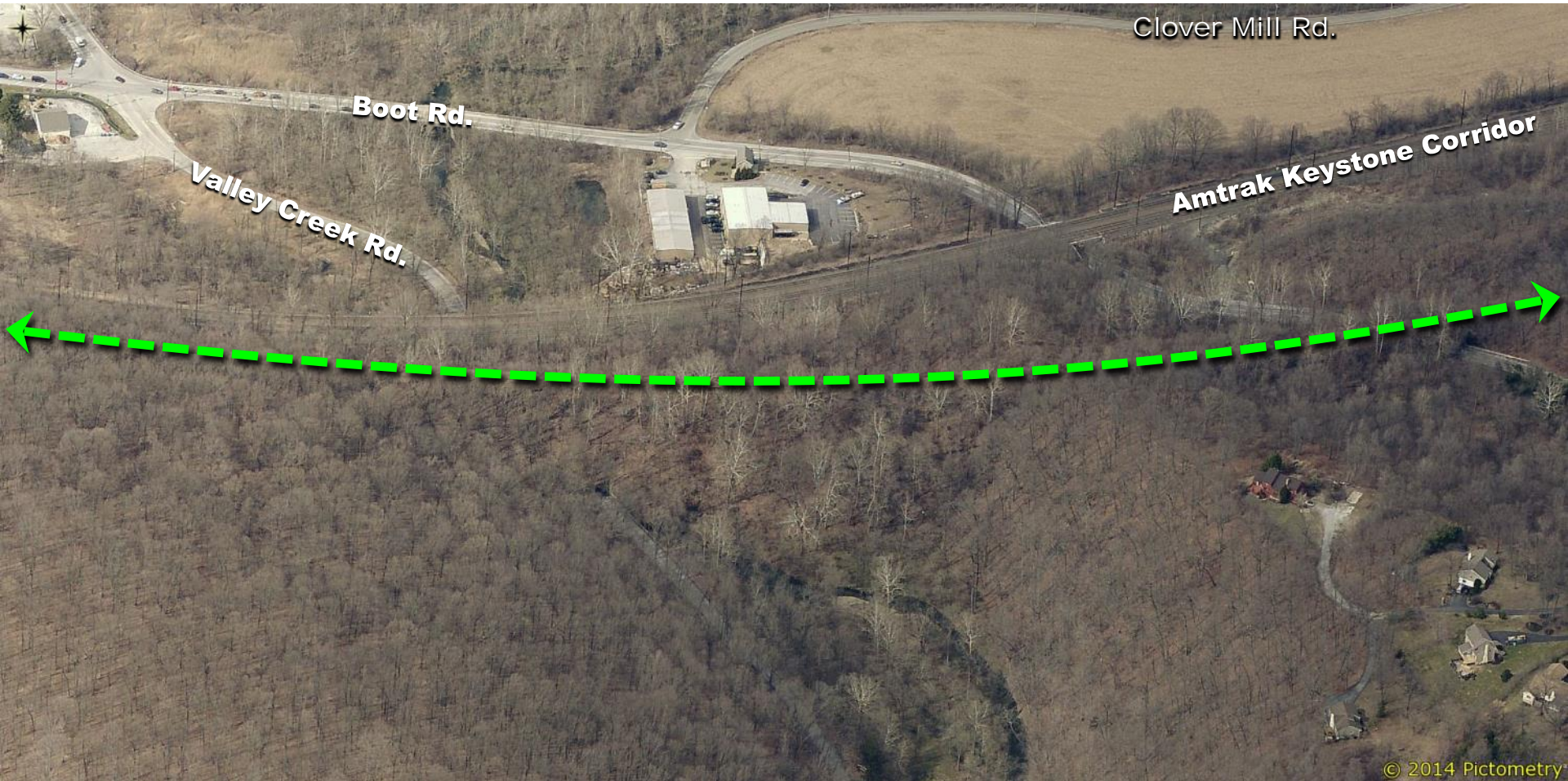
# P&T Branch – Valley Creek



*Ted Xaras Collection*

CHESTER VALLEY TRAIL EXTENSION

# P&T Branch – Valley Creek



© 2014 Pictometry

CHESTER VALLEY TRAIL EXTENSION



# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



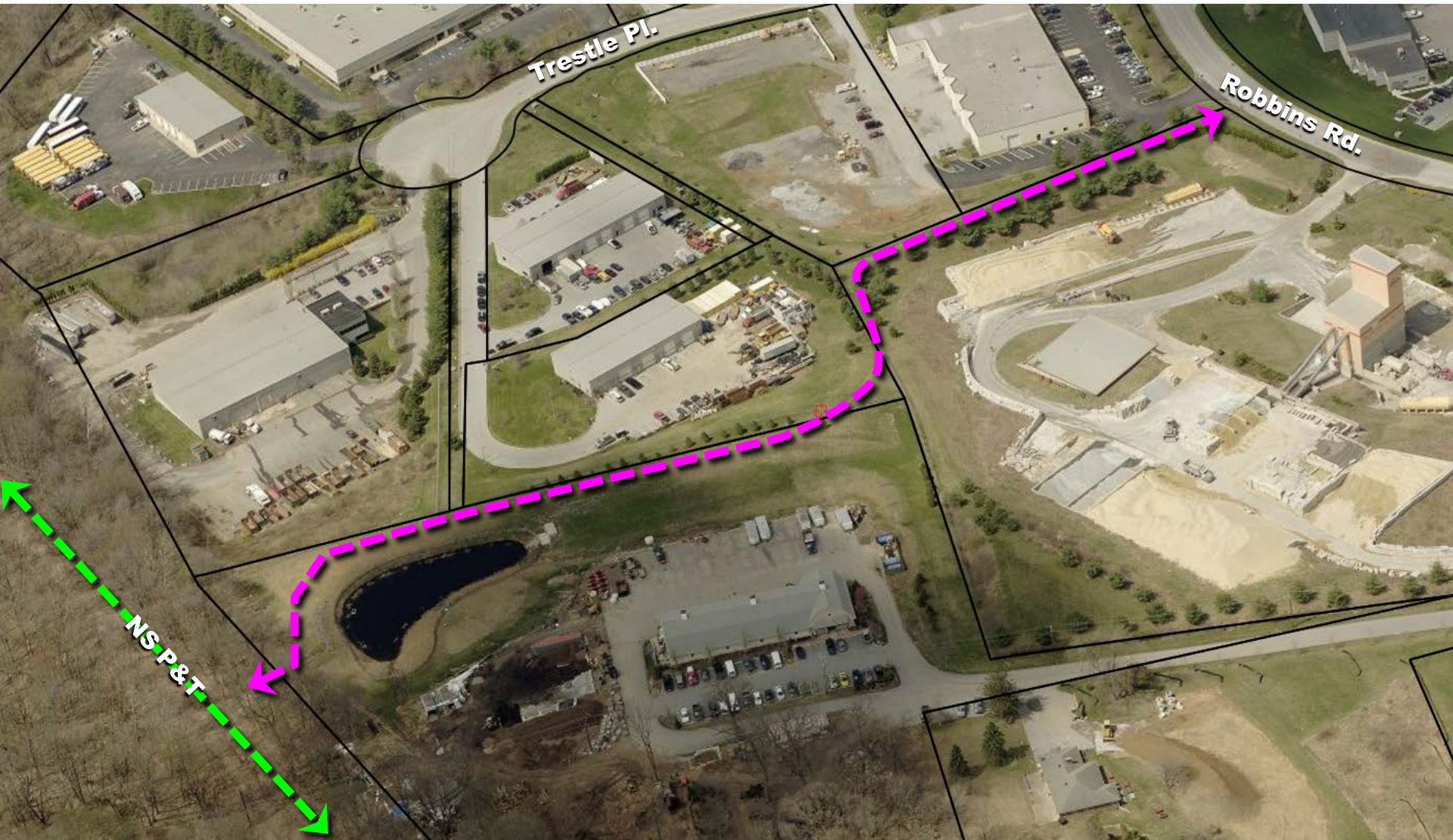
CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



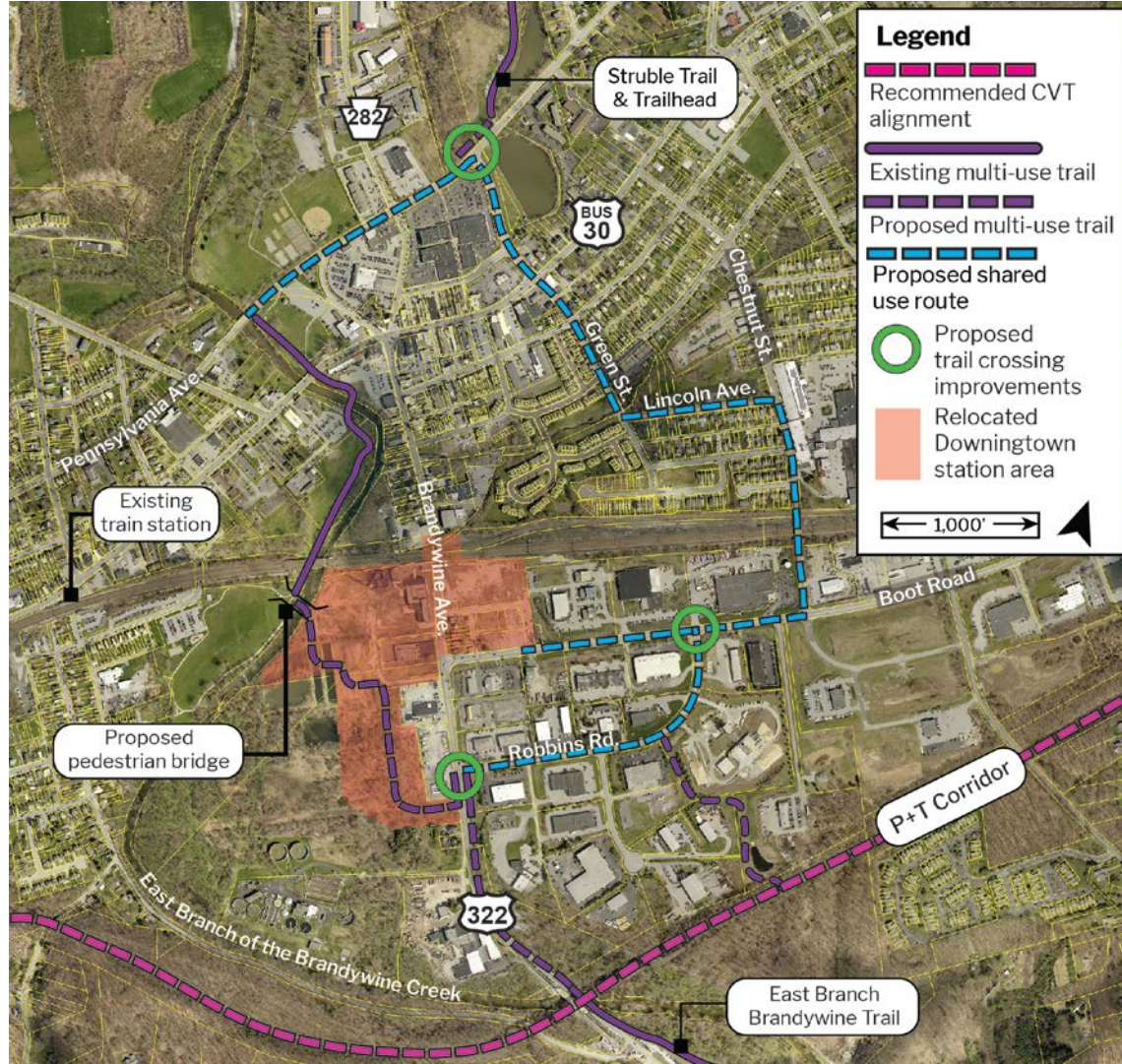
CHESTER VALLEY TRAIL EXTENSION

# Robbins Road connection



CHESTER VALLEY TRAIL EXTENSION

# Connections into Downingtown



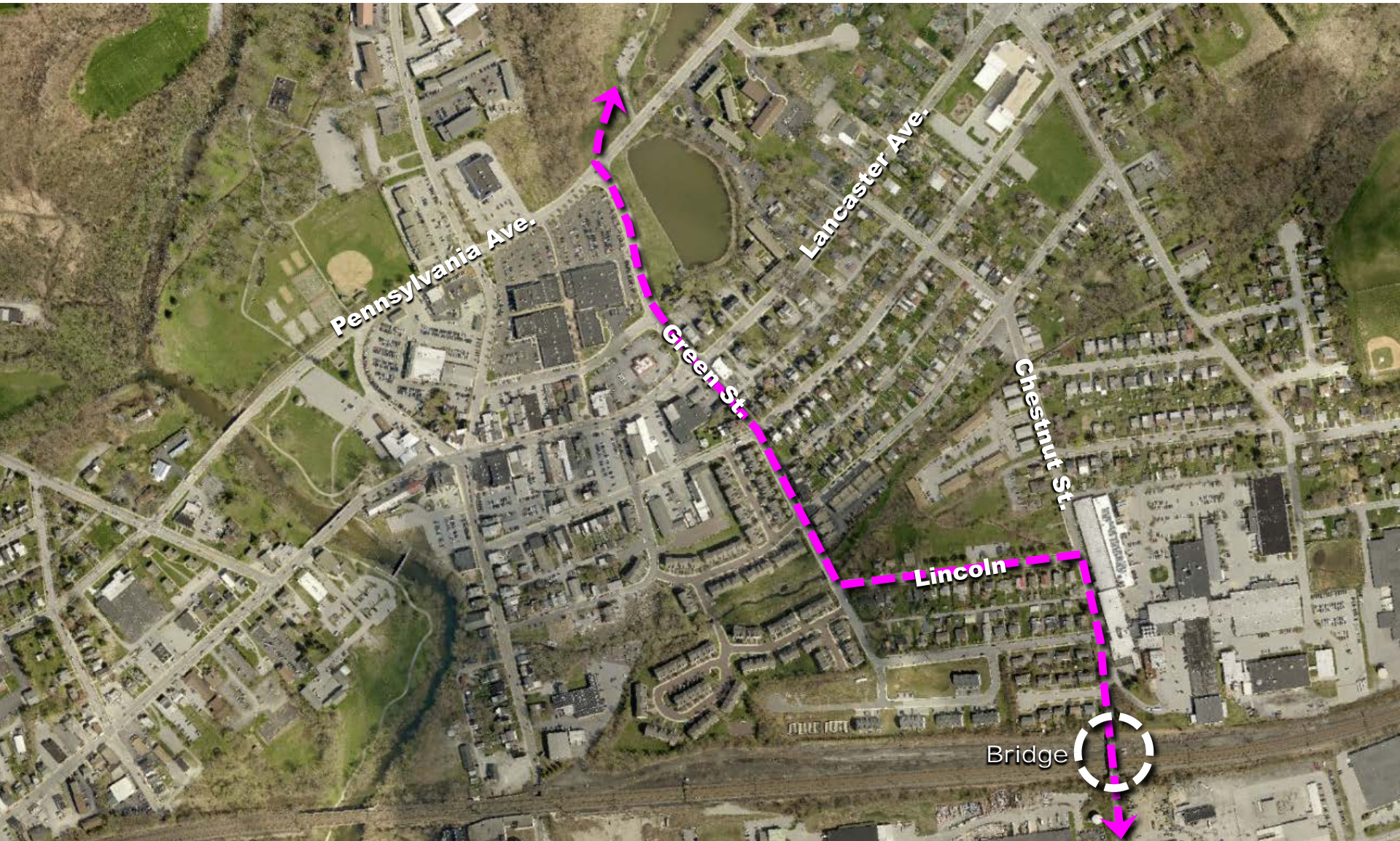
CHESTER VALLEY TRAIL EXTENSION

# Struble Trail connection



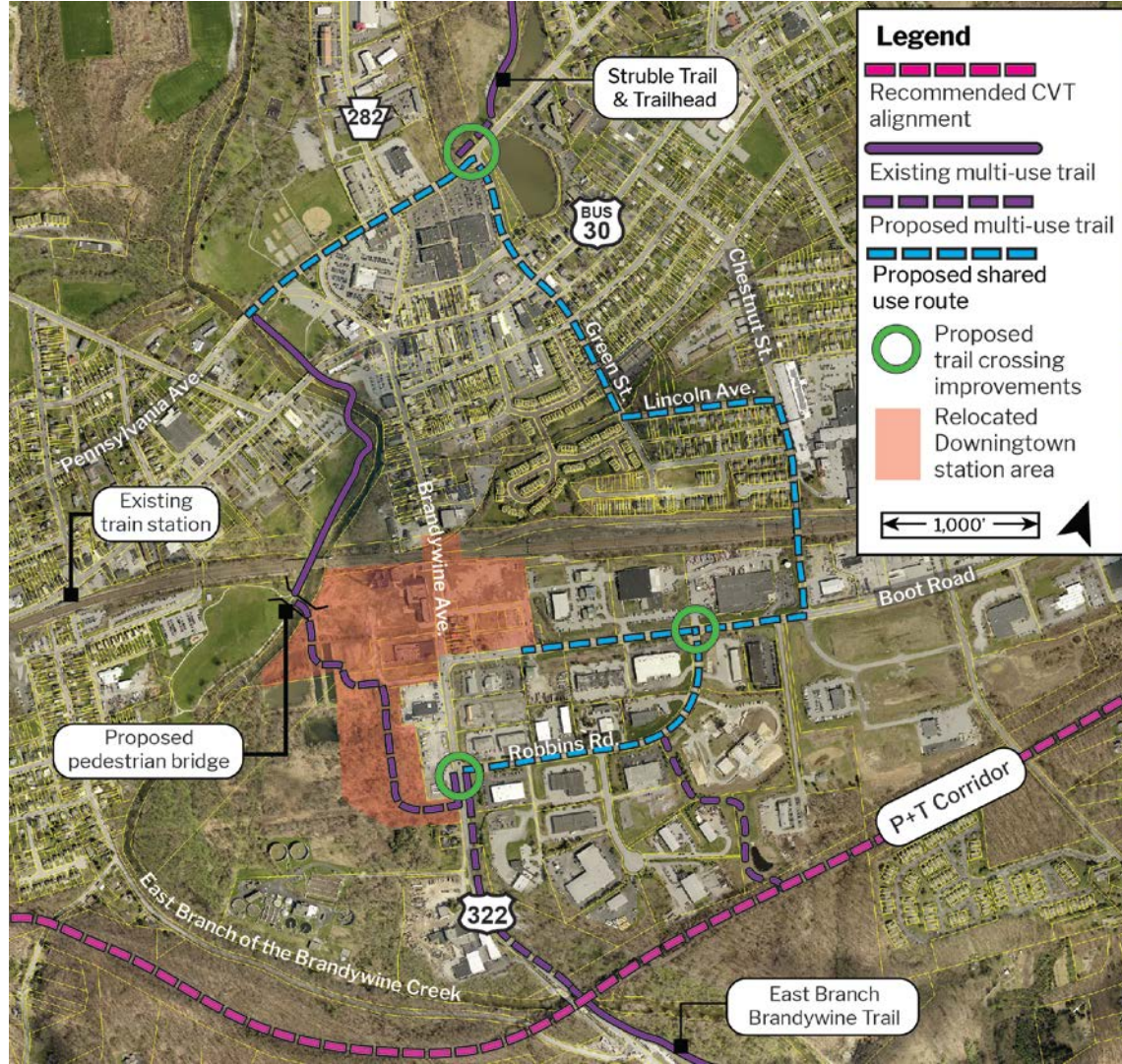
CHESTER VALLEY TRAIL EXTENSION

# Struble Trail connection



CHESTER VALLEY TRAIL EXTENSION

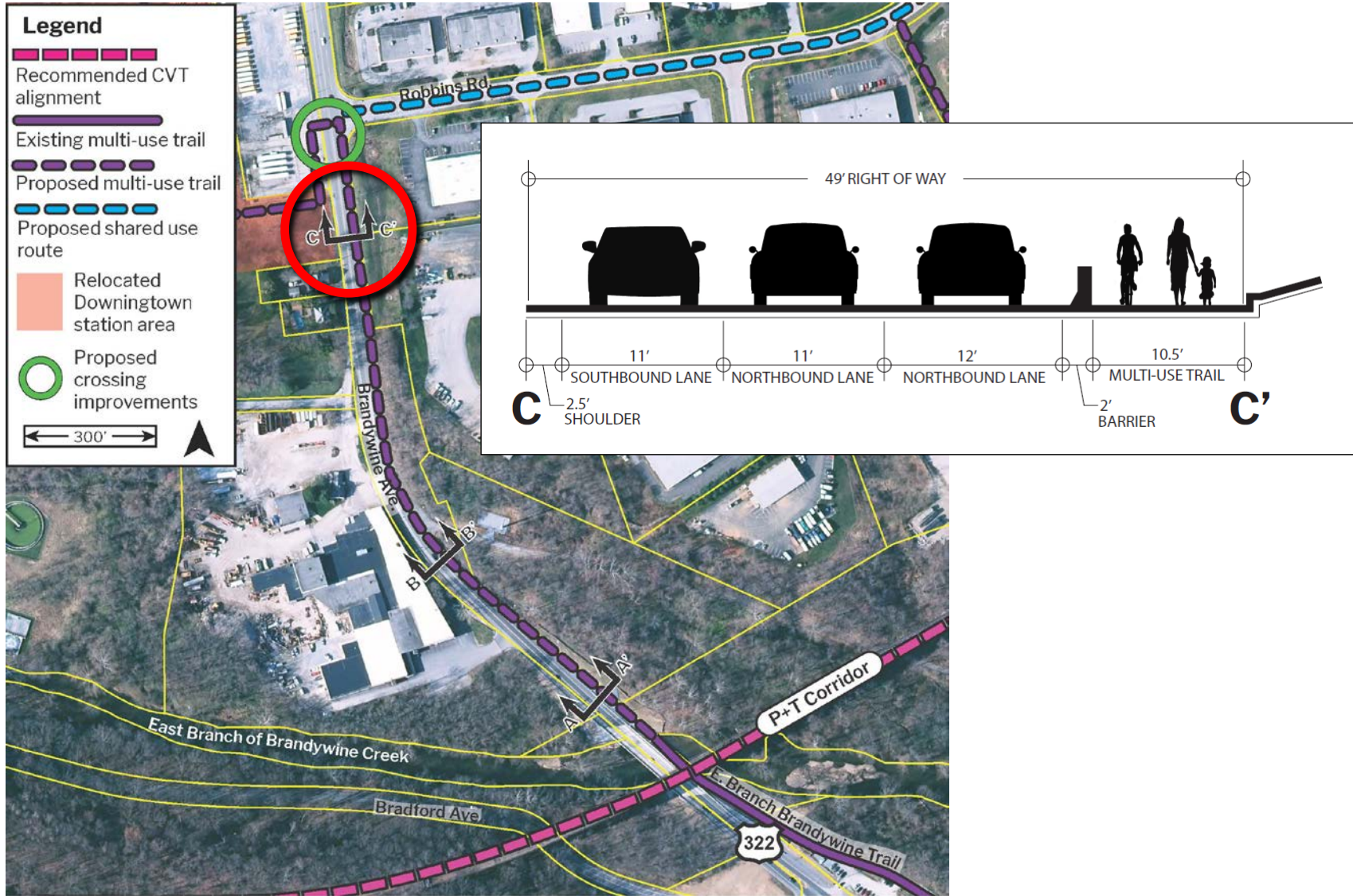
# Connections into Downingtown



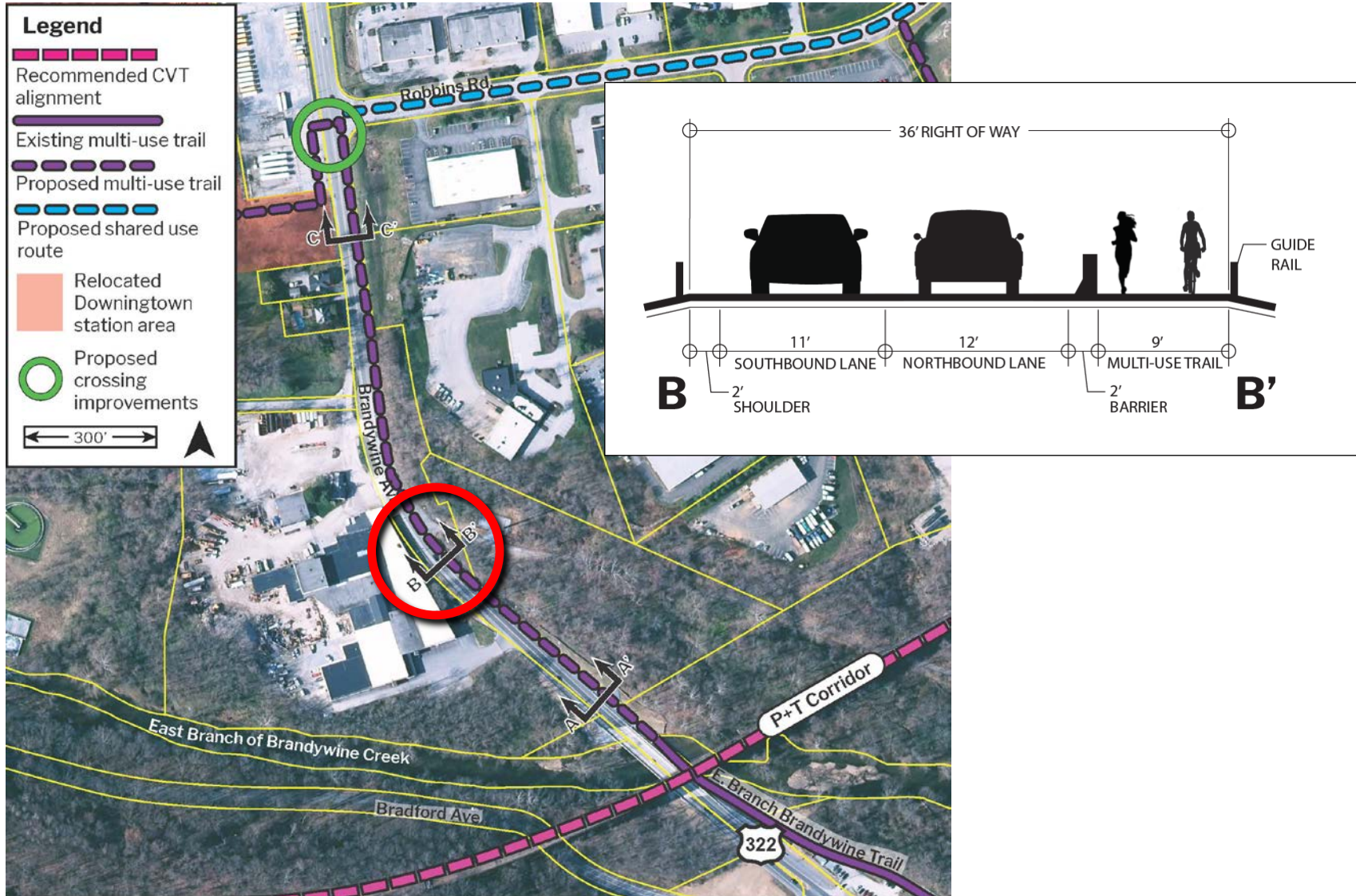
CHESTER VALLEY TRAIL EXTENSION



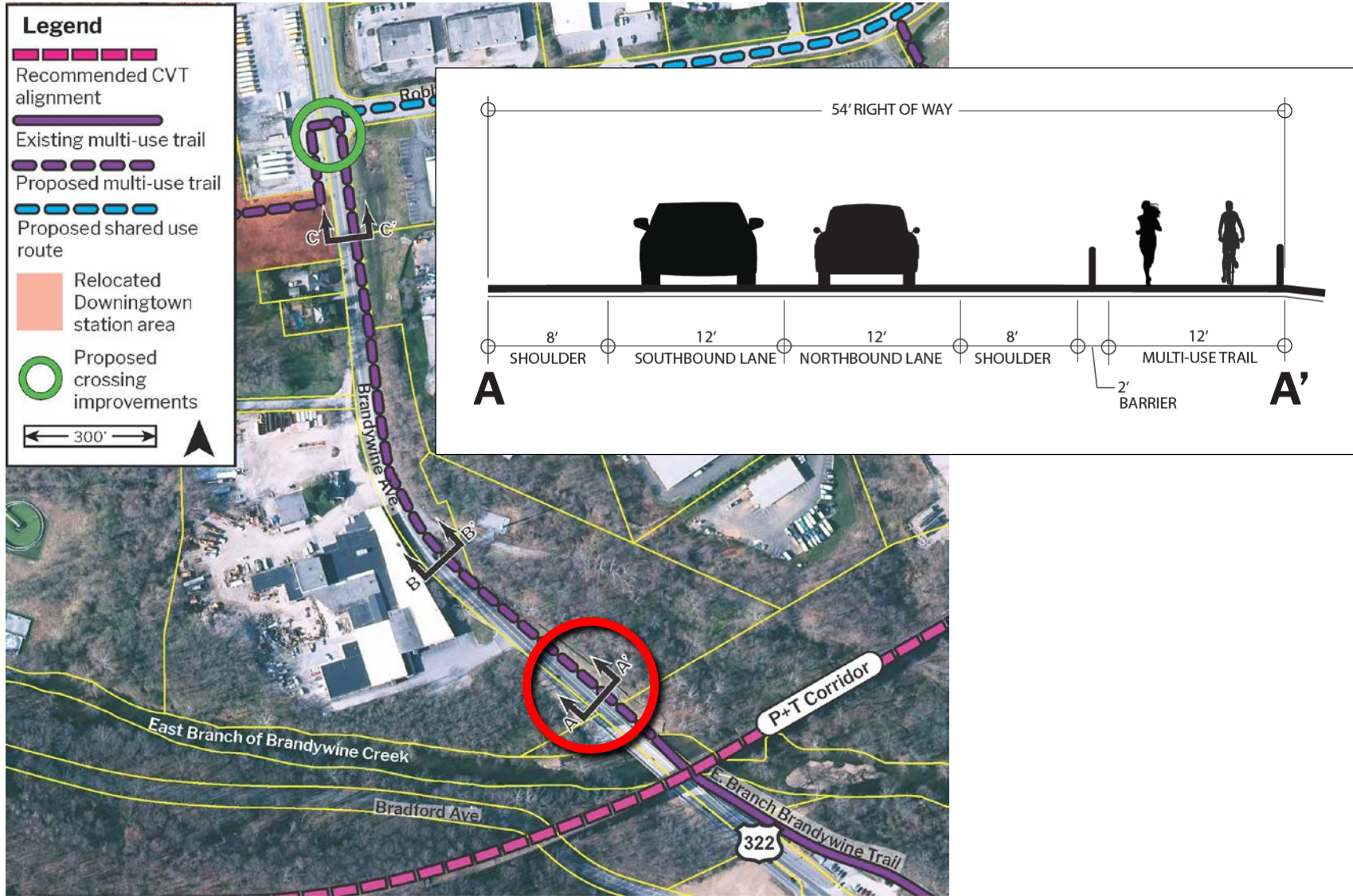
# East Branch Brandywine Trail connection



# East Branch Brandywine Trail connection

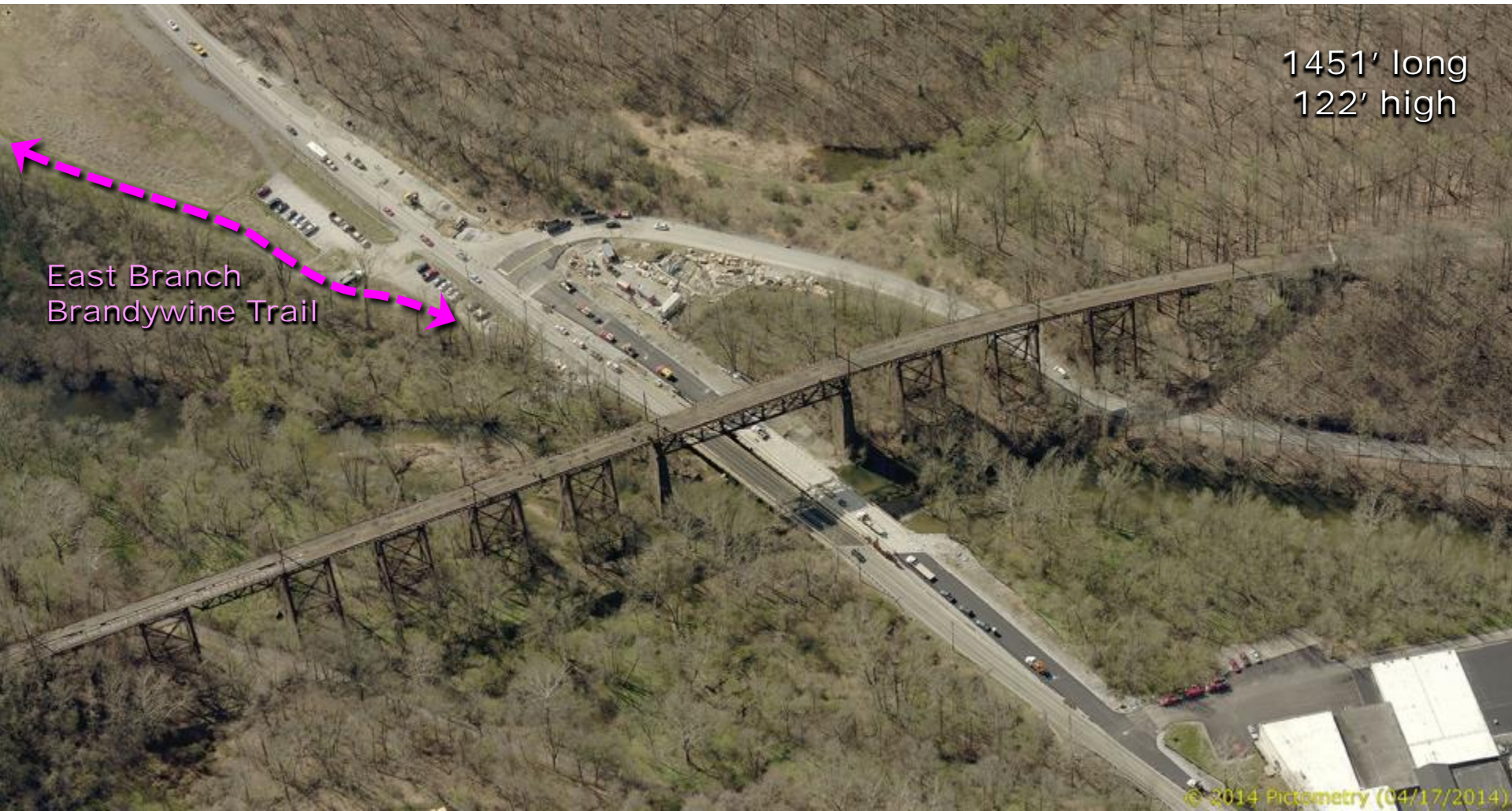


# East Branch Brandywine Trail connection



CHESTER VALLEY TRAIL EXTENSION

# Brandywine Valley Viaduct (Downingtown Trestle)



1451' long  
122' high

East Branch  
Brandywine Trail

© 2014 Pictometry (04/17/2014)

CHESTER VALLEY TRAIL EXTENSION

# Safe Harbor Bridge – Enola Low Grade Trail



1320' long  
150' high

\$6-8M Estimate

CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION



# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# P&T Branch



CHESTER VALLEY TRAIL EXTENSION

# Development Costs Summary

## A. Trail Connections – 10.15 miles **\$9.5M+/-**

- P&T Corridor – 7.4 mi.
- LDC/Ship Road Connection – 0.8 mi.
- Trestle Business Park Connection – 0.25 mi.
- East Branch Brandywine Trail Extension – 0.5 mi.
- Struble Trail Connection – 1.15 mi.

## B. Structure Renovations **\$12.0M+/-**

- Downingtown Trestle - \$8M+/-
- Whitford Bridge - \$3M+/-
- Other - \$1M+/-

## C. Trailhead Development **\$1.5M+/-**

- Whitford
- Boot/Southwind
- Gallagherville

**\$23M+/-**

(including Design & Acquisition)

# Maintenance & Operation Costs Summary

**Annual Maintenance Costs** \_\_\_\_\_ **\$144,000+/-**

- 2017 Chester County CVT Maintenance Budget = \$16,000/mile+/-;
- Total 9.0 miles of multi-use trail.
- Trestle Business Park Connection – 0.25 mi.

**Annual Operation Costs** \_\_\_\_\_  
\_\_\_\_\_ **\$50,000+/-**

- Chester County Park Rangers patrol county trails with assistance from municipal police forces;
- Additional mileage would warrant an additional Park Ranger and an increase to the patrol budget.

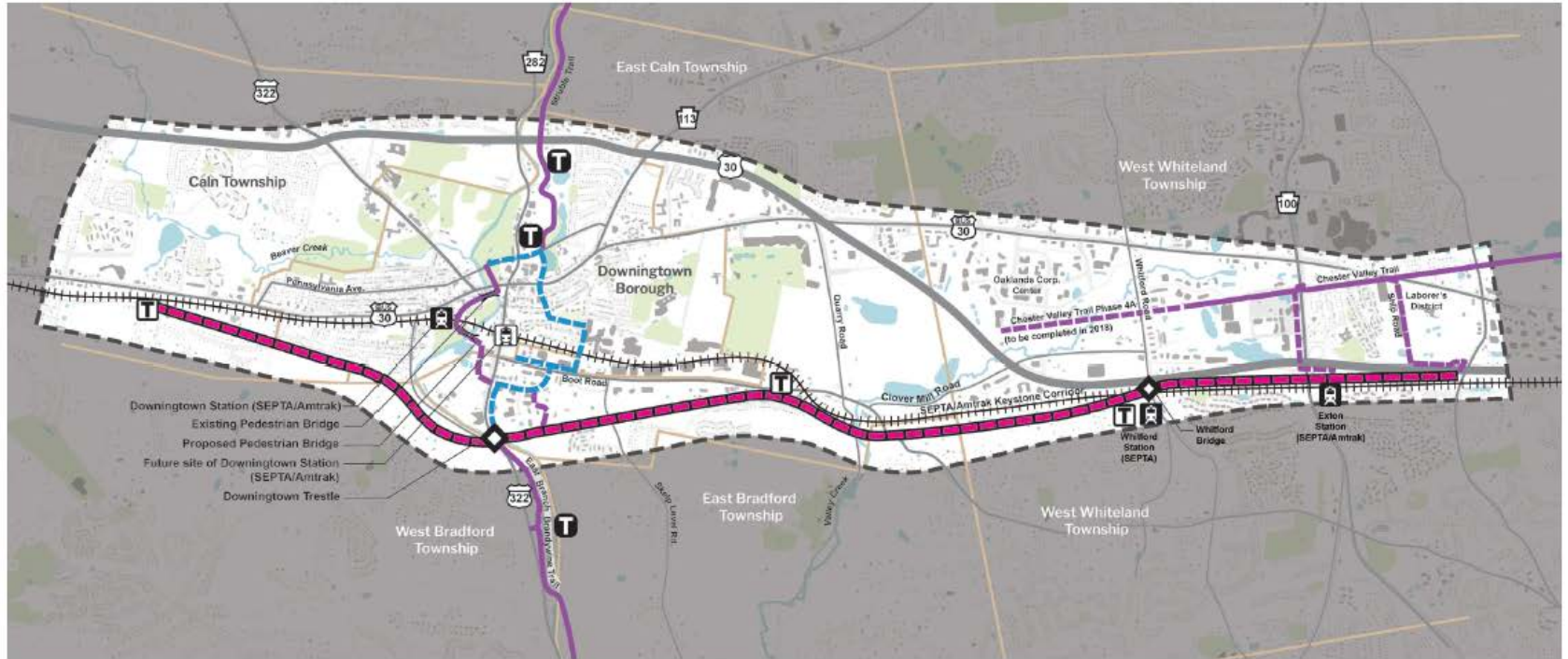
**\$200,000+/-**  
(total annual O&M costs)

# Implementation Steps

- Coordinate with PennDOT regarding obtaining an **easement for trail use** within the P&T corridor;
- Determine the **structural integrity** of all corridor structures (Downingtown Trestle, Whitford Bridge, Route 100 Bridge, stone arch underpasses);
- Perform complete **topographic/boundary survey** and prepare **design documents**;
- Prepare **phasing plans** for implementation based on available funding; and,
- Bid and **construct** proposed improvements

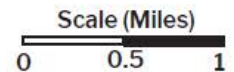
# Master Plan

## Master Plan Chester Valley Trail Extension



### LEGEND

	Study Area Boundary		Existing Trailhead		Municipal Boundary
	Existing Multi-Use Trail		Proposed Trailhead		Municipal Park / Recreation Area
	Proposed Multi-Use Trail		Existing Rail Station		
	Proposed P&T Corridor Multi-Use Trail		Proposed Rail Station		
	Proposed Shared Roadway		Proposed Structure Renovation		



CHESTER VALLEY TRAIL EXTENSION

# Q&A



# LEVERAGING CENSUS DATA FOR MPO EQUITY ANALYSES



**SHOSHANA AKINS**  
*Public Participation  
Planner*

# INDICATORS OF POTENTIAL DISADVANTAGE (IPD) 1.0

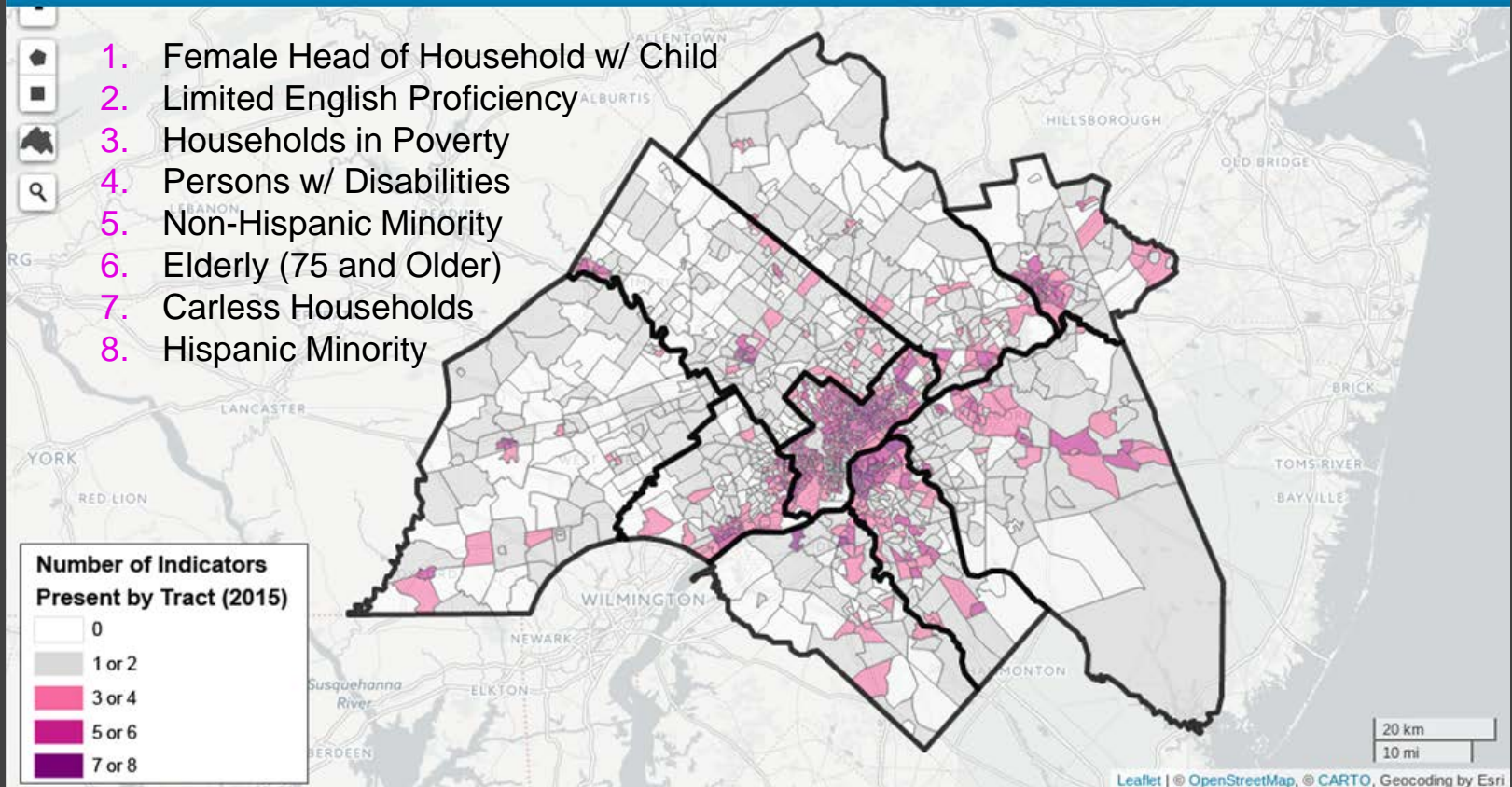


# IPD 1.0

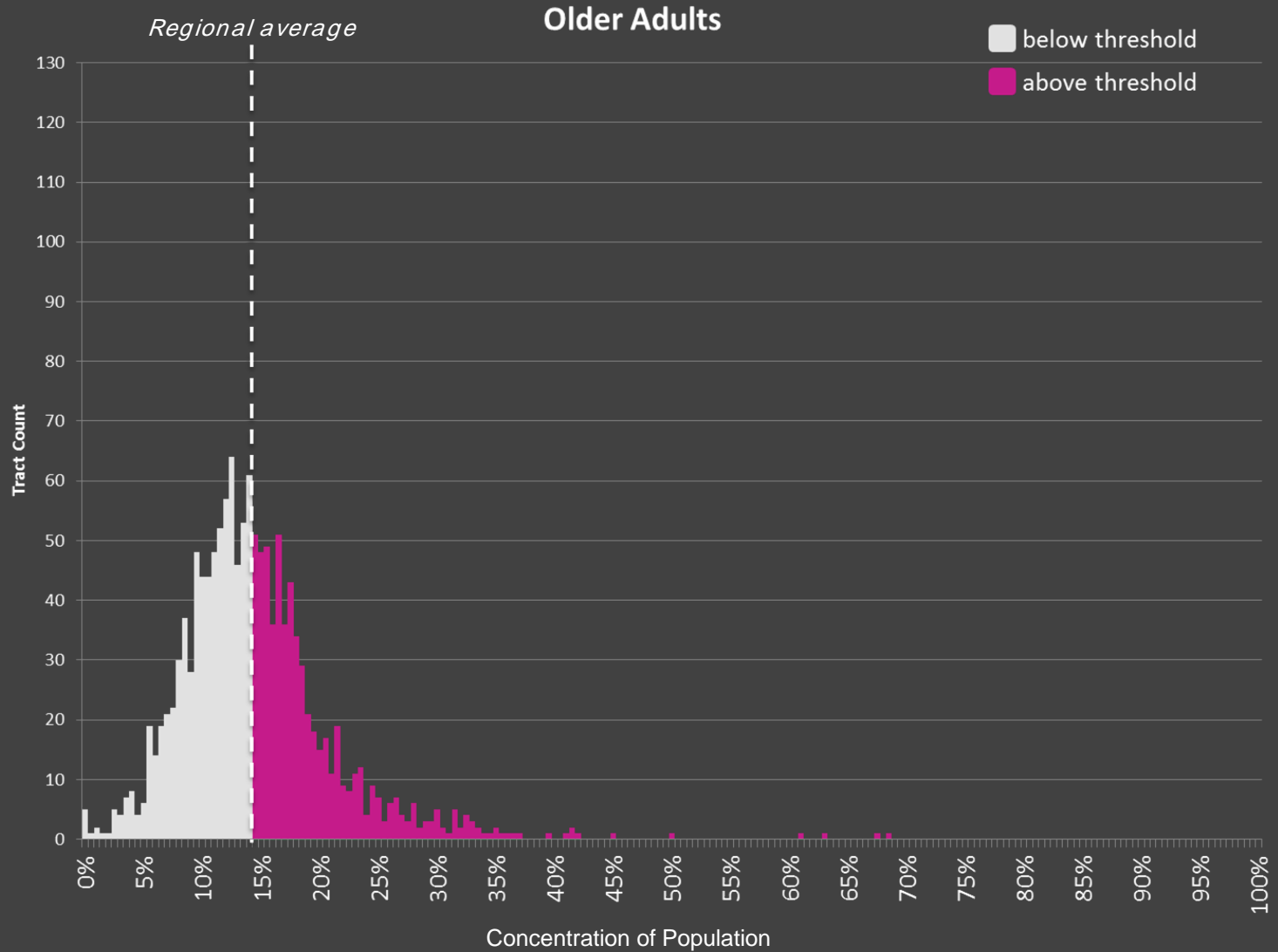
## DVRPC Indicators of Potential Disadvantage

Search data by MCD

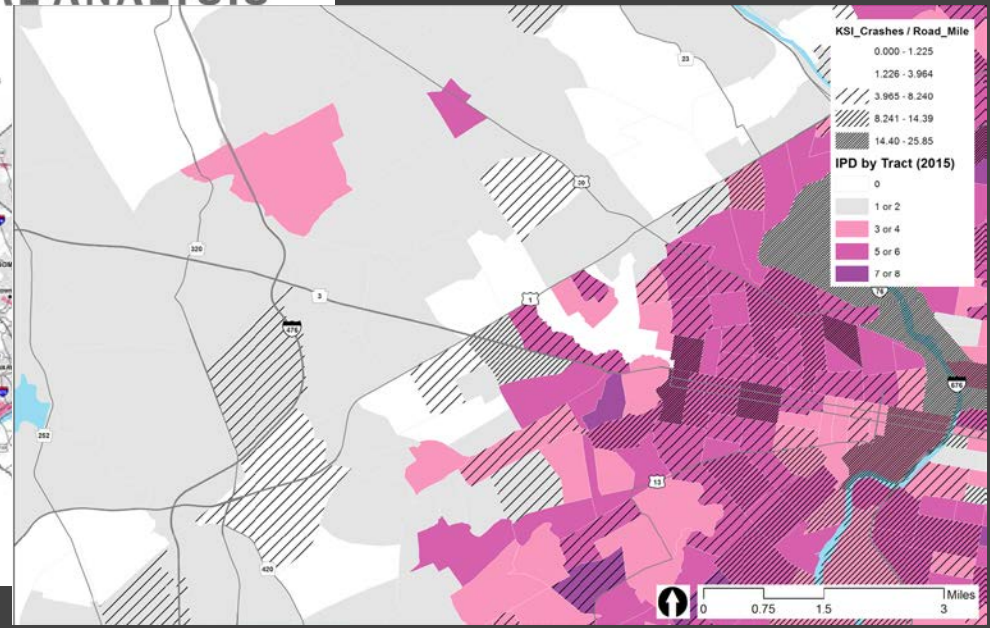
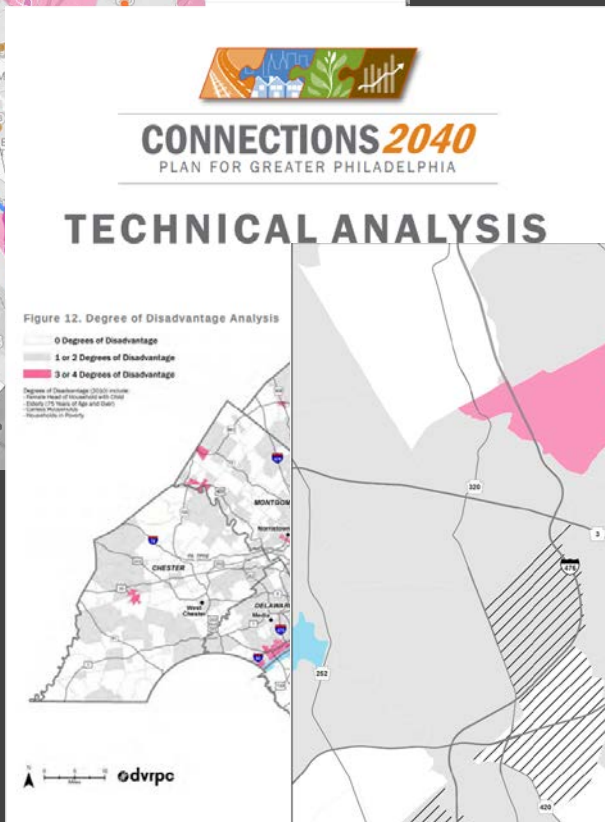
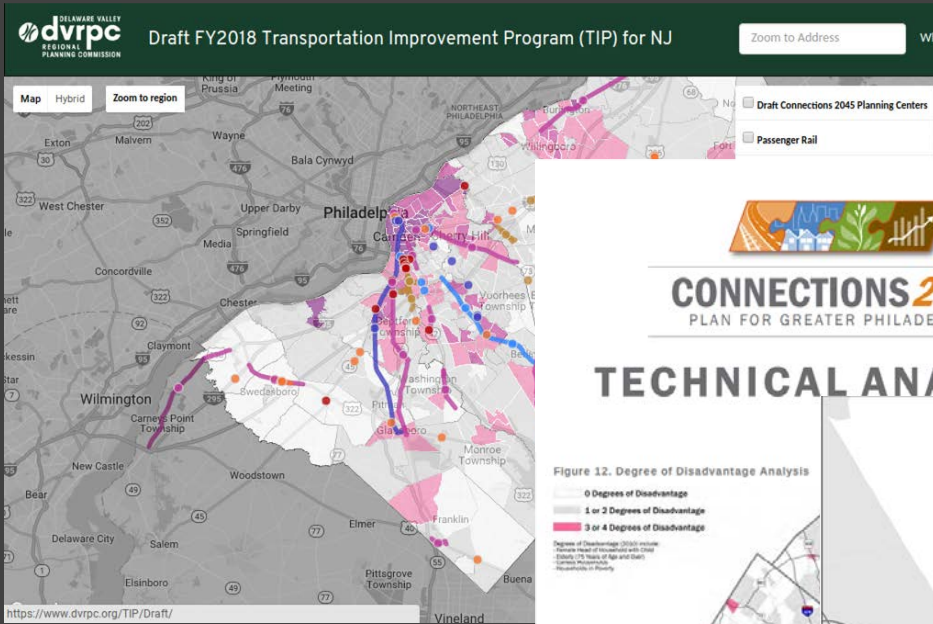
About Help Choose a Population Group



# IPD 1.0



# IPD 1.0



# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION

*May 2016 -  
October 2016*

- Met with managers
- Researched EJ/Title VI

**Outcome:**  
Most departments do not use and/or understand IPD

*November 2016 -  
February 2017*

- Convene staff groups
- Research data sources

**Outcome:**  
Staff want a better starting point to understand Title VI and EJ in projects

*March 2017 -  
September 2017*

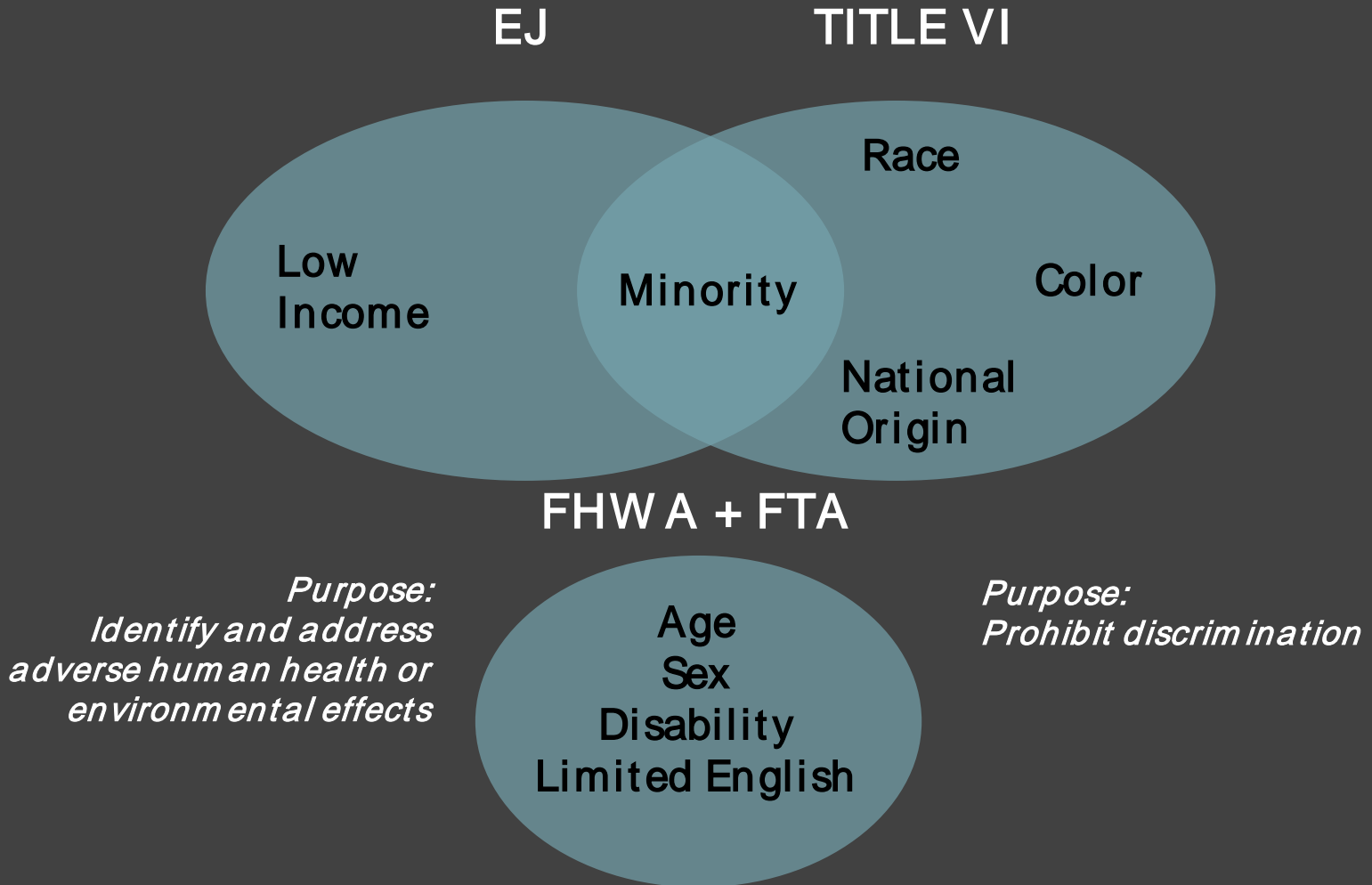
- Test methodologies
- Finalize update idea
- Plan for IPD 2.1

**Outcome:**  
Produced a draft 2.0 methodology

# IPD 2.0 PART 1: ALIGNING INDICATORS WITH EQUITY LEGISLATION



# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION





# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION



Current indicators	Title VI and EJ populations
<ul style="list-style-type: none"><li>• Elderly (75 and Older)</li><li>• Female Head of Household with Child</li><li>• Non-Hispanic Minority</li><li>• Hispanic Minority</li><li>• Limited English Proficiency</li><li>• Persons with Disabilities</li><li>• Households in Poverty</li><li>• Carless Households</li></ul>	<ul style="list-style-type: none"><li>• Age</li><li>• Sex</li><li>• Minority</li><li>• Race</li><li>• Ethnicity</li><li>• National origin</li><li>• Limited English Proficiency</li><li>• Disability</li><li>• Low-Income</li></ul>

# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION



Current indicators	Title VI and EJ populations
<ul style="list-style-type: none"><li>• Elderly (75 and Older)</li><li>• Female Head of Household with Child</li><li>• Non-Hispanic Minority</li><li>• Hispanic Minority</li><li>• Limited English Proficiency</li><li>• Persons with Disabilities</li><li>• Households in Poverty</li><li>• Carless Households</li></ul>	<ul style="list-style-type: none"><li>• Age</li><li>• Sex</li><li>• Minority</li><li>• Race</li><li>• Ethnicity</li><li>• National origin</li><li>• Limited English Proficiency</li><li>• Disability</li><li>• Low-Income</li></ul>

# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION

Current indicators	Title VI and EJ populations
<ul style="list-style-type: none"><li>● Elderly <del>(75+)</del> (65+)</li><li>● <del>Female Head of Household with Child</del></li><li>● Non-Hispanic Minority</li><li>● Hispanic Minority</li><li>● Limited English Proficiency</li><li>● Persons with Disabilities</li><li>● Households <del>in Poverty</del></li><li>● <del>Carless Households</del></li></ul>	<ul style="list-style-type: none"><li>● Age</li><li>● Sex</li><li>● Minority</li><li>● Race</li><li>● Ethnicity</li><li>● National origin</li><li>● Limited English Proficiency</li><li>● Disability</li><li>● Low -Income</li></ul>

# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION

Indicator (ACS 5-year estimates)	Executive Order 12898	Title VI of the Civil Rights Act of 1964	FHWA's Title VI and EJ documents	FTA's Title VI and EJ documents
Youth			✓	
Older Adults			✓	
Female			✓	
Racial Minority	✓	✓	✓	✓
Ethnic Minority	✓	✓	✓	✓
Foreign Born		✓	✓	✓
Limited English Proficiency		✓	✓	✓
Disabled			✓	
Low-income	✓		✓	✓

# IPD 2.0: ALIGNING INDICATORS WITH LEGISLATION

Indicator (ACS 5-year estimates)	Executive Order 12898	Title VI of the Civil Rights Act of 1964	FHWA's Title VI and EJ documents	FTA's Title VI and EJ documents
Youth			✓	
Older			✓	
Female			✓	
Racial Minority	✓	✓	✓	✓
Ethnic Minority	✓	✓	✓	✓
Foreign-Born		✓	✓	✓
Limited English Proficiency		✓	✓	✓
Disabled			✓	
Low-income	✓		✓	✓
Carless Households	✗	✗	✗	✗
Female Head of Household	?	✗	?	✗

# ALIGNING INDICATORS WITH LEGISLATION

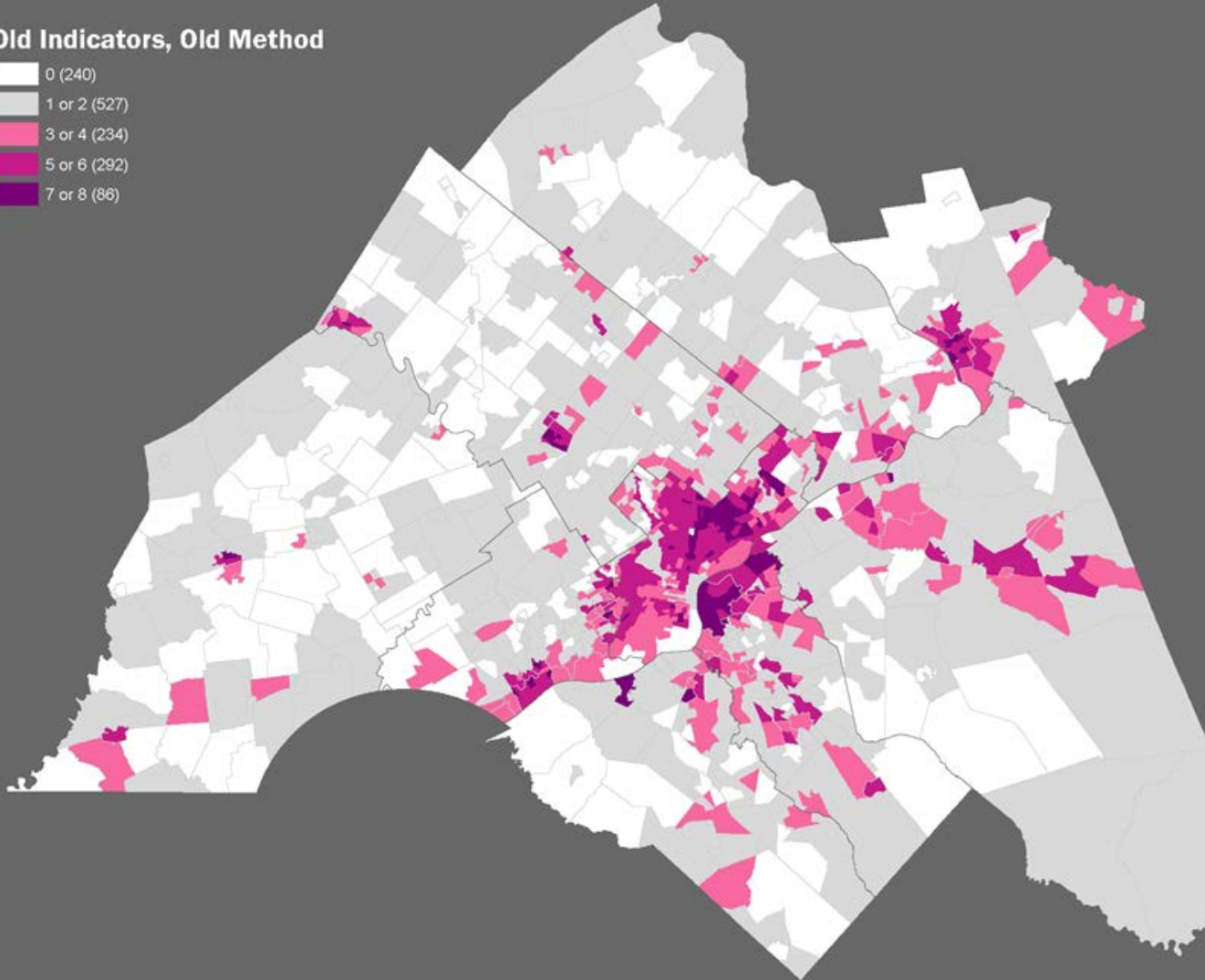
Indicator in IPD analysis update	ACS data table for indicator in IPD analysis	Community of concern indicator represents
Youth	B09001: Population Under 18 Years by Age	Age
Older Adults	S0101: Age and Sex	Age
Female	S0101: Age and Sex	Sex
Racial Minority	B02001: Race	Race and Minority
Ethnic Minority	B03002: Hispanic or Latino Origin by Race	Minority and National Origin
Foreign Born	B05012: Nativity in the United States	National Origin
Limited English Proficiency	S1601: Language Spoken at Home	Limited English Proficiency, and National Origin
Disabled	S1810: Disability Characteristics	Disability
Low-Income	S1701: Poverty Status in the Past 12 Months	Low-Income

# IPD 2.0 PART 2: UPDATING METHODOLOGY



# IPD 1.0 METHODOLOGY

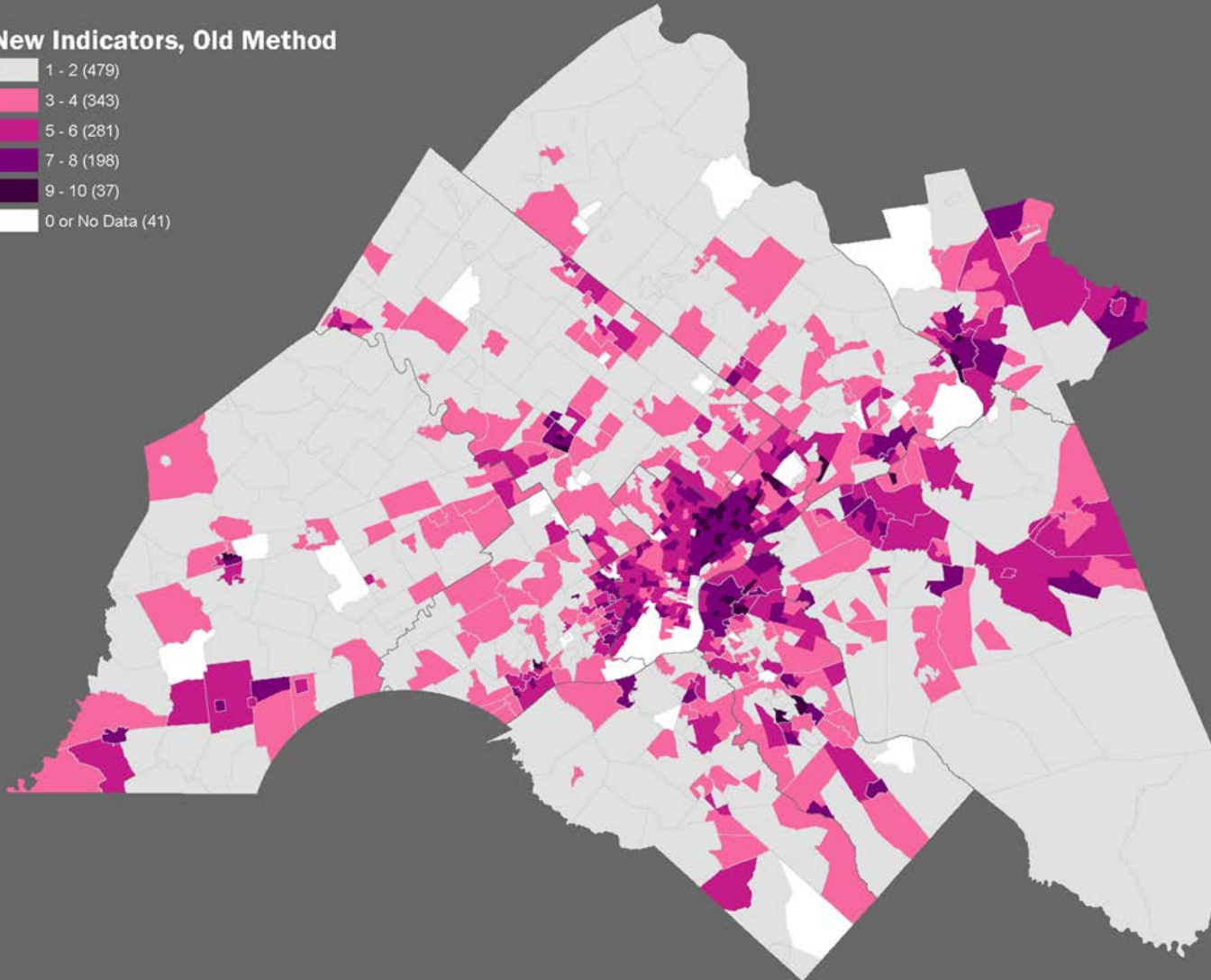
## Old Indicators, Old Method



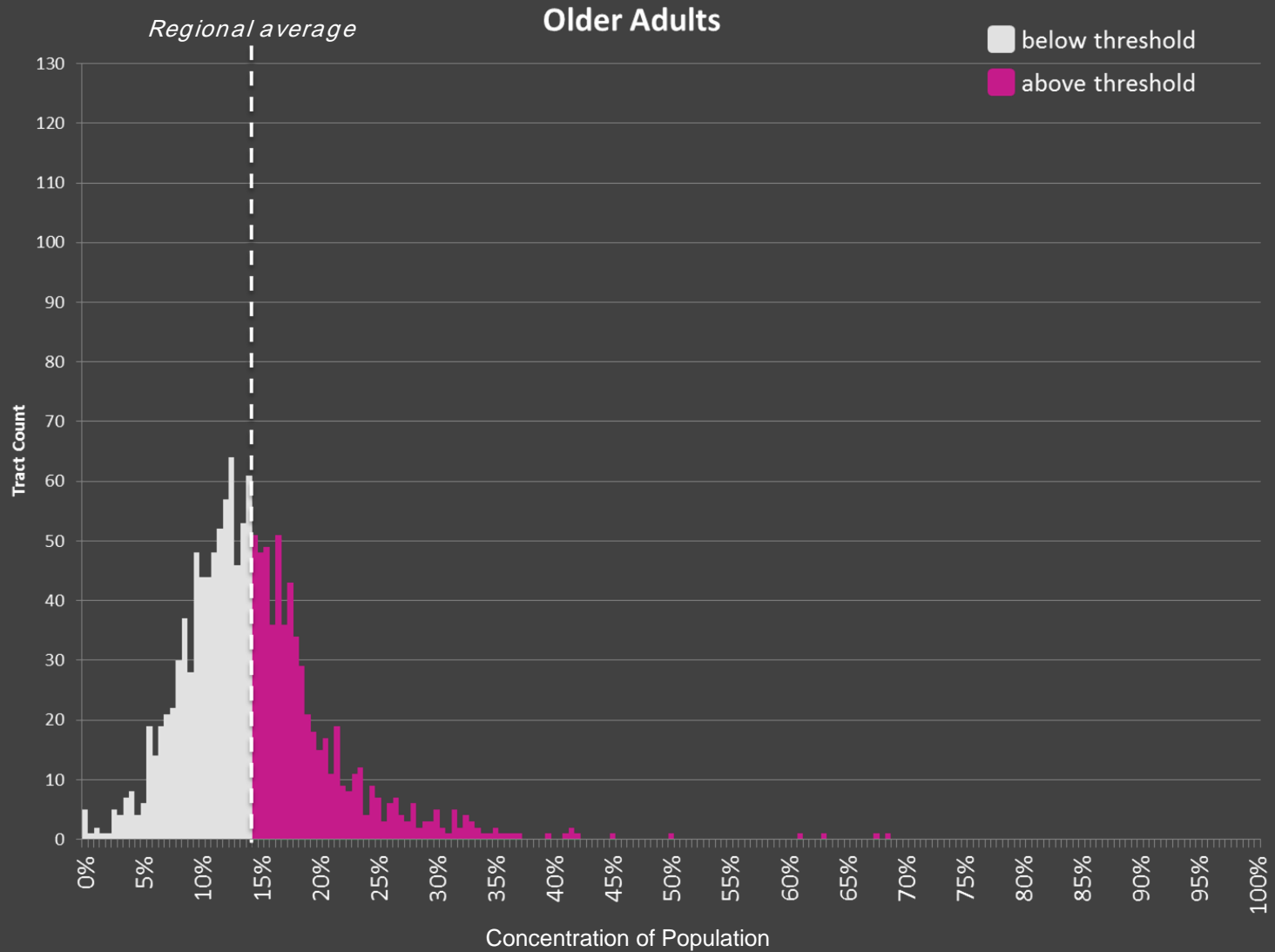


# 2.0 INDICATORS WITH 1.0 METHODOLOGY

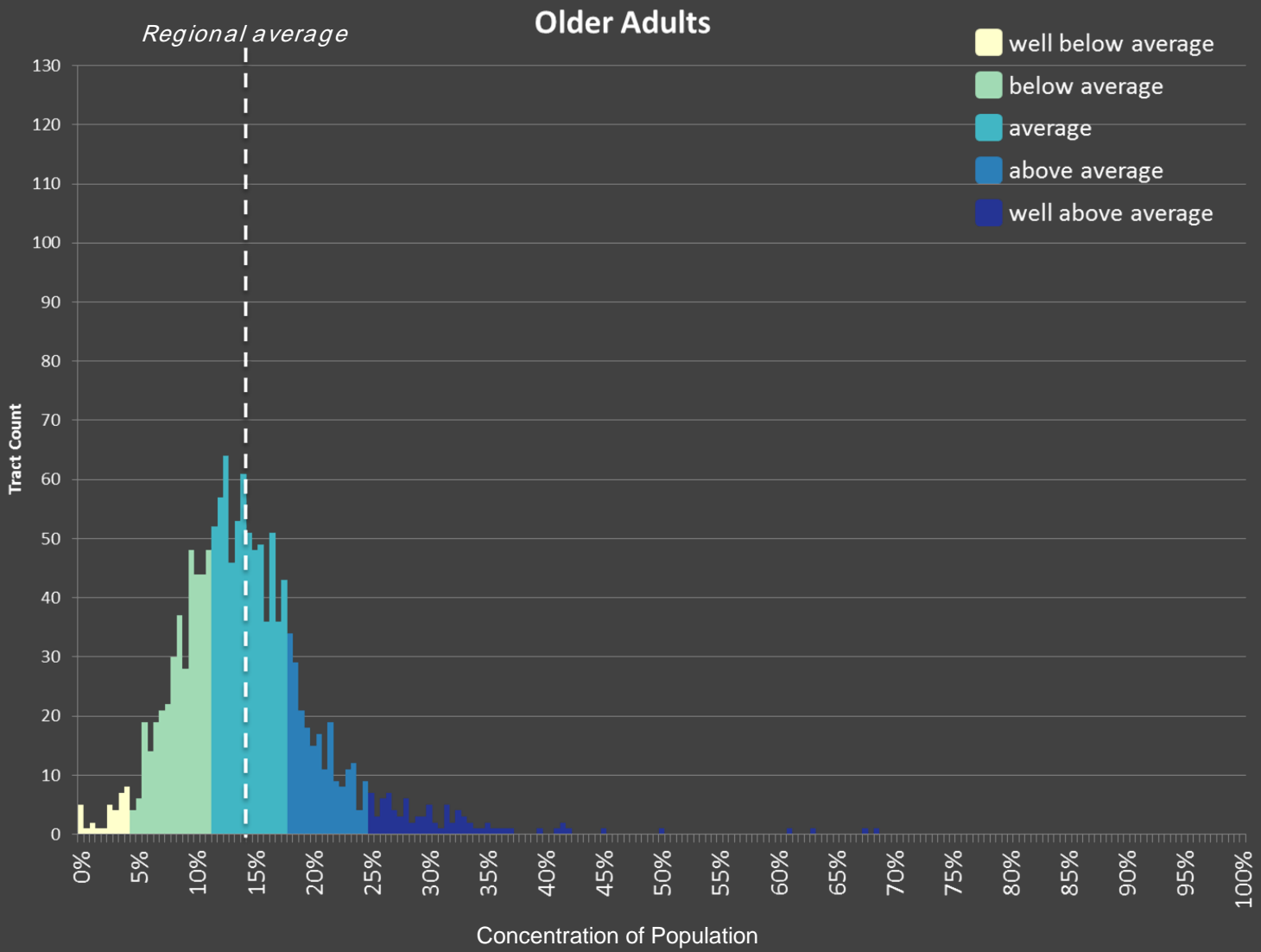
## New Indicators, Old Method



# 1.0 METHODOLOGY



# 2.0 METHODOLOGY



# IPD 2.0 METHODOLOGY: BINNING THE DATA

Youth

Older Adults

Female

Racial Minority

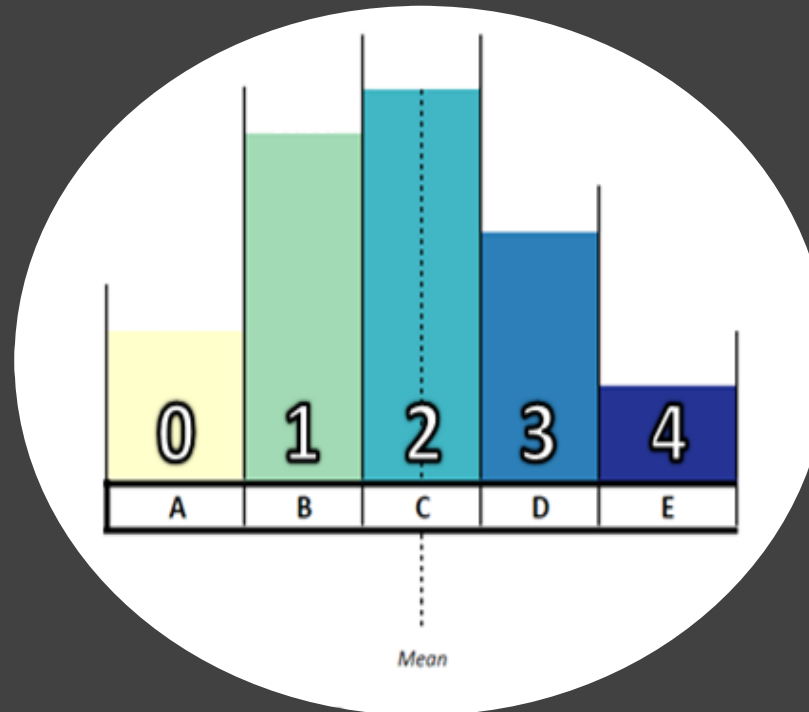
Ethnic Minority

Foreign Born

Limited English Proficiency

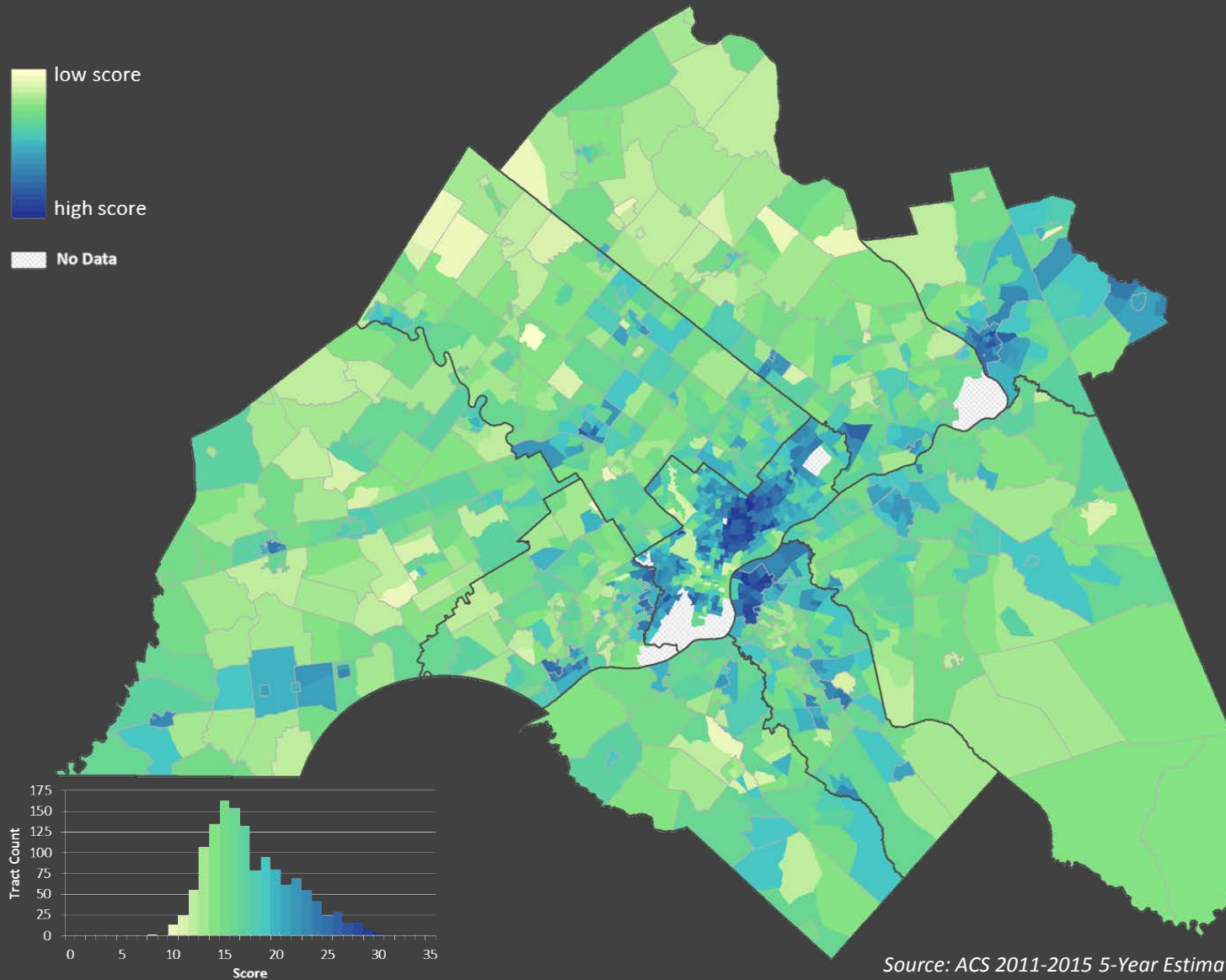
Disabled

Low-income

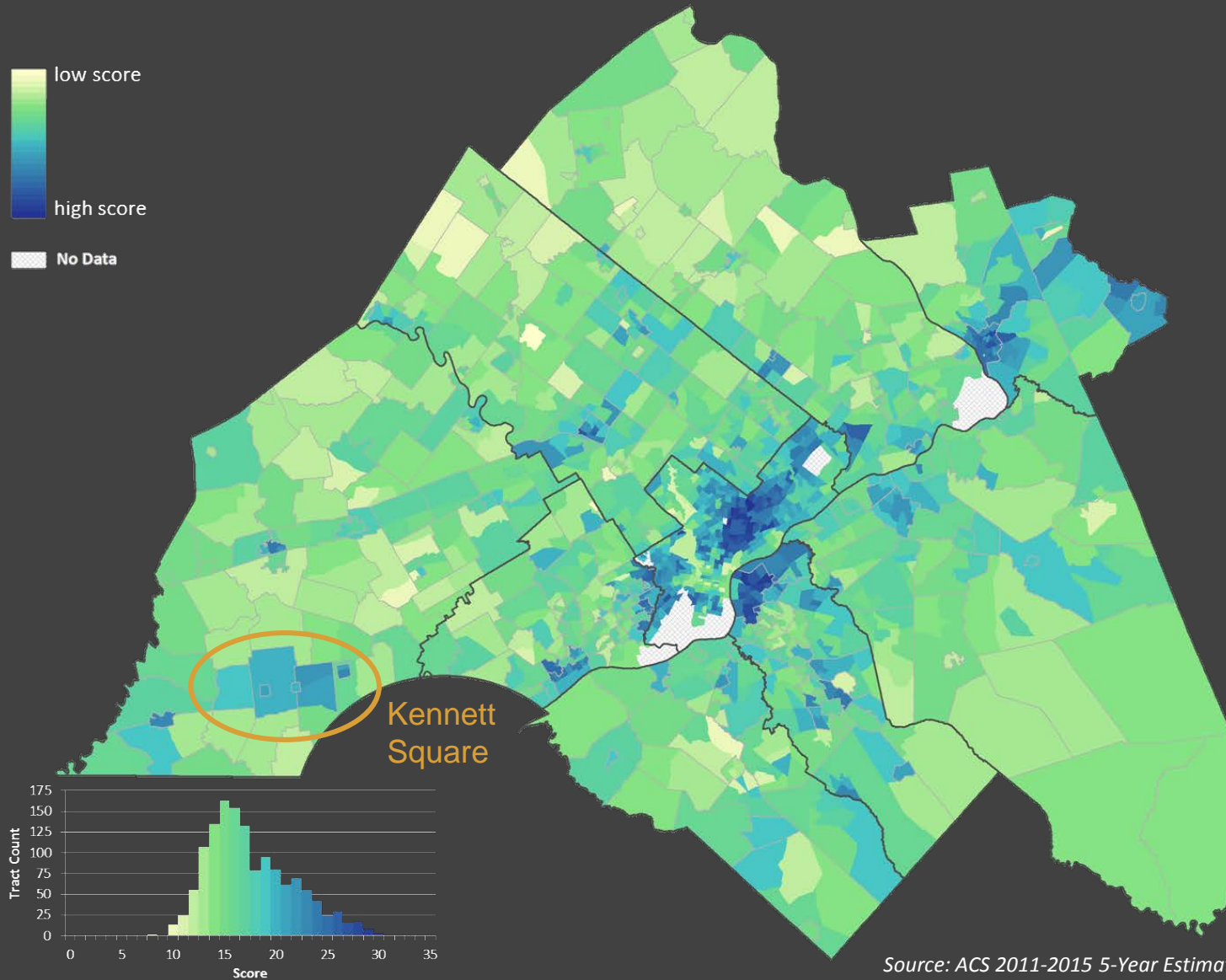


A - well below average  
B - below average  
C - average  
D - above average  
E - well above average

# IPD 2.0 METHODOLOGY: THE END RESULT OF BINNING THE DATA



# IPD 2.0 METHODOLOGY: THE END RESULT OF BINNING THE DATA



Source: ACS 2011-2015 5-Year Estimates

Census Tract: 3117

## IPD Indicators

The information below provides the estimated percentages, Margin of Error (MOE), and IPD Score Classification of our nine indicators in reference to U.S. Census Tract 3117. The entire set of indicators data and scores may be downloaded from our Open Data Portal for further analysis.

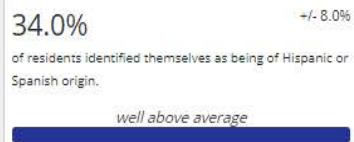
### Youth



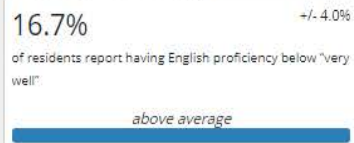
### Female



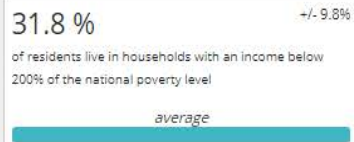
### Ethnic Minority



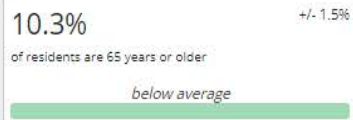
### Limited English Proficiency



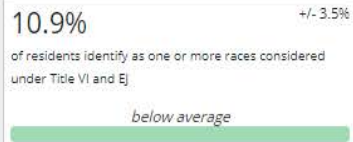
### Low-Income



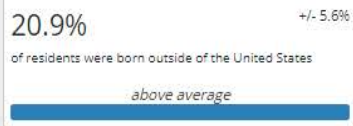
### Older Adults



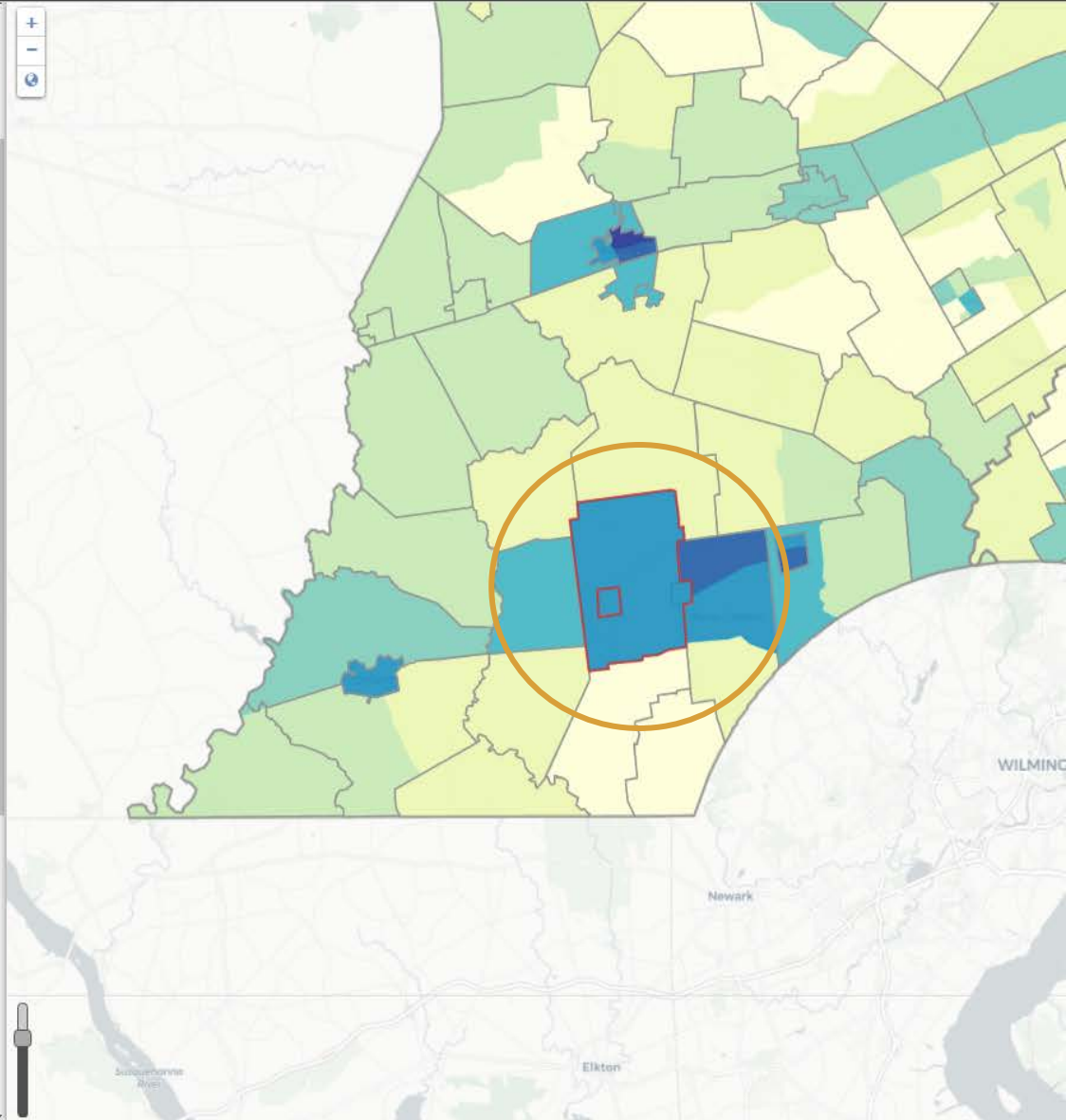
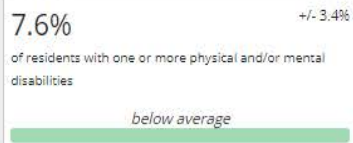
### Racial Minority

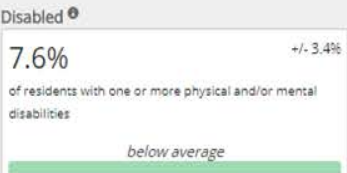
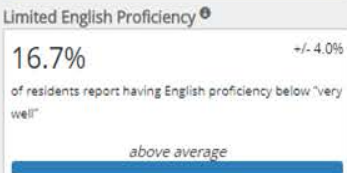
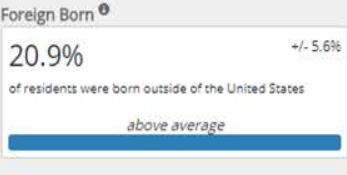
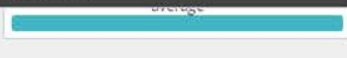


### Foreign Born



### Disabled

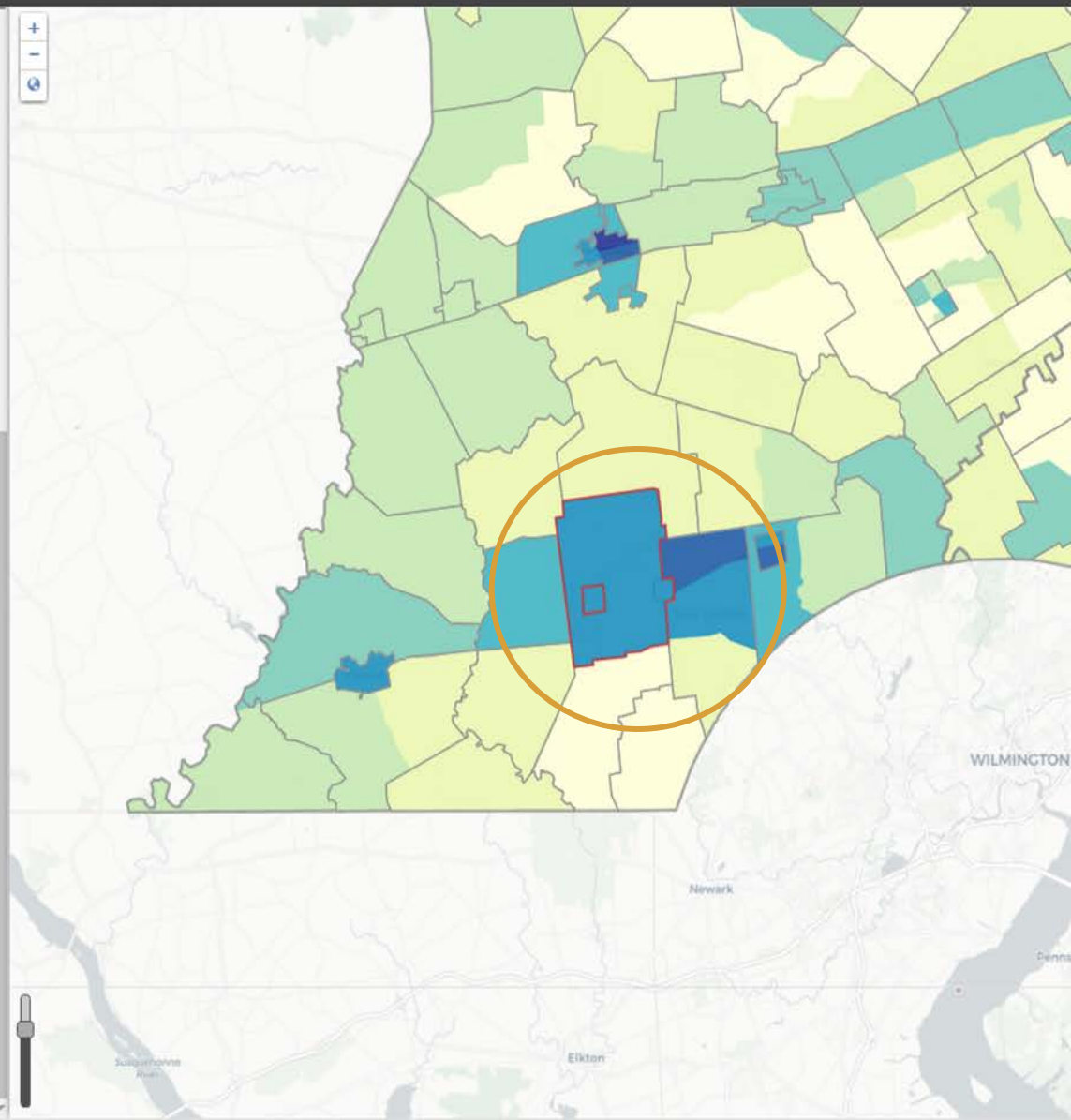




**IPD Scoring Analysis**

The information below provides tract-level IPD scores and percentages for our nine indicators. The entire set of indicators may be downloaded from our Open Data Portal for further analysis.

IPD Score  
**22**

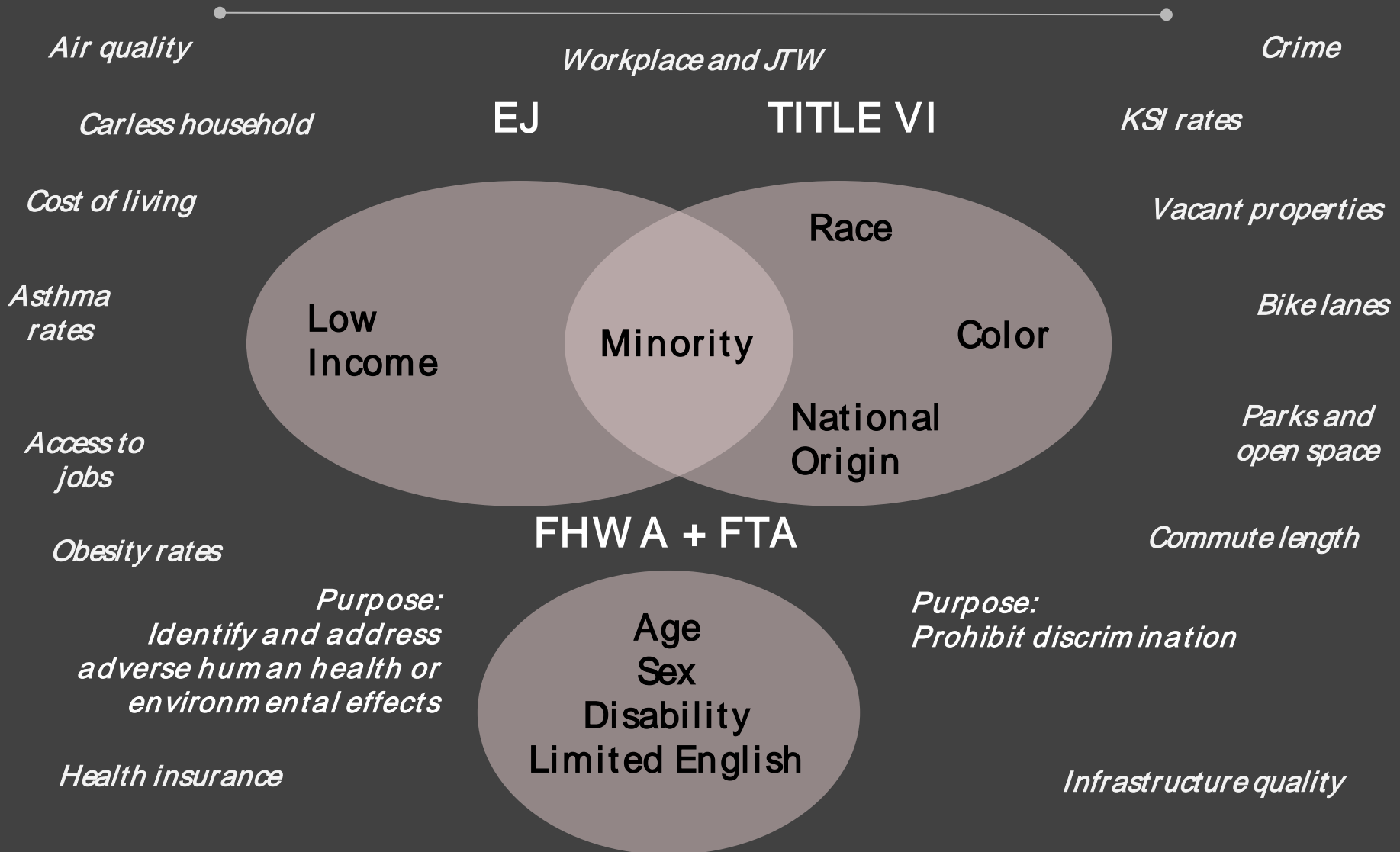




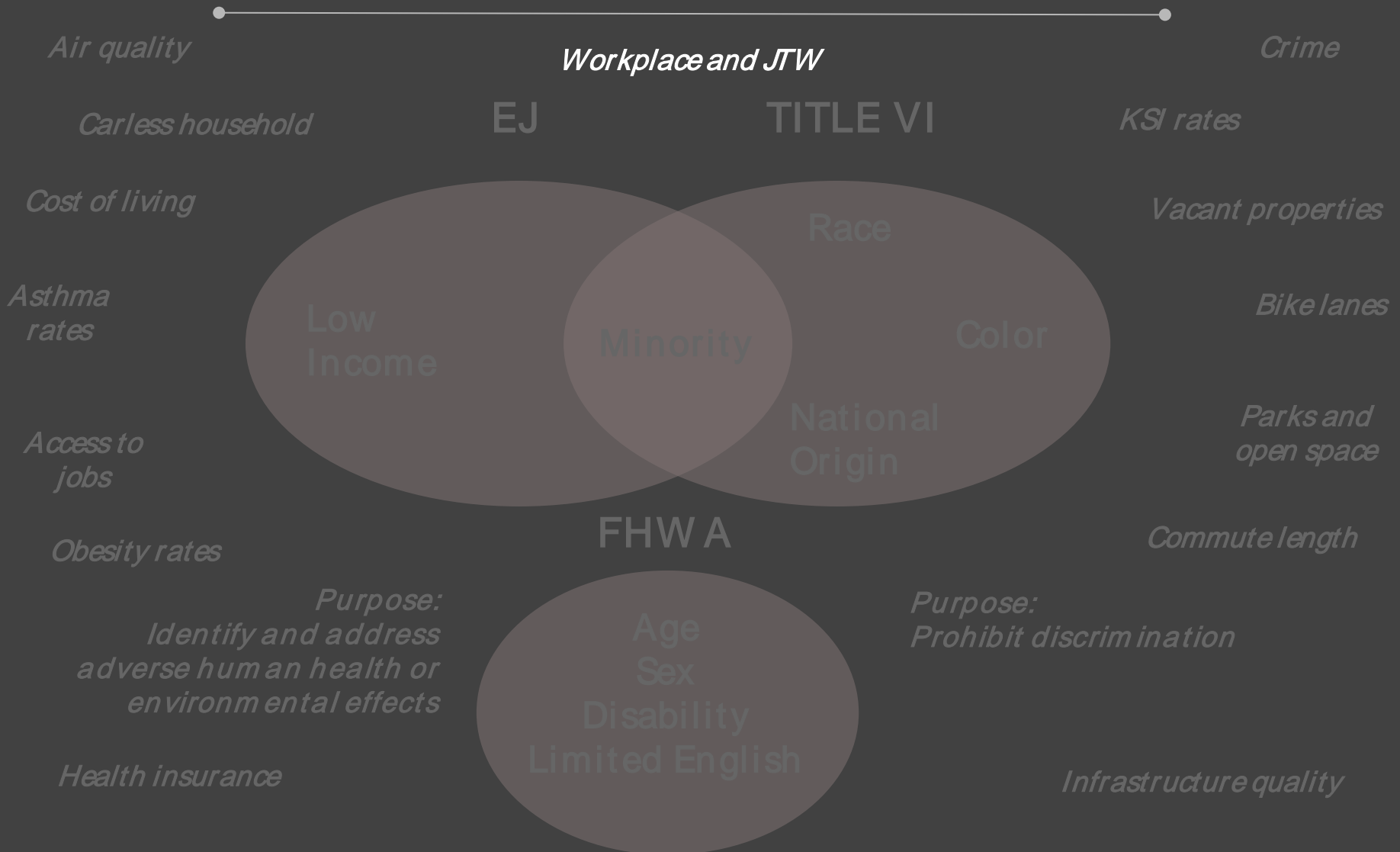
# IDEAS FOR 2.1: BEYOND THE LEGISLATION



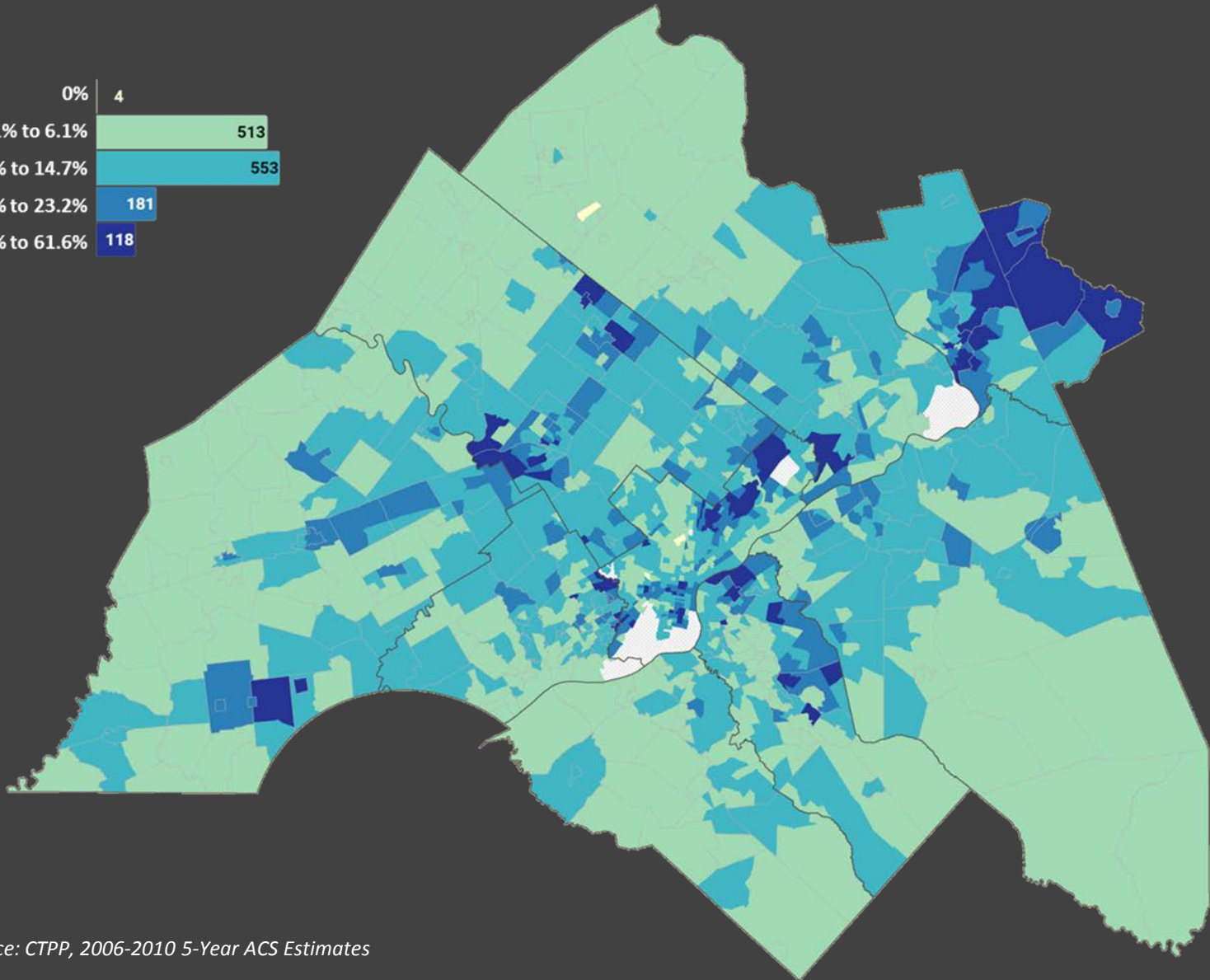
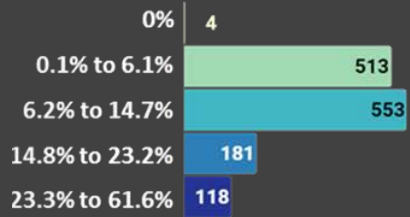
# BEYOND THE LEGISLATION



# BEYOND THE LEGISLATION

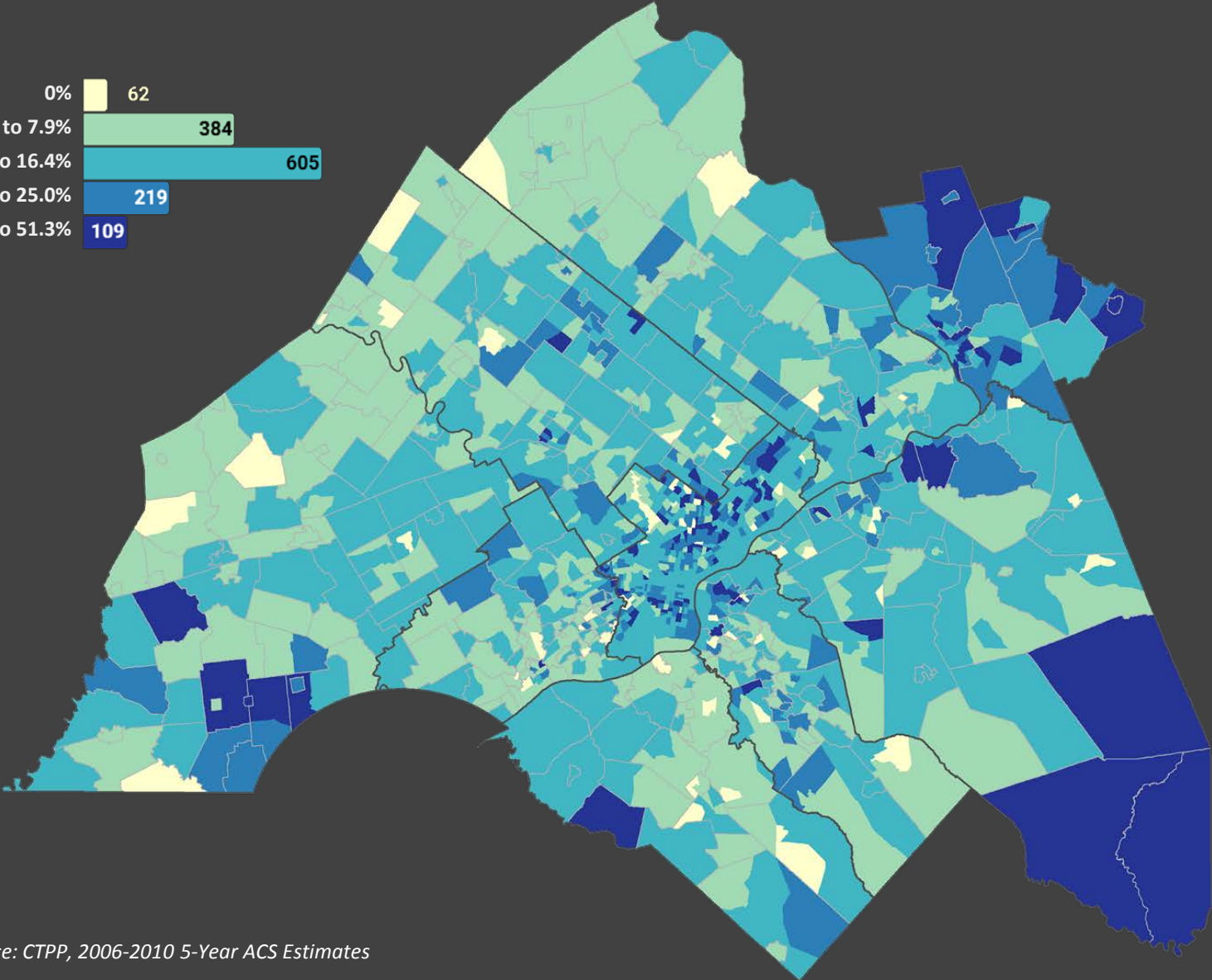
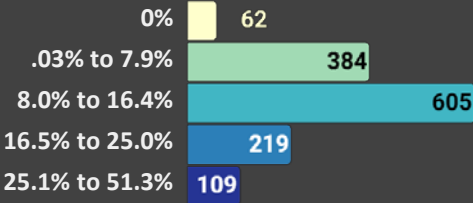


# FOREIGN BORN - RESIDENCE



Source: CTPP, 2006-2010 5-Year ACS Estimates

# FOREIGN BORN - WORKPLACE



Source: CTPP, 2006-2010 5-Year ACS Estimates

# AND BIG THANKS TO THE TEAM!

---

KIM KOREJKO

GISELLE BABIARZ

BEN GRUSWITZ

CHRIS POLLARD

ALISON HASTINGS

---

## *RESOURCES*

DVRPC's IPD Interactive Map: [www.dvrpc.org/webmaps/IPD/](http://www.dvrpc.org/webmaps/IPD/)

FHWA Title VI guidance: <https://www.fhwa.dot.gov/civilrights/programs/tvi.cfm>

FTA EJ guidance: <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/environmental-justice-policy-guidance-federal-transit>

CTPP Data: <http://ctpp.transportation.org/Pages/5-Year-Data.aspx>

List of CTPP EJ Tables: CTPP Status Report - April 2017  
[www.fhwa.dot.gov/planning/census\\_issues/ctpp/status\\_report/sr0417/index.cfm](http://www.fhwa.dot.gov/planning/census_issues/ctpp/status_report/sr0417/index.cfm)

# PERFORMANCE MEASURES UPDATE

RTC  
4.10.2018

# TODAY'S AGENDA

- Re/Overview of Performance Measures
- Planning Partners Safety Agreement
- CMAQ Congestion Targets
  - Non-SOV Travel
  - Annual Peak Hour Excessive Delay (PHED)

Overview

Safety  
Agreement

CMAQ  
Congestion  
Targets



# TODAY'S AGENDA

- **Re/Overview of Performance Measures**
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# TODAY'S AGENDA

- Re/Overview of Performance Measures
- Planning Partners Safety Agreement
- **CMAQ Congestion Targets**
  - **Non-SOV Travel**
  - **Annual Peak Hour Excessive Delay (PHED)**



# MAP-21/FAST ACT PERFORMANCE MEASURES

- **Safety (PM1)** (Number & Rate of Fatalities; Number & Rate of Serious Injuries; Number of Non-Motorized Fatalities and Serious Injuries)
- **Infrastructure (PM2)**
  - **Pavement Condition** (% of Interstate and Non-Interstate NHS Pavement in Good Condition; in Poor Condition)
  - **Bridge Condition** (% of NHS Bridges Classified as Good; Classified as Poor)
- **System Performance (PM3)**
  - **NHS** (% of Person-Miles Traveled on the Interstate/Non-Interstate System that are Reliable)
  - **Freight** (Truck Travel Time Reliability Index)
  - **CMAQ**
    - **Emissions**
    - **Congestion**
      - Non-SOV Travel
      - Annual Peak Hour Excessive Delay
- **Transit**
  - **Assets** (% of Revenue/Non-Revenue Vehicles that Have Met or Exceeded Useful Life Benchmark; % of Assets with Condition Rating Below 3.0 on TERM)
  - **Safety**

# MAP-21/FAST ACT PERFORMANCE MEASURES

## MAP-21/FAST Act Performance Measures

- **Safety (PM1)** (Number & Rate of Fatalities; Number & Rate of Serious Injuries; Number of Non-Motorized Fatalities and Serious Injuries)
- **Infrastructure (PM2)**
  - Pavement Condition (% of Interstate and Non-Interstate NHS Pavement in Good Condition; in Poor Condition)
  - Bridge Condition (% of NHS Bridges Classified as Good; Classified as Poor)
- **System Performance (PM3)**
  - NHS (% of Person-Miles Traveled on the Interstate/Non-Interstate System that are Reliable)
  - Freight (Truck Travel Time Reliability Index)
  - **CMAQ**
    - Emissions
    - **Congestion**
      - Non-SOV Travel
      - Annual Peak Hour Excessive Delay
- **Transit**
  - Assets (% of Revenue/Non-Revenue Vehicles that Have Met or Exceeded Useful Life Benchmark; % of Assets with Condition Rating Below 3.0 on TERM)
  - Safety (# and Rate of Reportable Fatalities, Injuries, and Safety Events per Total Veh. Rev. Miles; Mean Distance Between Major Mechanical Failures)

# WHAT WE NEED TO DO

## PM Requirements for States & MPOs

- Set Targets & Report on Progress
- Incorporate Measures into the Planning Process
- Develop Agreements

# IMPLEMENTATION TIMELINE

Final Rule	Effective Date	States Set Targets By	MPOs Set Targets By	Inclusion in MPO and State DOT LRTP & TIP/STIP	Agreements
Safety Performance Measures	April 14, 2016	Aug. 31, 2017	Up to 180 days after the State sets targets, but not later than Feb. 27, 2018	Updates or amendments on or after May 27, 2018	May 27, 2018
Infrastructure Performance Measures	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets targets	Updates or amendments on or after May 20, 2019	May 20, 2019
System Performance Measures	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets targets	Updates or amendments on or after May 20, 2019	May 20, 2019

# SAFETY AGREEMENT

The MPO(s), State(s), and the providers of public transportation shall jointly agree upon and develop specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, and the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO.

## Pennsylvania

- Check-off letter submitted to PennDOT

## New Jersey

- Statewide written procedures to be signed by MPOs and NJDOT



# CMAQ CONGESTION TARGETS

For the NHS in urbanized areas with a population over 1 million for the first performance period (200,000 thereafter) that are also in nonattainment or maintenance areas for ozone (O<sub>3</sub>), carbon monoxide (CO), or particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>)

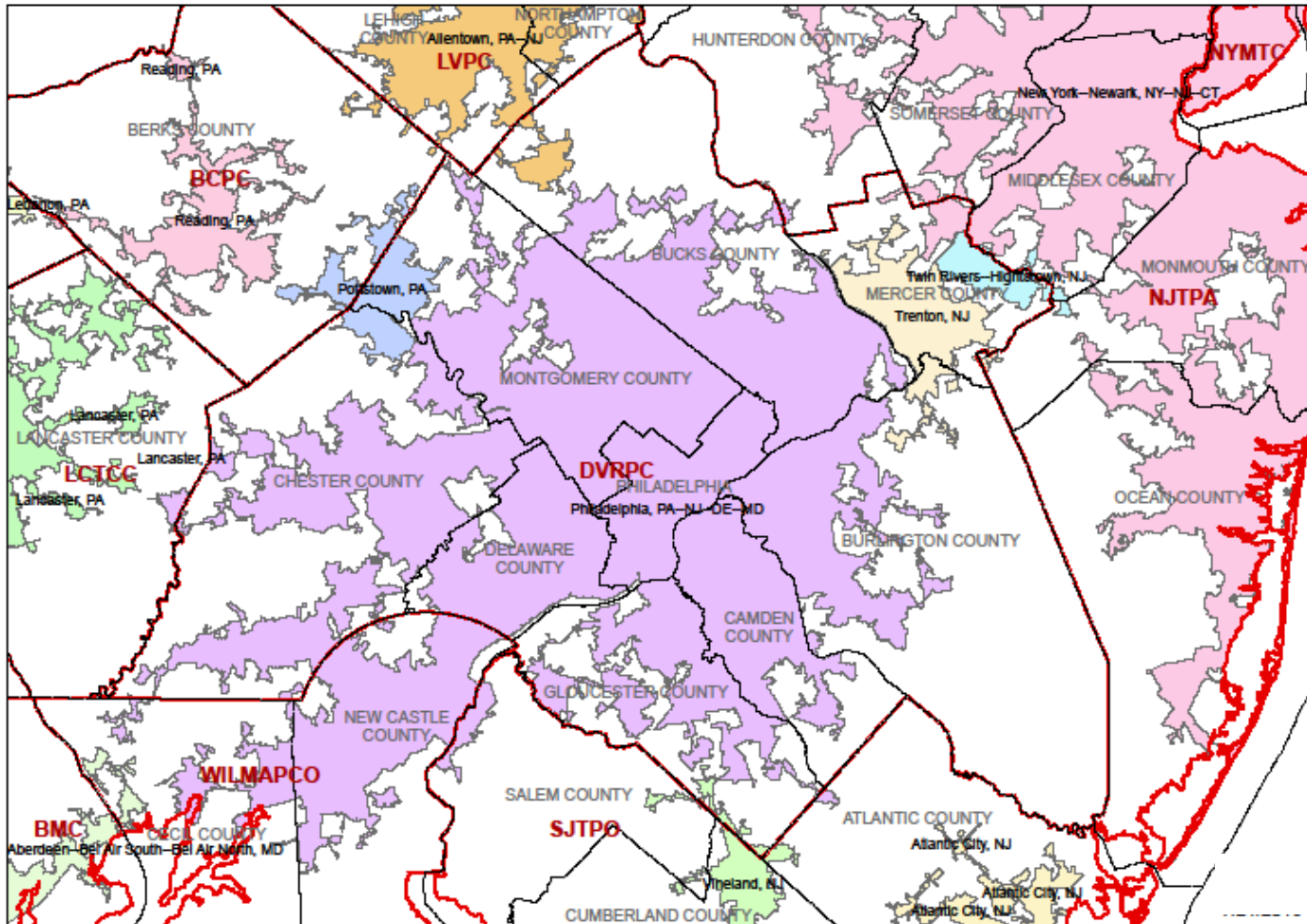
## Percentage Non-SOV Travel

- Measurement of non-SOV travel, including car/vanpool, public transportation, walking, bicycling, and telecommuting. Three options to calculate modal share: 1) ACS Journey-to-Work data; 2) Localized surveys; or 3) Volume/Usage counts for each mode.

## Annual Peak Hour Excessive Delay (PHED) per Capita

- Excessive delay will be based on the travel time at 20 mph or 60% of the posted speed limit travel time, whichever is greater, and will be measured in 15-minute intervals. Peak hour is defined as 6-10 AM and 3-7 PM.

# URBANIZED AREAS AND MPO BOUNDARIES



# MULTI-AGENCY COORDINATION

## Philadelphia Urbanized Area

- 4 States
  - Pennsylvania, New Jersey, Delaware, Maryland
- 5 MPOs
  - DVRPC
  - Lancaster County TCC
  - NJTPA
  - SJTPO
  - WILMAPCO

## New York Urbanized Area

- 3 States
- 5 MPOs (including DVRPC)

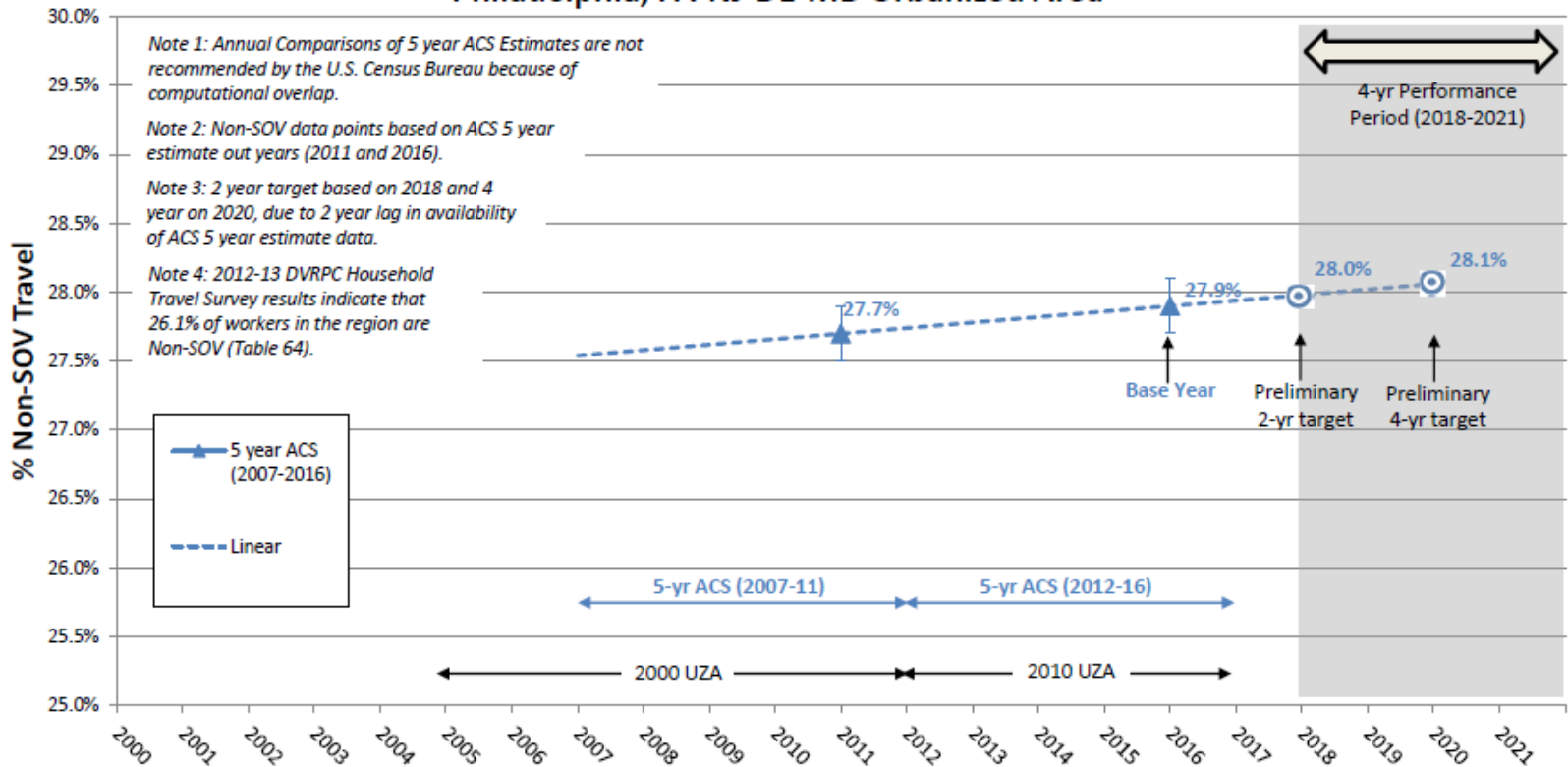
**Starting in 2022, we will have to coordinate for the Allentown and Trenton UAs**



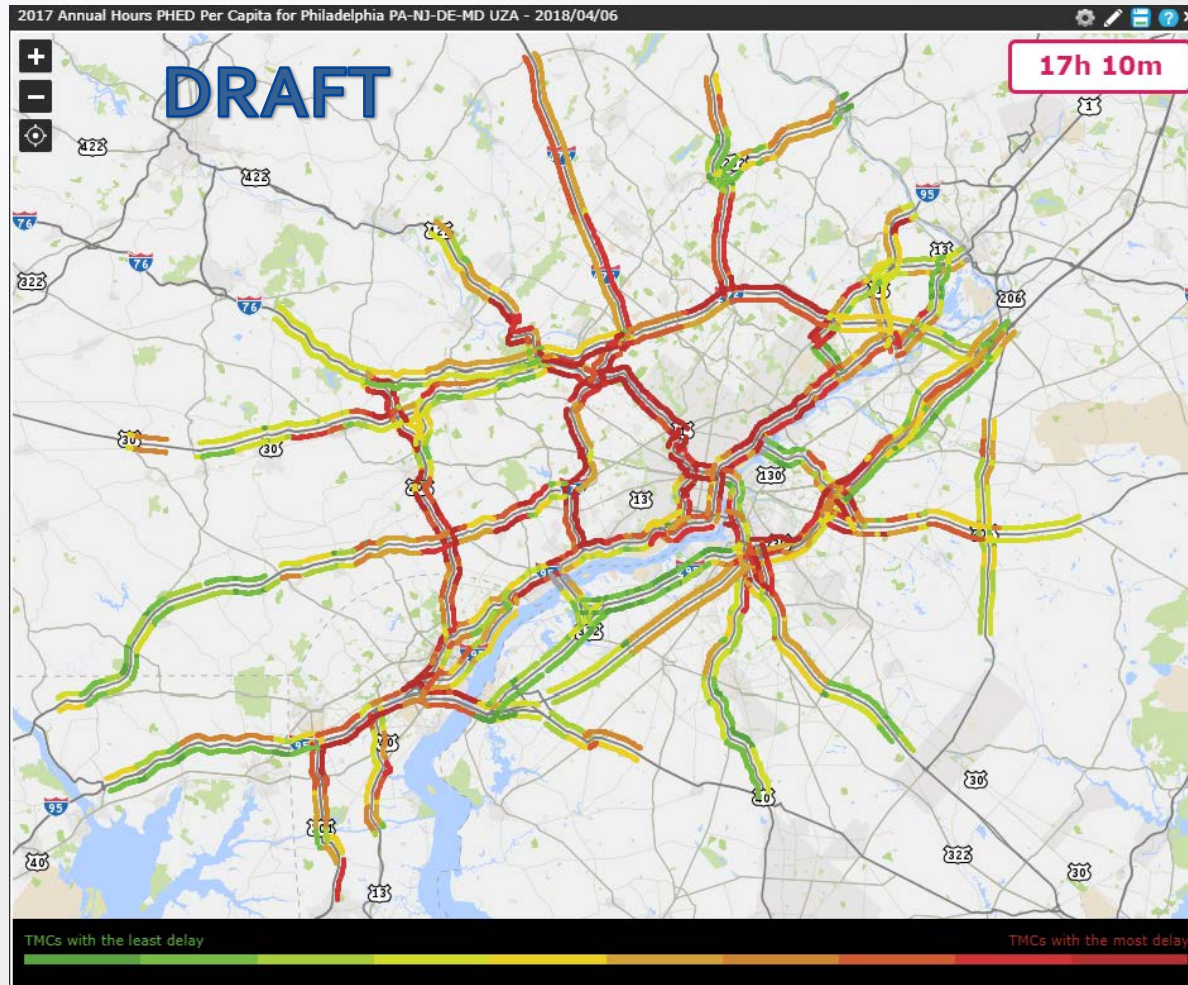
# NON-SOV TRAVEL TARGET SETTING

DRAFT

**% Non-SOV Travel (Journey To Work)  
Philadelphia, PA-NJ-DE-MD Urbanized Area**



# ANNUAL PHED TARGET SETTING



Overview

Safety Agreement

CMAQ Congestion Targets

# NEXT STEPS

- MPO review of state-submitted Infrastructure Targets by October 1, 2018
- MPO review of state-submitted System Performance (NHS, Freight, and CMAQ) Targets by October 1, 2018
- MPO review of state-submitted 2018 Safety Targets by February 27, 2019
- Develop written agreements for Infrastructure and System Performance by May 2019
- Incorporate Safety, Infrastructure, System Performance, and Transit Measures into the FY 20 NJ TIP Update in Spring 2019

QUESTIONS, COMMENTS, OR \*>#^~!!



*I'll be back...*

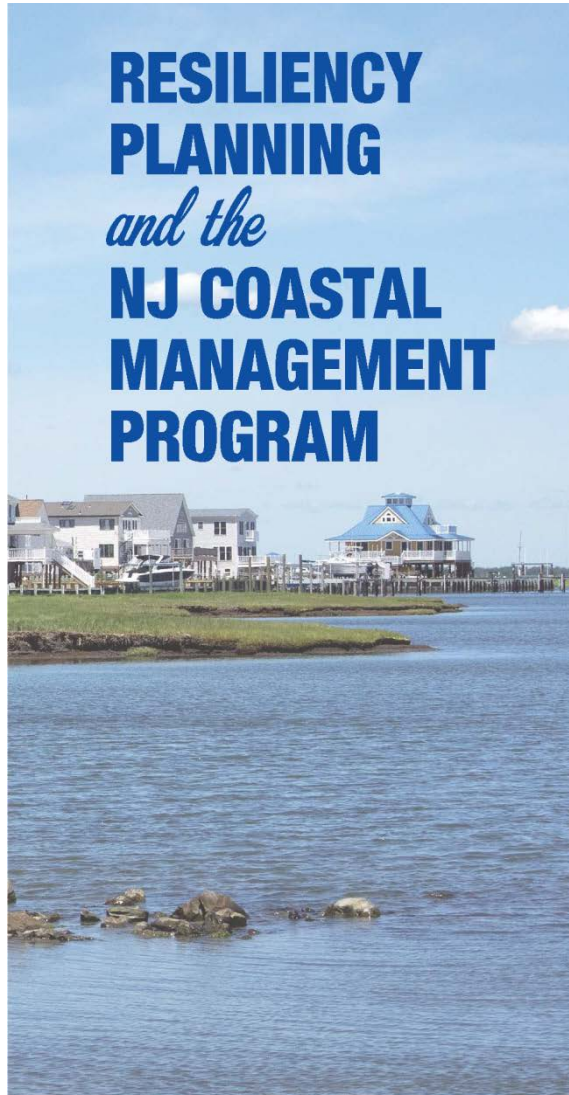
# Building Resilience in Coastal New Jersey Municipalities



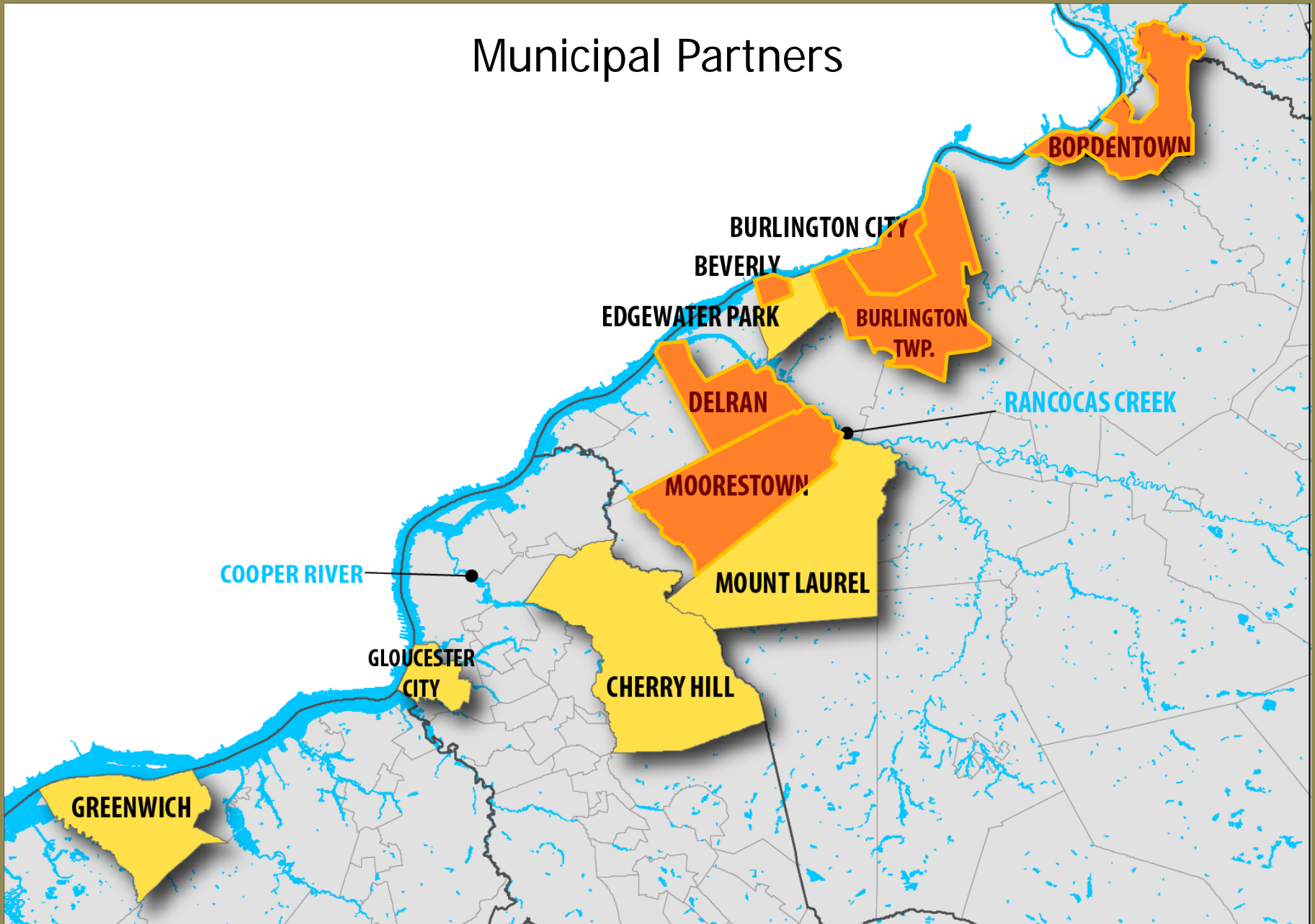
**Melissa Andrews, Environmental Planner**  
Regional Technical Committee Meeting | April 10, 2018



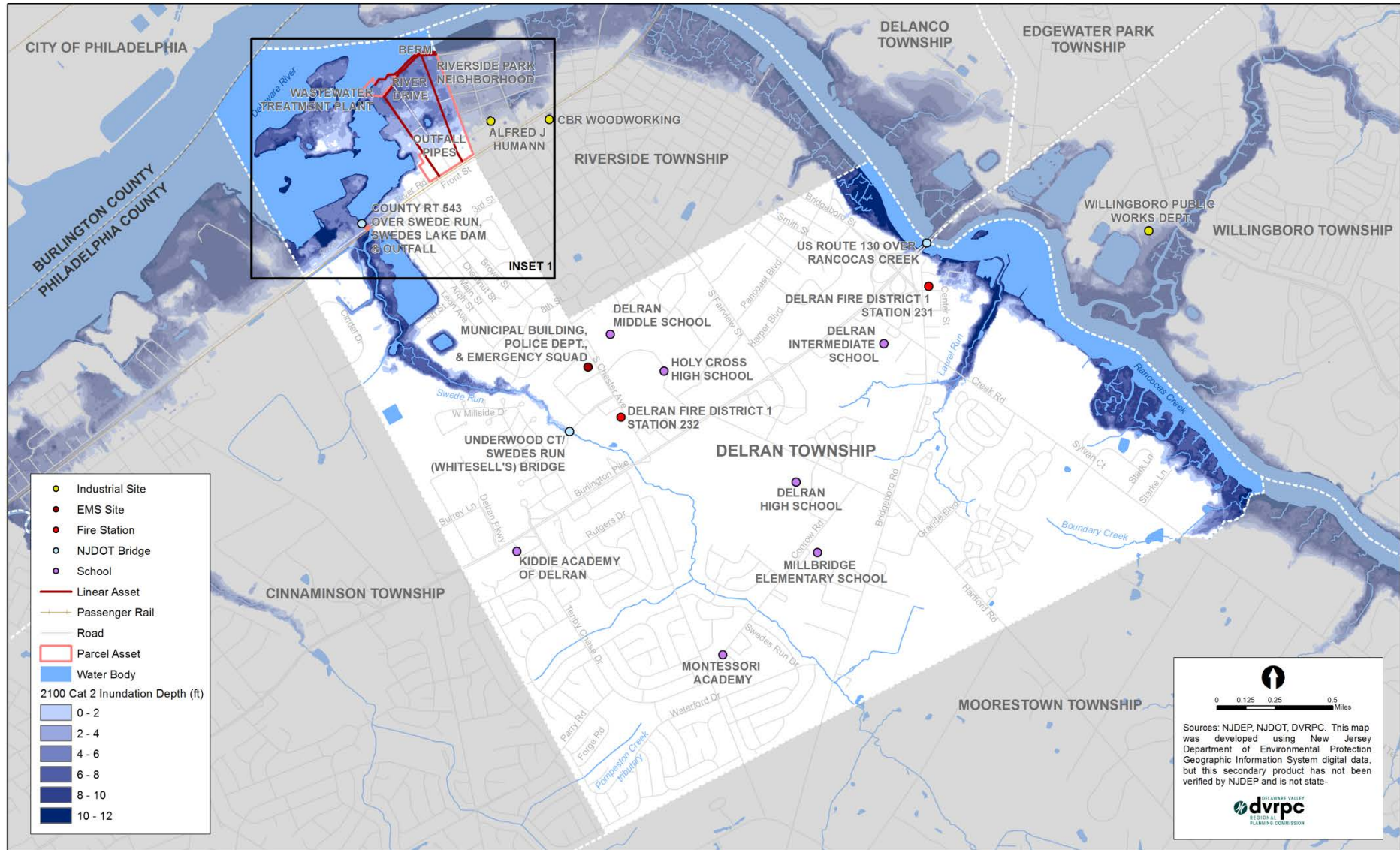
# New Jersey Resilient Coastal Communities Initiative



# Municipal Partners



# 2100 Sea Level Rise + Category 2 Storm Surge



# Coastal Vulnerability Assessment

Sea Level Rise (SLR) Projections

YEAR	SLR FROM PRESENT
Present	-
2050	+1.4 ft
2100	+3.3 ft

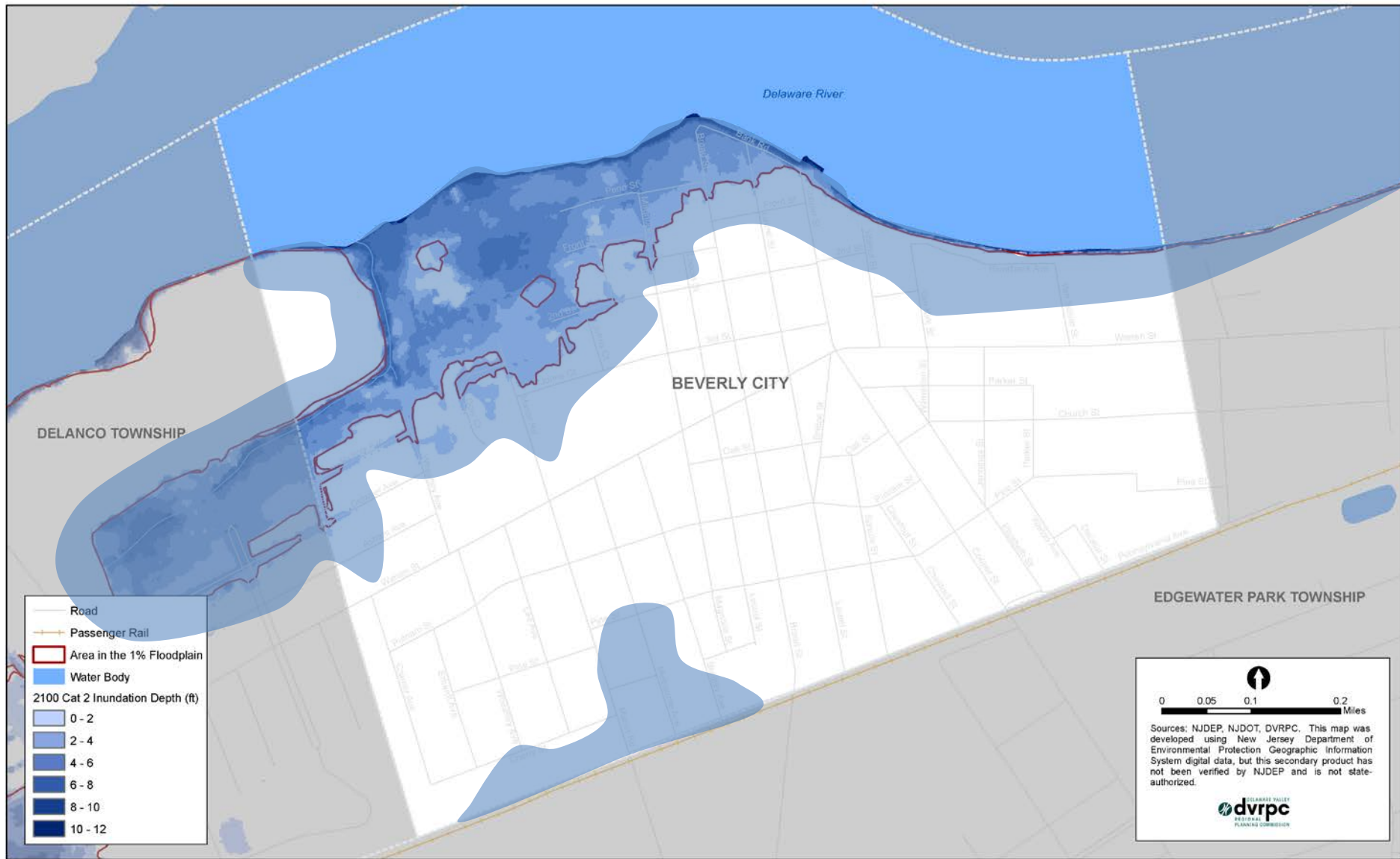
## TOP AREAS OF CONCERN

Map #	Asset Category	Asset Name	Asset Description	Flood Depths on Parcel	Exposure	Sensitivity	Vulnerability Rating	Consequences	Consequences Rating
1	Emergency Facilities (Designated Emergency Shelter) and Institutional/Cultural/Gov't (Schools)	Burlington City High School	Public high school and designated emergency shelter located at 100 Blue Devil.	0 ft - 6.2 ft	Most of the building will not likely be substantially flooded, but much of the site may be flooded with up to 2 ft of water.	More information is needed on the durability of the buildings' materials and the degree to which the buildings are elevated above floodwaters. The predicted flood depths at the Wilbur Watts Intermediate School could cause substantial damage. Information is also needed on any emergency equipment that is in harm's way. Egress through floodwaters may be difficult at Wilbur Watts, and a relatively minor inconvenience at the High School.	Moderate	As a designated emergency shelter, the loss of either of these buildings would require a large percentage of residents to be rerouted to another shelter, causing additional strain on shelter resources. After the storm, students and staff would experience the inconveniences of relocation for several weeks to several months after the storm as the school was being renovated to remove flooding damage.	Moderate
2		Wilbur Watts Intermediate School	Public middle school and designated emergency shelter for Burlington City located at 550 High St.	1.4 ft - 8.2 ft	Virtually all of the site will likely be flooded, with the main building potentially facing depths of between 1.5 ft and 7 ft of water.		Moderate to High		Moderate
3	Emergency Facilities (Fire Departments)	The Fire Building	Fire station located at 545 High St.	4.3 ft - 6.1 ft	The fire building may experience between 5 and 6 ft of flooding.	More information is needed on the durability of the buildings' materials and the degree to which the buildings are elevated above floodwaters. Information is also needed on any equipment that is located in harm's way. Egress may be difficult for Niagara Hose Company, Mitchell Fire Company, and Neptune Hose Company.	Moderate to High	Given the critical emergency services in these buildings, a loss of function from flooding could greatly reduce the city's ability to react to flooding during a storm and recover afterwards. If one or two fire stations were compromised by flooding, the other companies could assist in covering their responsibilities, but they could become overburdened in the process.	Minor to Moderate
4		Mitchell Fire Company	Fire station located at Federal St. and Mitchell Ave.	1.7 ft - 3.2 ft	Virtually all of the building will likely be flooded, with between 2 and 3 ft of water.		Moderate to High		Moderate
5		Neptune Hose Company 5	Fire station located at 731 Bordentown Rd.	1.0 ft - 2.2 ft	Virtually all of the building will likely be flooded, with between 1 and 2 ft of water.		Moderate		Moderate
6		Niagara Hose Company 6	Fire station located at NJ Route 130 (NJ-130) and High St.	3.5 ft - 4.9 ft	Virtually all of the building will likely be flooded, with between 2 and 4 ft of water.		Moderate to High		Moderate
7	Emergency Facility (Fire Department) and Institutional/Cultural/Gov't (Place with Historic Significance)	Endeavor Emergency Squad and Fire Company - Brickwall Tavern	Fire station and historic site of the oldest fire company in New Jersey, located at 19 E. Union St.	0 ft - 0.5 ft	The Emergency Squad building and Fire Company building may experience flooding of up to 0.5 ft.	More information is needed on the durability of the buildings' materials and the degree to which the buildings are elevated above floodwaters. Historic structures may be more sensitive because they are old, fragile, and/or cannot be moved, or they may be less sensitive because they were built to withstand decades of use with durable materials and high levels of craftsmanship.	Low to Moderate	Given the critical emergency services in these buildings, a loss of function from flooding could greatly reduce the city's ability to react to flooding during a storm and recover afterwards. The other fire companies could assist in covering the responsibilities of this company, but could become overburdened in the process.  The loss of the Endeavor Fire Building, as a historic building, would be a notable cultural loss to the city and state.	Moderate

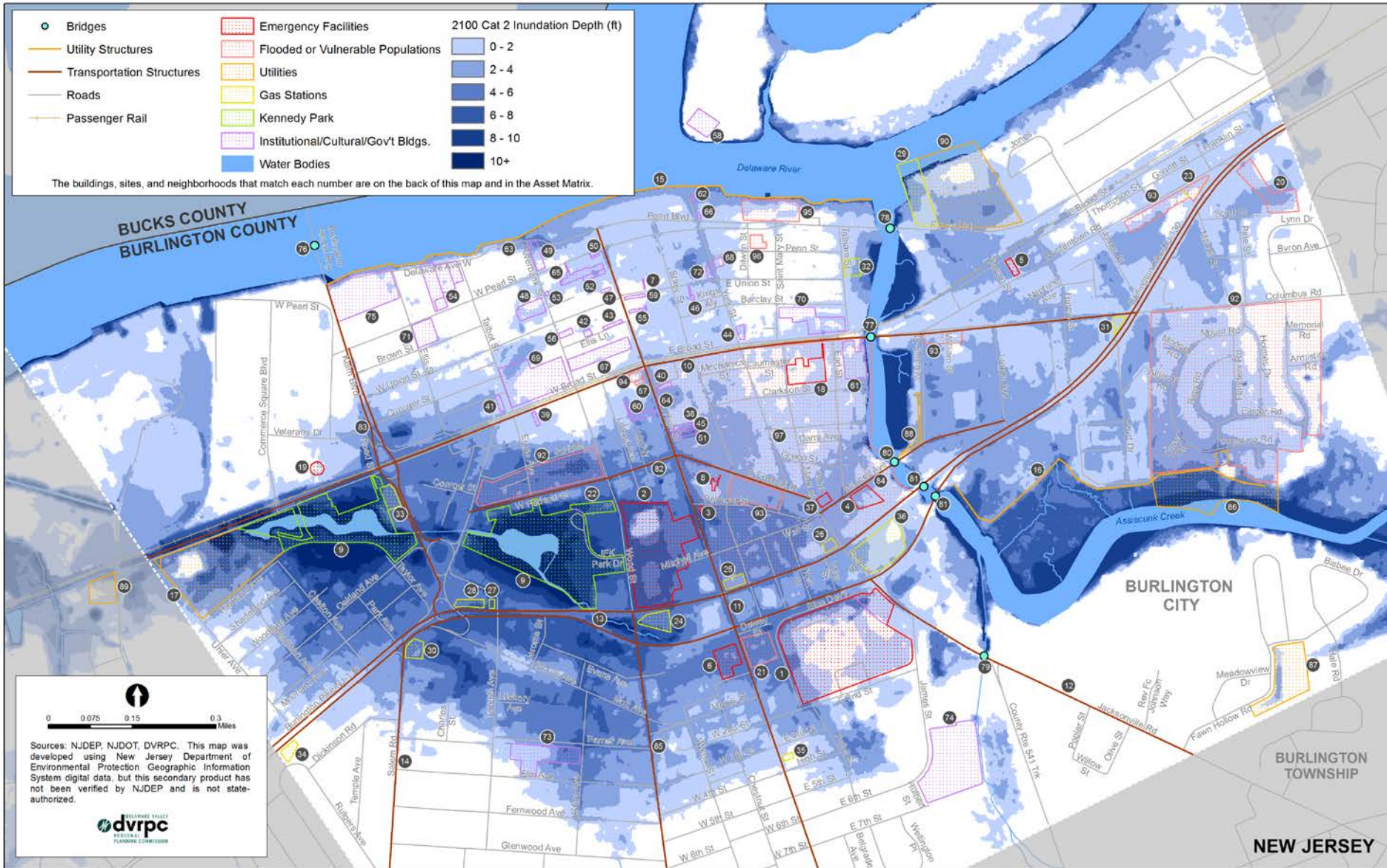


Source: Google StreetView

# Coastal Flooding and 1 Percent Floodplain



# Burlington City: Highly Vulnerable



# Getting to Resilience Questionnaire

SURVEY SECTIONS		Question	Yes	No	N/A	Notes	Clear
<b>Section 1</b> Risk & Vulnerability Assessments		1.1 Has your community discussed and/or identified previous coastal hazards and disasters?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	NOTES	X
<b>Section 2</b> Public Engagement		1.1.1 Has your community documented previous coastal hazards and disasters through historical information, existing plans and reports, scientific knowledge, and/or local knowledge?	<input type="radio"/>	<input type="radio"/>		NOTES	X
<b>Section 3</b> Planning Integration							
<b>Section 4</b> Disaster Preparedness and Recovery		1.2 Has your community defined hazard probability, frequency, magnitude, and duration?	<input checked="" type="radio"/>	<input type="radio"/>		NOTES	X
<b>Section 5</b> Hazard Mitigation Implementation							
<b>Linkages</b> See your links to other programs							
		1.3 Has your community identified coastal erosion and/or shoreline change as a hazard? How?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	NOTES	X

“Does the municipality conduct outreach to floodplain residents at least once a year?”

HOME RESIDENTS VISITORS DEPARTMENTS HOW DO I?

Home > Departments > Public Works > Sewer & Drainage Division > FLOOD RISK AND FLOOD INSURANCE

### What You Should Know about Flood Risk, Prevention, and Insurance

**Protect Your Family and Property from Flooding**  
Did you know that most of the City of Burlington is within the 100-year Flood Plain? Therefore, your property is likely to be within or near this plain,

**Register and Be Alert for Official Flood Warnings**  
The safety of you and your family is of utmost importance. The City now has Automated Community Emergency phone-calling systems and you can pre-register at-risk loved ones with Register Ready ([www.registerready.nj.gov](http://www.registerready.nj.gov)). Police and Fire personnel also will traverse the area and use Public Address Systems and personal contact to ensure that all persons have left an area.

**Protect Your Loved Ones by Being Prepared and Following Your Plan**  
To be well informed about an approaching storm, also keep a battery-powered radio turned to a local station and follow emergency instructions. If evacuation is ordered, do so immediately! Be sure to have a full tank of gasoline, and stock your car with canned goods and non-perishable items, a can opener, a container of water, a first aid kit, and any special medications needed by your family. If time permits, protect your property by turning off your home's main power switch and main gas valve.

**You Also Need to Purchase Flood Insurance**  
Normal property insurance does not cover flood losses, but the city participates in the National Flood Insurance Program (NFIP), and flood insurance is available for almost any enclosed building and its contents. Non-residential and business properties are also eligible for flood insurance, and flood insurance is mandatory if the building is subject to any federally guaranteed financing.

# Recommendations for Municipalities

## Data, capital projects, and policies



Source: Burlington City, New Jersey

### Appendix 4 Sea Level Rise Checklist



**ONESF**  
 Building Our Future



#### CAPITAL PLANNING PROGRAM

**EDWIN M. LEE**  
 Mayor

**NAOMI M. KELLY**  
 City Administrator

**BRIAN STRONG**  
 Director of Capital Planning

#### Guidance for Incorporating Sea Level Rise into Capital Planning in San Francisco Sea Level Rise Checklist (Version 2.0)

This checklist should be used in conjunction with the SLR Guidance document ("Guidance") for use by City departments to guide the evaluation of capital planning projects in light of sea level rise.

#### Pre-Checklist check:

The checklist is only required if the following 3 conditions are ALL met. If the answer is 'No' to ANY of these questions, do not complete the SLR checklist. The pre-checklist should be retained for your records.

1. **Project has a location identified** (some projects are so early in planning that they do not yet have a specific location within CCSF) Yes  No
2. **Project is within the SLR Vulnerability Zone** Yes  No   
 (see the Supplementary Document "SLR Vulnerability Zone Map" at: <http://onesanfrancisco.org/staff-resources/sea-level-rise-guidance/>; contact Hemiar Alburati (hemiar.alburati@sfgov.org) to request a Geodatabase (GIS file) of the SLR Vulnerability Zone Map (overlaid on San Francisco base layers).
3. **Anticipated total project costs<sup>1</sup> equal or exceed 5 million dollars** Yes  No

Department Name:

Project Name:

Project ID:

Name of Project Mgr:

Name of Preparer:

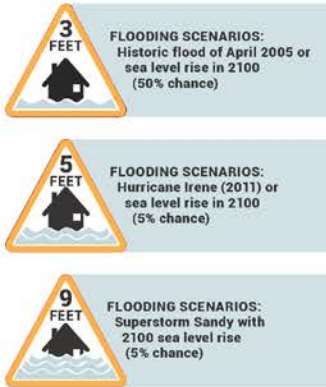
Date prepared:

Only projects answering "Yes" for questions 1, 2 AND 3 must complete the following checklist.  
**As noted above, if the answer to questions 1, 2 OR 3 is "No", the SLR checklist does not need to be submitted.** However, it is recommended that the project manager retain this document in their project records.

Source: City of San Francisco



# Ongoing and Upcoming Resilience Work



**DELAWARE VALLEY**  
**dvrpc**  
REGIONAL  
PLANNING COMMISSION

The Delaware Valley Regional Planning Commission is the federally designated Metropolitan Planning Organization for a diverse nine-county region in two states: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.

**DVRPC'S vision** for the Greater Philadelphia Region is a prosperous, innovative, equitable, resilient, and sustainable region that increases mobility choices by investing in a safe and modern transportation system; that protects and preserves our natural resources while creating healthy communities; and that fosters greater opportunities for all.

**DVRPC'S mission** is to achieve this vision by convening the widest array of partners to inform and facilitate data-driven decision-making. We are engaged across the region, and strive to be leaders and innovators, exploring new ideas and creating best practices. DVRPC fully complies with Title VI of the Civil Rights Act of 1964 and related nondiscrimination statutes in all activities. For more information, visit [www.dvrpc.org/GetInvolved/TitleVI/](http://www.dvrpc.org/GetInvolved/TitleVI/).

The authors are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.



The map shows five possible flooding levels in two-foot increments. Coastal storms could produce any of these flood heights today, but all of the heights will be more likely to occur in the future due to sea level rise. Additionally, in 2100, the three or five foot increments could represent permanent inundation. The FEMA 1-percent chance floodplain has been added for comparison, though it does not consider the future impacts of sea level rise.

## Flooding Effects at the County Level

**In Delaware County, the following assets are predicted to flood or have restricted access with nine feet of floodwater (a worst-case scenario):**

- 4,508.2 acres of land
- 50.2 miles of roads
- 3 EPA-designated brownfields
- 9 municipal buildings, fire departments, and police stations
- 7 public and private schools
- 49 PennDOT bridges
- 7 SEPTA bus routes
- 5 major roads (I-95, 476, 291, 13, 322, 291, 420)
- 4 freight rail lines

**In Marcus Hook Borough, the following assets (see map above) are at risk of being flooded and may have the highest consequences to the Borough if they are flooded:**

- 1 Industrial facilities and ports
- 2 Neighborhood between Green Street and Church Street south of West 6th Street
- 3 Bridge at Marcus Hook Creek
- 4 Chester Secondary Conrail Line
- 5 Marcus Hook Community Center

**Thank you! Questions?**



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