Regional Active Transportation Master Plan

Project Working Group (PWG) Meeting #2

Tuesday, February 10, 2026

SJTPO REGIONAL ACTIVE TRANSPORTATION MASTER PLAN

South Jersey Transportation Planning Organization

Agenda

1. Introductions
2. Regional Active Transportation Master Plan (RATP) Purpose and Goals
3. RATP Development Schedule
4. Public Outreach Plan Summary
5. Existing Conditions
6. Building the Regional Active Transportation Network
7. Next Steps
8. Discussion, Questions, and Wrap-Up

1. Introductions

South Jersey Transportation Planning Organization

Michael Baker INTERNATIONAL

WSP

vhb + Drive Engineering joining forces

You!

The Project Working Group (PWG)

2. RATP Purpose and Goals

Advance Goals of Regional Transportation Plan, *Forward 2050*

- **Address critical gaps** in the regional active transportation network
- **Promote accessibility and mobility** for the movement of people and goods
- **Support the regional economy**
- **Increase and enhance** opportunities for **travel and tourism**
- **Improve transportation safety**
- **Establish a template** for a **grant application**
- **Build upon opportunities identified** in other recent transportation-related plans and initiatives in the region

3. RATP Development Schedule

♦ Deliverable
■ Key Meeting

Task	Summer 2025			Fall 2025			Winter 2025/26			Spring 2026			Summer 2026			Fall 2026		
	Jun	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*
1- Coordination & Administration																		
2- Review Existing Policies & Equity Assessment						♦												
3- Data Collection & Existing Conditions								♦										
4- Public & Stakeholder Outreach				♦	■			♦	■							■		
5- Findings & Recommendations										♦			♦	♦		♦	♦	
6- Draft & Final RATP													♦				♦	
7- Bicycle & Pedestrian Count Program									♦				♦		♦	♦		
8- Technical Assistance & Grant Apps									♦					♦		♦		

South Jersey Transportation Planning Organization

SJTPO REGIONAL ACTIVE

Prioritization Exercise

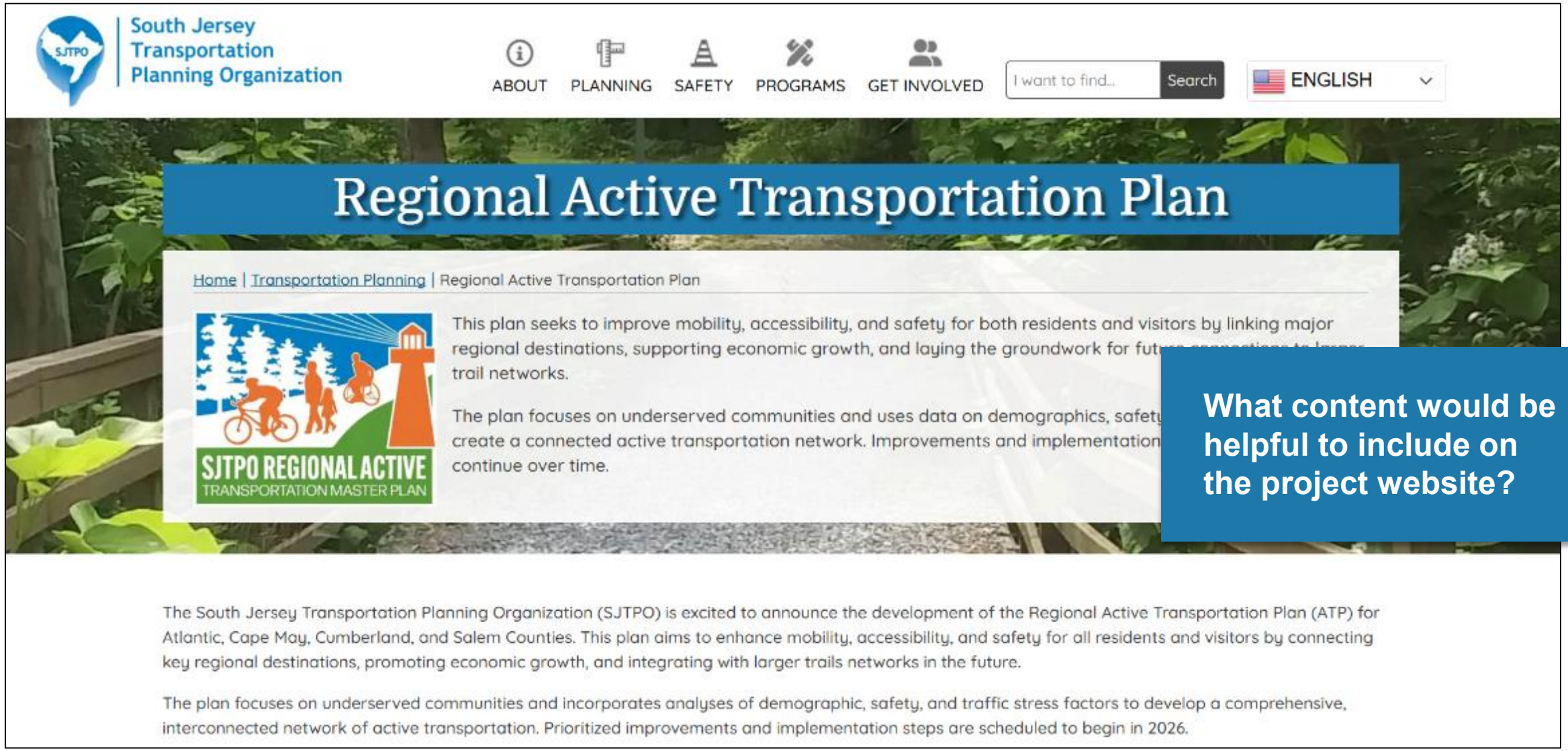
Join at: menti.com with the code **1476 5986** *or* https://www.menti.com/alvsm8uecyoc *or* scan the QR code:

Question Asked on Menti:

What factors are most important in your town or county when selecting and funding active transportation projects (select your top three):

- Safety
- Promote Tourism/Economic Development
- Visit Local Business
- School Access
- Work Access
- Equity
- Health & Wellness
- Recreation
- Socializing
- Trips to Beach/Open Space/Parks
- Other?

South Jersey Transportation Planning Organization



https://www.sjtpo.org/planning/regional-active-transportation-plan/

4. Engagements & Outreach Summary – So Far

Outreach through promotion and online engagement:

- SJTPO website is live
- Public survey (including Spanish version)
- Outreach activities
    1. Ride the Tide Bike Tour: Pop-up event
    2. Salem County: Pop-up event
    3. Whitesboro: Discussion group
- Spring: In-Person Mapping Exercise, *dates TBD*
- March 7th: NJ Bike and Walk Coalition Annual Summit, *tentative*

Public Online Survey

- Total of **176 responses** received for the online survey, open for 8 weeks
- Notable findings
  - 78% of the respondents were residents
  - 85% used personal vehicles
  - 67% travelled within the same county; 49% within the SJTPO region
  - 60% said they'd like to see public transit be more accessible in the region
  - 58% said they'd like to see biking made more accessible in the region
  - 42.5% said they'd like to see walking made more accessible in the region
- Significant interest in non-motorized travel and transit
  - Automobile dominates travel in the SJTPO region
- Safety is frequently noted as a concern

Outreach Activities - Highlights

- Activities custom-designed for the context, communities, residents, and visitors of South Jersey
  - Locations based on demographic data and underserved community populations
- Focus on listening and in-person engagement
- Safety is a significant concern even in smaller towns
  - Includes small local traffic calming improvements with secondary benefits
- Travel options are limited for many in the region
- Interest in bicycle travel includes recreation and healthy lifestyles
- Many opportunities for new trails, including unused rail lines

In-Person Mapping Activities

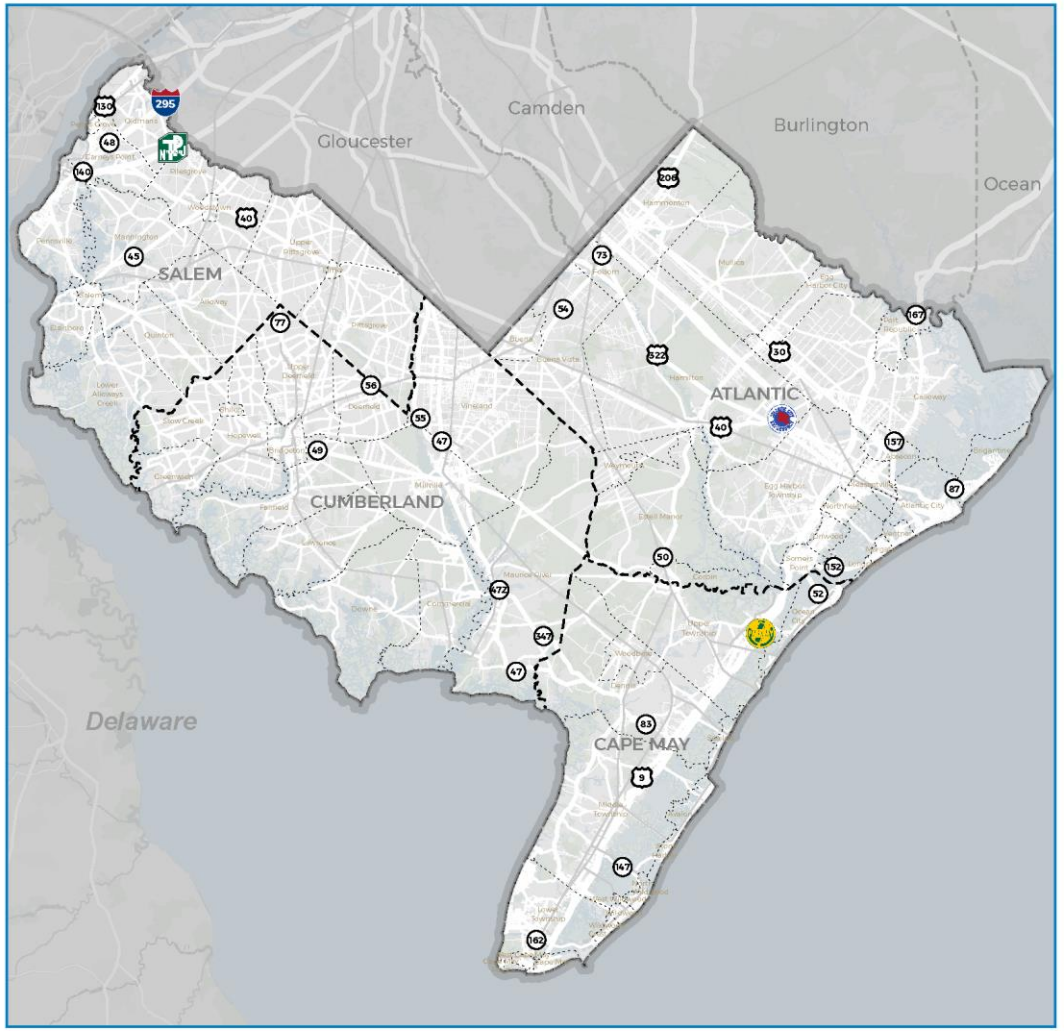
- Two events proposed for May/June 2026
- Cumberland/Salem Location
  1. Vineland or Millville
  2. Rowan University
  3. Cumberland Community College
- Atlantic/Cape May Location
  1. Somers Point
  2. Atlantic City
  3. Ocean City

Purpose of meetings is to discover:

- Safety concerns
- Favorite destinations and routes
- Current gaps in trail and bicycle network
- Desired roadways to accommodate bicycle facilities
- New trail opportunities
- Priorities

5. Existing Conditions

- SJTPO regional base map
- Crash data overview
- Safety impacts
- Level-of-Traffic-Stress analysis
- Existing bicycle network
- Active transportation demand map
- Literature review (proposed projects)



South Jersey Transportation Planning Organization

Crash Data Overview

- Most recent five years of **comprehensive** crash data (2019–2023)
- Gradual decline in total crashes since 2013
- Considerable increase in FSI (Fatal/Serious Injury) crashes in 2021 and 2022
- Vulnerable users experience significantly disproportionate safety impacts, with just 2.4% of total crashes but 20% of FSI crashes
- Similar to statewide trends, FSI crashes occur more frequently under low-light conditions
- Crash hotspots data are greatest in densely populated, high-activity urban centers, and popular coastal destinations

Crash Data Summary

Road Class	Total Crashes	% of Total	FSI	% of FSI
Interstate	439	0.7%	28	1.4%
Toll Routes	5,257	7.8%	128	6.5%
State Highway	19,255	28.7%	681	34.5%
County	21,515	32.1%	704	35.6%
Municipal	18,792	28.0%	410	20.8%
Other	1,852	2.8%	24	1.2%
Unknown	12	0.0%	0	0.0%
Total	**67,122**	**100.0%**	**1,975**	**100.0%**

Crash Summary by Type

Crash Type	FSI	% FSI	All SJTPO Crashes	% All SJTPO Crashes
Pedalcyclists Involved	115	5.8%	768	1.1%
Pedestrians Involved	276	14.0%	867	1.3%
Both Involved	1	0.1%	6	0.0%
Vehicles	1,583	80.2%	65,481	97.6%
Total	1,975	100.0%	67,122	100.0%

Disproportionate Safety Impacts

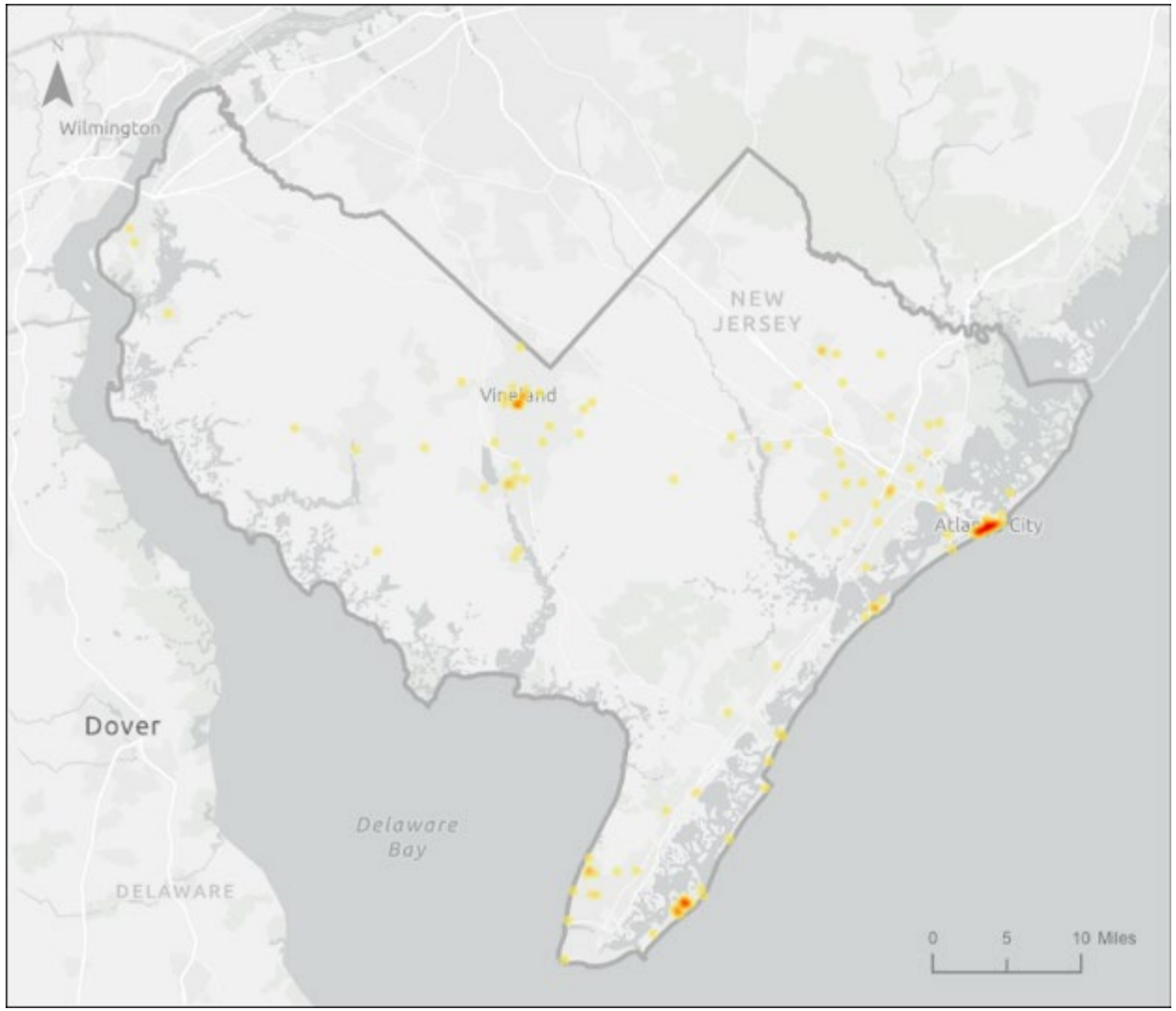
	All SJTPO Crashes	SJTPO FSI Crashes
Vehicular	97.6%	80.2%
Pedestrians	1.3%	2.4%
Bicycles	1.1%	19.8%

The SJTPO region experiences a **significant and disproportionate crash severity impact** on *Vulnerable Road Users*

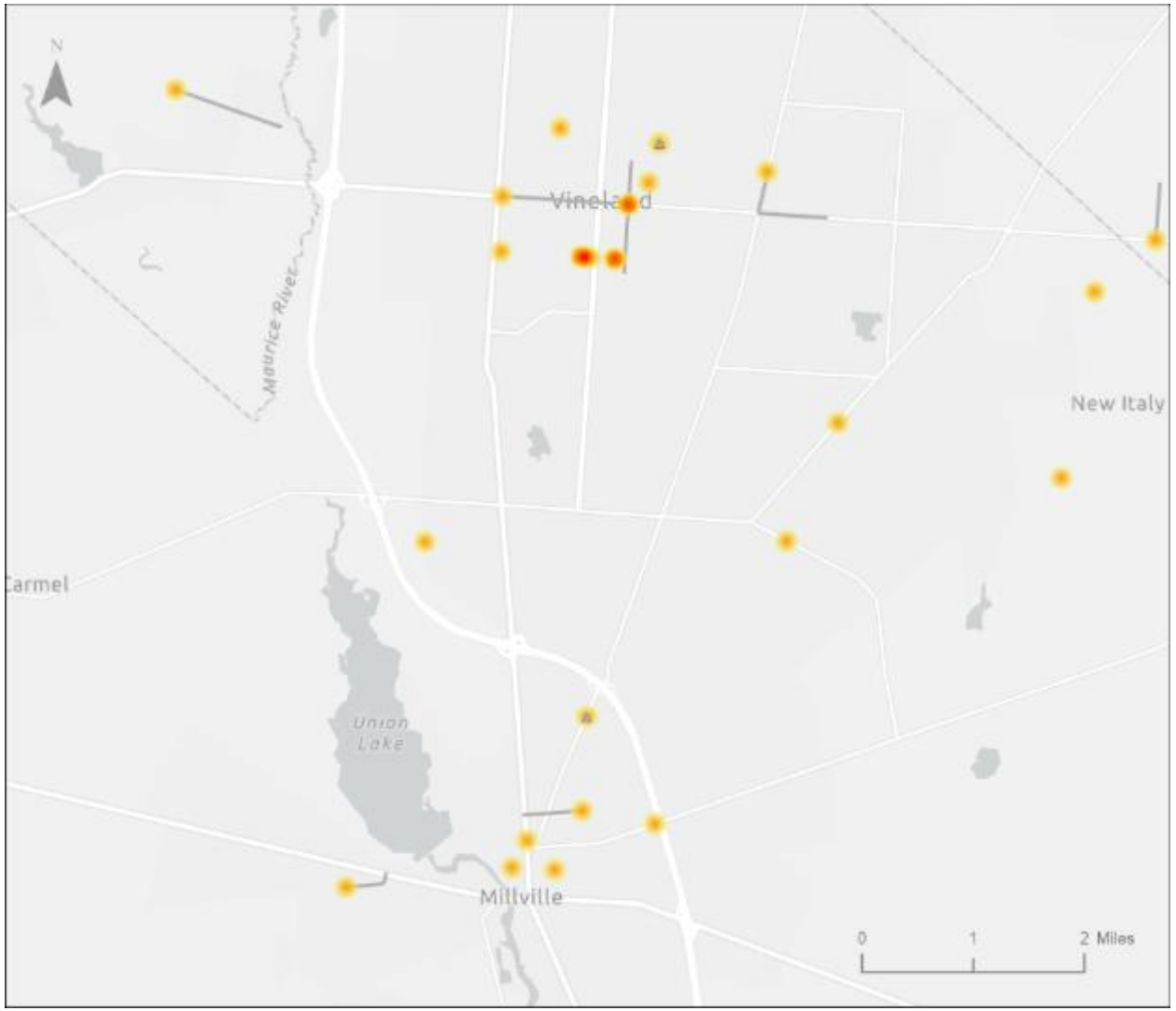
South Jersey Transportation Planning Organization

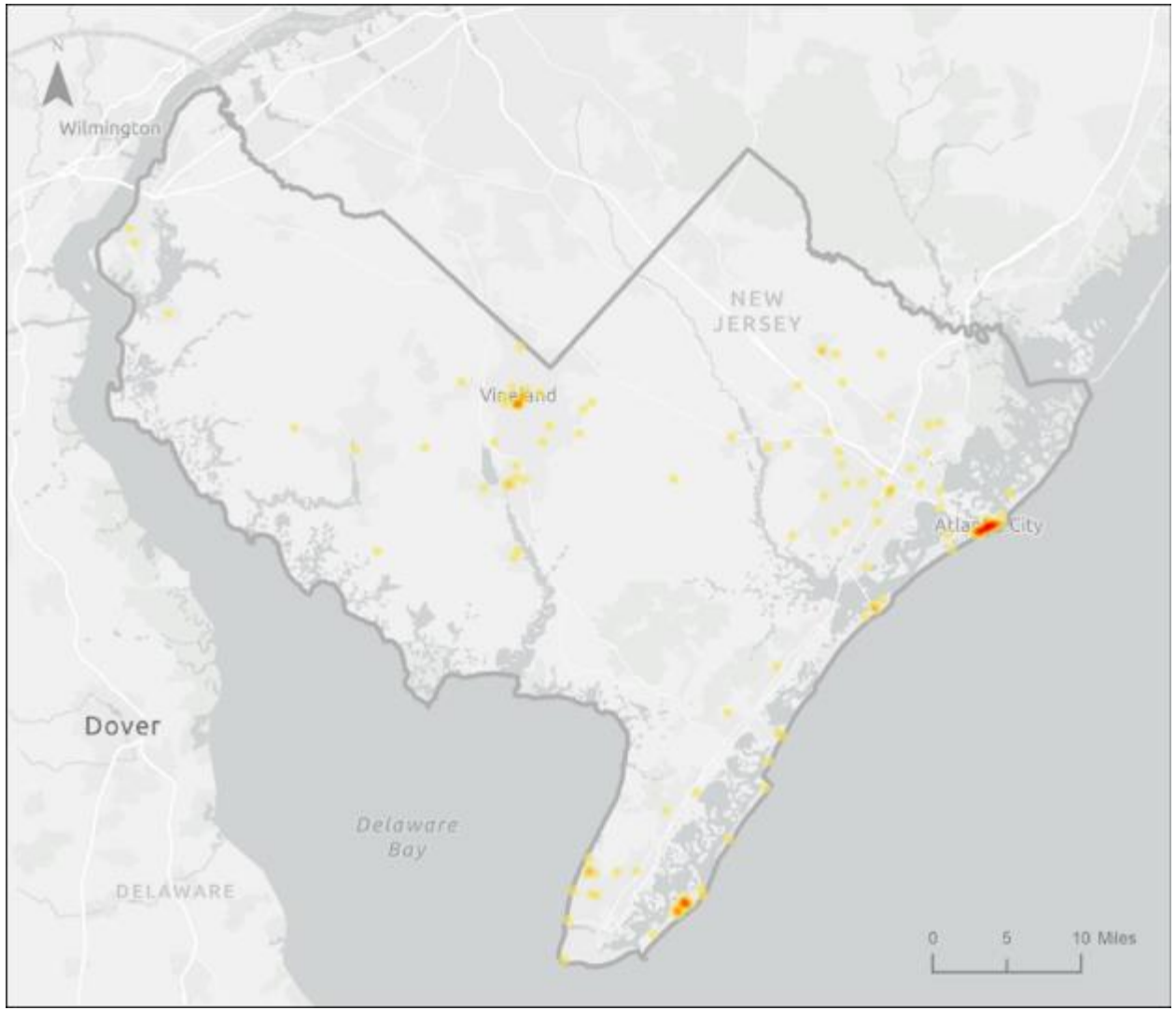
Pedestrian Crash Hot Spots

- All pedestrian crash types and all severities: 2019-2023
- Pedestrian involved
- SJTPO region and Vineland/Millville



South Jersey Transportation Planning Organization



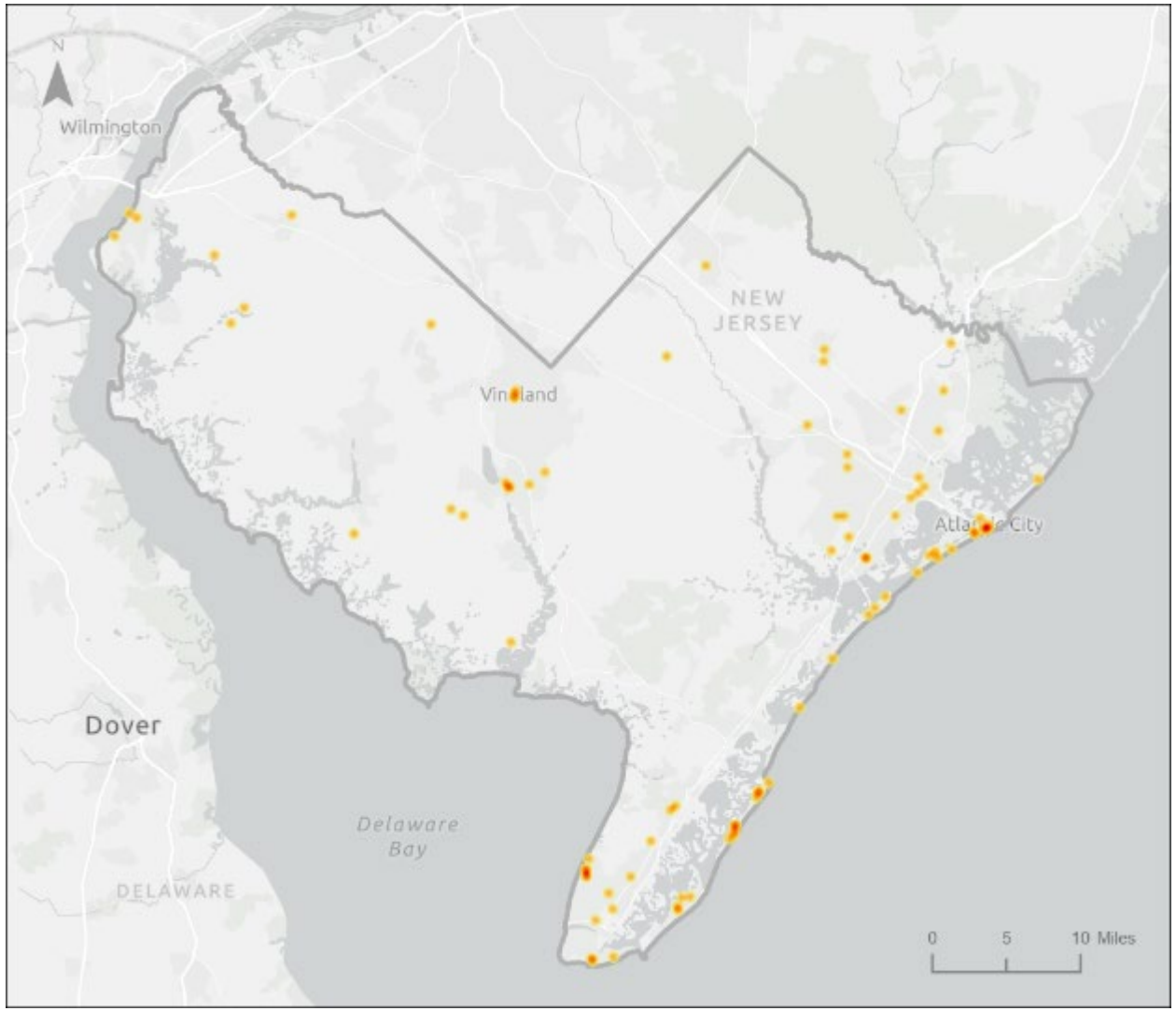


South Jersey Transportation Planning Organization

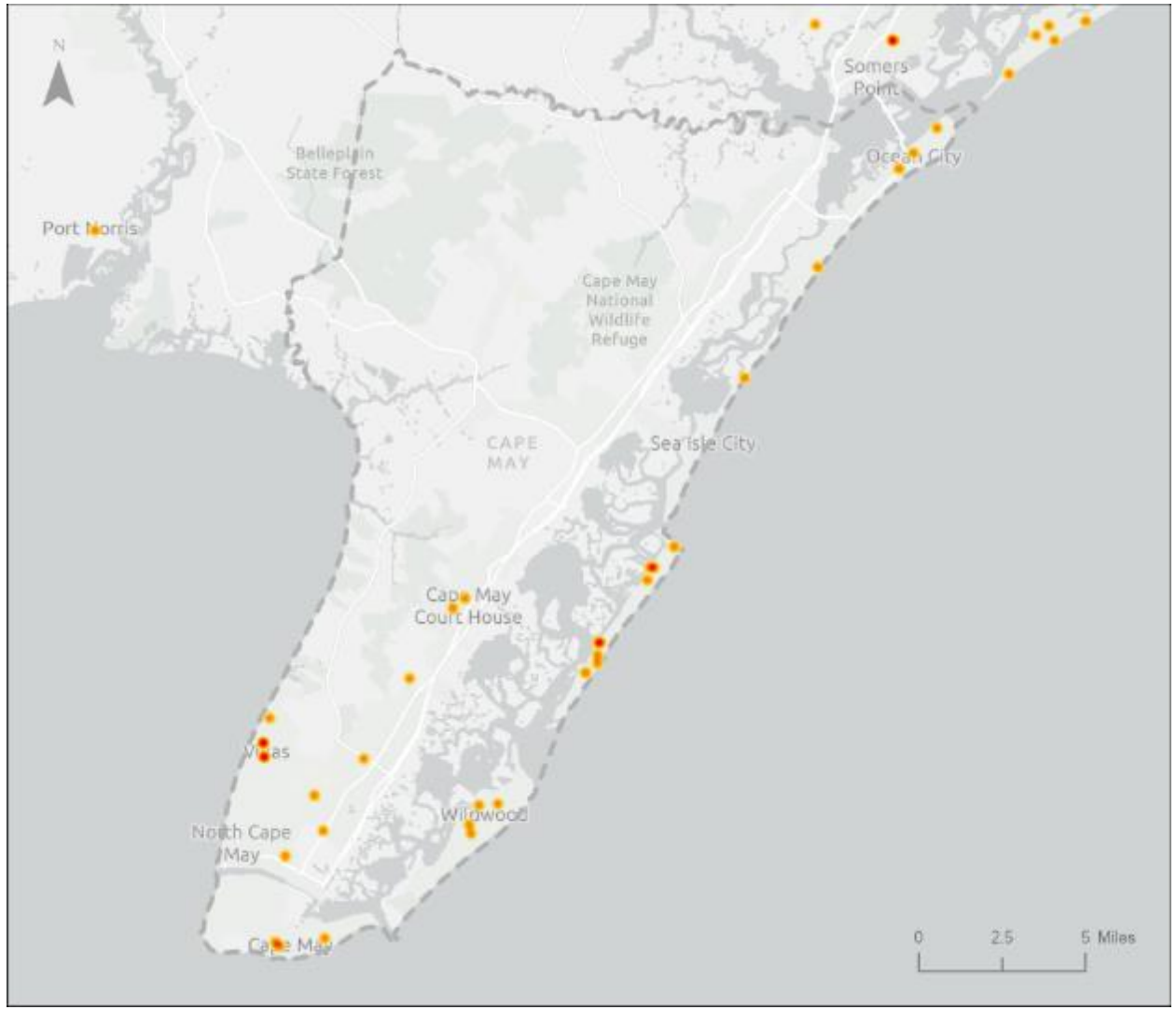
SJTPO REGIONAL ACTIVE

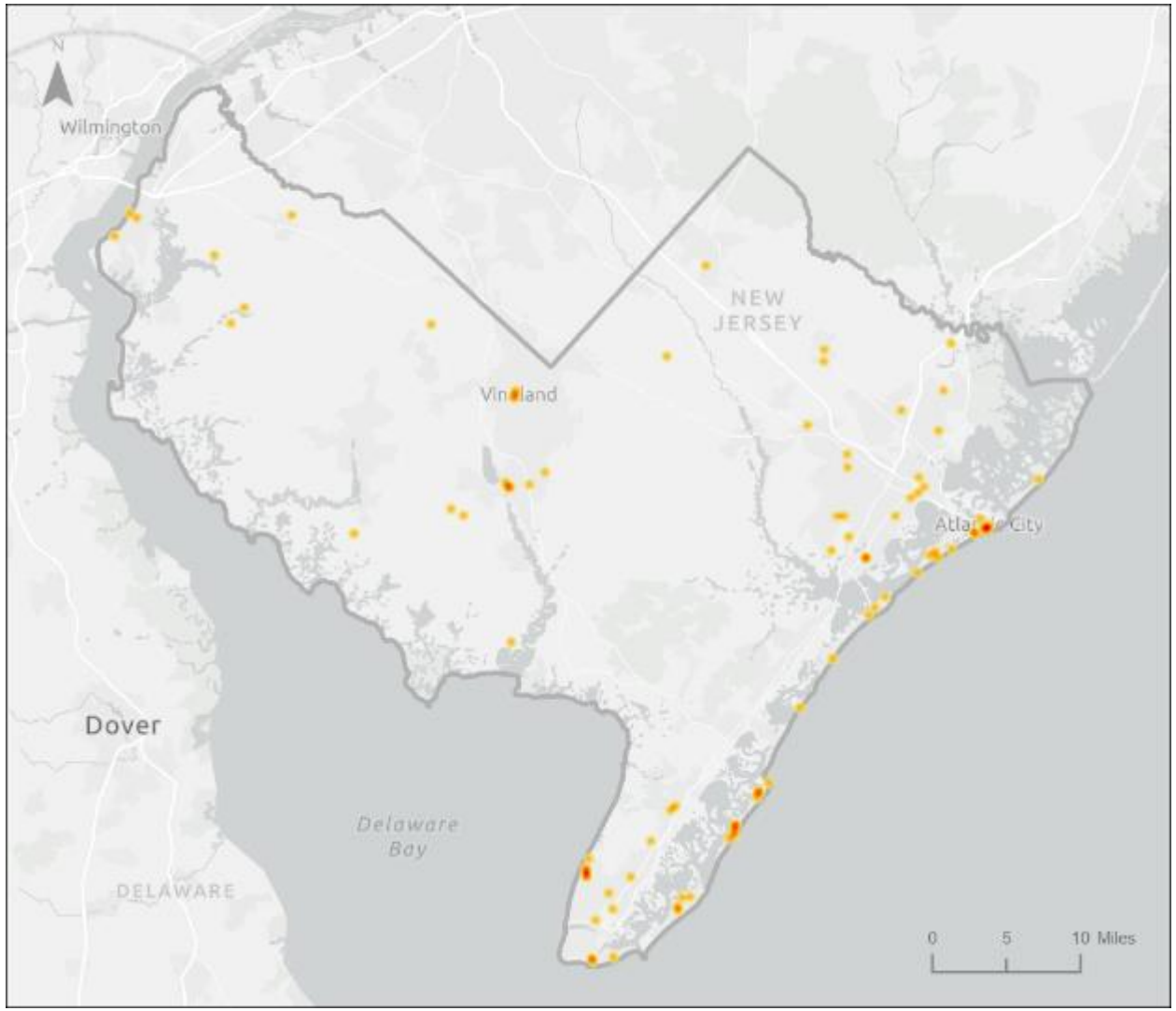
Bicycle Crash Hot Spots

- All bicycle crash types and all severities: 2019-2023
- Bicycle involved
- SJTPO region and Cape May



South Jersey Transportation Planning Organization





South Jersey Transportation Planning Organization

Level-of-Traffic-Stress (LTS)

- Peter Furth Methodology
- LTS vs 2.2 is the highest standard
- Same as NJDOT State Highway Bicycle Mapping

MINETA TRANSPORTATION INSTITUTE

MTI

Low-Stress Bicycling and Network Connectivity

Maaza C. Mekuria, PhD, PE, PTOE, Peter G. Furth, PhD, and Hilary Nixon, PhD

MTI Project 1005

May 2012

SJSU Research Center
210 N. Fourth St., 4th Fl.
San José, CA 95112

Tel // 408.924.7560
Fax // 408.924.7565

transweb.sjsu.edu

In one sense, a city's or region's bicycling network includes all of its roads and paths on which bicycling is permitted. However, some streets provide such a poor level of safety and comfort for bicycling that the majority of the population considers them unsuitable for bicycling. This research had two primary objectives:

For a bicycling network to attract the widest possible segment of the population, its most fundamental attribute should be low-stress connectivity.

1. Propose and test the practicality of a new way to define the bicycle network – that is, as the set of streets and paths that people consider acceptably safe for bicycling.
2. Develop metrics for low-stress connectivity, or the ability of a network to connect travelers' origins to their destinations without subjecting them to unacceptably stressful links.

Study Methods

1. A User-Oriented Bicycling Network Definition

To make bicycling safer and more appealing, cities often make bicycle-related improvements to certain streets. However, the improvements do not necessarily represent the network of paths and streets that people deem safe enough to use. This research proposes a new scheme for classifying road segments by one of four levels of traffic stress:

Level of traffic stress 1 (LTS 1): the level that most children can tolerate.
LTS 2: the level that will be tolerated by the mainstream adult population.
LTS 3: the level tolerated by American cyclists who are "enthused and confident" but still prefer having their own dedicated space for riding.
LTS 4: a level tolerated only by those characterized as "strong and fearless."

For each type of roadway condition (e.g., lanes, speed, existing bicycling infrastructure configuration, intersection design features, etc.), we applied our classification scheme. Table 1 presents an example of how our classification scheme would be applied to an unsignalized crossing without a median refuge.

	Width of Street Being Crossed		
Speed Limit of Street Being Crossed	Up to 3 lanes	4 - 5 lanes	6+ lanes
Up to 25 mph	LTS 1	LTS 2	LTS 4
30 mph	LTS 1	LTS 2	LTS 4
35 mph	LTS 2	LTS 3	LTS 4
40+	LTS 3	LTS 4	LTS 4

2. A Network Connectivity Metric

Connectivity is perhaps the most critical aspect of a bicycling network and should feature prominently in network planning. In contrast to a normatively defined network, the user-perspective-based network may be incoherent – that is, it has some areas not connected to others, or the connecting route is so circuitous that most people would consider them effectively unconnected. Our research focuses on connectivity to include a maximum acceptable level of detour, and we use graphical displays, such as stress maps and shortest-path "trees" (connectivity graphs) to demonstrate how these powerful tools can be used to identify the links to be added to the network to improve connectivity. The figure shows an example of a shortest-path tree rooted at San Jose State University showing everywhere a bicyclist can travel at LTS 2 or lower.

Findings

Using San Jose, CA as our case study, we applied our classification scheme to the overall road and path network. Total centerline miles in San Jose by level of traffic stress are: **LTS 1:** 2,131 Miles, 64% of total; **LTS 2:** 115 Miles, 3% of total; **LTS 3:** 276 Miles, 8% of total; **LTS 4:** 678 Miles, 20% of total; **Freeways (Bicycles Prohibited):** 134 Miles, 4% of total.

We examined stress maps and shortest-tree paths rooted at key destinations in San Jose in order to propose a sample slate of improvements to the network based on current work trips within the city. This was designed to show how a relatively modest set of improvements could bring about substantial gains in connectivity. Our analysis was able to show an overall level of improvement in the fraction of work trips connected at LTS 2 or lower from 4.7% to 12.7% of all work trips (for trip lengths less than 6 miles) and a 5.8 times (580%) increase in node-to-node connectivity for the same LTS.

Policy Recommendations

The LTS criteria developed and applied can distinguish four levels of a street network's stressfulness, corresponding to identified user profiles, and it offers cities a way to map their bicycling networks according to which populations they serve rather than according to facility types. Our research highlights the importance of intersection approaches and street crossings in network connectivity. We also developed several analysis tools for visualizing connectivity, including stress maps, shortest-path trees, and maps highlighting barriers and islands. Our case study in San Jose demonstrated how a modest slate of network improvements targeted at providing critical, low-stress links can dramatically increase connectivity.

About the Authors

Maaza Mekuria is founder and principal of ADEC, Peter Furth is a professor of civil and environmental engineering at Northeastern University, and Hilary Nixon, is an associate professor in the Department of Urban & Regional Planning at San José State University.

To Learn More

For more details about the study, download the full report at **transweb.sjsu.edu/project/1005.html**

MTI is a University Transportation Center sponsored by the U.S. Department of Transportation's Research and Innovative Technology Administration and by Caltrans. The Institute is located within San José State University's Lucas Graduate School of Business. WEBSITE transweb.sjsu.edu

South Jersey Transportation Planning Organization

LTS Levels and Display

LTS 1 = Comfortable for all ages and abilities

LTS 2 = Comfortable for most adults

LTS 3 = Confident cyclists but prefer dedicated facilities

LTS 4 = Risk tolerant and willing to ride with moving traffic

LTS Data Summary: Miles by Level

Roadway Ownership/Jurisdiction	LTS 1	LTS 2	LTS 3	LTS 4	Total
Interstate	0	0	0	17	17
Toll Route	0	0	0	177	177
State Highway	1	1	26	463	491
County	141	79	753	502	1473
Municipal	2586	241	389	69	3286
Ramp	5	17	27	47	96
Total Miles by Level of Stress	2732	338	1195	1275	5539
Percent by Level of Stress	49%	6%	22%	23%	100%

LTS Data Summary: Miles by Level

Roadway Ownership/Jurisdiction	LTS 1	LTS 2	LTS 3	LTS 4	Total
Interstate	0	0	0	17	17
Toll Route	0	0	0	177	177
State Highway	1	1	26	463	491
County	141	79	753	502	1473
Municipal	2586	241	389	69	3286
Ramp	5	17	27	47	96
Total Miles by Level of Stress	2732	338	1195	1275	5539
Percent by Level of Stress	49%	6%	22%	23%	100%

Low Stress = 55% **High Stress = 55%**

South Jersey Transportation Planning Organization

SJTPO REGIONAL ACTIVE

LTS Data Summary: Miles by Level

Roadway Ownership/Jurisdiction	LTS 1	LTS 2	LTS 3	LTS 4	Total
Interstate	0	0	0	17	17
Toll Route	0	0	0	177	177
State Highway	1	1	26	463	491
County	141	79	753	502	1473
Municipal	2586	241	389	69	3286
Ramp	5	17	27	47	96
Total Miles by Level of Stress	2732	338	1195	1275	5539
Percent by Level of Stress	49%	6%	22%	23%	100%

Low Stress = 55%

South Jersey Transportation Planning Organization

SJTPO REGIONAL ACTIVE

LTS Data Summary: Miles by Level

Roadway Ownership/Jurisdiction	LTS 1	LTS 2	LTS 3	LTS 4	Total
Interstate	0	0	0	17	17
Toll Route	0	0	0	177	177
State Highway	1	1	26	463	491
County	141	79	753	502	1473
Municipal	2586	241	389	69	3286
Ramp	5	17	27	47	96
Total Miles by Level of Stress	2732	338	1195	1275	5539
Percent by Level of Stress	49%	6%	22%	23%	100%
	Low Stress = 55%		High Stress = 45%		

South Jersey Transportation Planning Organization

SJTPO REGIONAL ACTIVE

LTS Data Summary: Percent by Level

Roadway Ownership/Jurisdiction	LTS 1	LTS 2	LTS 3	LTS 4	Total
Interstate	0%	0%	0%	100%	100%
Toll Route	0%	0%	0%	100%	100%
State Highway	0%	0%	5%	94%	100%
County	10%	5%	51%	34%	100%
Municipal	79%	7%	12%	2%	100%
Ramp	5%	18%	28%	49%	100%

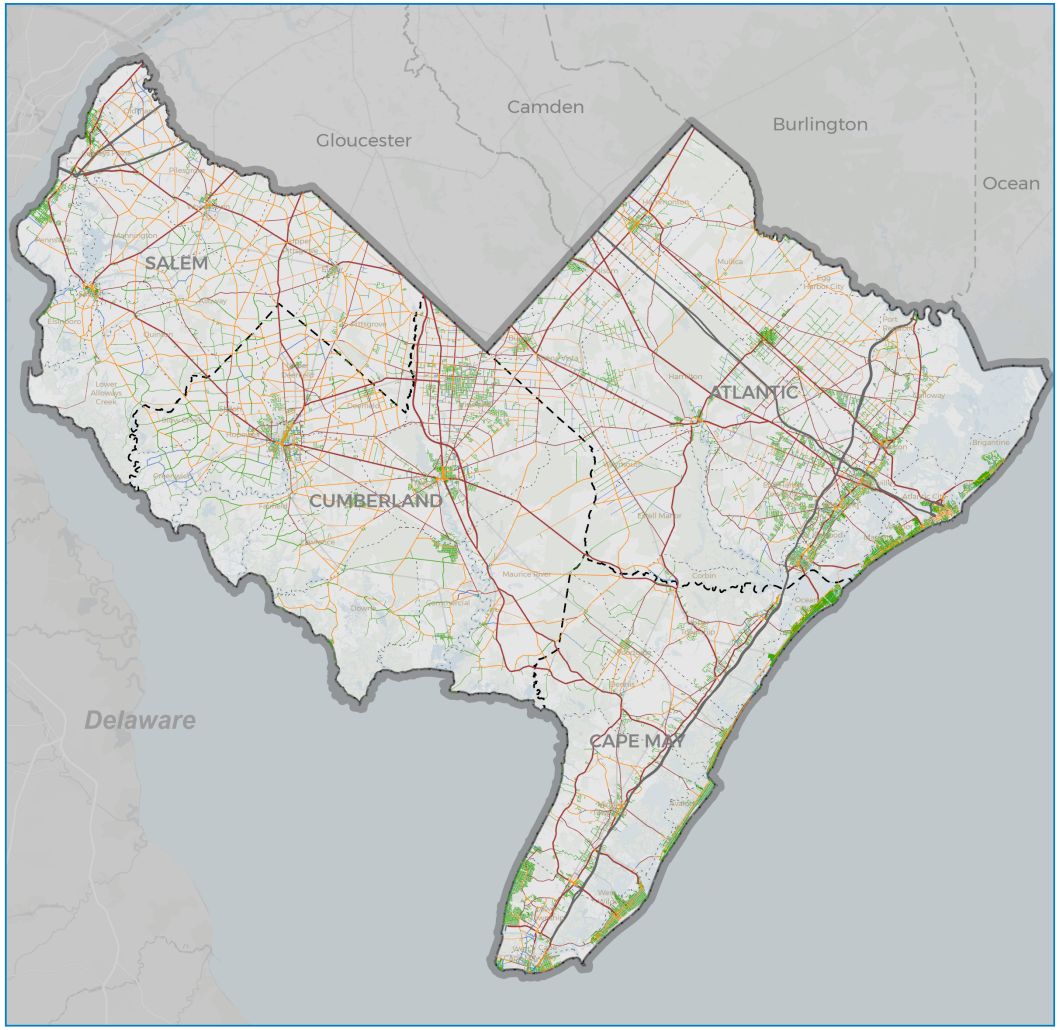
LTS Mapping

- Version 2.2 Methodology
- SJTPO region and Atlantic City

South Jersey Transportation Planning Organization

BIKE LEVEL OF TRAFFIC STRESS
REGIONAL ACTIVE TRANSPORTATION MASTER PLAN

South Jersey Transportation Planning Organization



Credits: SJTPO, NJ GIN, NJ TRANSIT, NJDOT, REPLICA, US Census Bureau

Date: 2/9/2026

Legend

Level of Traffic Stress (LTS)
- 1 - Comfortable for All
- 2 - Interested but Concerned
- 3 - Enthused & Confident
- 4 - Strong & Fearless

Administrative Boundary
SJTPO Region

N

0 5 10 Miles

BIKE LEVEL OF TRAFFIC STRESS - ATLANTIC CITY

REGIONAL ACTIVE TRANSPORTATION MASTER PLAN

South Jersey Transportation Planning Organization

Credits: SJTPO, NJ GIN, NJ TRANSIT, NJDOT, REPLICA, US Census Bureau

Date: 1/22/2026

N

0 0.25 0.5 Miles

Legend

Level of Traffic Stress (LTS)

- 1 - Comfortable for All
- 2 - Interested but Concerned
- 3 - Enthused & Confident
- 4 - Strong & Fearless

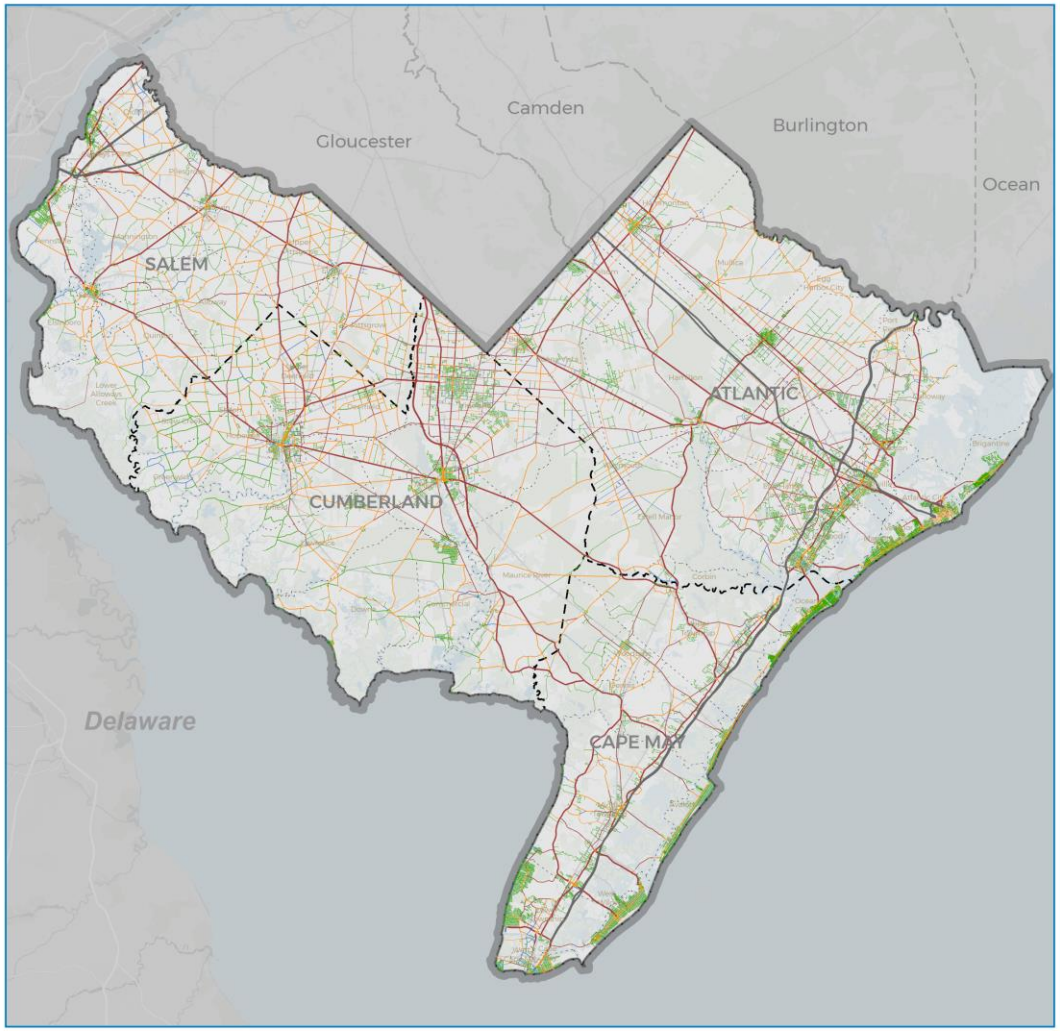
Administrative Boundary

SJTPO Region

BIKE LEVEL OF TRAFFIC STRESS

REGIONAL ACTIVE TRANSPORTATION MASTER PLAN

South Jersey Transportation Planning Organization



Credits: SJTPO, NJ GIN, NJ TRANSIT, NJDOT, REPLICA, US Census Bureau

Date: 2/9/2026

N

0 5 10 Miles

Legend

Level of Traffic Stress (LTS)

- 1 - Comfortable for All
- 2 - Interested but Concerned
- 3 - Enthused & Confident
- 4 - Strong & Fearless

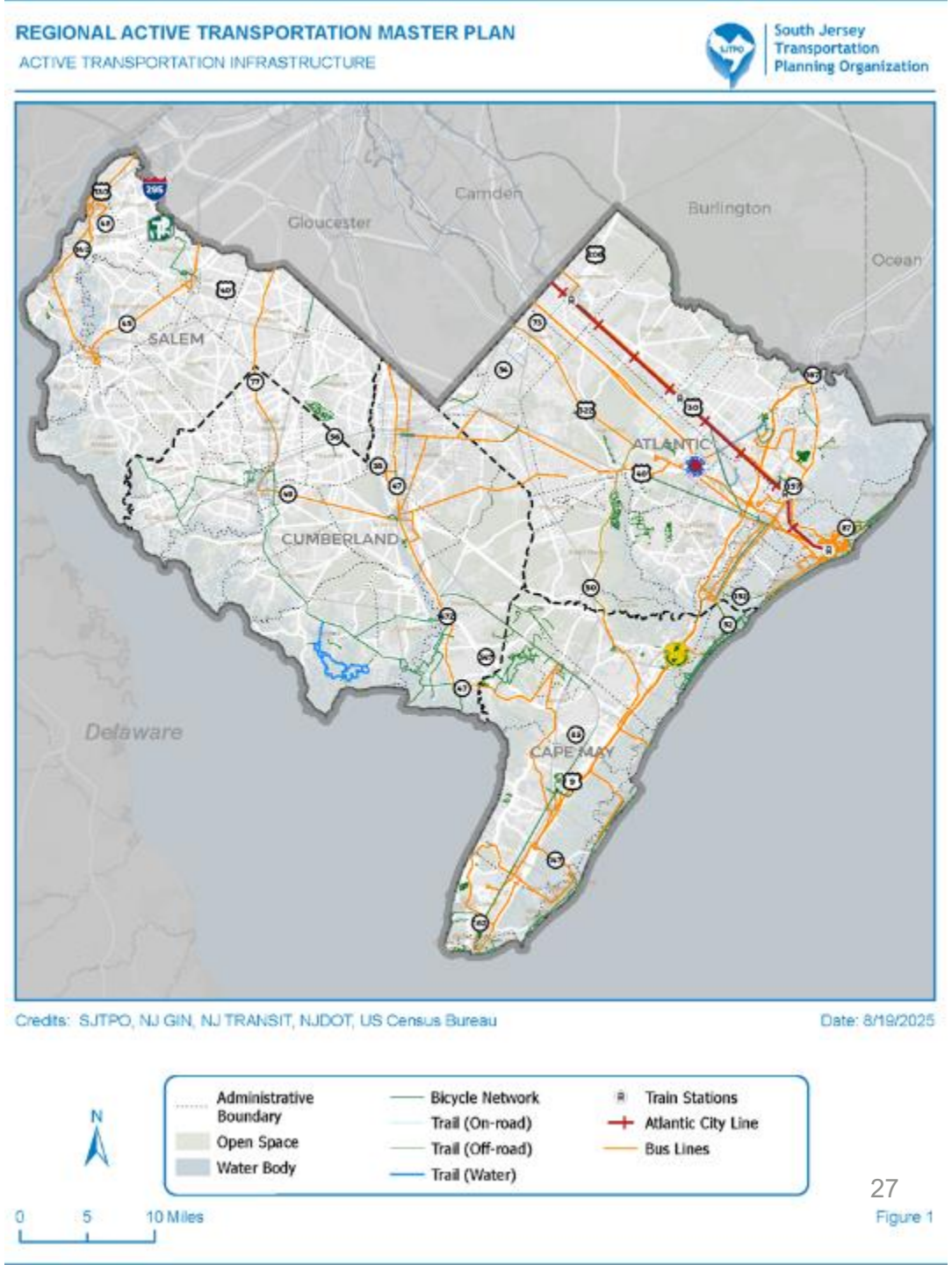
Administrative Boundary

SJTPO Region

Existing Active Transportation Network

- Trails and Sidepaths - **240 miles**
  - Belleplain State Forest in Dennis Twp
  - Atlantic County Park in Estell Manor
  - Parvin State Park in Pittsgrove Twp
- On-street bicycle facilities - **83 miles**
  - Wood and Elmer Streets in Vineland
  - Bay Avenue in Ocean City
  - Mays Landing Road (County Route 559) in Somers Point
- Shore town boardwalks - **16 miles**

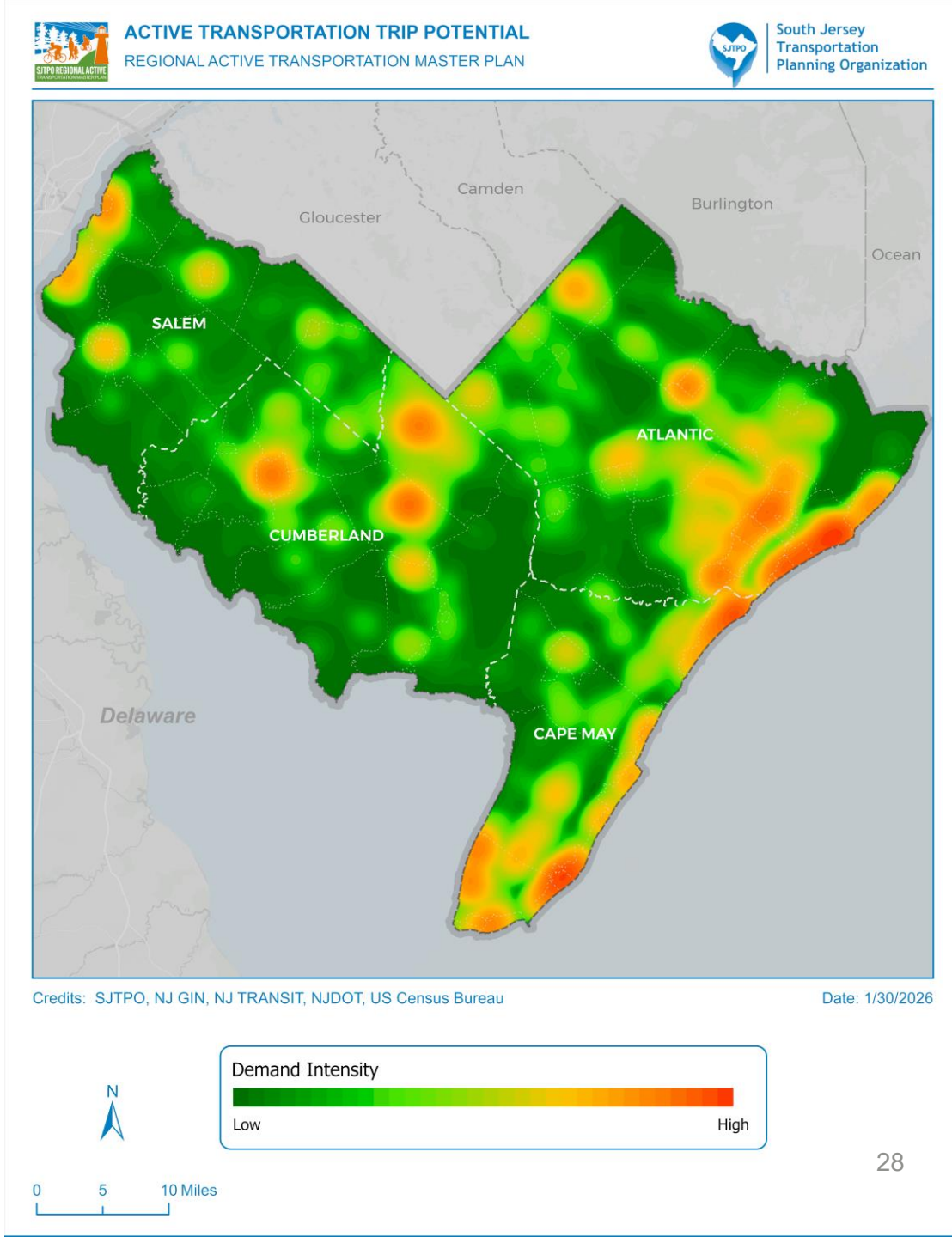
South Jersey Transportation Planning Organization



Active Transportation Demand – "Heat Map"

- Assessment of potential demand for active transportation travel
- Demand is based on:
  - Population and employment
  - Key destination and trip attractors
  - Schools, parks, downtowns and main streets, existing trails, etc.
- Beneficial to prioritizing candidate improvements

South Jersey Transportation Planning Organization



Literature Review – Notable Proposed Projects

- Atlantic County Bikeway West Feasibility Study
- Maurice River Corridor Study – proposed trails and traffic calming
- Cape May County Regional Trail Network Feasibility Study
  - Proposed 13.7-mile trail
- Camden County LINK Trail – regional interconnection
- Various local improvements
  - Town of Hammonton Bicycle & Pedestrian Master Plan
  - BikeWalk Cape May
  - Upper Township Bicycle Plan
- Countywide Local Road Safety Plans – one each county

6. Building the Regional Active Transportation Network

- Step-by-step process: Combines Data-Driven and Community Engagement
- Starts with mapping of the existing RATP network
- Recommendations and Concepts from previous plans, studies, and reports
  - Bicycle and pedestrian concepts, new trails, unused rail corridors, etc.
- Comments from Stakeholders, Community Engagement, & Mapping Workshops
- Bicycle LTS Assessment to identify and evaluate suitable candidate improvements
  - Fill in the gaps and overcome existing barriers
- In-person charette to review and refine the draft RATP Network
- Project Working Group and stakeholder comments, public review, survey comments

Q & A Exercise

Join at: menti.com with the code **1476 5986** *or* https://www.menti.com/alvsm8uecyoc *or* scan the QR code:

Questions Asked on Menti:

Provide 1-2 examples of **trails** that are needed in your town or county.

Provide 1-2 examples **of bike lanes** that are needed in your town or county.

Provide 1-2 examples of **pedestrian improvements (crosswalks, sidewalks)** that are needed in your town or county.

South Jersey Transportation Planning Organization

7. Next Steps

Assemble Draft Active Network and In-Person Mapping Activity

Develop Grant Application Template

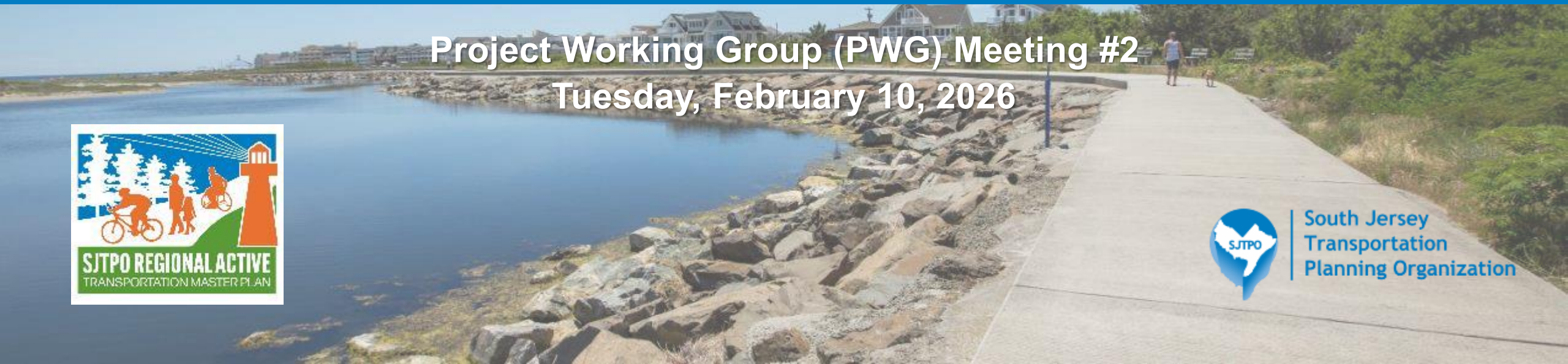
Review Draft Active Transportation Network

PWG Meeting 3
to be scheduled for Summer 2026

South Jersey Transportation Planning Organization

Thank you!

Discussion and Questions



Project Working Group (PWG) Meeting #2
Tuesday, February 10, 2026

SJTPO REGIONAL ACTIVE TRANSPORTATION MASTER PLAN

SJTPO | South Jersey Transportation Planning Organization