

# Easy Rider: Your Guide to Level of Comfort Bike Mapping

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# Southwestern Pennsylvania Commission

- Metropolitan Planning Organization
  - Pittsburgh region
  - 10 counties
  - 548 municipalities
- Local Development District
- Economic Development District



# The Regional Vision

is a world-class, safe and well maintained, integrated transportation system that provides **mobility for all**, enables resilient communities, and supports a globally competitive economy.

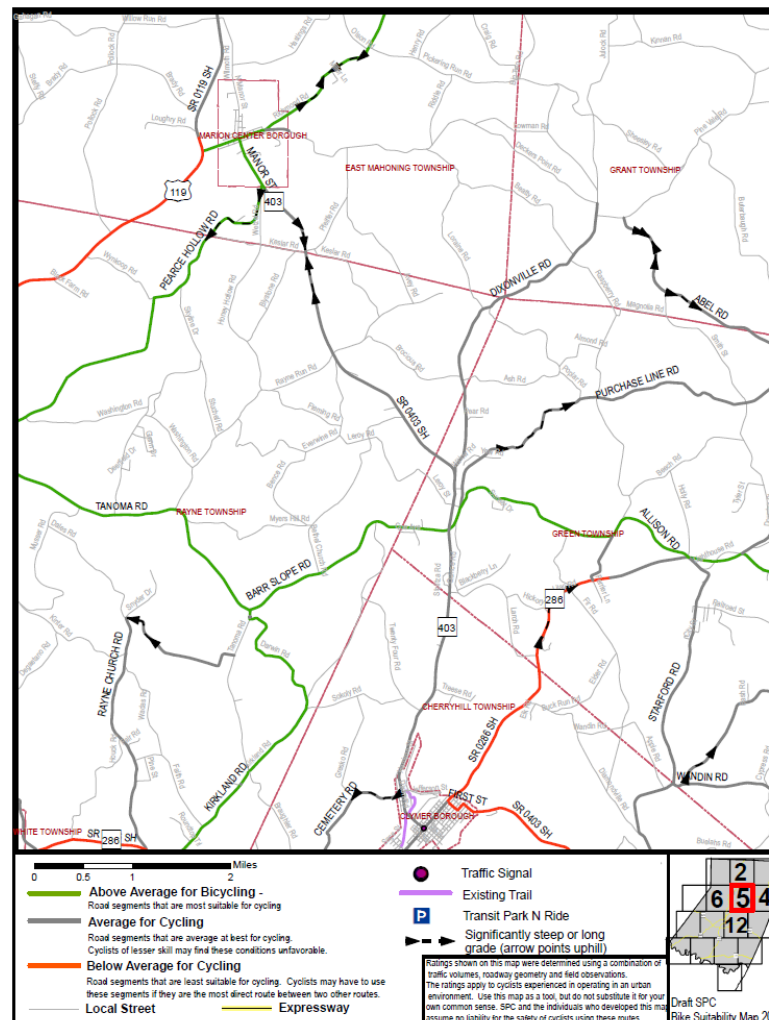


## Regional **ACTIVE** Transportation Plan

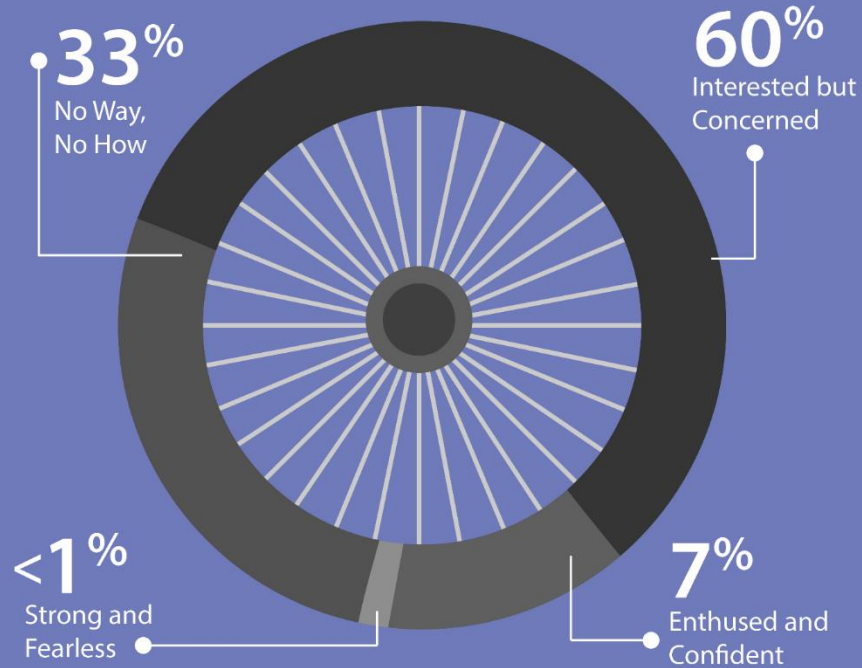


for Southwestern Pennsylvania  
**2019**

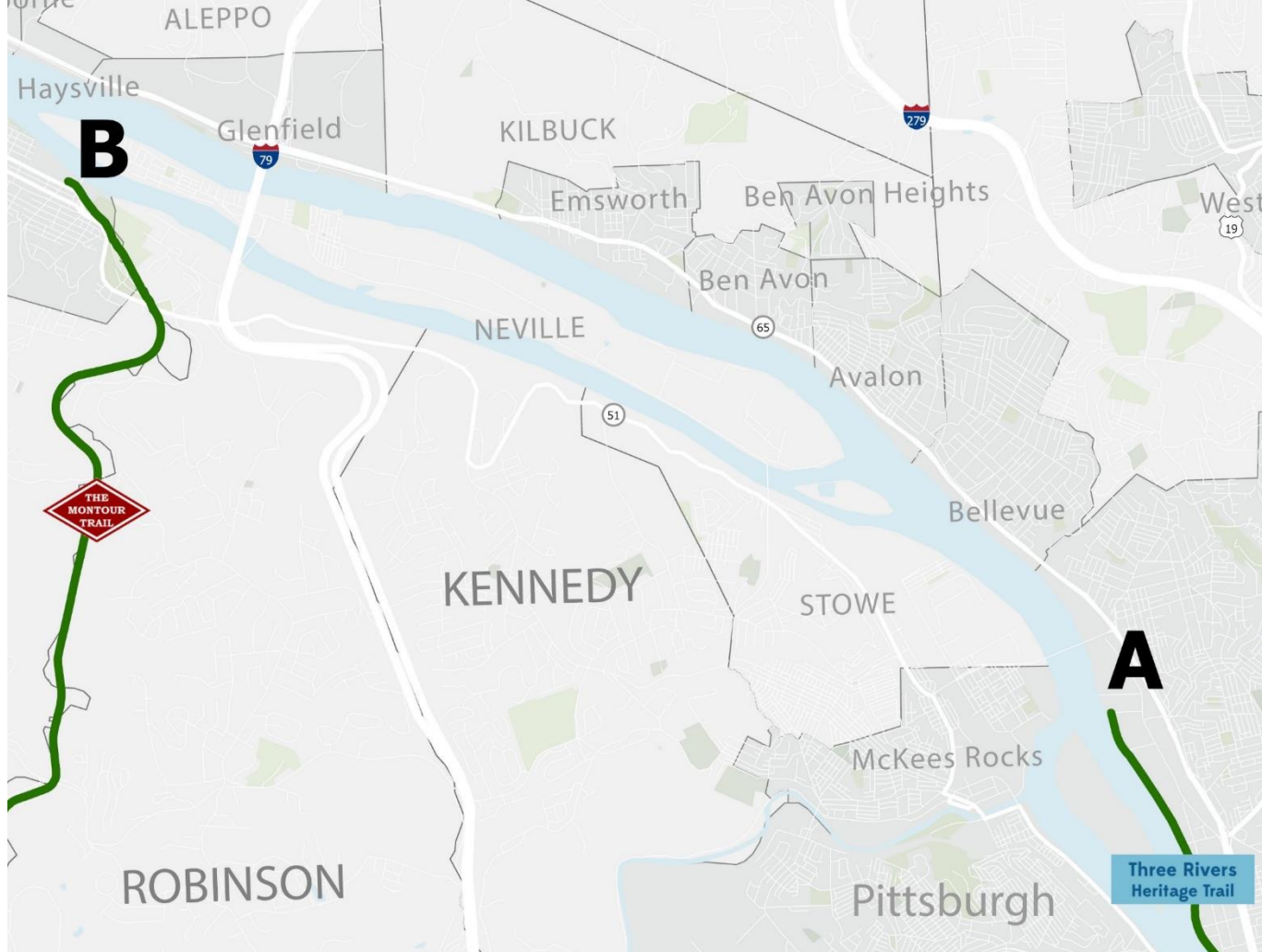
# Bike Suitability Mapping



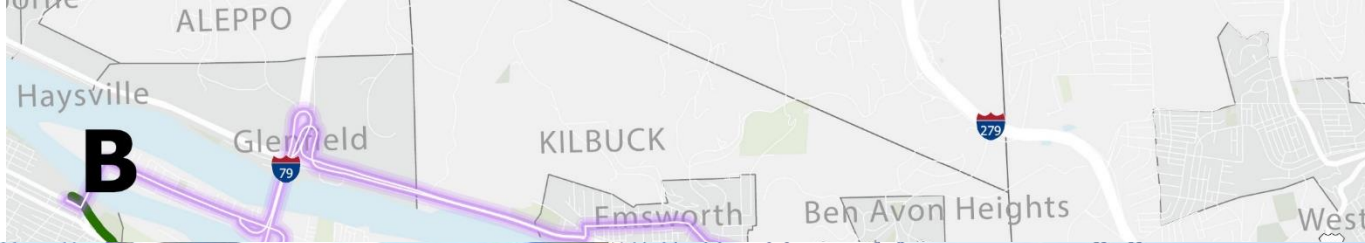
# Four Types of Riders

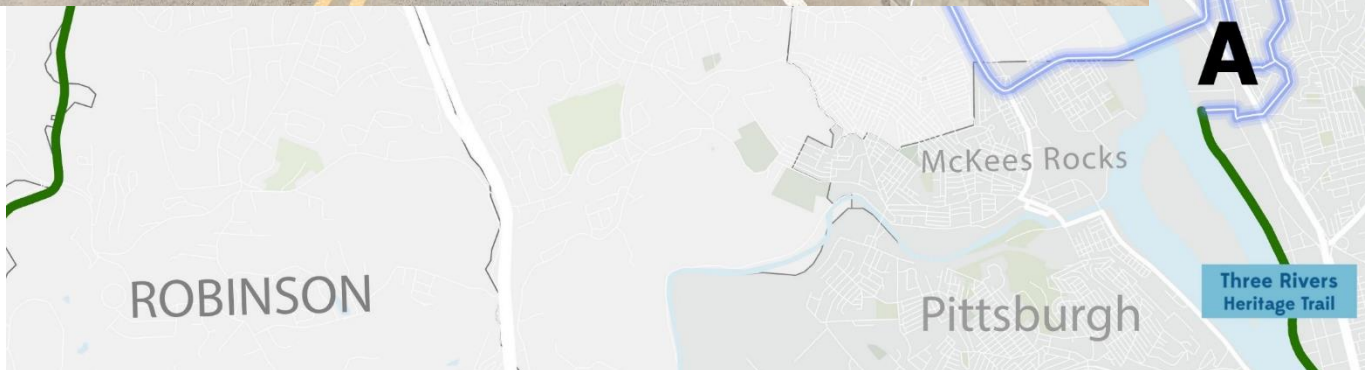
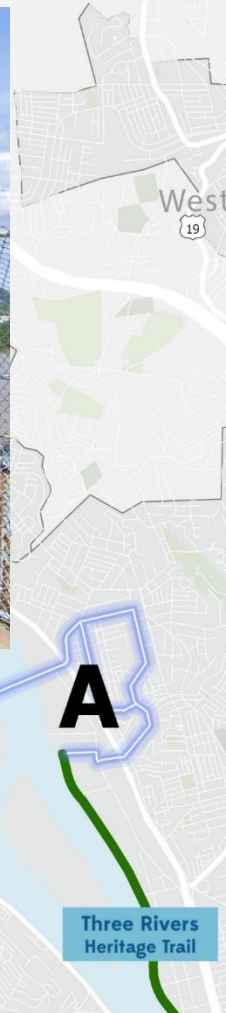


Source: Four Types of Cyclists- Roger Geller, Bicycle Coordinator - Portland Office of Transportation PD10060 1/20

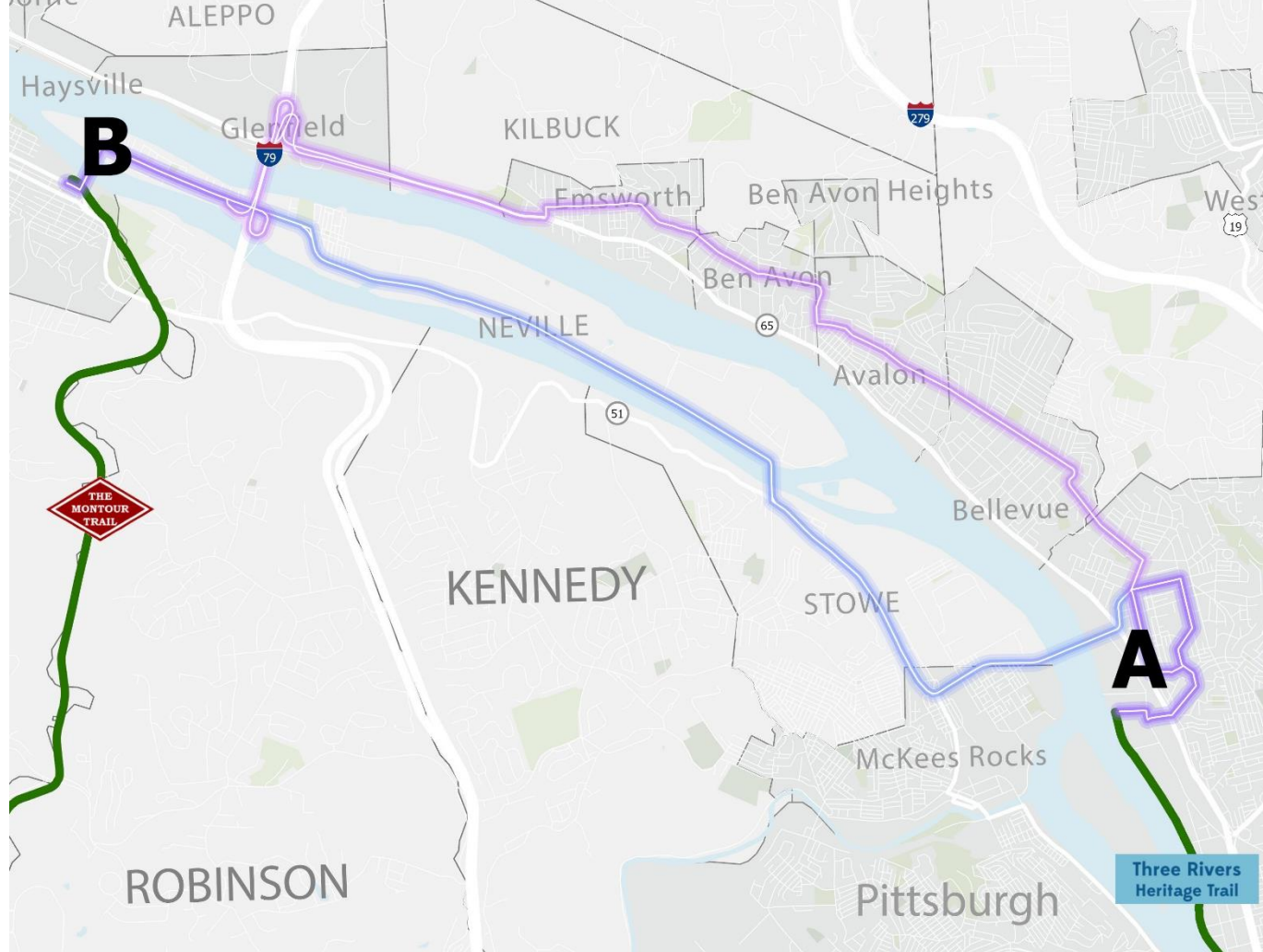












# Bicycle Level of Comfort

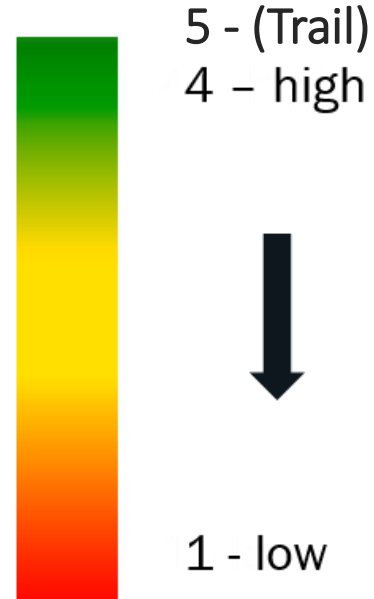
- Solution
  - Data driven system for on street biking when no bike infrastructure is available.
  - Low-Stress Bicycling and Network Connectivity
    - MTI (Mineta Transportation Institute)
      - Maaza Mekuria, PhD, PE, PTOE
      - Peter Furth, PhD
      - Hilary Nixon, PhD
  - Switched from “level of stress” to “level of comfort”

# Level of Comfort Rankings

Composed of...

- Speed
- Lanes
- Average Annual Daily Traffic (AADT)

**Level of Comfort**





Level of Comfort: 4

VS

Level of Comfort: 1



**Mixed Traffic:**

Number of Lanes	Effective ADT	≤ 20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
Unlaned trail (no motor vehicle traffic)	0	LOC 5						
Unlaned 2-way street (no centerline)	0-750	LOC 4	LOC 4	LOC 3	LOC 3	LOC 2	LOC 2	LOC 2
	751-1500	LOC 4	LOC 4	LOC 3	LOC 2	LOC 2	LOC 2	LOC 1
	1501-3000	LOC 3	LOC 3	LOC 3	LOC 2	LOC 1	LOC 1	LOC 1
	3000+	LOC 3	LOC 2	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LOC 4	LOC 4	LOC 3	LOC 3	LOC 2	LOC 2	LOC 2
	751-1500	LOC 3	LOC 3	LOC 3	LOC 2	LOC 2	LOC 2	LOC 1
	1501-3000	LOC 3	LOC 2	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1
	3000+	LOC 2	LOC 2	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1
2 thru lanes per direction	0-8000	LOC 2	LOC 2	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1
	8001+	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1	LOC 1	LOC 1
3+ thru lanes per direction	any ADT	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1	LOC 1	LOC 1

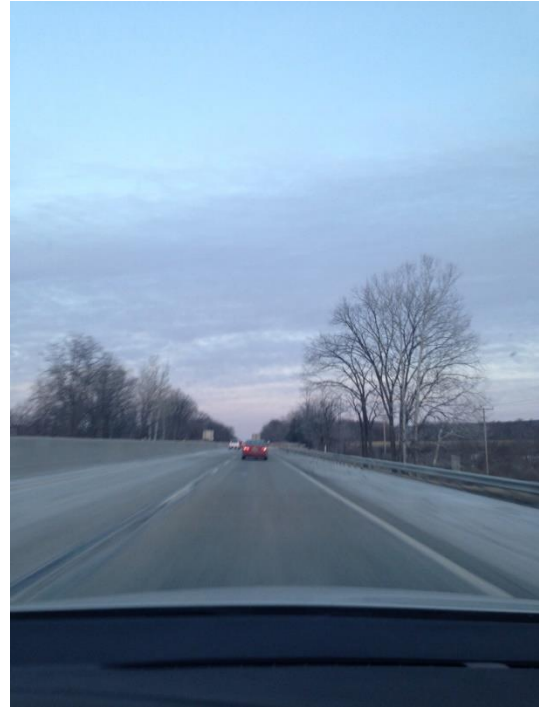
**Bike Lanes:**

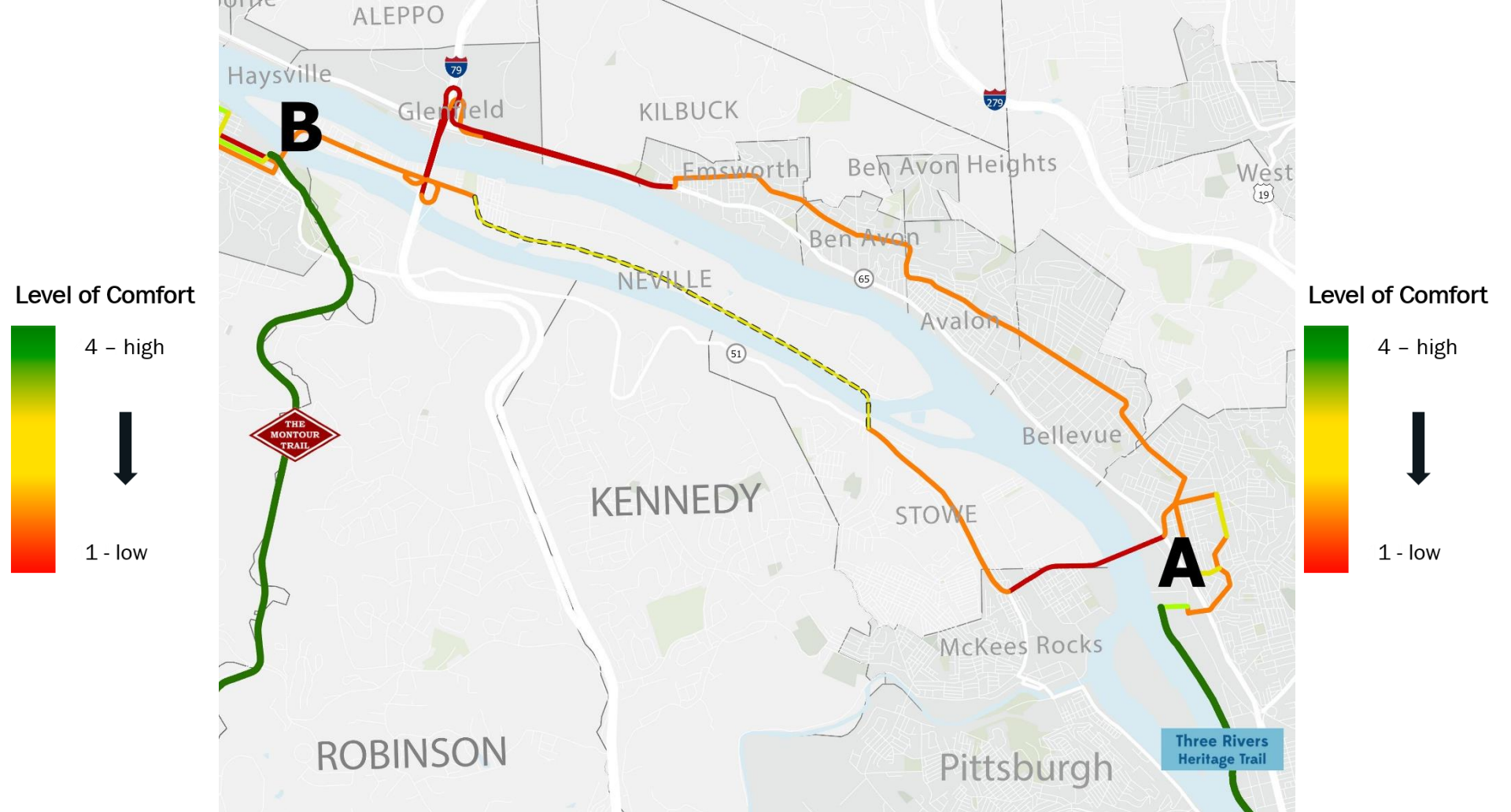
Number of Lanes	Bike Lane Width	≤ 25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
1 thru lane per direction, or unlaned	6+ ft	LOC 4	LOC 4	LOC 3	LOC 3	LOC 2	LOC 2
	4 or 5 ft	LOC 4	LOC 4	LOC 3	LOC 3	LOC 2	LOC 1
2 thru lanes per direction	6+ ft	LOC 4	LOC 4	LOC 3	LOC 2	LOC 2	LOC 2
	4 or 5 ft	LOC 3	LOC 3	LOC 3	LOC 2	LOC 2	LOC 1
3+ lanes per direction	any width	LOC 2	LOC 2	LOC 2	LOC 1	LOC 1	LOC 1



# SPC's Methodology for Bike LOC

- PennDOT Road Shapefiles
- Google Maps
- Field View of Corridors
- Local Feedback





# Current/Future Plans



## Prioritize Trail Connections

Three Rivers Heritage Trail to Montour Trail

Westmoreland Heritage Trail

Smithton/Scottdale GAP Trail Connection

\*Pilot project in each county!



## Expand the database

Map entire municipality upon request

Eventually map entire region

Add slope component

Gather more input

# LOC in Planning

- Active Transportation Plans
  - Forest Hills Borough
- Regional Corridor Studies
  - Brodhead Road
- Bike Friendly Designations
  - Indiana Borough
- Show where there is a need!



# Interactive LOC App



<https://spcgis-spc.hub.arcgis.com/apps/level-of-comfort-public-map/explore>

<https://spcregiontools.org/PDF/IndianaBoro.jpg>



# Thank you for listening!

## Questions?

Check out our Open Data GIS website at

[www.spcgis-spc.hub.arcgis.com](http://www.spcgis-spc.hub.arcgis.com)

