Baltimore Regional Transportation Board

CMP Committee

June 4, 2024

BMC

BRTB

Agenda

1. **WELCOME AND INTRODUCTIONS** (5 min.)

2. **APPROVAL OF MINUTES FROM FEBRUARY 6, 2024 MEETING** (3 min.)

3. **MEETING OBJECTIVE** (2 min.)

4. **PRESENTATION OF HARBOR CROSSINGS SELECT LINK ORIGIN/DESTINATION ANALYSIS USING TERALYTICS DATA** (15 min.)
   Mr. Brian Ryder, BMC, will present results of a select link O/D analysis using Teralytics data.

5. **BEFORE/AFTER ANALYSES** (20 min.)
   Mr. Ed Stylc, BMC, will present on before/after analyses related to the impacts of the Francis Scott Key Bridge collapse on traffic patterns and on how current volume/delay compare to pre-COVID conditions.

6. **OVERVIEW OF UPDATES TO REGIONAL CMP RESOURCES** (10 min.)
   BMC staff will present an overview of the updates to the Online CMP Tool.

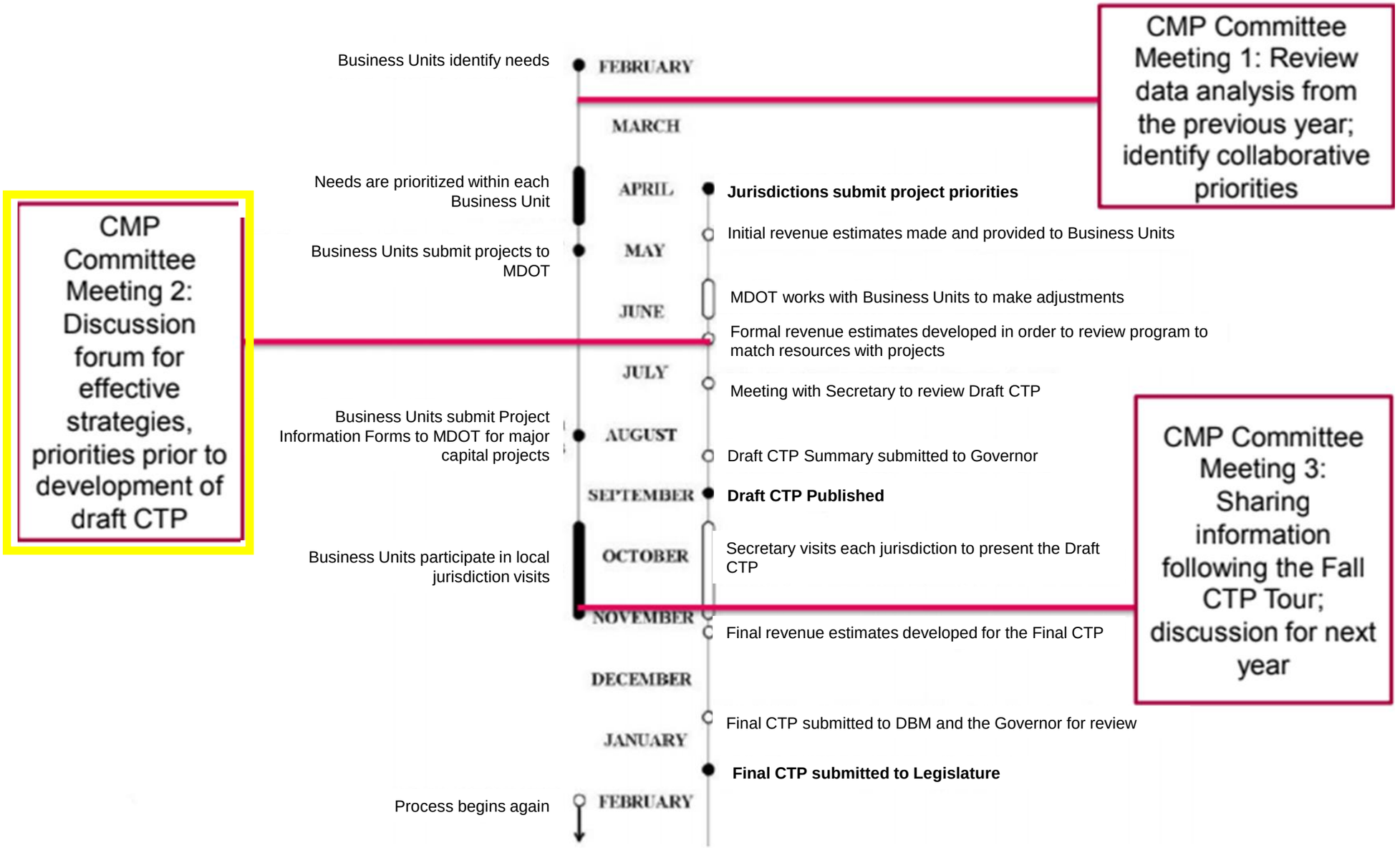
7. **PROJECT PRIORITIZATION AND PRIORITY LETTER DEVELOPMENT** (10 min.)
   The group will discuss the status of local priority letter development for 2024.

8. **OTHER BUSINESS** (5 min.)

3. Meeting Objective

- Presentations
  - Harbor Crossing analysis using Teralytics data
  - Before/After traffic analyses
- Provide updates on regional CMP resources
- Discuss priority letter development

Reminder: CMP Committee Schedule



BALTIMORE METROPOLITAN COUNCIL

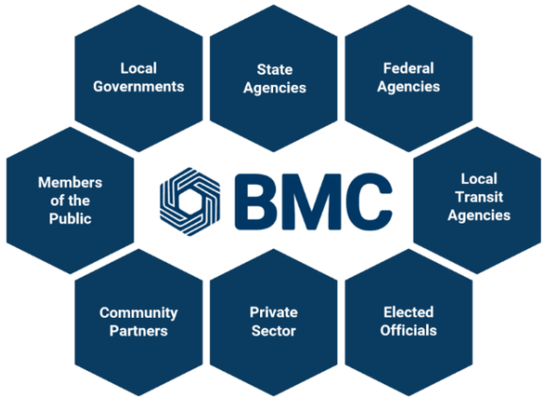
4. Harbor Crossings Select Link & Origin-Destination Analysis 2022

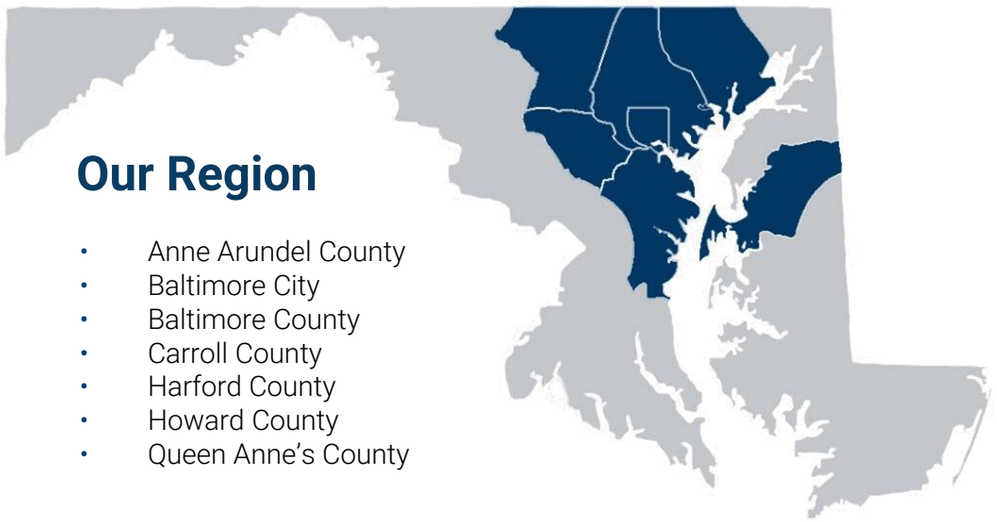
Teralytics LBS Data

June 4, 2024

Baltimore Metropolitan Council

Baltimore Metropolitan Council is a trusted group of experts who help guide the future of the Baltimore region, working with people and policy makers to make our communities more accessible, livable and prosperous for all. We evaluate needs and trends to develop and implement programs and projects as the Baltimore region is emerging from decades of disinvestment and capitalizing on many strengths to forge a vibrant economy and build a sustainable quality of life for future generations.





Our Region

- Anne Arundel County
- Baltimore City
- Baltimore County
- Carroll County
- Harford County
- Howard County
- Queen Anne's County

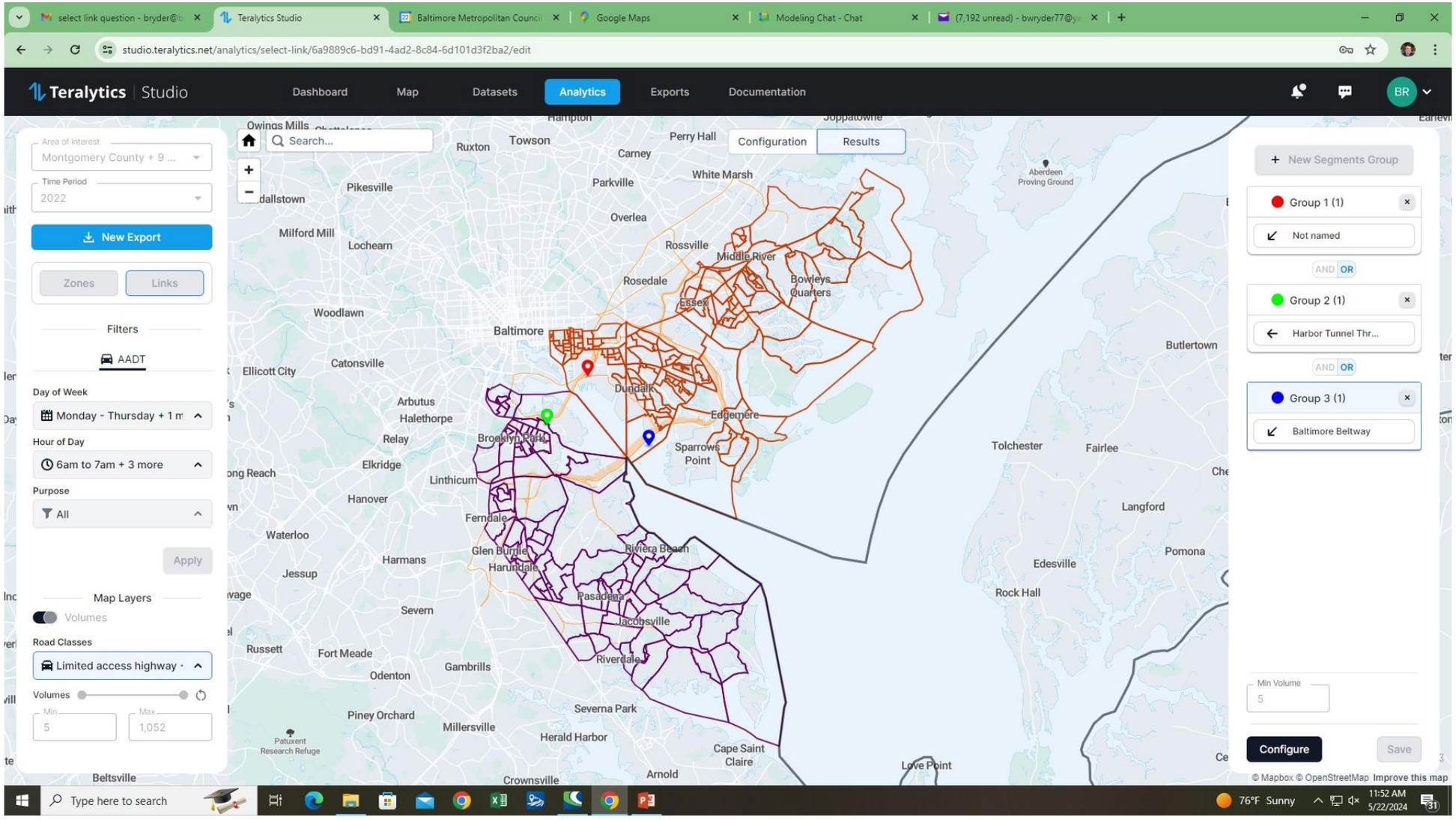
Baltimore Metropolitan Council

- Provide resources to our member jurisdictions in:
  - Transportation
    - Demographics
    - Travel Demand Modeling: Road & Transit
  - Environmental
    - Air Quality Conformity
    - Reservoir Protection/Agreements
  - Cooperative Purchasing
    - School and Government Purchasing
  - Preparedness
    - Security Grants
    - Emergency/Disaster Response
  - Housing
    - Voucher Program
    - Fair Housing Support

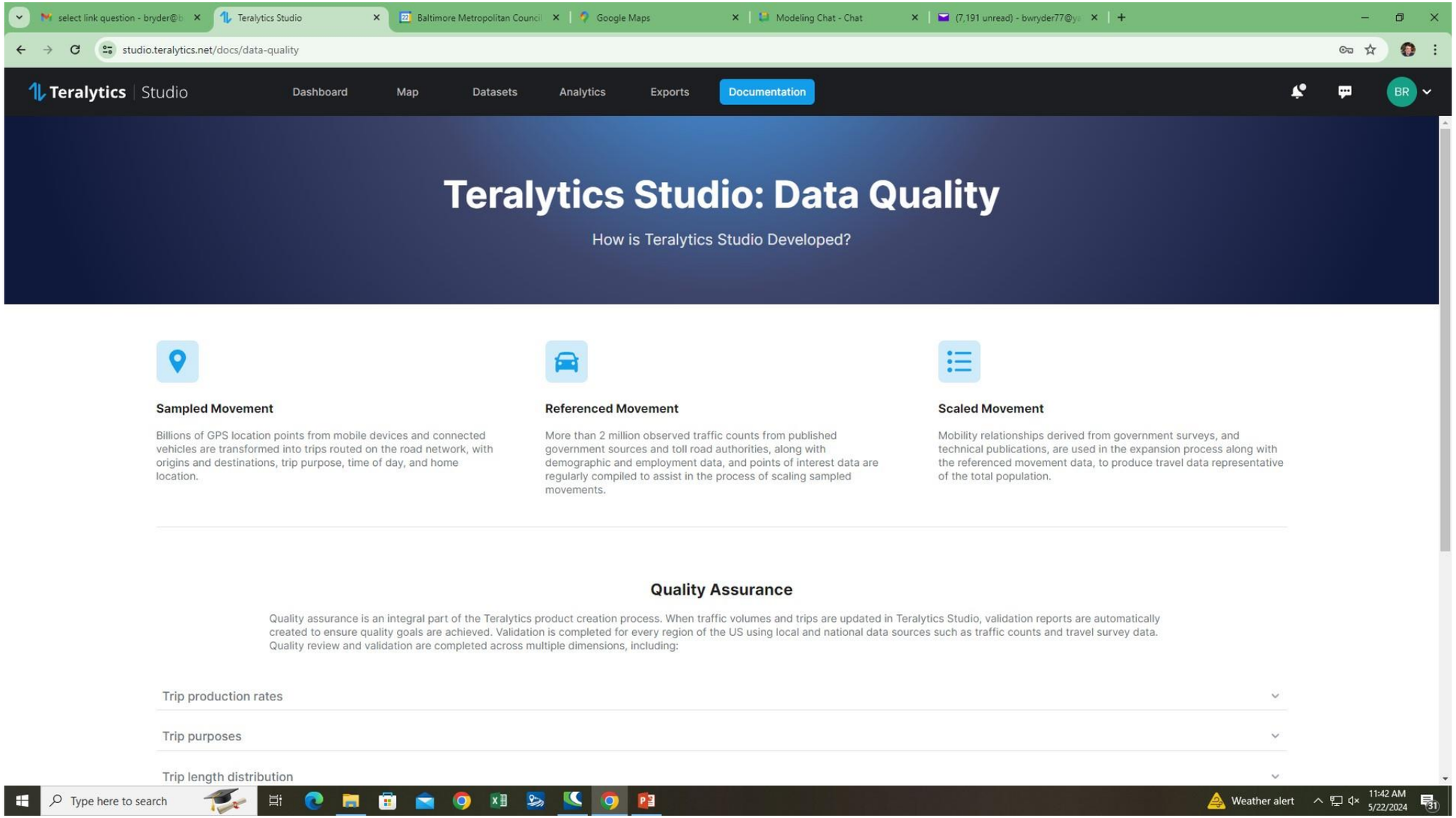
Using Traffic Data to Understand Traffic Patterns

- Use traffic data to understand Key Bridge traffic patterns
- Traffic Data: Teralytics
  - Location-Based Service (LBS) data
  - Data Available: 2019 & 2022
  - Define study area
    - Block groups to match BMC's study area zip codes
  - Define critical routes
    - Select links (segments) of each Harbor Crossing
  - Use BMC GIS
    - Export shapefiles from Teralytics to ArcGIS
    - map road volumes and block group origin-destinations trips

Teralytics Screenshot: Select Link Tool

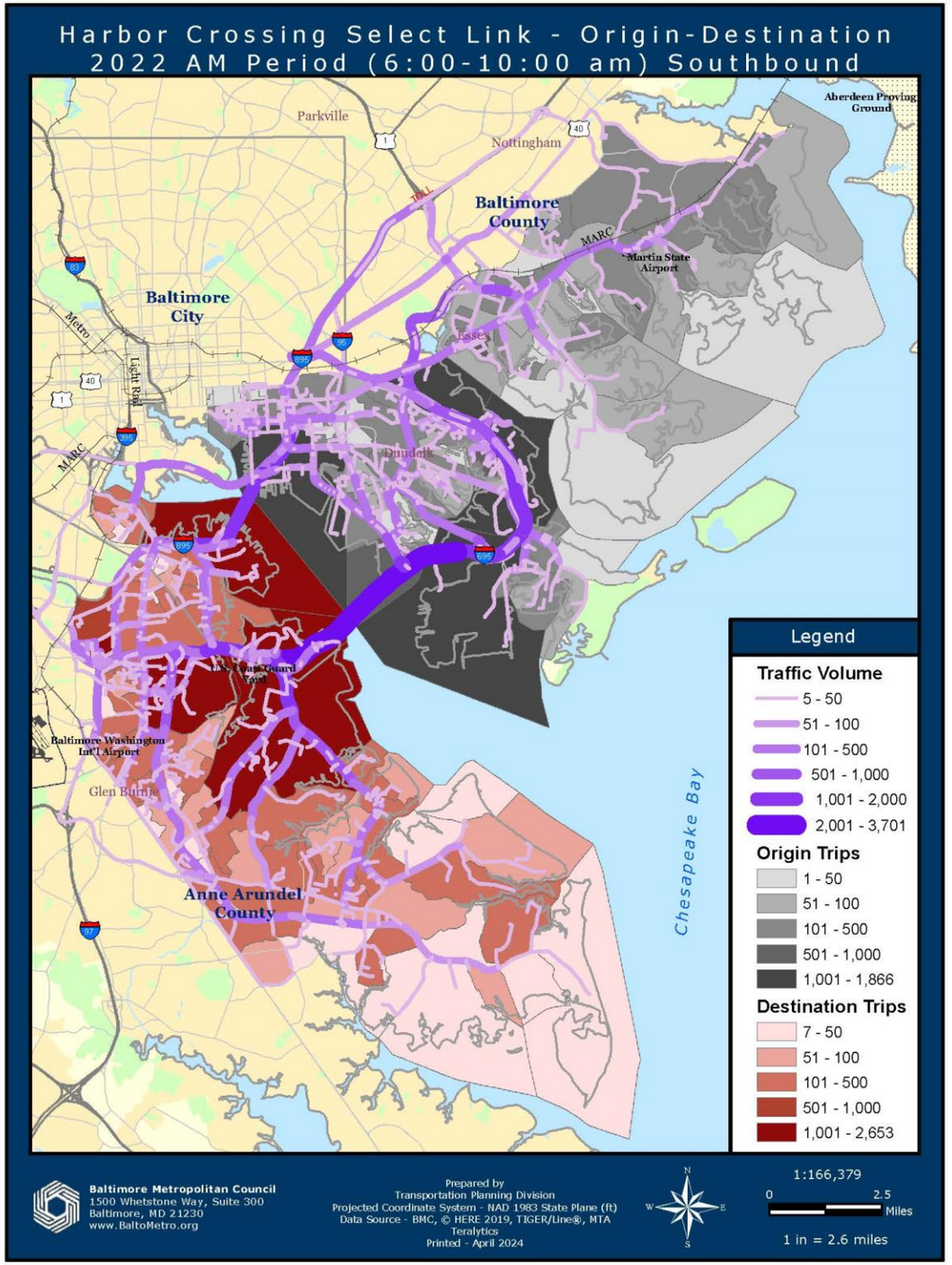


Teralytics Screenshot: Data Quality



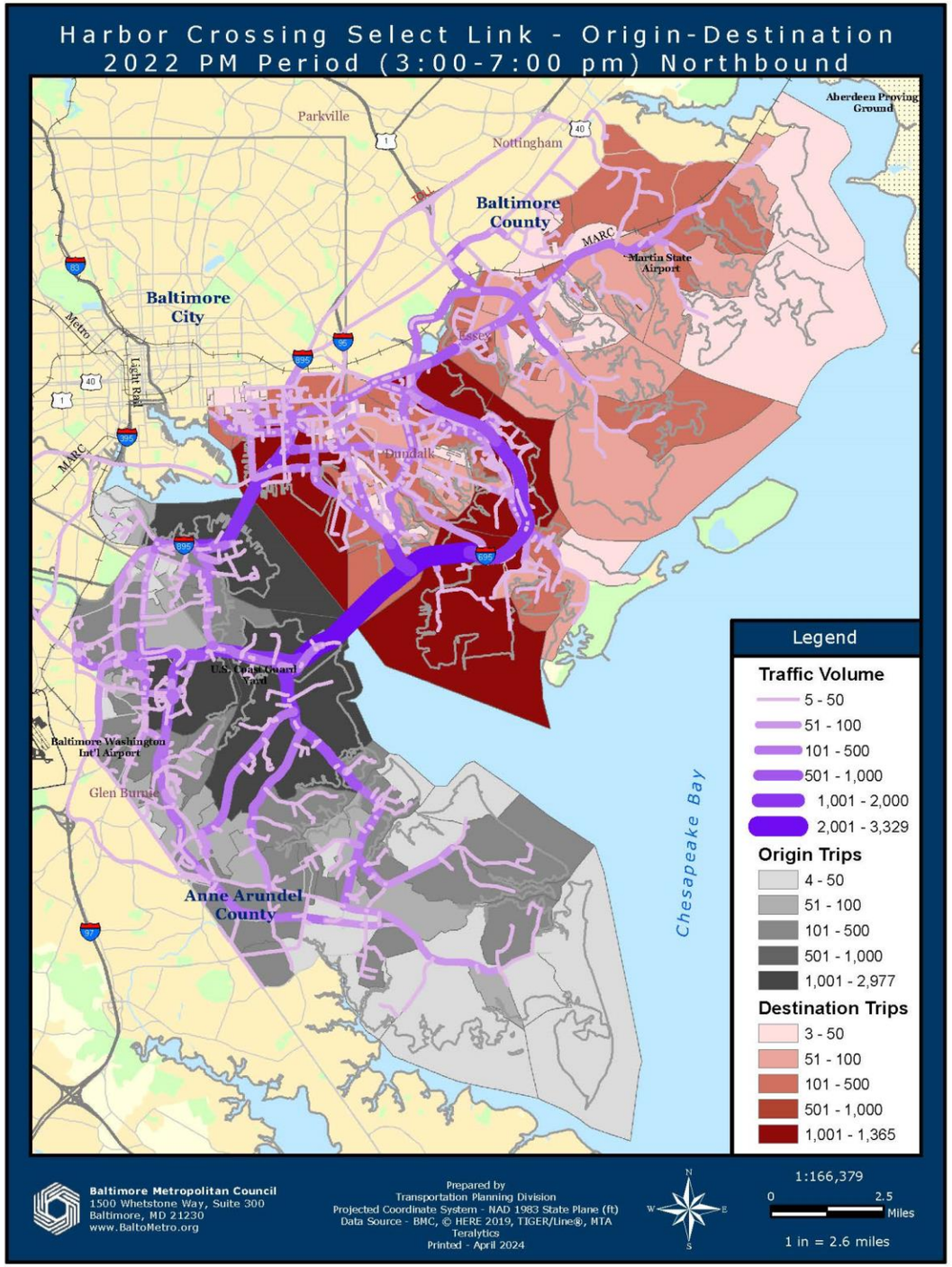
Key Bridge AM Southbound

- **Harbor Crossing Traffic**
  - 3,701 AM period southbound on Key Bridge
  - 1,509 AM period southbound on Harbor Tunnel
  - 113 AM period southbound on Fort McHenry Tunnel
- **Origin-Destination by Trips block group**
  - 1,866 origins on Harbor Crossings from Eastpoint
  - 2,653 destinations on Harbor Crossings from Fairfield/Curtis Bay



Key Bridge PM Northbound

- **Harbor Crossing Traffic**
  - 3,329 PM period northbound on Key Bridge
  - 1,424 PM period northbound on Harbor Tunnel
  - 28 PM period northbound on Fort McHenry Tunnel
- **Origin-Destination Trips by block group**
  - 2,977 origins on Harbor Crossings from Fairfield/Curtis Bay
  - 1,365 destinations on Harbor Crossings from Eastpoint



Applications

- **Easy-to-Use maps of the Harbor Crossings**
- **Preliminary Understanding of Key Bridge travelers' Origins and Destinations**
- **Discussion**

For More Information

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5. BEFORE/AFTER ANALYSES

Impacts of the Francis Scott Key Bridge collapse on current traffic patterns
How current volume/delay compare to pre-COVID conditions

June 4, 2024

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Key Bridge Collapse

Traffic Impacts in the Baltimore Region as of Thursday April 30th 2024

BMC

TRAFFIC AND TRANSPORTATION

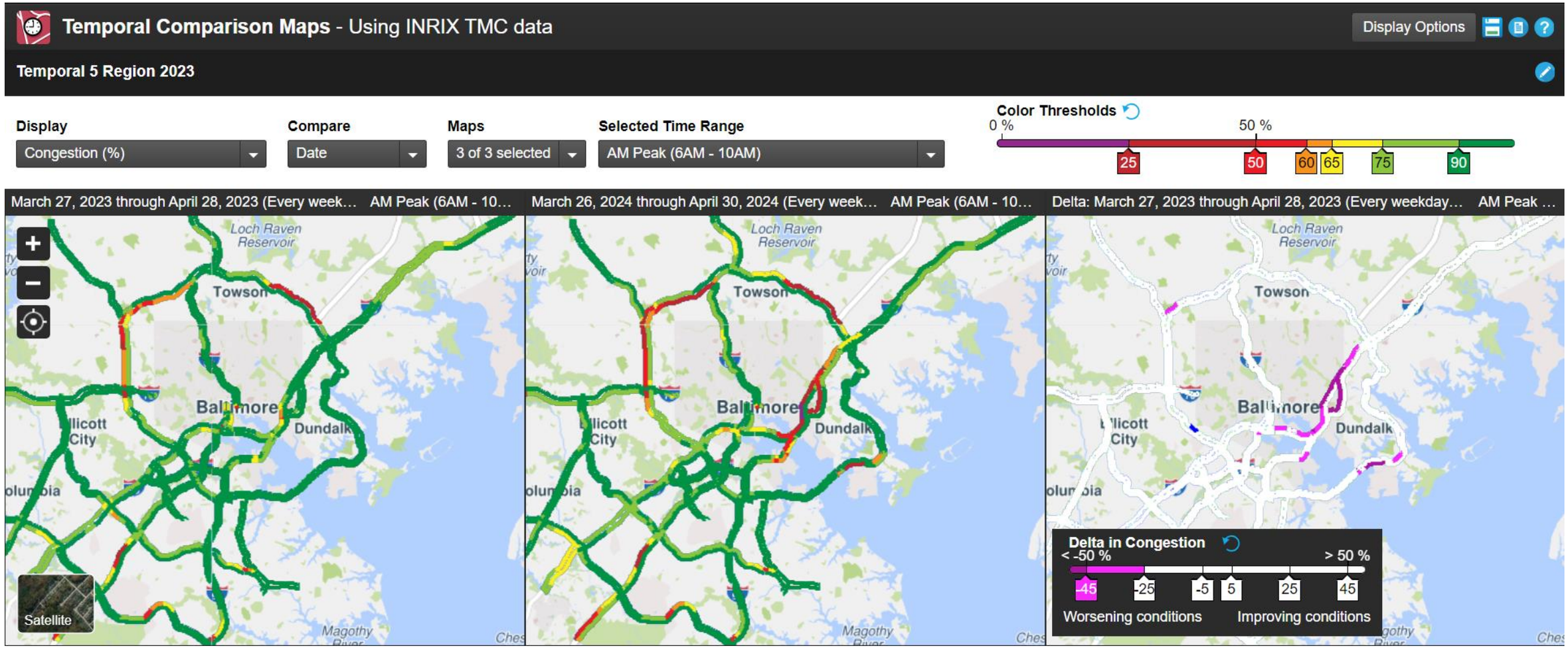
- FSK Averaged 34,000 crossings per day (4,000 commercial)
  - 39,000 weekday
  - 20,400 weekend
- Harbor Tunnel and Fort McHenry Tunnel average 198,000 crossings combined
  - Harbor Tunnel: 81,000 weekday, 71,300 weekend
  - FMT: 128,300 weekday, 99,600 weekend
- HAZ-MATS must find a new route (+/- 1,200 trucks daily)

Methodology

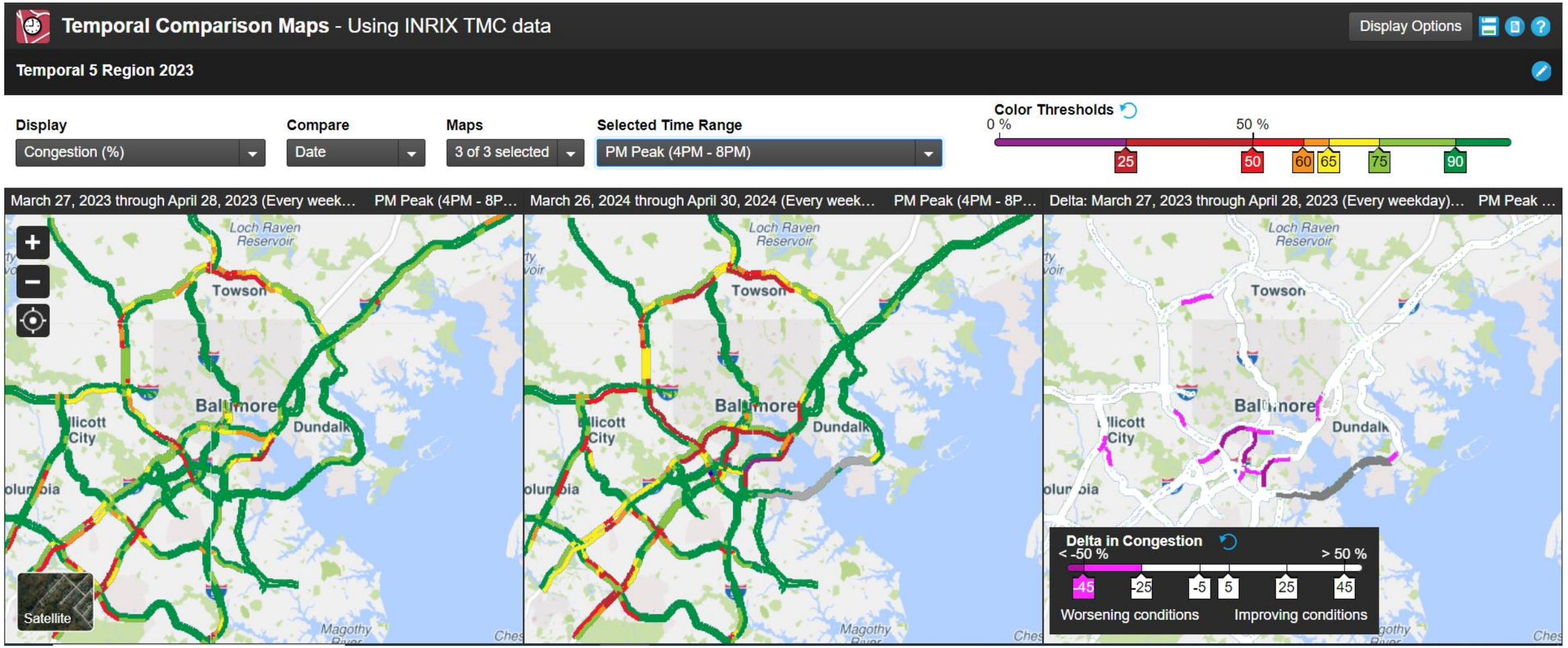
- Event Date: March 26th
- Baseline Data: 2023 March 27 – April 30 weekdays
- Analysis: 2024 March 26 – April 30 weekdays
- Extent: Observed hot spot areas with Congestion Percentage below 75%

(Congestion % = Percentage of Free Flow Speed)

Increased Congestion Segments AM Peak



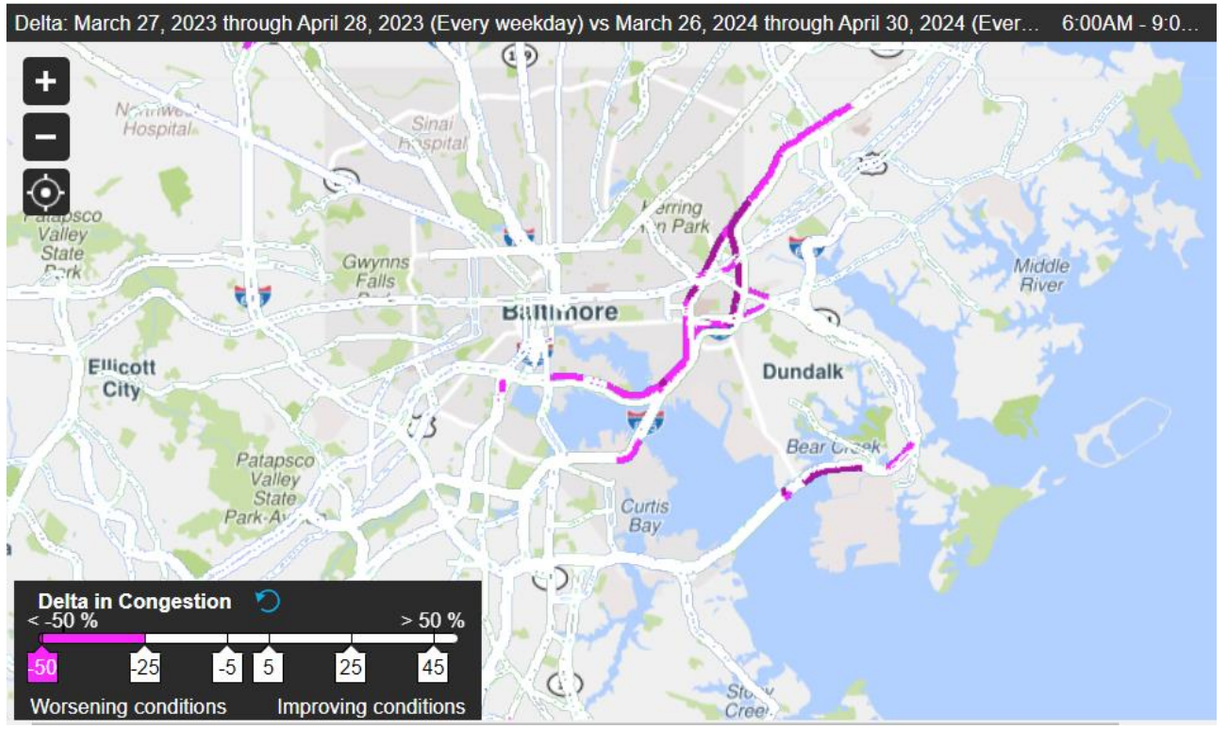
Increased Congestion Segments PM Peak



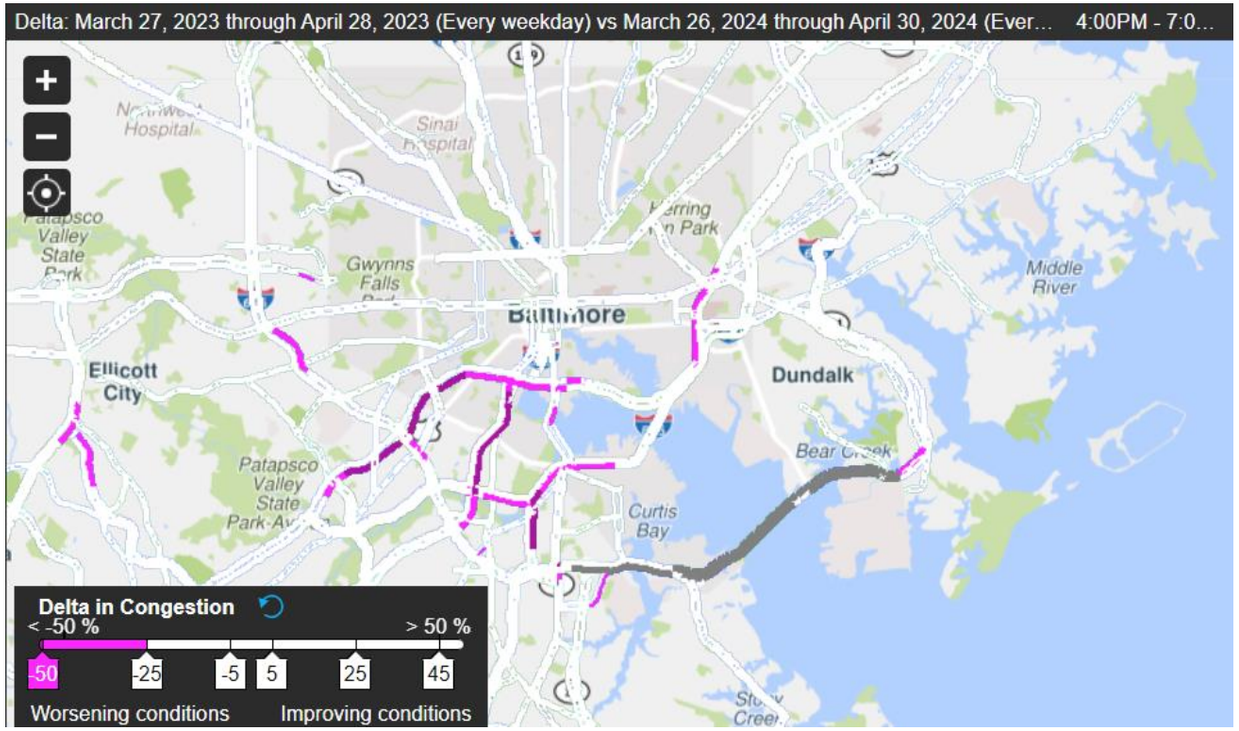
Increased Congestion Segments

Segments flagged with speeds worsening by 25% or more since FSK collapse

6-9 AM



4-7 PM

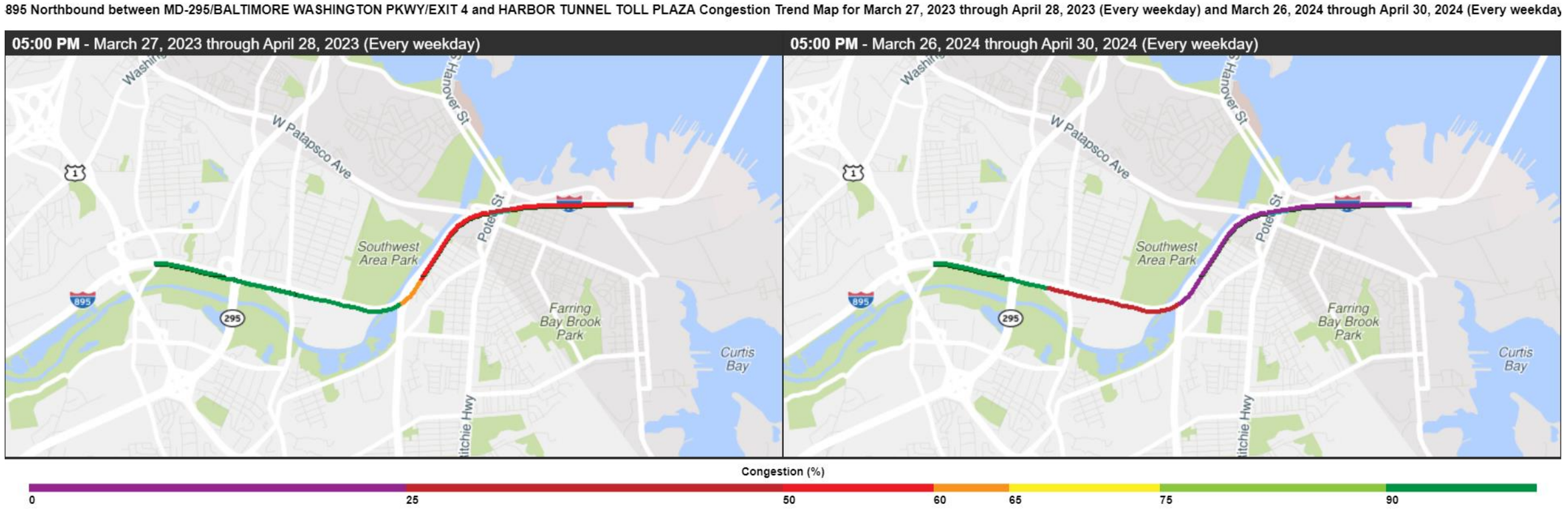


Roadway Segments Experiencing Increased Congestion

Segments	Peak	Length	TT Before	TT After	% Increase
I-895 NB from MD-295 to Harbor Tunnel Toll Plaza	PM (4-7 PM)	4.35	5.89	17.2	**192%**
I-895 NB from MD-2/Ritchie Hwy to I-895 Merge	PM (4-7 PM)	2.74	3.04	6.86	**126%**
I-95 NB from I-895/Exit 46 to Fort McHenry Tunnel	PM (4-7 PM)	10.00	13.77	30.18	**119%**
I-895 SB from I-95/Exit 62 to Harbor Tunnel Toll Plaza	AM (6-9 AM)	6.87	9.85	20.78	**111%**
I-95 SB from I-895 split to Fort McHenry Tunnel	AM (6-9 AM)	8.43	10.06	20.93	**108%**
MD-295 NB from Patapsco Ave to Bayard St	PM (4-7 PM)	1.75	3.23	6.44	**99%**
I-695 IL from Park Heights Ave to Greenspring Ave	PM (4-7 PM)	2.19	2.62	4.29	64%
MD-2/Ritchie Hwy NB from MD-710 to MD-171	PM (4-7 PM)	1.69	4.06	5.82	43%
I-695 OL from Reisterstown Rd to I-795	AM (6-9 AM)	2.16	3.02	4.31	43%
Hanover Street NB (I-895 to Cromwell)	PM (4-7 PM)	1.47	3.10	4.3	39%
US-40/Pulaski Hwy WB from City Line to N Haven St	AM (6-9 AM)	1.97	3.69	5.03	36%
I-895 SB from I-95/Exit 62 to Harbor Tunnel Toll Plaza	PM (4-7 PM)	6.87	9.67	13.01	35%
I-395 SB to I-95 NB (East Pratt to I-95)	PM (4-7 PM)	1.62	3.42	4.42	29%
MLK Blvd SB from W Baltimore St to I-395	PM (4-7 PM)	0.83	1.99	2.49	25%
I-395 SB to I-95 SB (East Pratt to I-95)	PM (4-7 PM)	1.5	3.12	3.56	14%
Length (miles)					
Travel Time: TT Before 3/27/2023 - 4/30/2023 (weekday AVG in minutes)					
Travel Time: TT After 3/26/3024 - 4/30/2024 (Weekday AVG in minutes)					

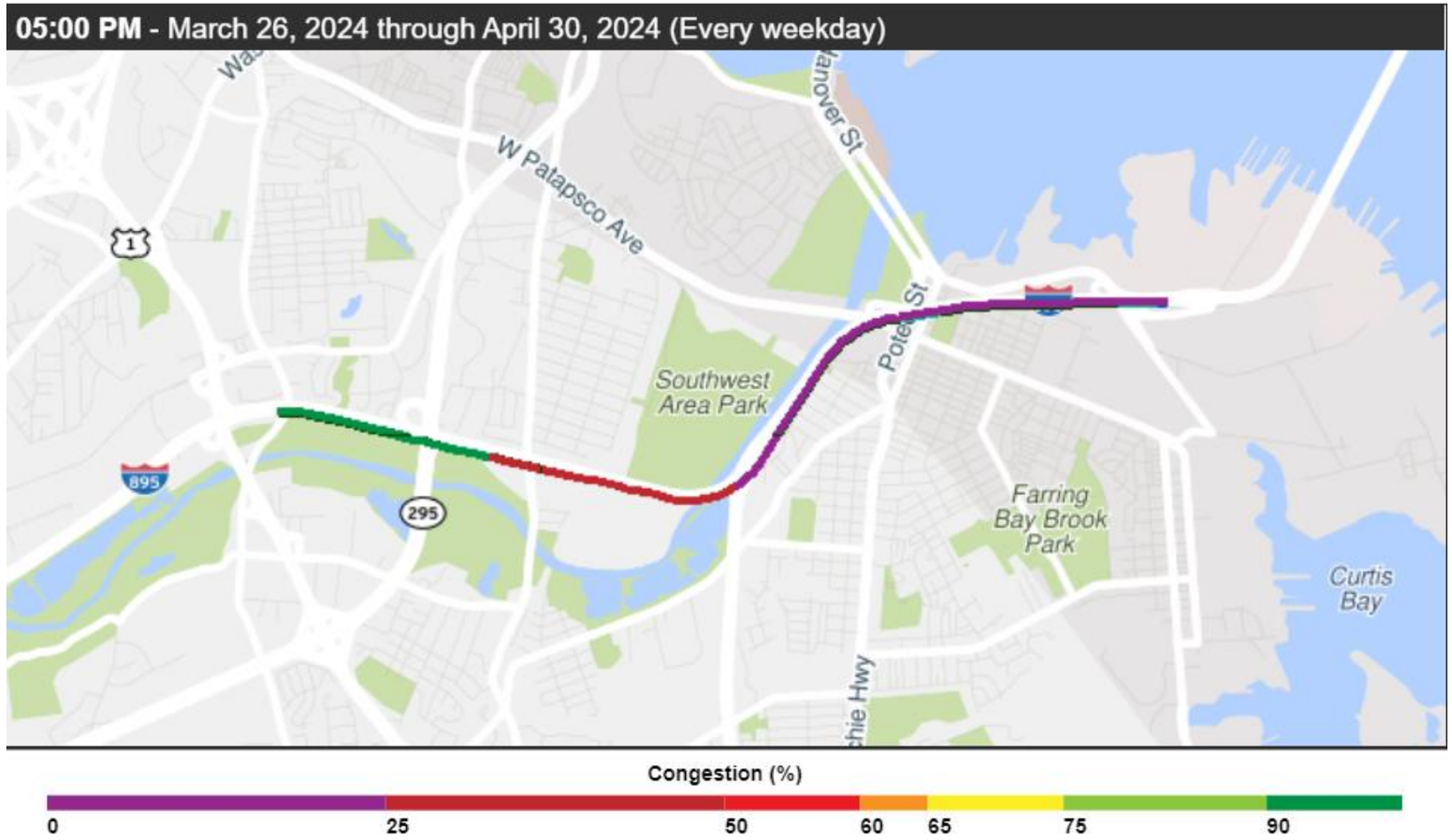
I-895 NB from MD-295 to Harbor Tunnel Toll Plaza

Congestion Percentage = % of Free Flow Speed



I-895 NB from MD-295 to Harbor Tunnel Toll Plaza

Congestion Percentage = % of Free Flow Speed



Weekday Average

3/27- 4/30/2023	3/26- 4/30/2024
PK. TRAVEL TIME	PK. TRAVEL TIME
PM Peak | 4-7 PM	PM Peak 4-7 PM
5.89 min	**17.20 min**

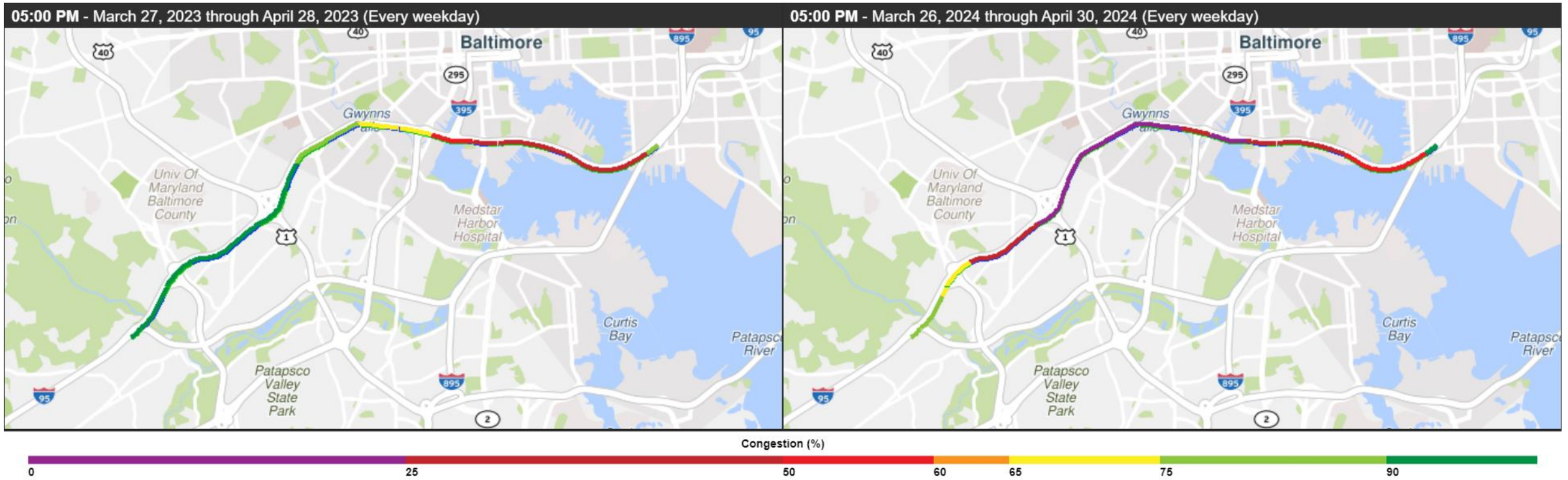
192% increase in Travel Time

Route Length = 4.35 miles

I-95 NB from I-895/Exit 46 to Fort McHenry Tunnel

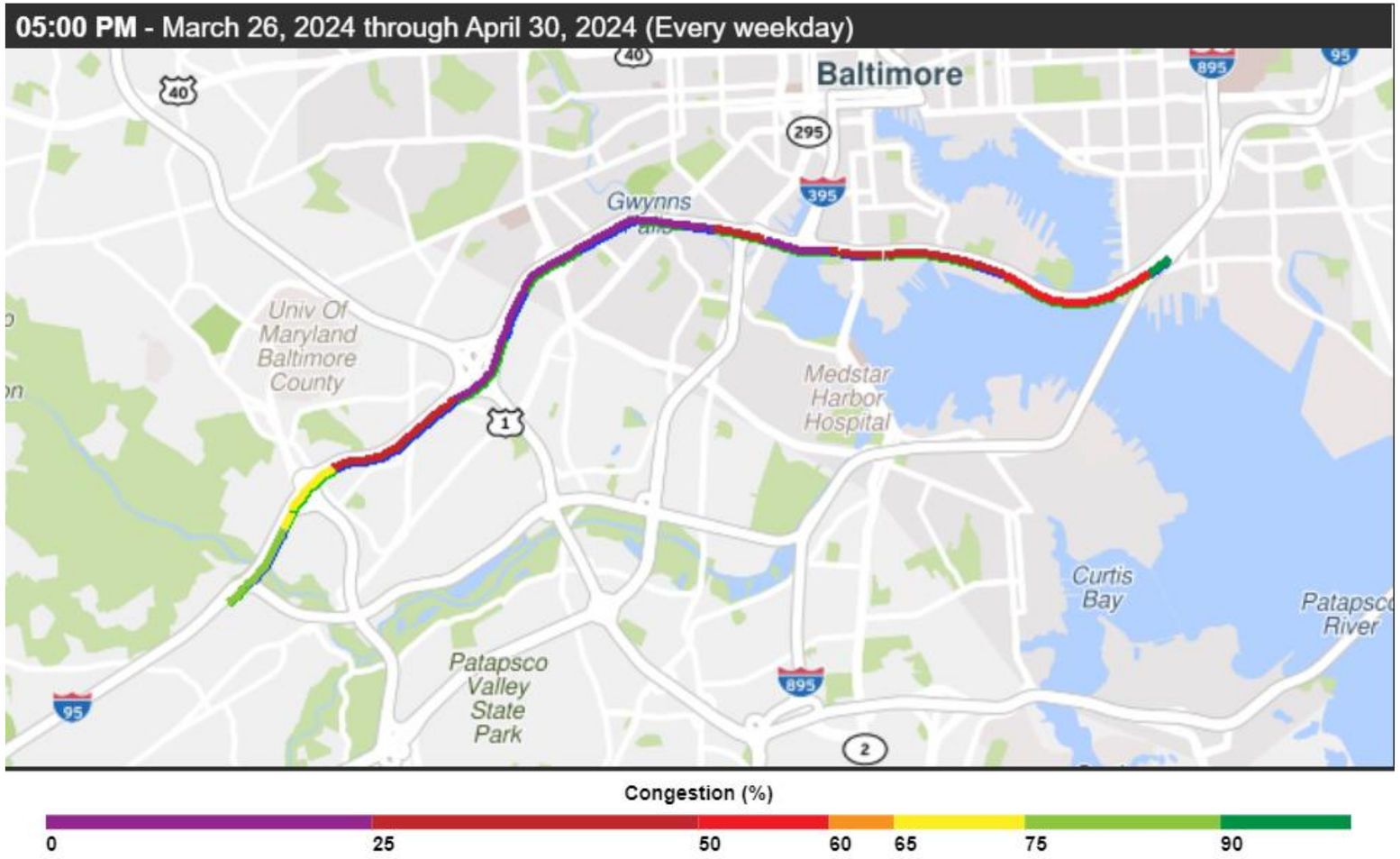
Congestion Percentage = % of Free Flow Speed

I-95 Northbound between I-895/EXIT 46 and FORT MCHENRY TUNNEL TOLL PLAZA Congestion Trend Map for March 27, 2023 through April 28, 2023 (Every weekday) and March 26, 2024 through April 30, 2024 (Every weekday)



I-95 NB from I-895/Exit 46 to Fort McHenry Tunnel

Congestion Percentage = % of Free Flow Speed



Weekday Average

3/27- 4/30/2023	3/26- 4/30/2024
PK. TRAVEL TIME	PK. TRAVEL TIME
PM Peak | 4-7 PM	PM Peak | 4-7 PM
13.77 min	**30.18 min**

119% increase in Travel Time

Route Length = 10 miles

Baltimore Regional Transportation Board

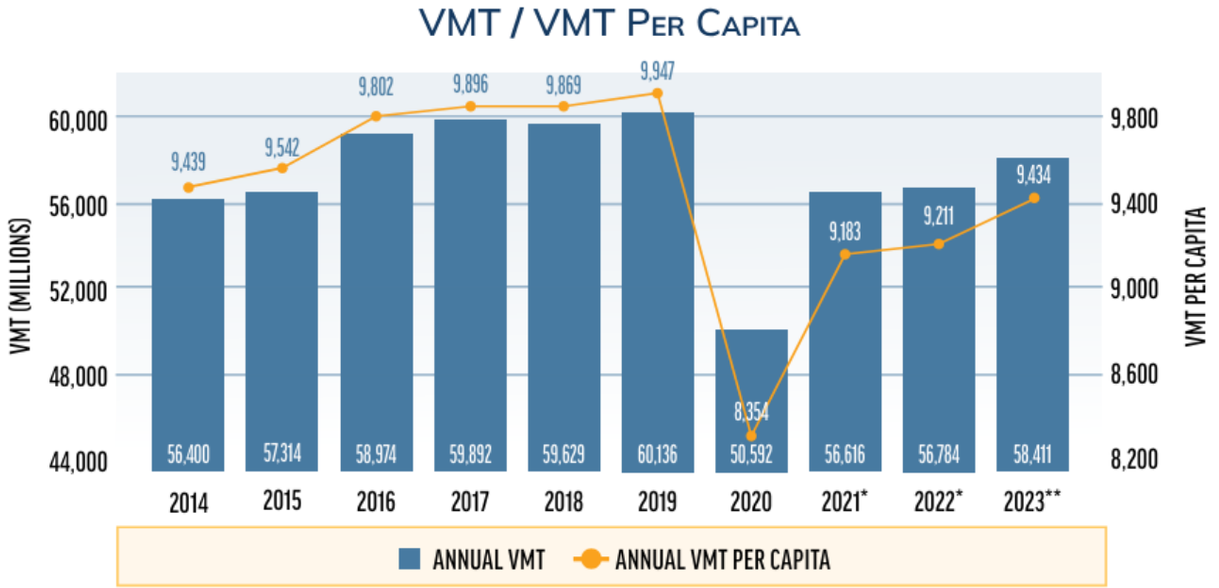
How current VMT values compare to pre-COVID conditions

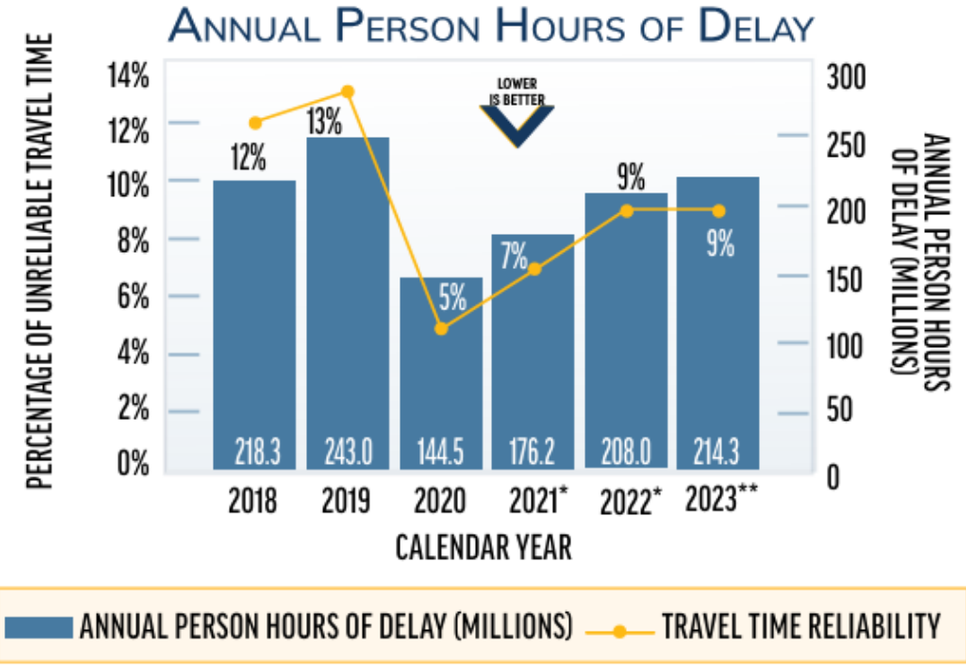
BMC

Pre and Post Pandemic Conditions

- Travel on U.S. roads in 2023 rose 2.1% to 3.263 trillion miles setting a new yearly record and topping pre-COVID 19 levels for the first time (USDOT)

Pre and Post Pandemic Conditions





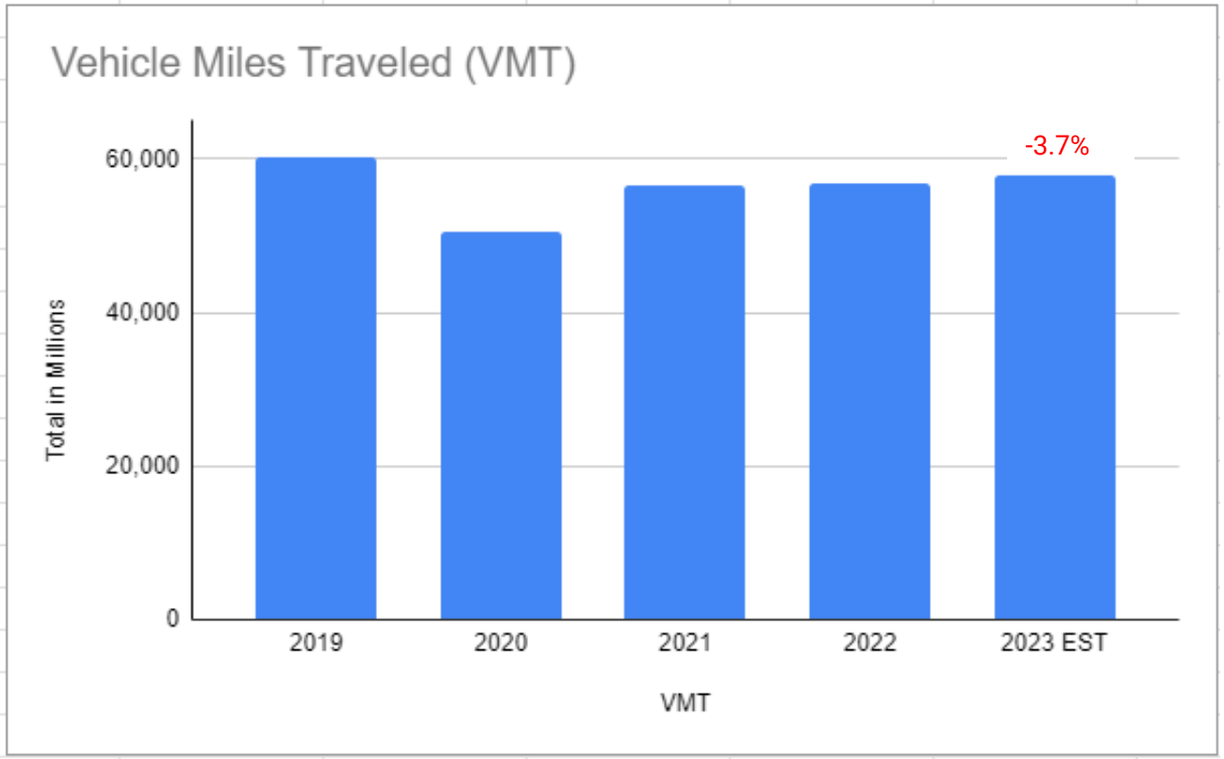
MARYLAND DEPARTMENT OF TRANSPORTATION

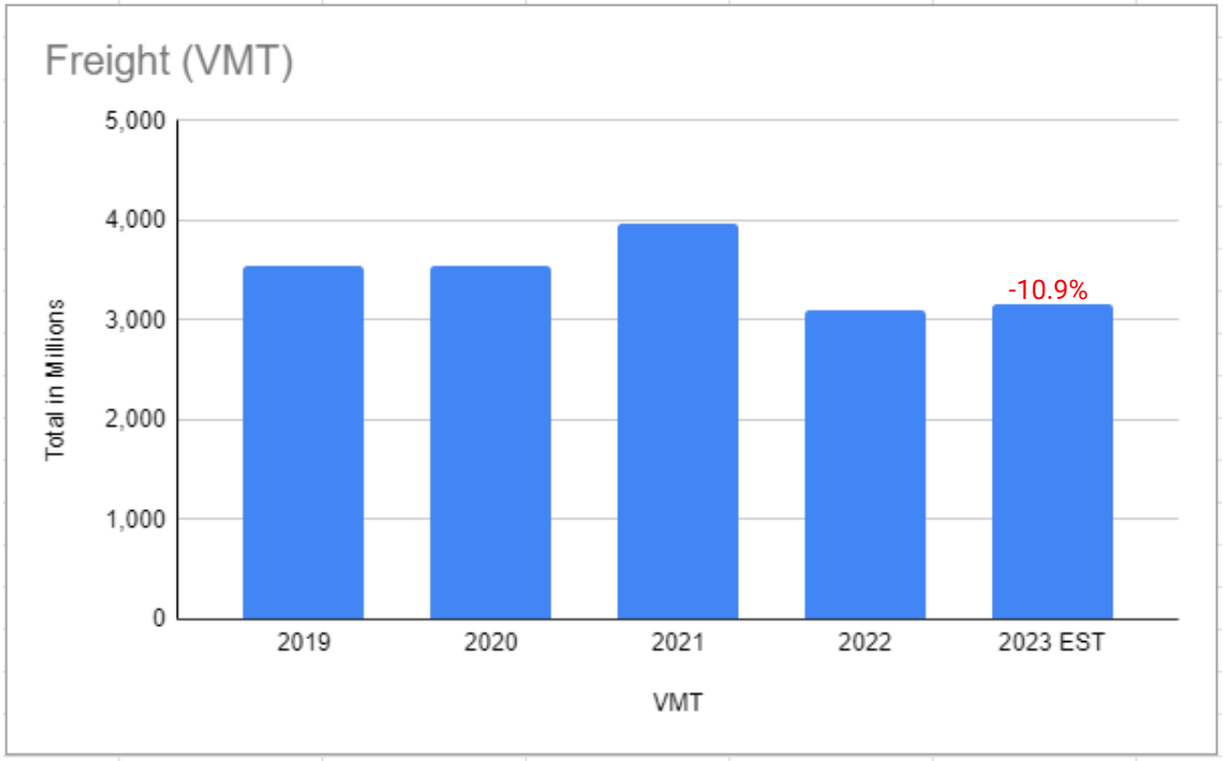
*Data are preliminary

**2023 data are projected and subjected to change

Note: The methodology used for reporting the 2022 (and prior years) delay values was updated to reflect recent refinements in OPPE's Maryland Roadway Performance Tool (MRPT) and because the trends calculated seem to more reasonably reflect ADT/VMT and congestion trends. The methodology for TTR remains the same.

Pre and Post Pandemic Conditions





VMT	2019	2020	2021	2022	2023 EST
Total	60,136	50,592	56,616	56,784	57,927

Freight VMT	2019	2020	2021	2022	2023 EST
Total	3,547	3,553	3,961	3,092	3,161

For More Information

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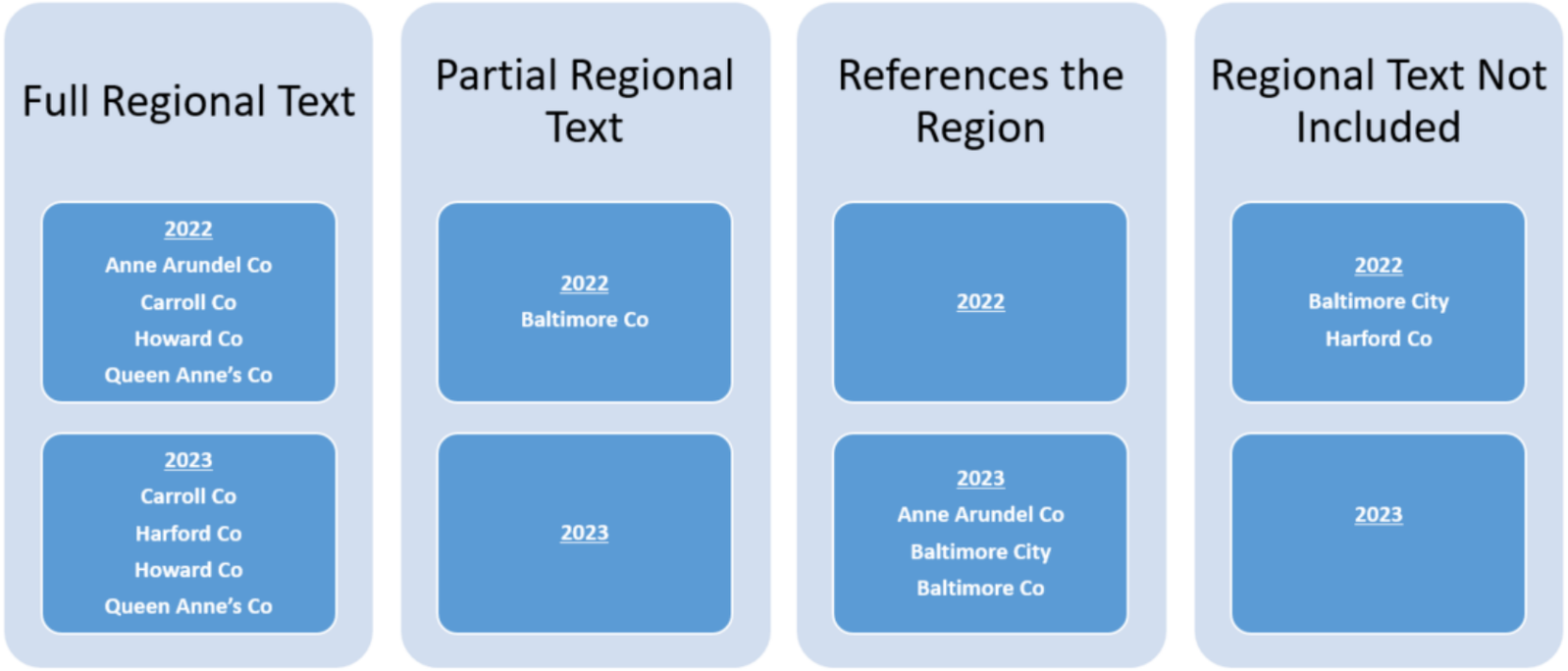
6. Overview of Updates to Regional CMP Resources

- Online CMP Tool https://baltometro.org/transportation/CMPmappingtool updates:
  - 2023 Start of Bottleneck
  - 2023 Bottleneck Lines
  - 2023 Average Morning Speeds
  - 2023 Average Evening Speeds
  - 2023 Travel Time Index
  - 2023 Planning Time Index
  - 2023 Interstate Travel Time Reliability
  - 2023 Non-Interstate Travel Time Reliability
  - 2023 Truck Travel Time Reliability
  - Regional Bicycle Facilities layer (updated 2023) added to the Current Layers group
  - Layer categories and colors for 2023 and 2022 have been changed to match the INRIX colors. As time allows, colors for older layers (2021 and earlier) will be updated also.

7. Project Prioritization and Priority Letter Development



- Plan for 2024 priority letters and regional text

8. Other Business

- 2024 Meeting – November 5