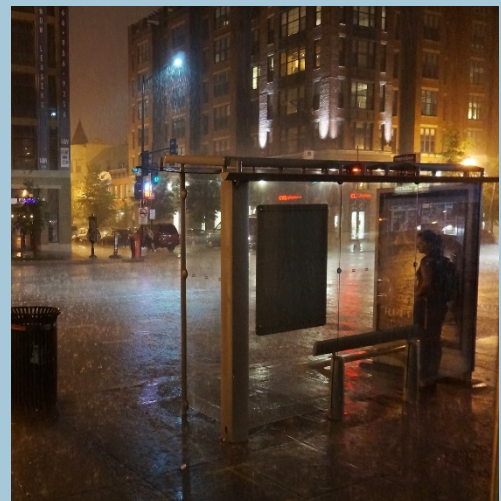


# NATIONAL CAPITAL REGION INLAND FLOOD ANALYSIS

June 2025



National Capital Region  
**Transportation Planning Board**

## **NATIONAL CAPITAL REGION INLAND FLOOD ANALYSIS**

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### **ABOUT THE TPB**

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

### **CREDITS**

This report was prepared for the Metropolitan Washington Council of Governments (COG) Transportation Planning Board (TPB) by ICF. This project was led by Katherine Rainone with support by Charlene Howard and Jessica Storck from TPB. This report was prepared by individuals from ICF including Mason Fried, Daniel Bishop, and Dasha Latvis in close collaboration with TPB.

### **COVER PHOTO CREDITS**

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# Introduction

The National Capital Region Transportation Planning Board (TPB) is committed to building system-wide resilience in the face of natural hazards and extreme weather and recognizes the need for improving understanding of potential future flooding impacts on the region’s transportation system. The purpose of this assessment is to complement previous inland flood analyses by updating the inland flooding component of TPB’s 2024 vulnerability assessment and Transportation Resilience Study Mapping Tool<sup>1</sup> (the “Mapping Tool”) using forward-looking inland flood datasets that explicitly capture the potential for expanded future floodplains in the region. This addendum presents updated risk scores for inland flooding using the Fathom U.S. Flood Map dataset,<sup>2</sup> which models future pluvial and fluvial flooding at a high spatial resolution using best-in-class elevation information.

Goals
<p>The goals of this complementary flood analysis are to support regional resilience efforts by:</p> <ul style="list-style-type: none"><li>I. Improving TPB’s understanding of future inland flood risk.</li><li>II. Improving the region’s preparedness and resilience.</li><li>III. Providing additional inland flood datasets that complement the FEMA floodplain datasets to help member agencies prioritize their own resilience projects.</li></ul>

## Context and Purpose

In 2024, TPB conducted a risk-based vulnerability assessment<sup>3</sup> and subsequent Transportation Resilience Improvement Plan (TRIP)<sup>4</sup> to identify priority resilience investments aligned with the region’s adaptation and resilience goals. Additionally, TPB developed the Mapping Tool to interactively explore the results. As part of the risk-based vulnerability assessment, TPB evaluated the region’s risk to temporary flooding, including coastal and riverine flooding, for the following transportation asset types:

- Roads and highways
- Bridges
- Bus stops
- Rail stops
- Rail lines

While the analysis helped identify highly vulnerable transportation assets and potential resilience investments, it relied on historical 100- and 500-year floodplains using the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, which do not account for the potential expansion of inland floodplains. Additionally, FEMA floodplain datasets can under-resolve key physical processes that are important to inland flooding, such as pluvial (i.e., flash) flooding from heavy precipitation. Because the

<sup>1</sup> TPB. 2024. Transportation Resilience Study Mapping Tool. <https://experience.arcgis.com/experience/327843f119204e059fcc50af4154ae67/page/Main/>

<sup>2</sup> Fathom. U.S. Flood Map. <https://www.fathom.global/product/global-flood-map/us-flood-map/>

<sup>3</sup> TPB. 2024. National Capital Region Transportation System Climate Vulnerability Assessment. <https://www.mwcog.org/documents/2024/04/10/national-capital-region-transportation-system-climate-vulnerability-assessment/>

<sup>4</sup> TPB. 2024. National Capital Region Transportation Resilience Improvement Plan. <https://www.mwcog.org/documents/2024/06/20/national-capital-region-transportation-resilience-improvement-plan/>



FEMA floodplain datasets are neither forward-looking nor resolve pluvial flooding, some assets have experienced or may experience flooding impacts in areas where FEMA floodplains do not indicate risk. For example, FEMA floodplains do not identify the Bloomingdale neighborhood as a flood risk area, despite this area experiencing a major flood event in 2012.

## Inland Flood Exposure Methodology

### Overview

TPB developed an updated temporary flooding (urban and riverine) exposure scoring approach using the floodplain and depth extent from the Fathom U.S. Flood Maps dataset. Fathom U.S. Flood Maps offer sophisticated modeling of future flood depth and extent capturing a range of important processes driving inland flooding (both urban and riverine), as well as an improved Digital Elevation Model that incorporates bare earth elevations (FABDEM+ Digital Elevation Model) and the latest local LiDAR datasets. The flooding analysis conducted using the Fathom U.S. Flood Maps is referred to as Fathom-informed temporary flooding (urban and riverine), while the previous temporary flooding analysis is referred to as FEMA-informed temporary flooding (coastal and riverine).

The Fathom-informed temporary flooding analysis was conducted for the following asset types: roads and highways (miles), bus stops, rail stops, and rail lines (miles). Bridges were not scored in this addendum, as using the condition indicators from the previous assessment remains the best approach in the absence of bridge elevation data.

### Fathom U.S. Flood Maps

The Fathom U.S. Flood Maps provide future floodplains using the most up-to-date Coupled Model Intercomparison Project phase 6 (CMIP6) Advanced Atmosphere-Ocean General Circulation Model simulations and the Shared Socioeconomic Pathways (SSPs) emission scenarios. TPB evaluated Fathom flood maps for 2020 (historical), the 2030s (i.e., near-future), 2050s (i.e., mid-century), and 2080s (i.e., far-future) time frames for two emissions scenarios, SSP2-4.5 and SSP5-8.5. SSP2-4.5 represents a more-likely future in which emissions moderate by mid-century and SSP5-8.5 represents an unlikely, worst-case future where emissions increase largely unabated through end-of-century. Floodplain extent and depth are evaluated at a 10-meter spatial resolution for 100- and 500-year (1% and 0.2% annual probabilities) events. The Fathom U.S. Flood Maps explicitly resolve both riverine (i.e., fluvial) and urban (i.e., pluvial) flooding, which are combined into a single flood layer for this analysis by taking the maximum of the two layers at any given location.

Fathom models inland flooding under a range of flood defense assumptions, including “undefended,” “known defended” (includes known levees and dams), and “defended” (includes both known and assumed flood defenses). For the purposes of this complementary flood analysis, TPB used the known defended option to minimize assumptions of flood risk and capture the known, present-day flood defenses in the region. The flood maps used here do not account for potential or expected future flood adaptation and resilience measures. Additionally, TPB evaluated differences between each defense layer and found that region-wide exposure scores did not differ significantly.

### Updated Exposure Scoring Using Fathom U.S. Flood Maps

While exposure scoring for the FEMA flood layers in the 2024 vulnerability assessment relied solely on floodplain extent, the Fathom U.S. Flood Maps provide detailed information for both floodplain extent and inundation depth. To update inland flood exposure for transportation assets using the Fathom datasets, this analysis uses a balanced 50/50 weighting scheme that assigns equal importance to both extent and

depth. Table 1 shows the exposure scoring rubric, scored for each asset type on a 0-to-3 scale, where a score of 0 represents no exposure for inland flooding and a score of 3 represents highest exposure. The exposure rubric for *flood extent* aligns with the approach applied to the FEMA floodplains in the original TRIP (see Table 2), including the consideration of a 10-200 feet differential buffer at the edge of the 500-year floodplain to capture the potential for an extreme flood event scenario. The exposure rubric for *flood depth* uses depth thresholds of 12 inches and 24 inches, in alignment with Maryland Department of Transportation State Highway Administration’s vulnerability assessment<sup>5</sup> and FEMA Flood Risk and Analysis guidance.<sup>6</sup> Exceeding the 12-inch threshold affects the functionality of roads and other transportation infrastructure, while surpassing the 24-inch threshold leads to significant disruptions, making roads impassable and potentially damaging infrastructure.

**Table 1. Exposure scoring rubric for Fathom-informed temporary flooding (urban and riverine) using Fathom U.S. Flood Maps.**

Weighting		50%		50%
Indicator	Exposure Score	Flood extent	Exposure Score	500-year flood depth
Fathom U.S. Flood Maps	3	100-year floodplain	3	>24 inches
	2	500-year floodplain	2	>12 inches
	1	500-year floodplain + differential buffer	1	>0 inches
	0	None	0	None

**Table 2. Exposure scoring rubric for FEMA Flood Rate Insurance Maps dataset from the risk-based vulnerability assessment.**

Indicator	Exposure Score	Flood extent
FEMA Flood Maps	3	100-year floodplain
	2	500-year floodplain
	1	500-year floodplain + differential buffer
	0	None

The Fathom U.S. Flood Maps and the approach to flood exposure were vetted by member jurisdictions during both a small group meeting of flooding experts across the region as well as a larger meeting of the Regional Transportation Resilience Subcommittee at TPB Headquarters on November 14, 2024. During the subcommittee meeting, members discussed the methodology for updating exposure and risk scores on the TPB Mapping Tool, aligning proposed time horizons and emissions scenarios with planning processes in the region. Members preferred including options for late century (i.e., 2080) to accommodate long-lasting infrastructure and removing low emissions (i.e., SSP1-2.6) due to it being a very low-likelihood outcome. Feedback led to the selection of the SSPs and time horizons for the analysis in Table 3.

<sup>5</sup> MDOTSHA. 2019. Asset Management, Extreme Weather, and Proxy Indicators.

[https://geo.sha.maryland.gov/images/Climate\\_Change/BridgeStructures\\_VulnerabilityAssessment/MDOTSHA\\_BridgeVulnerabilityAssessment\\_DataDictionary\\_20201006.pdf](https://geo.sha.maryland.gov/images/Climate_Change/BridgeStructures_VulnerabilityAssessment/MDOTSHA_BridgeVulnerabilityAssessment_DataDictionary_20201006.pdf)

<sup>6</sup> FEMA. 2018. Guidance for Flood Risk Analysis and Mapping. [https://www.fema.gov/sites/default/files/2020-02/Flood\\_Depth\\_and\\_Analysis\\_Grids\\_Guidance\\_Feb\\_2018.pdf](https://www.fema.gov/sites/default/files/2020-02/Flood_Depth_and_Analysis_Grids_Guidance_Feb_2018.pdf)

**Table 3. Fathom U.S. Flood Maps flood modeling specifications used in this analysis.**

Aspect	Details
<b>Data Source</b>	Fathom US Flood Maps using Coupled Model Intercomparison phase 6 (CMIP6) models
<b>Spatial Resolution</b>	10 meters
<b>Emissions Scenarios</b>	Shared Socioeconomic Pathways (SSPs): SSP2-4.5 and SSP5-8.5
<b>Time Frames</b>	Historical (2020), 2030s (near-future), 2050s (mid-century), 2080s (far-future)
<b>Floodplains</b>	100-year (1% annual probability) and 500-year (0.2% annual probability)
<b>Flood Types</b>	The maximum flood depth associated with both riverine (fluvial) and urban (pluvial) at any given location
<b>Flood Defense Option</b>	Defended (Known) for riverine layer, Defended for urban layer

This analysis uses the same risk calculation used in the original vulnerability assessment and TRIP, where exposure weights 70% and criticality weights 30% of the final risk score. In this analysis, only the temporary flooding exposure scores have been updated, while the criticality methodology and scores remain unchanged.

## Updated Risk-Based Vulnerability Assessment Results

The results in this section focus on presenting the risk and exposure results for Fathom-informed temporary flooding (urban and riverine) for the following asset types: roads and highways (miles), bus stops, rail stops, and rail lines (miles). The results in this addendum focus on SSP2-4.5 emission scenario because it is the more likely emissions trajectory, for the following time horizons: 2020 (historical), 2030, 2050, and 2080. A comprehensive view of the updated vulnerability assessment results across all time frames and emission scenarios (including SSP5-8.5) is available on the Mapping Tool developed during the vulnerability assessment.

The results presented in this section incorporate asset exposure to both floodplain extent and depth based on the Fathom U.S. flood maps as described in the sections above. This differs from previous risk scores that incorporated asset exposure to FEMA floodplain extent alone. Ultimately, results based on the Fathom-informed inland flooding analysis are intended to complement and not replace the FEMA-informed analysis by providing an additional, forward-looking understanding of inland flooding under both riverine and pluvial flooding conditions.

### Key Takeaways

More transportation assets are at risk to temporary inland flooding based on Fathom floodplains relative to FEMA floodplains. This result holds across all asset types and for both historical (i.e., 2020) and future (i.e., 2030, 2050, and 2080) time horizons, reflecting how the Fathom dataset captures expanded floodplains by accounting for pluvial flooding and projected expansion of floodplains due to heavier precipitation and stronger storms in the future. The breakdown of risk scores for Fathom-informed temporary flooding across all asset types is summarized in Figure 1. Notably, rail line miles have the highest percentage of at-risk assets, with 18% at high risk in 2050.



**Figure 1. Risk score breakdown by asset type for Fathom-informed temporary flooding (urban and riverine) 2050.**

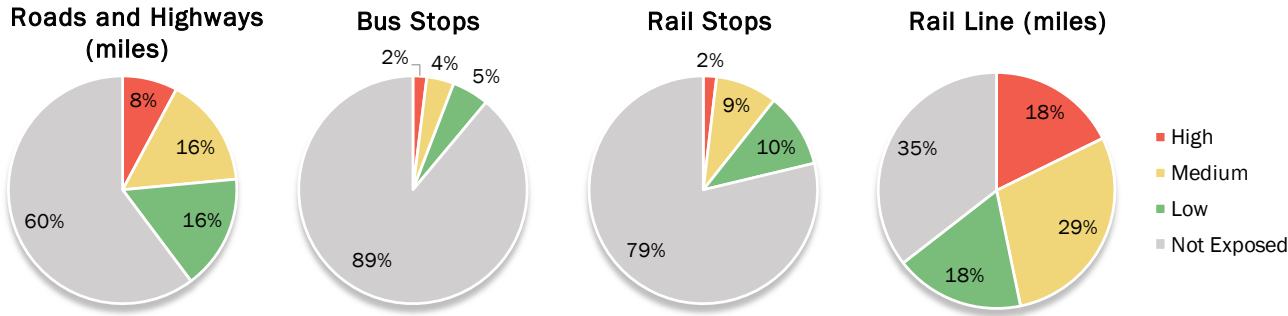


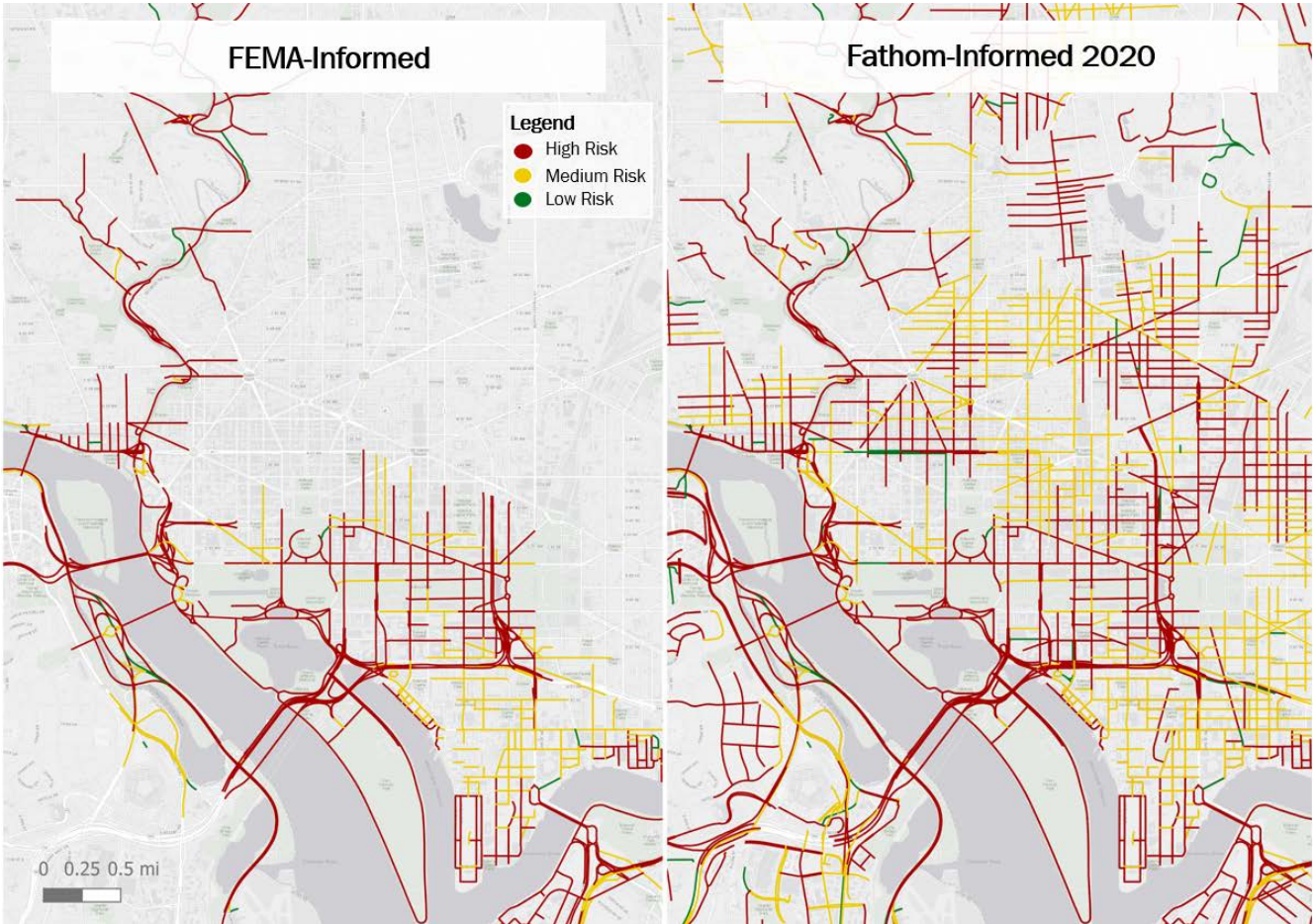
Figure 2 summarizes the percent increase of exposed assets identified in the Fathom-informed analysis for 2020 (historical) compared to the FEMA-informed analysis (historical), showing a notable increase across all asset types. The Fathom-informed analysis for 2020 is the most comparable to the FEMA-informed analysis.

**Figure 2. Percent change in exposed assets identified in the 2020 Fathom-informed analysis compared to the FEMA-informed analysis.**



Figure 3 maps the risk scores for road and highways in a portion of Washington, D.C., highlighting how the 2020 Fathom-informed analysis captures expanded floodplains and identifies more at-risk assets compared to the FEMA-informed analysis. Across the TPB service territory, the 2020 Fathom-informed analysis identifies 25% more at risk roads and highways compared to the FEMA-informed analysis, reflecting the inclusion of pluvial flooding and projected floodplain expansion. Conversely, 1,830 miles of roads (8%), 49 miles of rail lines (5%), 278 bus stops (1%), and 5 rail stops (3%) were identified as at risk under the FEMA-informed analysis but not under the 2020 Fathom-informed analysis.

Figure 3. Roads and highway risk of temporary flooding in Washington D.C., based on FEMA-informed and Fathom-informed 2020 analyses.



## Roads and Highways

### Key Takeaways

The Fathom-informed analysis identified 39% of road and highway miles at risk (high, medium, or low risk scores) to temporary flooding in 2020 (historical scenario), which is 25% more than the 14% identified in the FEMA-informed analysis. Additionally, the Fathom-informed analysis suggests the number of at-risk miles could increase by an additional 3% throughout the century.

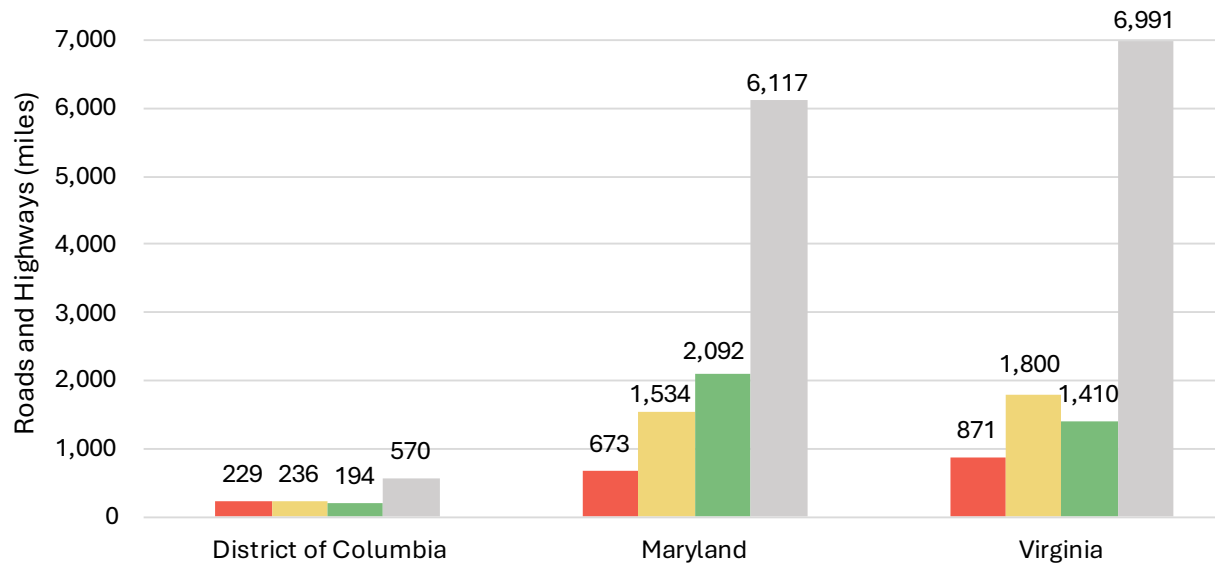
Using Fathom-informed temporary flooding data, this assessment identified that 1,772 (7.8%) miles of roads and highways have high risk for temporary flooding in 2050, 3,571 (15.7%) miles have medium risk, 3,697 (16.3%) miles have low risk, and 13,678 (60.2%) miles are not at risk (Table 4). Across all time horizons, the Fathom-informed analysis identified a higher percentage of road and highway miles in each risk category (high, medium, and low) compared to the FEMA-informed analysis.

**Table 4. FEMA-informed versus Fathom-informed risk scores for road and highway miles.**

Temporary Flooding Analysis		Risk Score (SSP 2-4.5)			
		High	Medium	Low	Not Exposed
FEMA-Informed		1,085 (4.8%)	1,306 (5.7%)	724 (3.2%)	19,603 (86.3%)
Fathom-Informed	2020	1,689 (7.4%)	3,397 (14.9%)	3,699 (16.3%)	13,932 (61.3%)
	2030	1,715 (7.6%)	3,447 (15.2%)	3,659 (16.1%)	13,896 (61.2%)
	2050	1,772 (7.8%)	3,571 (15.7%)	3,697 (16.3%)	13,678 (60.2%)
	2080	1,816 (8.0%)	3,693 (16.3%)	3,883 (17.1%)	13,324 (58.6%)

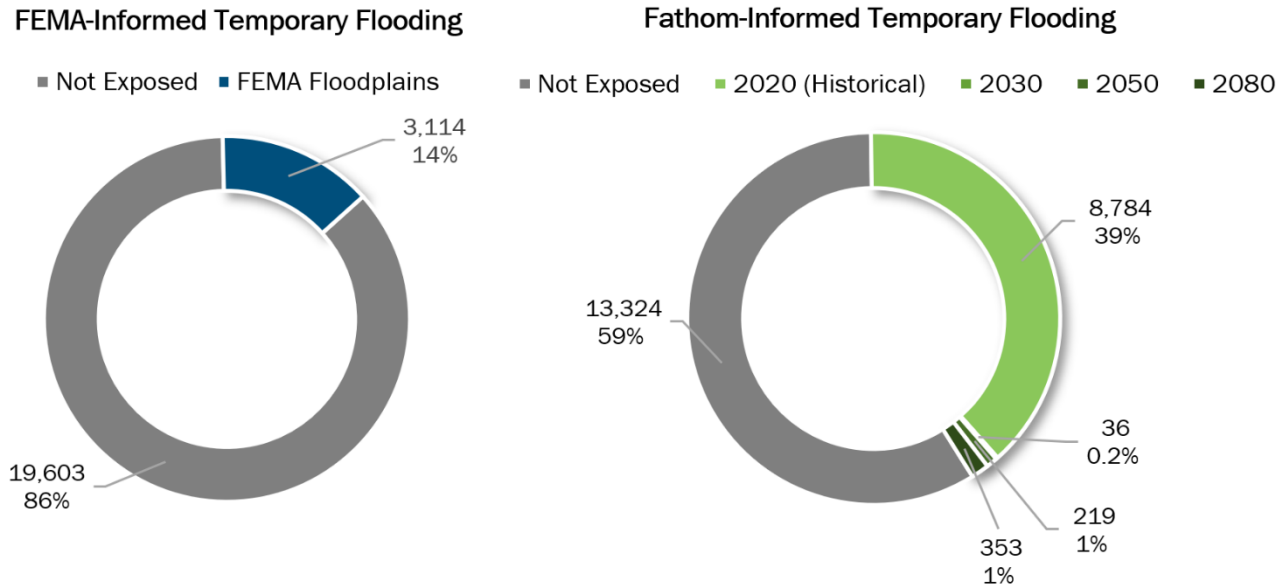
In 2050, Virginia is projected to have the highest number and percentage of road and highway miles within the TPB boundaries with medium and high risk. Specifically, 871 miles (8% of the state's total within TPB's boundaries) have high risk, and 1,800 (16%) miles have medium risk (Figure 4).

**Figure 4. Risk of road and highway (miles) to 2050 Fathom-informed temporary flooding by region.**



The Fathom-informed analysis identified that 38% of road and highway miles are exposed to flooding using the 2020 (historical) scenario (Figure 5) with an additional 1.2% of assets projected to be exposed by 2050. This represents 25% to 27.2% more exposed assets than the 14% identified in the FEMA-informed analysis.

Figure 5. Percentage of roads and highways (miles) exposed to FEMA- and Fathom-informed temporary flooding.



Bus Stops

Key Takeaways

The Fathom-informed analysis identified 11% of bus stops are at risk to temporary flooding in 2020 (historical scenario), which is 7% more than the 4% identified in the FEMA-informed analysis.

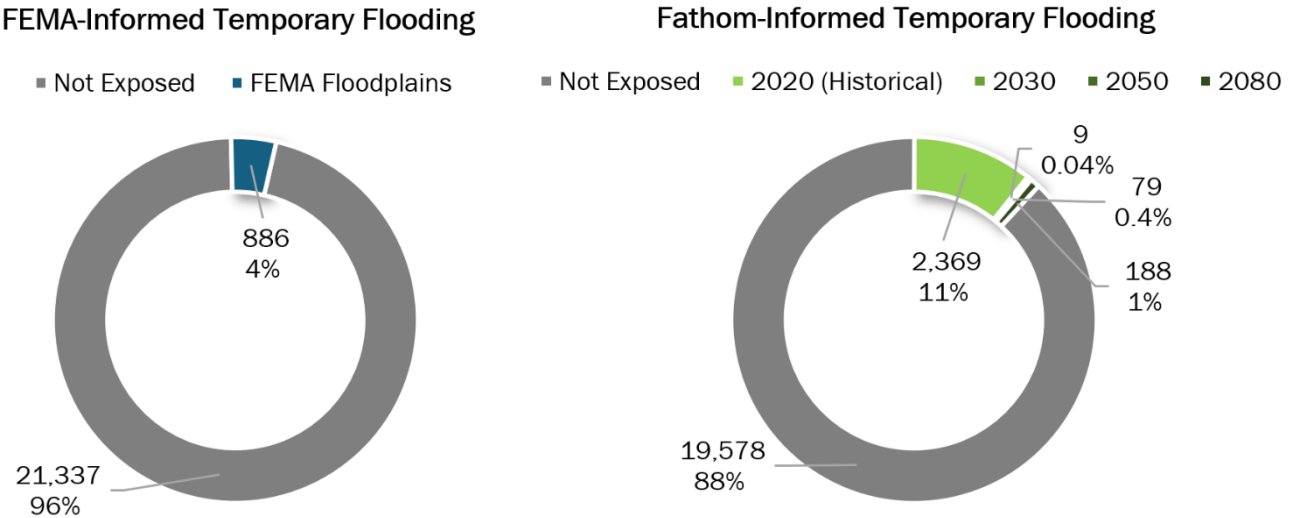
Using Fathom-informed temporary flooding data, this assessment identified that 434 (2%) of bus stops have high risk to temporary flooding in 2050, 860 (3.9%) have medium risk, 1,163 (5.2%) have low risk, and 19,766 (88.9%) are not at risk (Table 5). Across all time horizons, the Fathom-informed analysis identified a higher percentage of bus stops in each risk category (high, medium, and low) compared to the FEMA-informed analysis.

Table 5. FEMA-informed versus Fathom-informed risk scores for bus stops.

Temporary Flooding Analysis		Risk Score (SSP2-4.5)			
		High	Medium	Low	Not Exposed
FEMA-Informed		173 (0.8%)	336 (1.5%)	377 (1.7%)	21,337 (96.0%)
Fathom-Informed	2020	389 (1.8%)	809 (3.6%)	1,171 (5.3%)	19,854 (89.3%)
	2030	406 (1.8%)	820 (3.7%)	1,152 (5.2%)	19,845 (89.3%)
	2050	434 (2.0%)	860 (3.9%)	1,163 (5.2%)	19,766 (88.9%)
	2080	455 (2.0%)	904 (4.1%)	1,286 (5.8%)	19,578 (88.1%)

The Fathom-informed analysis identified that 11% of bus stops are exposed to flooding using the 2020 (historical) scenario (Figure 6) with an additional 0.44% of assets projected to be exposed by 2050. This represents 7% to 8.8% more exposed assets than the 4% identified in the FEMA-informed analysis.

**Figure 6. Percentage of bus stops exposed to FEMA- and Fathom-informed temporary flooding.**



## Rail Stops

### Key Takeaways

The Fathom-informed analysis identified 21% of rail stops at risk to temporary flooding in 2020 (historical scenario), which is 14% more than the 7% identified in the FEMA-informed analysis.

Using Fathom-informed temporary flooding data, this assessment identified that 3 (1.9%) rail stops have high risk to temporary flooding in 2050, 14 (8.8%) have medium risk, 17 (10.6%) have low risk, and 126 (78.8%) are not at risk (Table 6). Across all time horizons, the Fathom-informed analysis identified a higher percentage of rail stops in each risk category compared to the FEMA-informed analysis.

**Table 6. FEMA-informed versus Fathom-informed risk scores for rail stops.**

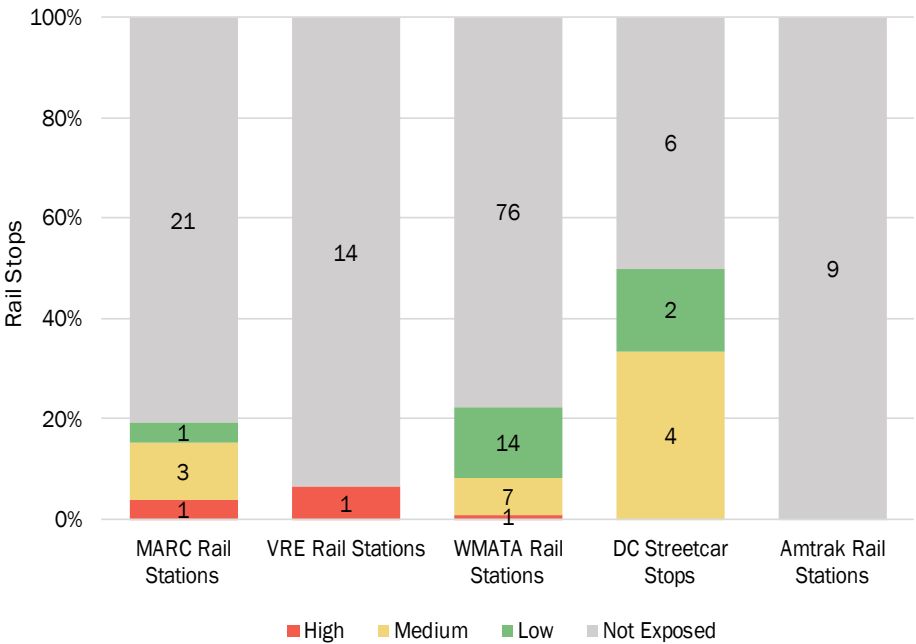
Temporary Flooding Analysis		Risk Score (SSP2-4.5)			
		High	Medium	Low	Not Exposed
FEMA-Informed		1 (0.6%)	6 (3.8%)	4 (2.5%)	149 (93.1%)
Fathom-Informed	2020	3 (1.9%)	14 (8.8%)	16 (10.0%)	127 (79.4%)
	2030	3 (1.9%)	14 (8.8%)	16 (10.0%)	127 (79.4%)
	2050	3 (1.9%)	14 (8.8%)	17 (10.6%)	126 (78.8%)
	2080	3 (1.9%)	14 (8.8%)	17 (10.6%)	126 (78.8%)



Additionally, this assessment highlights that rail stop risk varies by operator (Figure 7). In 2050, DC Streetcar is projected to have the highest percentage of at-risk rail stops, with 50% (6 stops) at risk. WMATA is projected to have 22% (22 stops) at risk and one stop at high risk.

The Fathom-informed analysis identified that 20% of rail stops are exposed to flooding using the 2020 (historical) scenario (Figure 8). This represents 13% more exposed assets than the 7% identified in the FEMA informed analysis.

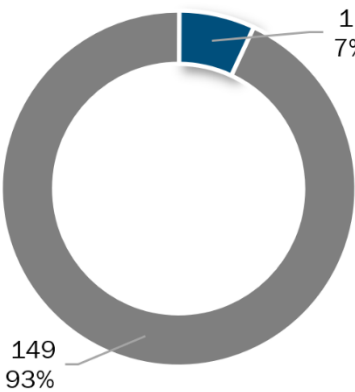
**Figure 7. Risk of rail stop to 2050 Fathom-informed temporary flooding by operator, percent and number of assets.**



**Figure 8. Percentage of rail stops exposed to FEMA- and Fathom-informed temporary flooding.**

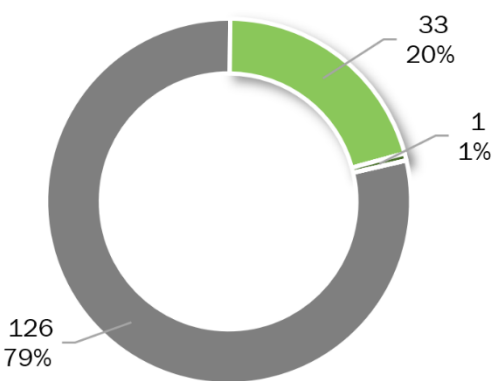
**FEMA-Informed Temporary Flooding**

■ Not Exposed ■ FEMA Floodplains



**Fathom-Informed Temporary Flooding**

■ Not Exposed ■ 2020 (Historical) ■ 2030 ■ 2050 ■ 2080



## Rail Lines

### Key Takeaways

The Fathom-informed analysis identified 64% of rail line miles are at risk to temporary flooding in 2020 (historical scenario), which is 25% more than the 39% identified in the FEMA-informed analysis. Additionally, the Fathom-informed analysis suggests the number of at-risk miles could increase by an additional 2% throughout the century.

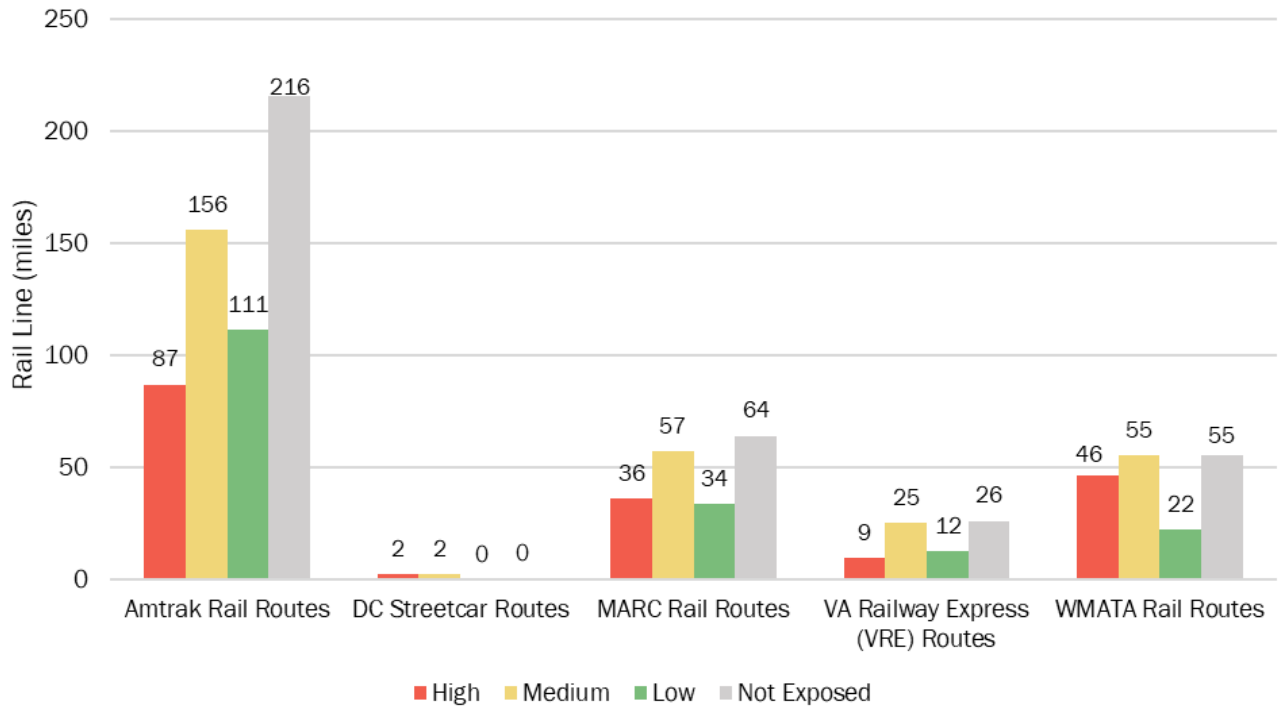
Using Fathom-informed temporary flooding data, this assessment identified that 180 (17.7%) of rail line miles have high risk to temporary flooding in 2050, 295 (29%) have medium risk, 180 (17.7%) have low risk, and 361 (35.5%) are not at risk (Table 7). Across all time horizons, the Fathom-informed analysis identified a higher percentage of rail line miles in each risk category (high, medium, and low) compared to the FEMA-informed analysis.

**Table 7. FEMA-informed versus Fathom-informed risk scores for rail line miles.**

Temporary Flooding Analysis		Risk Score (SSP2-4.5)			
		High	Medium	Low	Not Exposed
FEMA-Informed		115 (11.3%)	154 (15.2%)	128 (12.6%)	619 (60.9%)
Fathom-Informed	2020	178 (17.5%)	284 (28.0%)	187 (18.4%)	367 (36.1%)
	2030	178 (17.5%)	291 (28.6%)	182 (17.9%)	366 (36.0%)
	2050	180 (17.7%)	295 (29.0%)	180 (17.7%)	361 (35.5%)
	2080	187 (18.4%)	311 (30.6%)	174 (17.1%)	343 (33.8%)

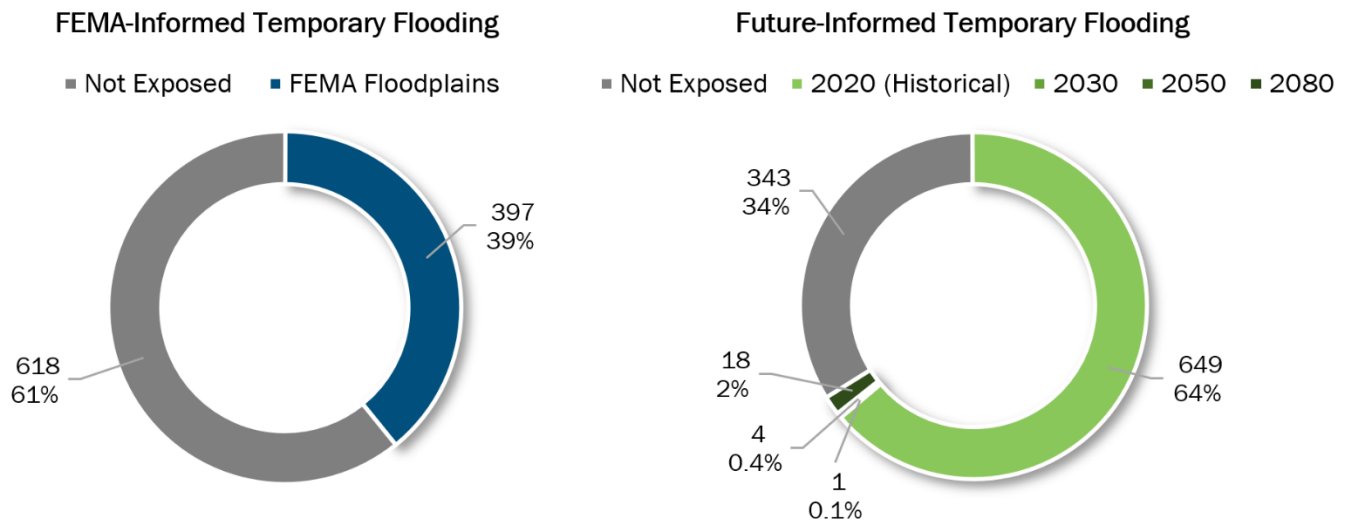
Similar to rail stops, the vulnerability of rail line miles varies by operator (Figure 10). By 2050, Amtrak is projected to have the highest total of at-risk rail line miles, with a total of 354 miles at risk, 87 of which have high risk to Fathom-informed temporary flooding. Rail line mileages do not account for shared ownership or shared service routes.

**Figure 10. Risk of rail line (miles) to 2050 Fathom-informed temporary flooding by rail operator.**



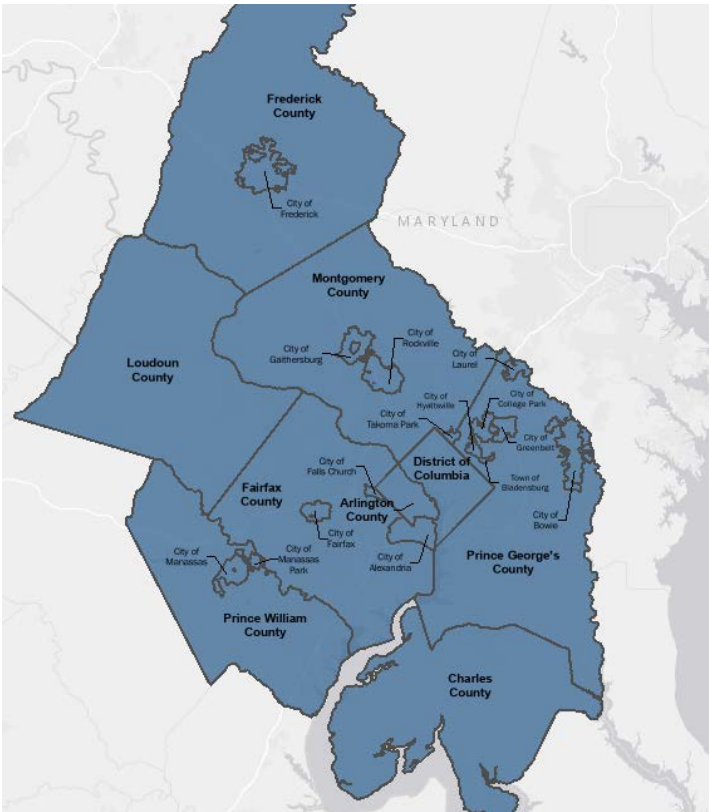
The Fathom-informed analysis identified that 64% of rail line miles are exposed to flooding using the 2020 (historical) scenario (Figure 9) with an additional 0.5% of assets projected to be exposed by 2050. This represents 25% to 25.5% more exposed assets than the 39% identified in the FEMA-informed analysis.

**Figure 9. Percentage of rail lines (miles) exposed to FEMA- and Fathom-informed temporary flooding.**



# Appendix: High-Risk Assets

Figure 11. MWCOG jurisdictions.



This appendix summarizes assets with a risk score of 2.5 or higher, indicating high risk to Fathom-informed temporary flooding (urban and riverine) for SSP2-4.5 2050. Assets are grouped together by region for roads and highways, jurisdictions for bus stops, and rail routes for rail lines. Rail stops are individually listed. In addition to the average risk score for Fathom-informed 2050, the number of high-risk assets are listed for both FEMA-informed and Fathom-informed. The map on the left highlights the location of MWCOG’s 24 jurisdictions<sup>7</sup> (Figure 11).

## Fathom-Informed Temporary Flooding (Urban and Riverine)

### ROADS AND HIGHWAYS

Region	Number of High-Risk Miles		Fathom-Informed 2050 Average Risk Score of High-Risk Miles
	FEMA-Informed	Fathom-Informed 2050	
District of Columbia	101	229	2.6
Maryland	323	673	2.6
Virginia	457	871	2.6

<sup>7</sup> TPB. 2025. TPB Jurisdictions - About TPB. <https://www.mwcog.org/transportation/about-tpb/jurisdictions/>.

## BUS STOPS

Jurisdiction	Number of High-Risk Assets		Fathom-Informed 2050 Average Risk Score of High- Risk Miles
	FEMA-Informed	Fathom-Informed 2050	
Alexandria	3	10	2.8
Arlington	2	11	2.9
Charles	0	3	2.9
College Park	2	2	3.0
District of Columbia	16	150	2.8
Fairfax	1	17	2.7
Frederick	3	5	2.8
Gaithersburg	1	3	2.8
Greenbelt	3	3	3.0
Laurel	5	5	2.7
Montgomery	1	16	2.8
Prince George's	58	205	2.9
Prince William	0	2	2.7
Rockville	0	2	3.0

## RAIL STOPS

Jurisdiction	Route	Rail Stop Name	Fathom-Informed 2050 Risk Score
Fairfax	VREF	Lorton	2.7
District of Columbia	Blue, Orange, Silver	Benning Road	2.7

## RAIL LINES

Rail Operator	Number of High-Risk Miles		Fathom-Informed 2050 Average Risk Score of High- Risk Miles
	FEMA-Informed	Fathom-Informed 2050	
Amtrak Rail Routes	88	175	2.9
DC Streetcar Routes	2	5	2.9
MARC Rail Routes	27	72	2.9
VA Railway Express (VRE) Routes	13	20	2.9
WMATA Rail Routes	43	92	2.9





National Capital Region  
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