



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

**VTrans Freight Element
Freight Advisory Committee – June 2021 Meeting**

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June 9, 2021



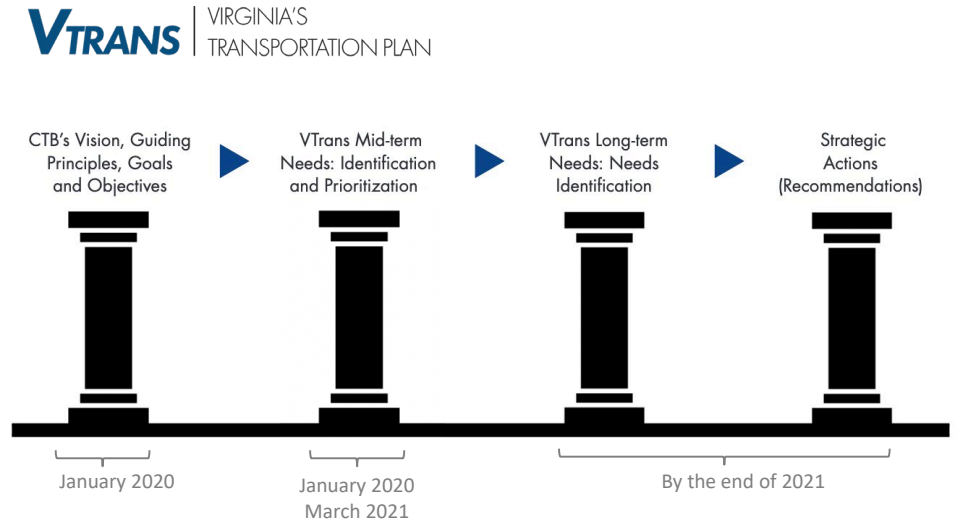
PURPOSE

- **Virginia is conducting a planning for freight. This presentation provides a high-level overview of the preliminary analysis.**
- **Requested Feedback**
 1. Do the preliminary results capture the issues?
 2. Are there any other subjects/issues that can be recommended for inclusion in Virginia's Freight Element?
 3. Are there any emerging trends that provide unique opportunities and challenges for Virginia?

DISCUSSION ITEMS

- **Context and Background**
- **Identification of Freight Issues**
- **Next Steps**

- **The comprehensive review is branded as **VTrans, Virginia’s Transportation Plan**, and identifies mid-term and long-term transportation needs (projects, policies, etc.).**
 - It has four major components (image).
 - It includes all facets of transportation – movement of **people and goods**.
 - Goods movement is analyzed for all modes (roadways, rail, marine – “on the ground” and “in the water”).
- **This presentation focuses on analysis related to highway mode. Analysis related to rail mode requires STB review/approval prior to dissemination.**
- **Other items included in the VTrans Freight Element:**
 - Preparedness for trends (automation/technology)



CONTEXT AND BACKGROUND | FREIGHT ELEMENT IN THE CONTEXT OF STATEWIDE PLANNING

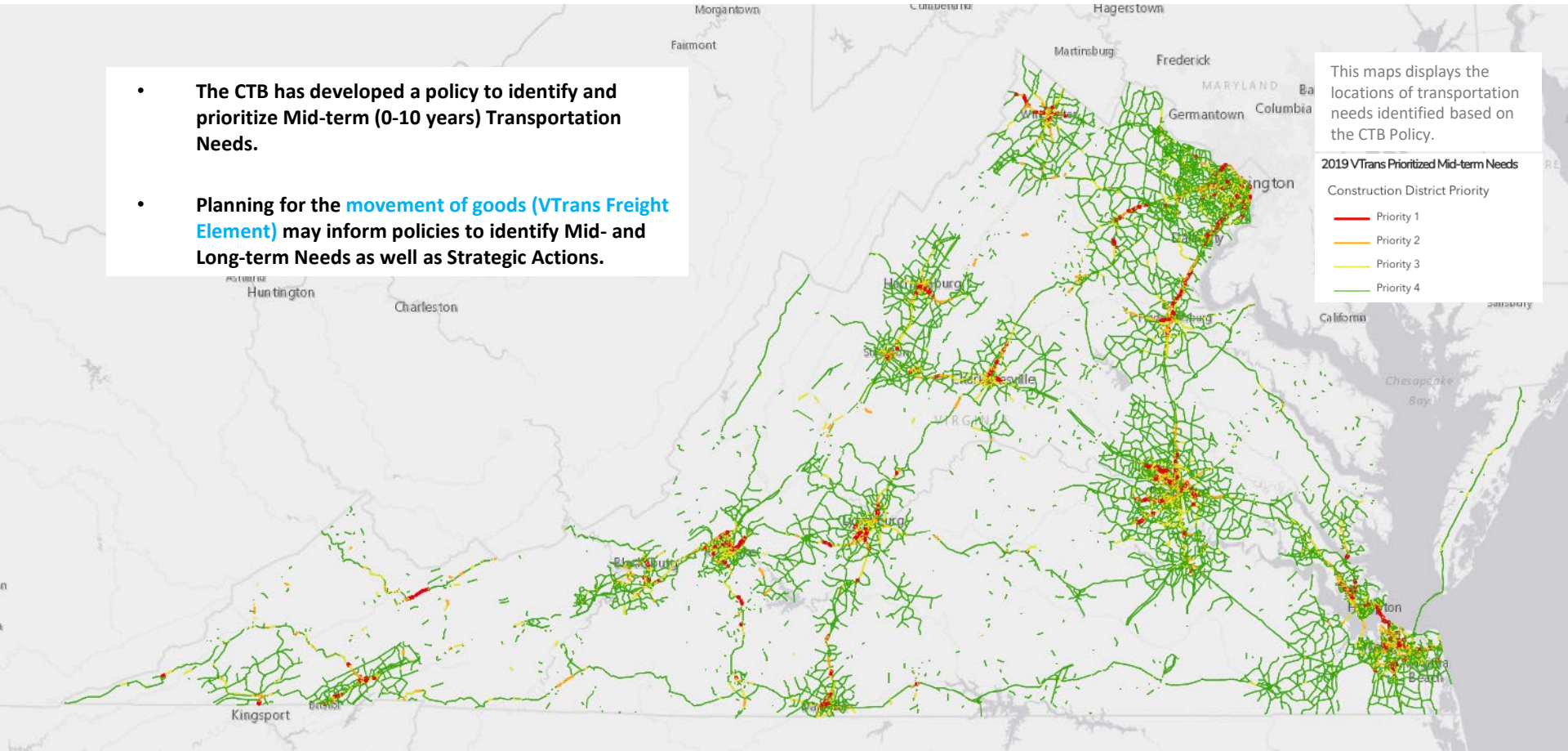
- The CTB has developed a policy to identify and prioritize Mid-term (0-10 years) Transportation Needs.
- Planning for the **movement of goods (VTrans Freight Element)** may inform policies to identify Mid- and Long-term Needs as well as Strategic Actions.

This map displays the locations of transportation needs identified based on the CTB Policy.

2019 VTrans Prioritized Mid-term Needs

Construction District Priority

- Priority 1
- Priority 2
- Priority 3
- Priority 4



View identified transportation needs and priority locations in more detail here - <https://vtrans.org/mid-term-planning/interact-vtrans>

- **We are relying on evidence to identify locations where truck- or freight-specific issues may exist**
 - The analysis included in this presentation is in draft form and may be modified based on the feedback received and additional refinements.
 - Individual measures are important but are likely to provide an incomplete picture.
 - We have focused on interactions between measures. Example - Locations with **truck congestion/reliability** issues and **locations with high number of crashes** involving trucks

A partial listing of data points under development and for discussion

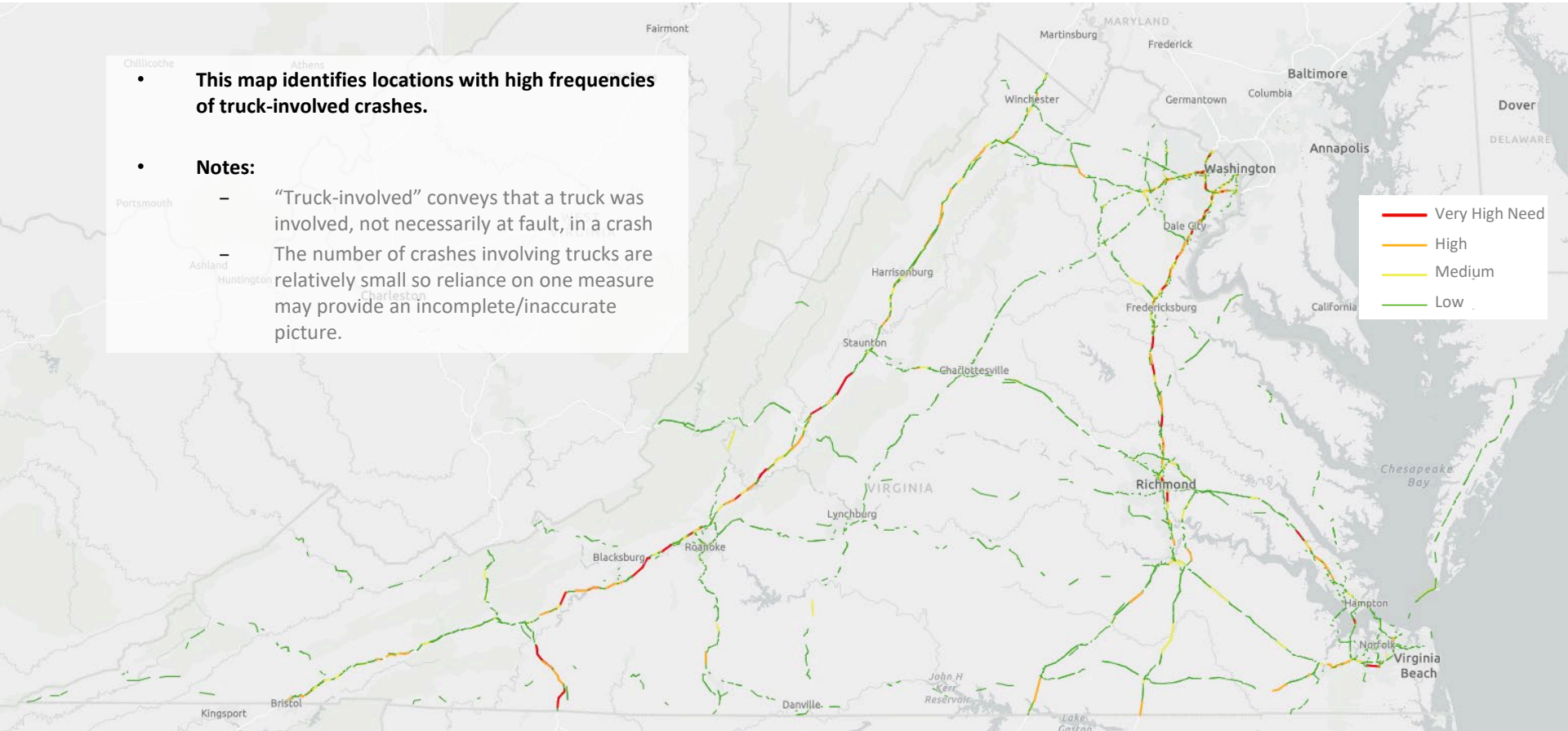
Category	Measure
Safety	Number of Truck-involved Crashes
	Severity of Truck-involved Crashes (using Equivalent Property Damage or EPDO)
Commodity Flows	Commodity Flow by Trucks (By Volume and Value)
	Commodity Flow by Rail
	Commodity Flow from the Port of Virginia and Airports
Congestion and Reliability	Congestion (Cumulative Truck Delay)
	Reliability (Level of Truck Travel Time Reliability)
	Truck Bottlenecks
Restrictions and Challenges	Truck Operating Restrictions (i.e. facility, lane or vehicle type restrictions)
Truck Parking	Supply of truck parking
	Truck parking gap - supply and (estimated) demand

IDENTIFICATION OF FREIGHT ISSUES | TRUCK SAFETY - FREQUENCY

- **This map identifies locations with high frequencies of truck-involved crashes.**

- **Notes:**

- "Truck-involved" conveys that a truck was involved, not necessarily at fault, in a crash
- The number of crashes involving trucks are relatively small so reliance on one measure may provide an incomplete/inaccurate picture.



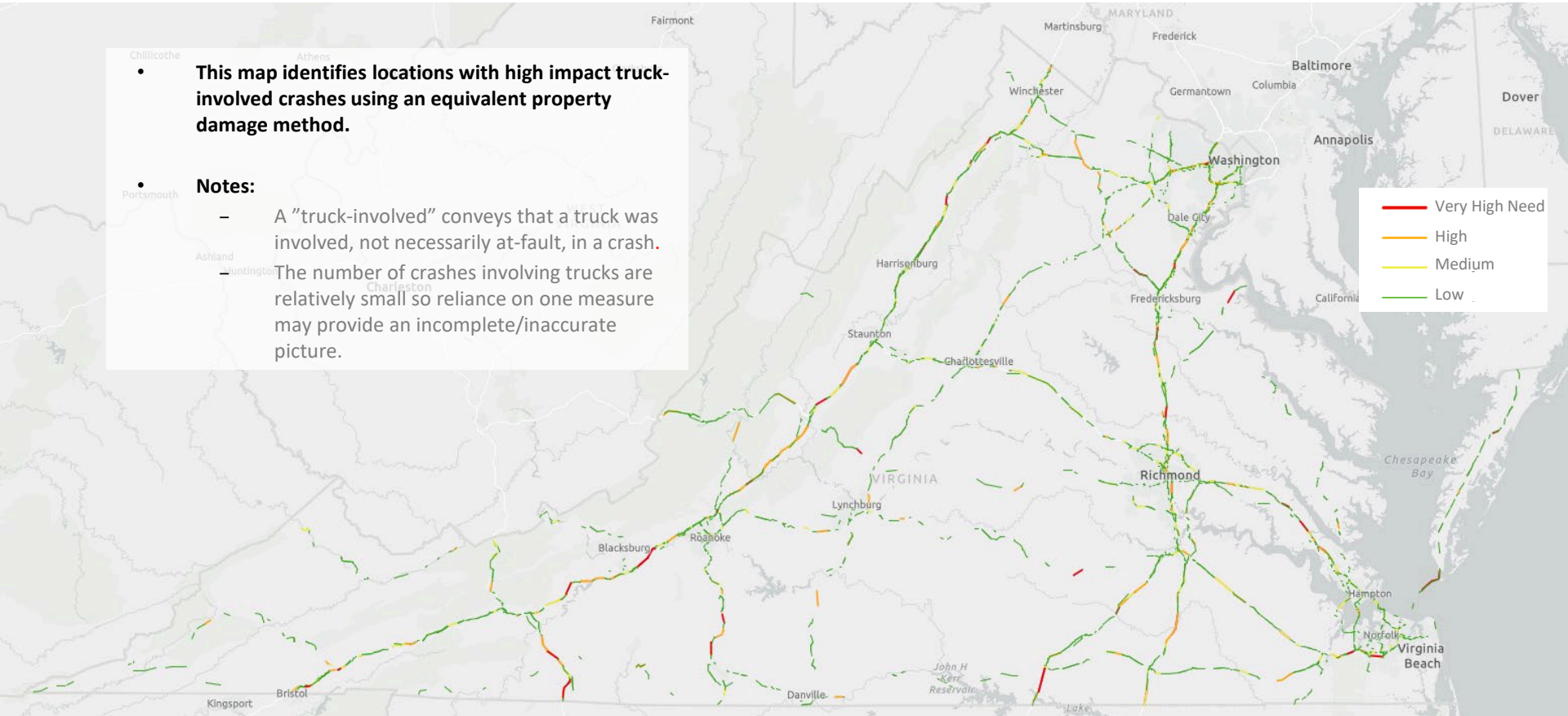
*Note: This map shows major corridors defined as Corridors of Statewide Significance (CoSS) as defined by the CTB.

IDENTIFICATION OF FREIGHT ISSUES | TRUCK SAFETY - SEVERITY

- **This map identifies locations with high impact truck-involved crashes using an equivalent property damage method.**

- **Notes:**

- A "truck-involved" conveys that a truck was involved, not necessarily at-fault, in a crash.
- The number of crashes involving trucks are relatively small so reliance on one measure may provide an incomplete/inaccurate picture.

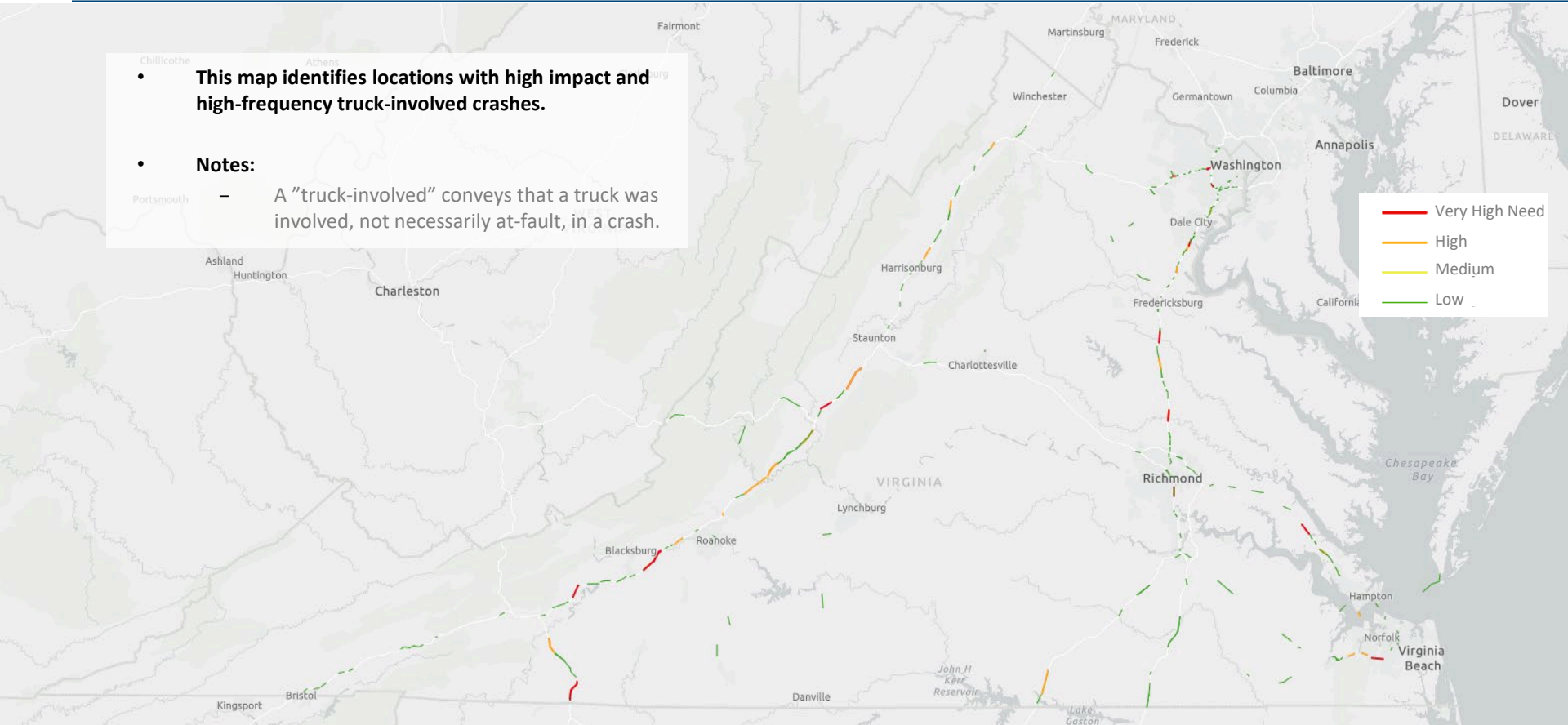


IDENTIFICATION OF FREIGHT ISSUES | TRUCK SAFETY FREQUENCY + SEVERITY

- **This map identifies locations with high impact and high-frequency truck-involved crashes.**

- **Notes:**

- A "truck-involved" conveys that a truck was involved, not necessarily at-fault, in a crash.



- Commodity flows (tonnage and value) are useful in identifying characteristics and associated needs.**
 - Caution is recommended while viewing and citing these numbers as this data may not show trip chains. For example, a truck trip carrying imported goods from the Port of Virginia may show Hampton Roads, not the country of import, as the origin.
 - In short, there are limitations, but numbers are generally indicative of activity on Virginia’s roadways.
- A significant portion of commodity tonnage on Virginia’s roadways has origins and destinations outside of Virginia.**

Commodity Flow - Tonnage in 2017

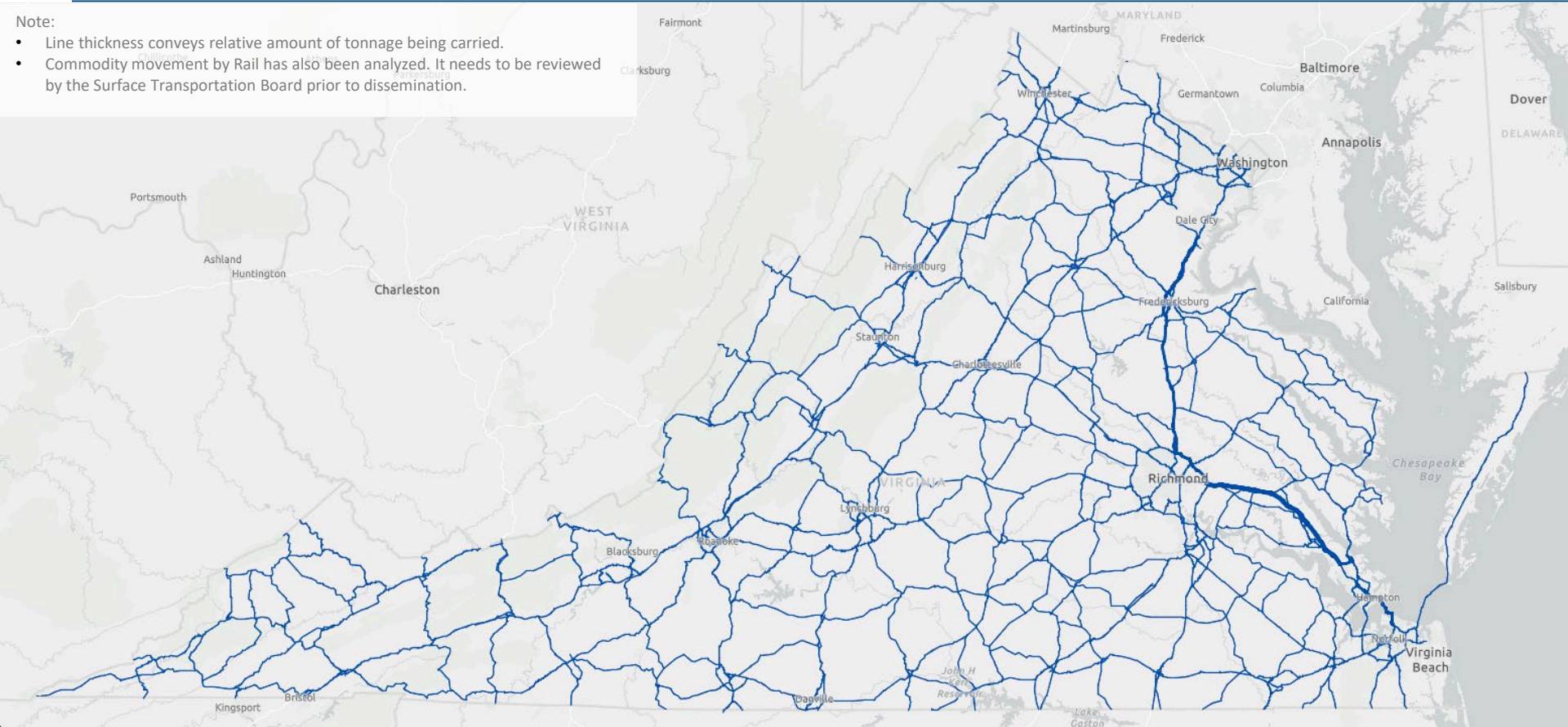
		Origin	
		Internal (VA)	External (Outside VA)
Destination	Internal (VA)	12%	21%
	External (VA)	16%	51%

Commodity Flow – Projected Tonnage Growth

	2017-2030	2017-2045
Internal-to-Internal (VA-VA)	37%	105%
Internal-to-External (VA-Outside)	33%	92%
External-to-Internal (Outside-VA)	24%	83%
External-to-External (Outside-Outside)	30%	88%

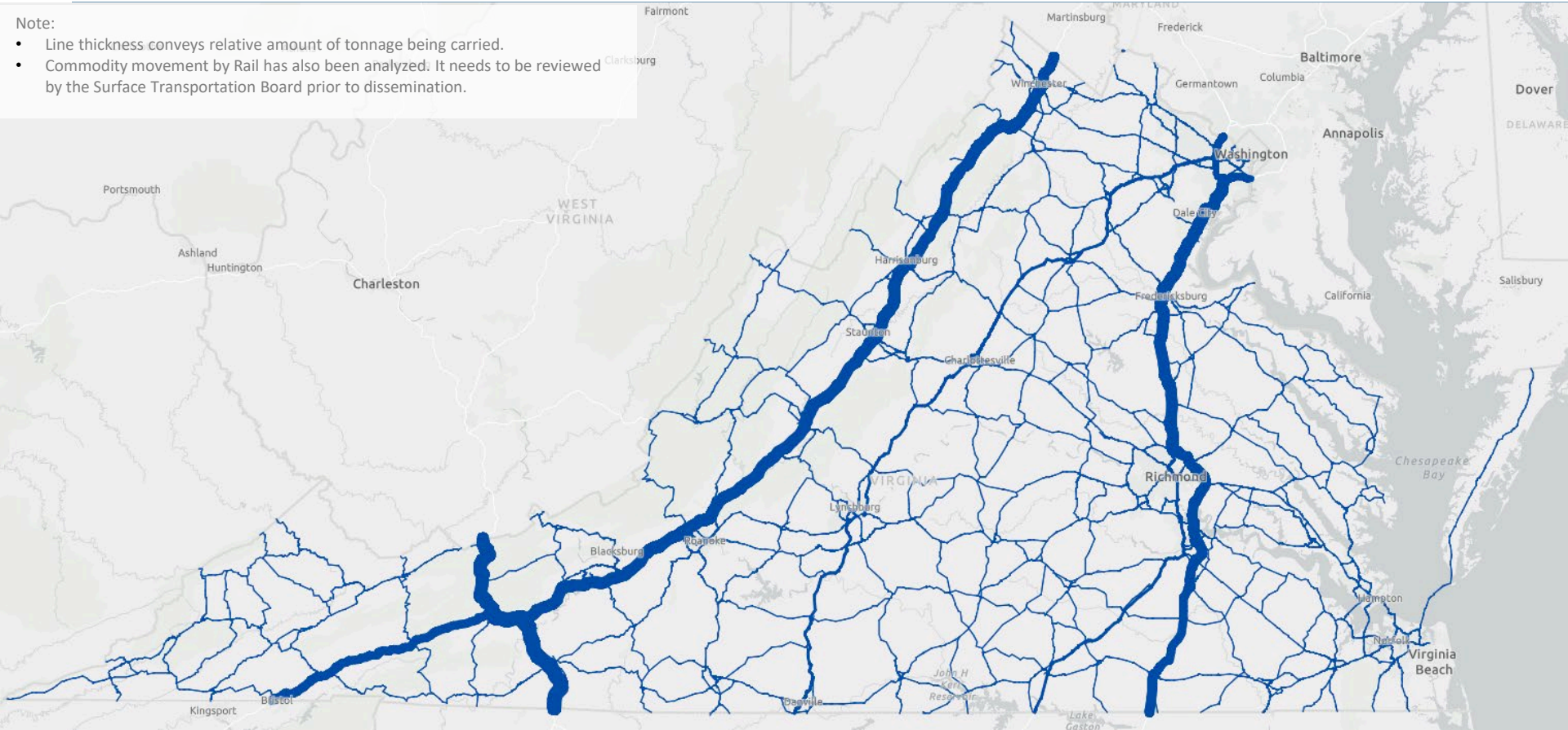
IDENTIFICATION OF FREIGHT ISSUES | COMMODITY FLOWS – INTERNAL TO INTERNAL

- Note:
- Line thickness conveys relative amount of tonnage being carried.
 - Commodity movement by Rail has also been analyzed. It needs to be reviewed by the Surface Transportation Board prior to dissemination.

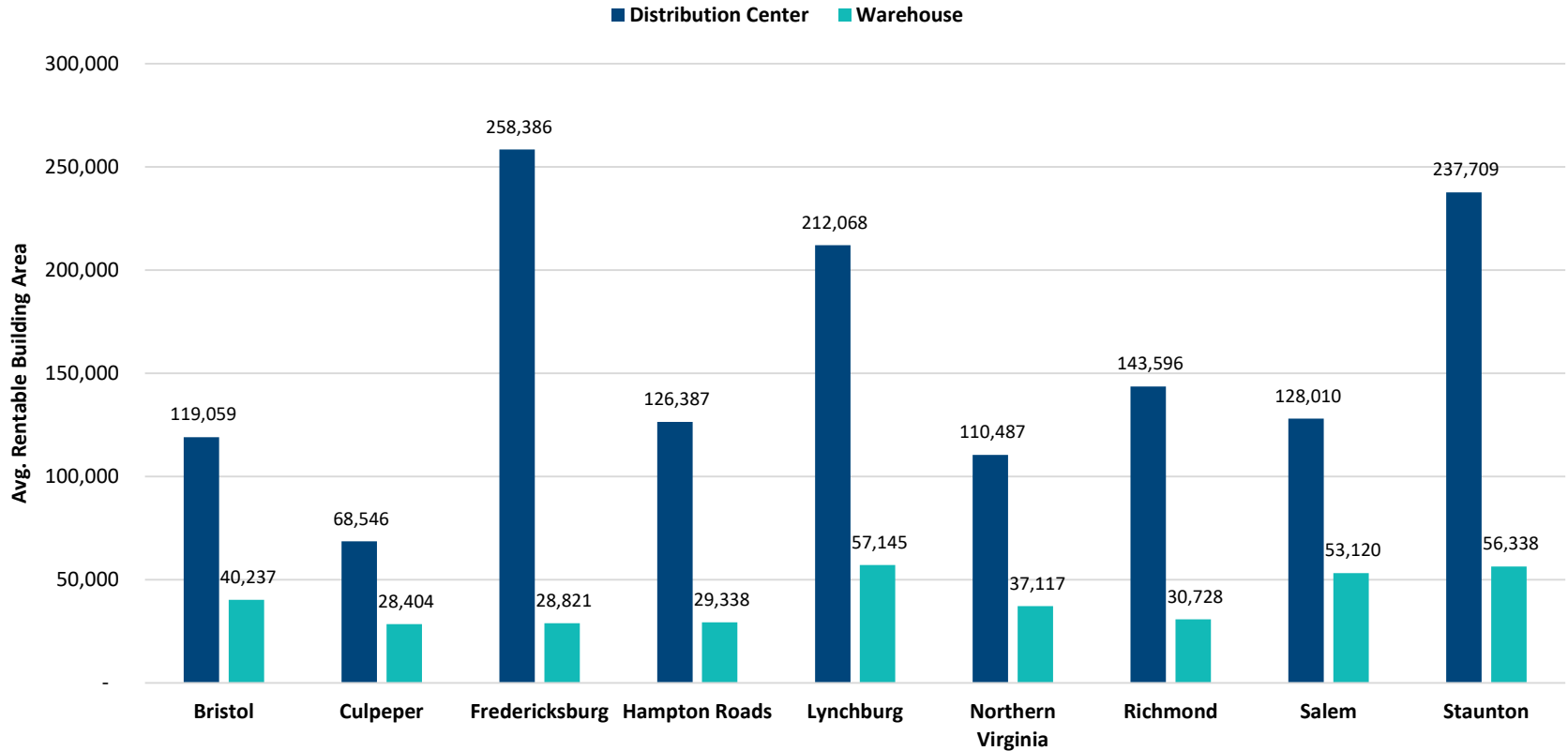


IDENTIFICATION OF FREIGHT ISSUES | COMMODITY FLOWS – EXTERNAL TO EXTERNAL

- Note:
- Line thickness conveys relative amount of tonnage being carried.
 - Commodity movement by Rail has also been analyzed. It needs to be reviewed by the Surface Transportation Board prior to dissemination.



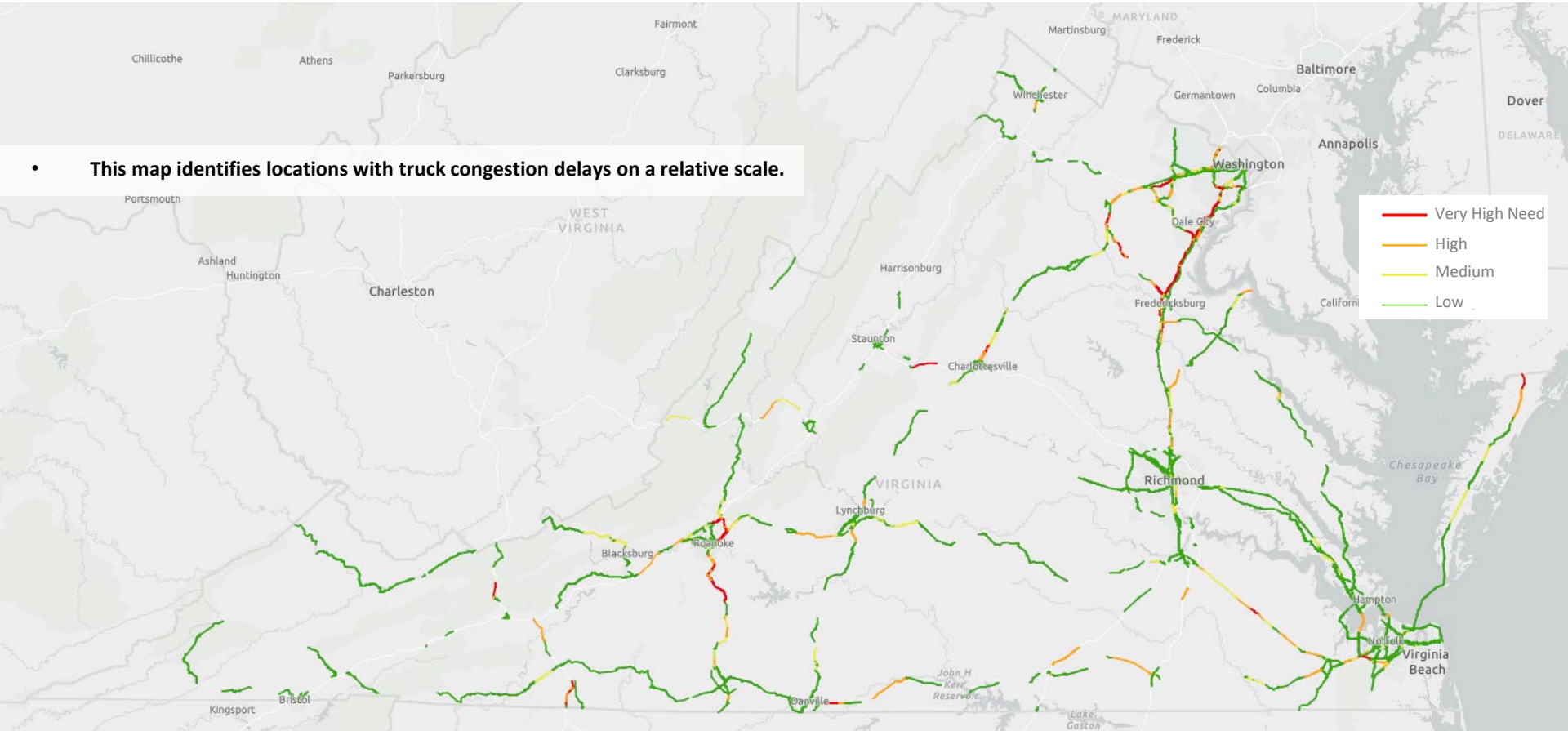
IDENTIFICATION OF FREIGHT ISSUES | COMMODITY STORAGE AND DISTRIBUTION – AVG. RENTABLE BUILDING AREA



Note: These numbers do not indicate occupancy.

IDENTIFICATION OF FREIGHT ISSUES | CONGESTION

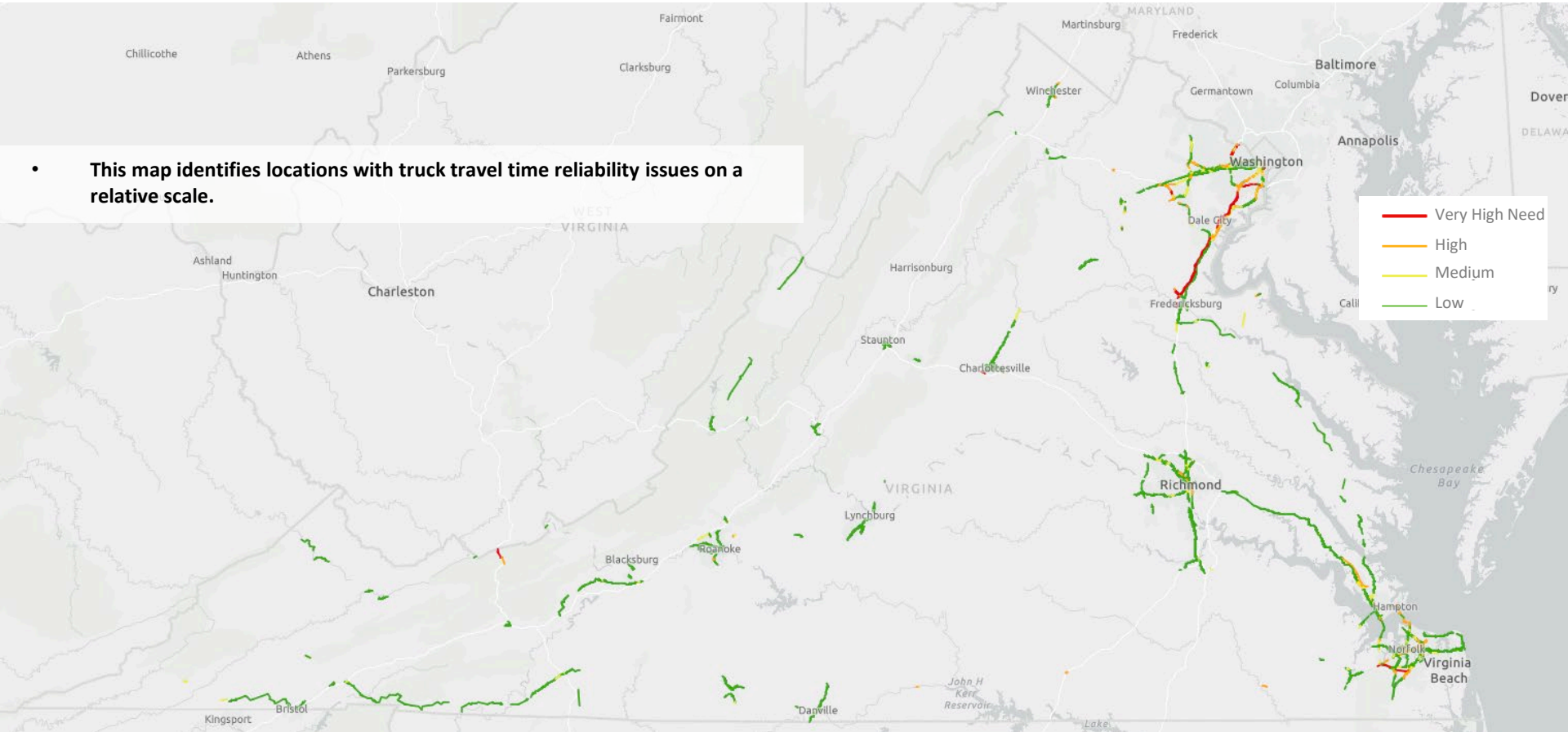
- This map identifies locations with truck congestion delays on a relative scale.



*Note: This map shows major corridors defined as Corridors of Statewide Significance (CoSS) as defined by the CTB.

IDENTIFICATION OF FREIGHT ISSUES | TRAVEL TIME RELIABILITY

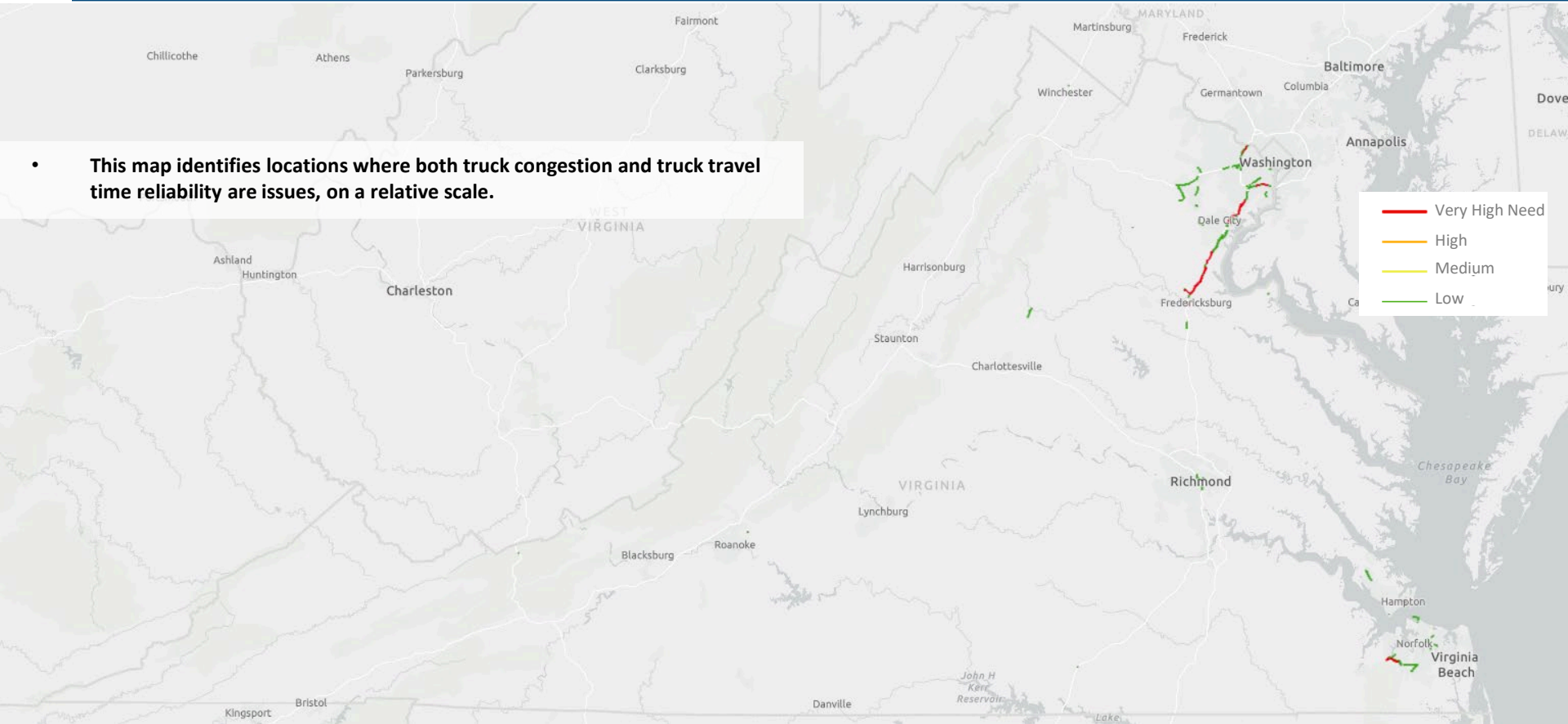
- This map identifies locations with truck travel time reliability issues on a relative scale.



*Note: This map shows major corridors defined as Corridors of Statewide Significance (CoSS) as defined by the CTB.

IDENTIFICATION OF FREIGHT ISSUES | CONGESTION AND RELIABILITY - COMBINED

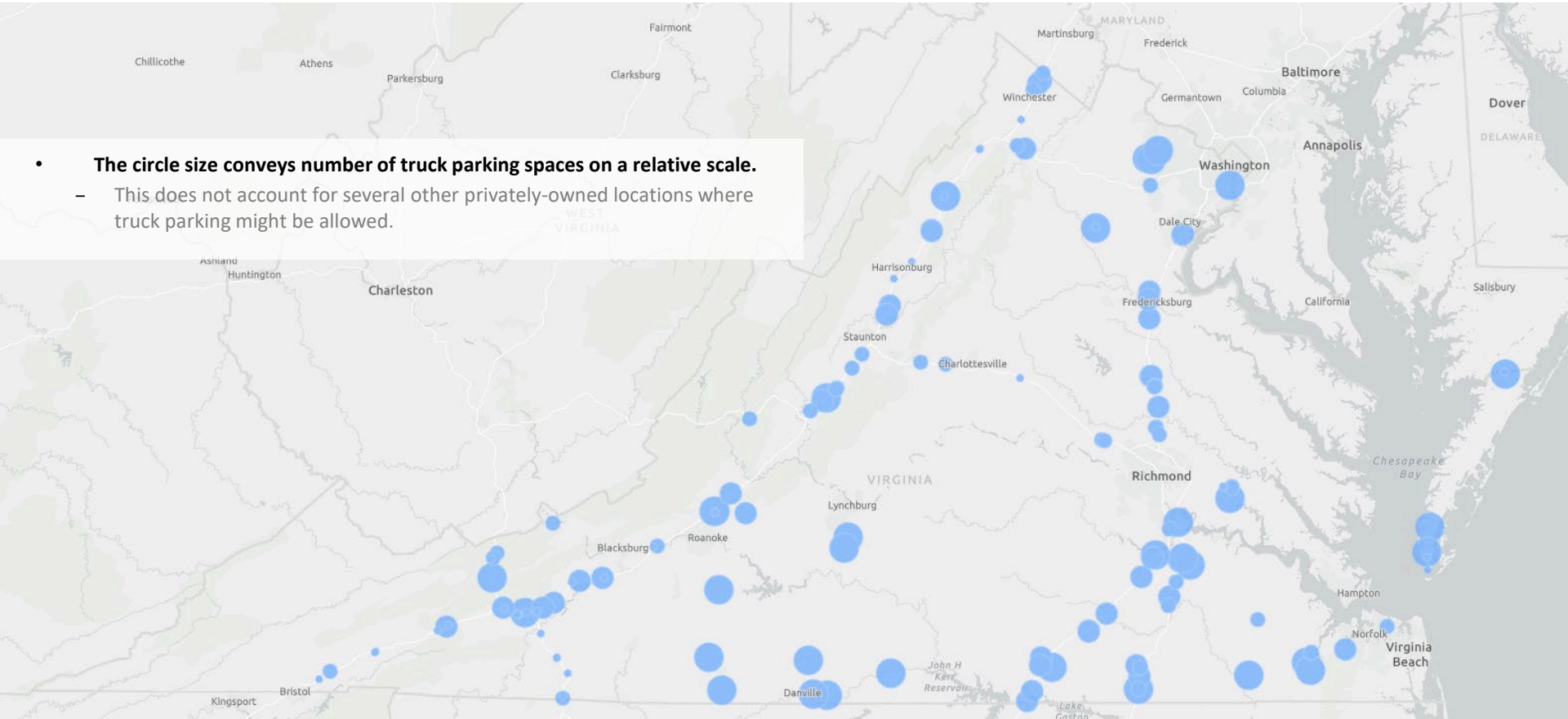
- This map identifies locations where both truck congestion and truck travel time reliability are issues, on a relative scale.



*Note: This map shows major corridors defined as Corridors of Statewide Significance (CoSS) as defined by the CTB.

IDENTIFICATION OF FREIGHT ISSUES | TRUCK PARKING - SUPPLY

- **The circle size conveys number of truck parking spaces on a relative scale.**
 - This does not account for several other privately-owned locations where truck parking might be allowed.



*Note: This map shows major corridors defined as Corridors of Statewide Significance (CoSS) as defined by the CTB.

- **Feedback and discussion**

1. Do the preliminary results capture the issues?
2. Are there any other subjects/issues that can be recommended for inclusion in Virginia's Freight Element?
3. Are there any emerging trends that provide unique opportunities and challenges for Virginia?

- **Additional analysis, including trends, are also available for review and comments.**

NEXT STEPS

- **Gather feedback and make changes**
 - We have conducted outreach and engagement with local and regional entities (Webinars on [March 24](#), [June 1](#)).
- **Share these finds with the CTB at the June Workshop**
- **Develop actions and recommendations for CTB action in fall 2021**

THANK YOU



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