



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

VTRANS UPDATE

OIPI-VDOT-DRPT-MPO Quarterly Coordination Meeting

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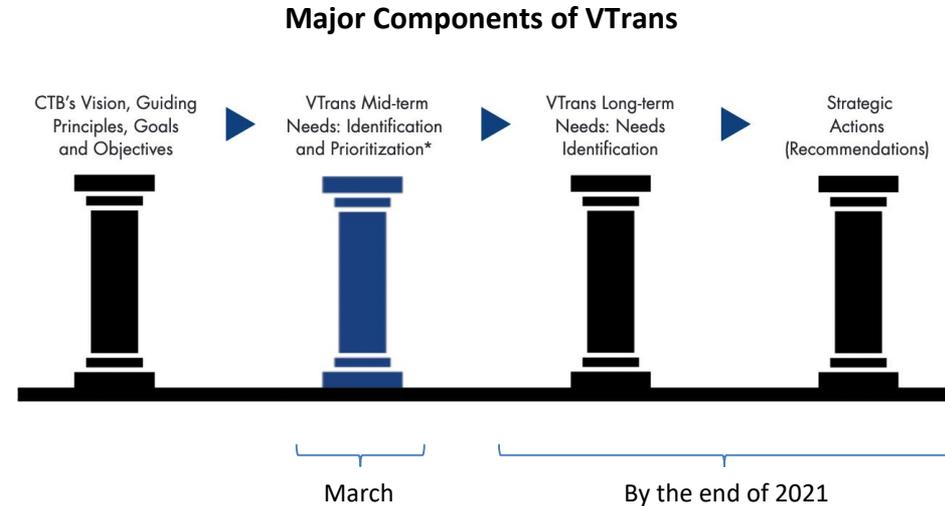
March 10, 2021



PURPOSE AND DISCUSSION ITEMS

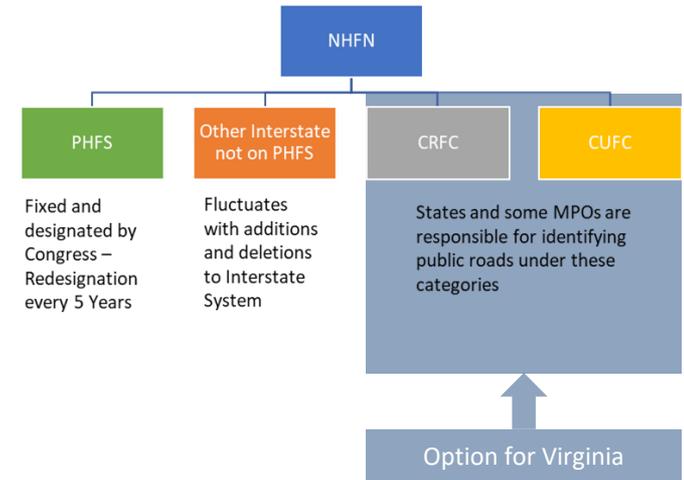
- **VTrans Activities in 2021**
- **VTrans Freight Element**
- **VTrans Trends Analysis**

- **March: Request for CTB Action on the [Policy for the Prioritization of VTrans Mid-term Needs](#)**
- **October: VTrans Strategic Actions based on the following:**
 - VTrans Mid-term Needs and Priorities
 - Long-term Needs based on Trends Analysis
 - Economic and Technology Trends
 - Vulnerability Assessment
 - Demographic and Land Use Trends
 - Freight Element
- **October: Submit VTrans to the Governor and General Assembly ([§ 33.2-353](#))**



- **Freight Plan ([49 U.S.C. 70202 FAST Act State Freight Plans](#))**
 - “The freight plan may be developed separate from or incorporated into the Long-Range Statewide Transportation Plans required by 23 U.S.C. 135.”
- **Approach for Critical Urban Freight Corridors and Critical Rural Freight Corridors designation**
 - Considers all modes
 - Relies on data-driven methods that allow for transparency and replication
 - Allows for integration with the Policy for the Identification of VTrans Mid-term Needs
 - Identifies policy needs for potential inclusion as **VTrans Strategic Actions**

- **National Highway Freight Network (NHFN) has four components:**
 1. Critical Rural Freight Corridors (Primary Highway Freight System (PHFS) – Most critical highway portions of transportation system
 2. Other Interstate portions not on the PHFS – Consists of remaining portion of Interstate roads not included in the PHFS
 3. Critical Rural Freight Corridors (CRFCs) – Public roads not in an urbanized area
 4. Critical Urban Freight Corridors (CUFCs) – Similar to CRFCs, but in urbanized areas
- **Optional mileage for Virginia (State and MPOs)**
 - Urban: 83.35 centerline miles
 - Rural: 166.69 centerline miles



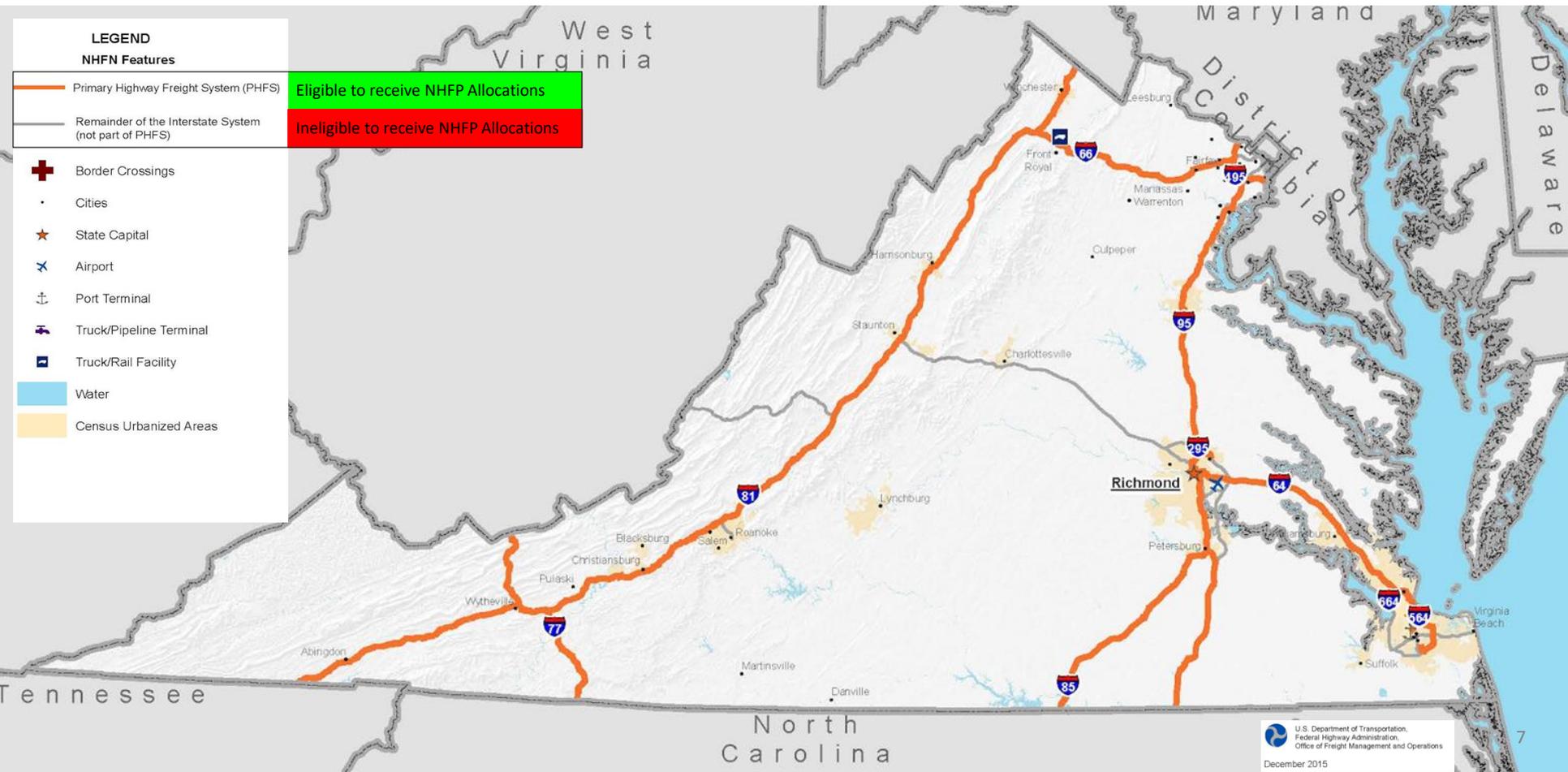
- **Noteworthy Items**

- The relevant funding sources are subject to Federal reauthorization - the last year of available funding is FY2020
- In Virginia, NHFP funds are allocated to projects selected via SMART SCALE and other established processes, therefore **CUFC and CRFC designations do not impact allocation of dollars**

- **Benefit**

- CUFC and CRFC designations will provide programming flexibility to the State

VTRANS FREIGHT ELEMENT I CUFC AND CRFC DESIGNATION



VTRANS FREIGHT ELEMENT I CUFC AND CRFC DESIGNATION

- **Roles and Responsibilities**

Type of Corridor		State Role	MPO Role
Critical Rural Freight Corridor (CRFC)		Lead (State designates all CRFCs)	-
Critical Urban Freight Corridor (CUFC)	MPOs < 500,000 population	Lead (State must coordinate with MPOs)	Support (Coordinate with State)
	MPOs > 500,000 population	Support (Coordinate with MPO)	Lead (MPOs must coordinate with State)

- **Activities in Virginia**

- In 2017, the National Capital Region Transportation Planning Board [approved a resolution](#) to designate CUFCs in the Virginia portion of the region
- Since October 2020, OIPI has evaluated various methods that: (1) provide flexibility in programming of funds; and, (2) allow for logical and meaningful designations that meet federal requirements

VTRANS FREIGHT ELEMENT I CUFC AND CRFC DESIGNATION

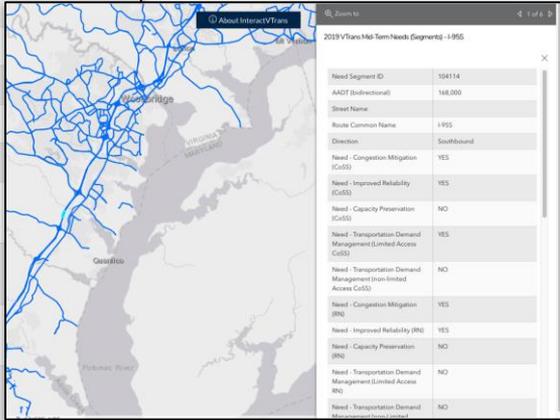
- **We are also developing different data points and measures to identify locations where truck or freight specific issues may exist**

Category	Measure
Safety	Number of “truck-involved” crashes
	Rate of “truck-involved” crashes
	Number of “truck-involved” Fatalities and Serious Injury crashes
	Rate of “truck-involved” Fatalities and Serious Injury crashes
Commodity Flows	Commodity Flow by Truck - Volume
	Commodity Flow by Truck - Value
	Commodity Flow by Rail
	Other Port and Airport facility level data
Congestion and Reliability	Total Cumulative Truck Delay
	Level of Truck Travel Time Reliability (LOTTTR)
	Truck Planning Time Index
Restrictions and Challenges	Truck Operating Restrictions (i.e. facility, lane or vehicle type restrictions)
	Vertical and Horizontal Clearance Issues
	Overheight, Overweight, and Over-width Restrictions
Truck Parking	Supply of truck parking
	Reliability of the supply of truck parking
	Truck parking gap - supply and (estimated) demand

VTRANS FREIGHT ELEMENT I CUFC AND CRFC DESIGNATION

- **Individual measures are important but are likely to provide an incomplete picture**
- **We are utilizing the approach deployed for the development of VTrans Mid-term Needs**
 - We will focus on interactions between measures. Examples:
 - Locations with truck **congestion/reliability issues** and locations with **high number of crashes** involving trucks
 - Locations with known **vertical geometry challenges** and locations with **truck congestion/reliability issues**

Need Segment ID	104114
AADT (bidirectional)	168,000
Street Name	
Route Common Name	I-95S
Direction	Southbound
Need - Congestion Mitigation (CoSS)	YES
Need - Improved Reliability (CoSS)	YES
Need - Capacity Preservation (CoSS)	NO
Need - Transportation Demand Management (Limited Access CoSS)	YES
Need - Transportation Demand Management (non-limited Access CoSS)	NO
Need - Congestion Mitigation (RN)	YES
Need - Improved Reliability (RN)	YES
Need - Capacity Preservation (RN)	NO
Need - Transportation Demand Management (Limited Access RN)	NO
Need - Transportation Demand Management (non-limited Access RN)	NO



- **Conduct Webinar**
 - March 24 at 1:00 pm ([Register](#))
- **Focus of the webinar**
 - CUFC and CRFC designations
 - Initial identification of freight issues based on performance measures



VTrans Trends Analysis

- **December 2018**
 - [CTB directed](#) OIPI to, “complete a resiliency assessment of Virginia’s multimodal network from a transportation planning perspective”
- **June 2019**
 - [OIPI presented](#) an approach for Vulnerability Assessment to the Board
- **January 2020**
 - [CTB directed](#) OIPI to, “....develop scenarios to assess the impacts of divergent futures trends and conduct an assessment of vulnerability from flooding and sea-level rise of the transportation network, local communities and regions”
- **June 2020**
 - [OIPI presented](#) a framework for the development of VTrans Long-term Needs at the MPO Quarterly Meeting
- **July 2020**
 - [OIPI presented](#) a framework for the development of VTrans Long-term Needs based on the Trends Analysis to the Board

Framework for VTrans Long-term Needs

1. Identify External Factors

- Demographic Trends
- Technology Trends
- Economic Trends
- Change in Vulnerability (flooding and sea-level rise)

2. Board’s Vision and Goals

- Key Performance Indicators (KPIs) based on Board Vision, Goals, and Objectives

3. Impact of External Factors on CTB’s Goals

- Identify range of expected impacts (Develop three scenarios)

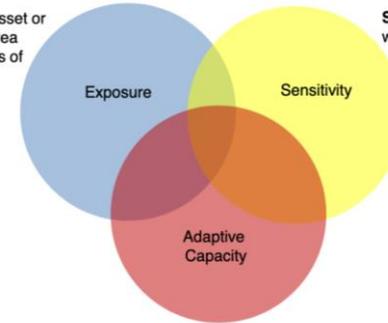
4. Our Actions

- Long-term Needs to be better prepared

- **Objective**
 - Conduct a screening-level analysis of the vulnerability of Virginia's transportation system to current and future flood hazards
 - Understand the magnitude of needs required to preserve a resilient and reliable transportation system
- **Geography**
 - Statewide
- **Hazards:**
 - Sea level rise, storm surge, inland/riverine flooding
- **Modes**
 - Primary: National Highway System (NHS) roads, bridges covered in the National Bridge Inventory (NBI)

Framework for VTrans Long-term Needs

Exposure: whether the asset or system is located in an area experiencing direct effects of climate variables.



Sensitivity: how the asset or system fares when exposed to a climate variable.

Adaptive capacity: the system's ability to adjust to or cope with existing climate variability or future climate impacts.

- **Conduct VTrans Trends Analysis Webinars**
 - VTrans Trends Analysis (Economic and Technology Trends) – April 14 at 10:30 am ([Register](#))
 - VTrans Trends Analysis (Vulnerability Assessment) – April 19 at 1:00 pm ([Register](#))
- **Focus of these webinars**
 - Approach
 - Initial results

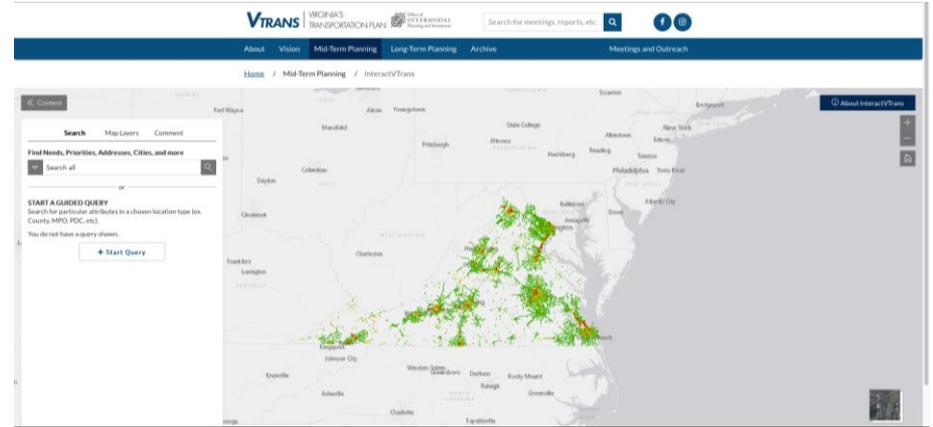


VTrans Vulnerability Assessment Tool will allow users to test various combinations and scenarios



InteractVTrans Update

- **InteractVTrans Development**
 - Launching Guided-Query function presented at the [June 2020 MPO Quarterly Meeting](#)
 - Addition of several new datasets
 - Six-year Improvement Program
 - Additional Performance Measures
 - VTrans Equity Emphasis Areas
 - Several freight-related measures



VTRANS POINTS OF CONTACT

- For question and clarification, please contact **Katie Schwing** or **Chris Wichman**

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