



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

Webinar: Draft VTrans Mid-term Needs and *Interact*VTrans

Jitender Ramchandani, AICP, PMP

October 29, 2019



PURPOSE OF THIS WEBINAR

- VTrans Mid-term Needs Identification Process
 - Outreach and Engagement Activities
 - Activities since the Regional Workshops
 - New Measures and Categories since the Regional Workshops
 - Revised Performance Measures and Categories
- Resources to view and utilize Mid-term Needs
 - VTrans Website
 - VTrans dataset
 - Documents displaying Draft Mid-term Needs
 - [InteractVTrans](#) for accessing Draft Mid-term Needs
- Brief Q&A

Questions received

- *Why is congestion identified as a need on some segments but not others?*
- *How are data from smaller areas treated to avoid being "overshadowed" by data from larger areas?*
- *Are land use criteria considered in evaluating performance?*
- *How will VTrans coordinate with Arterial Preservation?*
- *What changes are being proposed?*
- *How can I update the Tier status of my region's VEDP Business Ready Sites?*
- *How can I view the Needs maps at a finer scale?*
- *How can I get a draft report for my region?*

RELEVANT RESOURCES

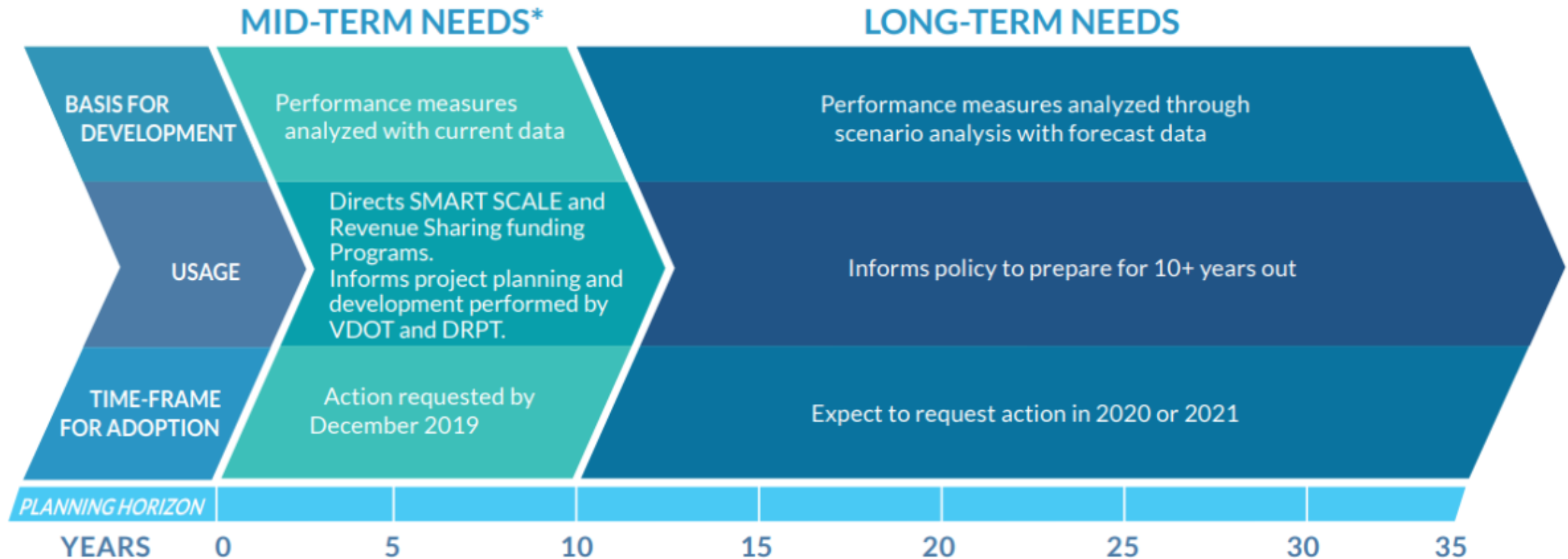
- This webinar builds on previous webinars that provide overview of:
 - Purpose of VTrans
 - VTrans Travel Markets
 - Mid-term Needs Identification Process
- Please utilize the following resources for more in-depth background information:
 - Recording: VTrans Needs Assessment Overview ([Weblink](#))
 - Recording: Urban Development Area Needs ([Weblink](#))
 - Overview: VTrans Mid-term Needs [webpage](#)
- For additional or more detailed questions, please utilize following opportunities:
 - Webinar: Friday, November 8, 10 – 11 am ([registration link](#))
 - Contact OIPI Team



VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS

VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW

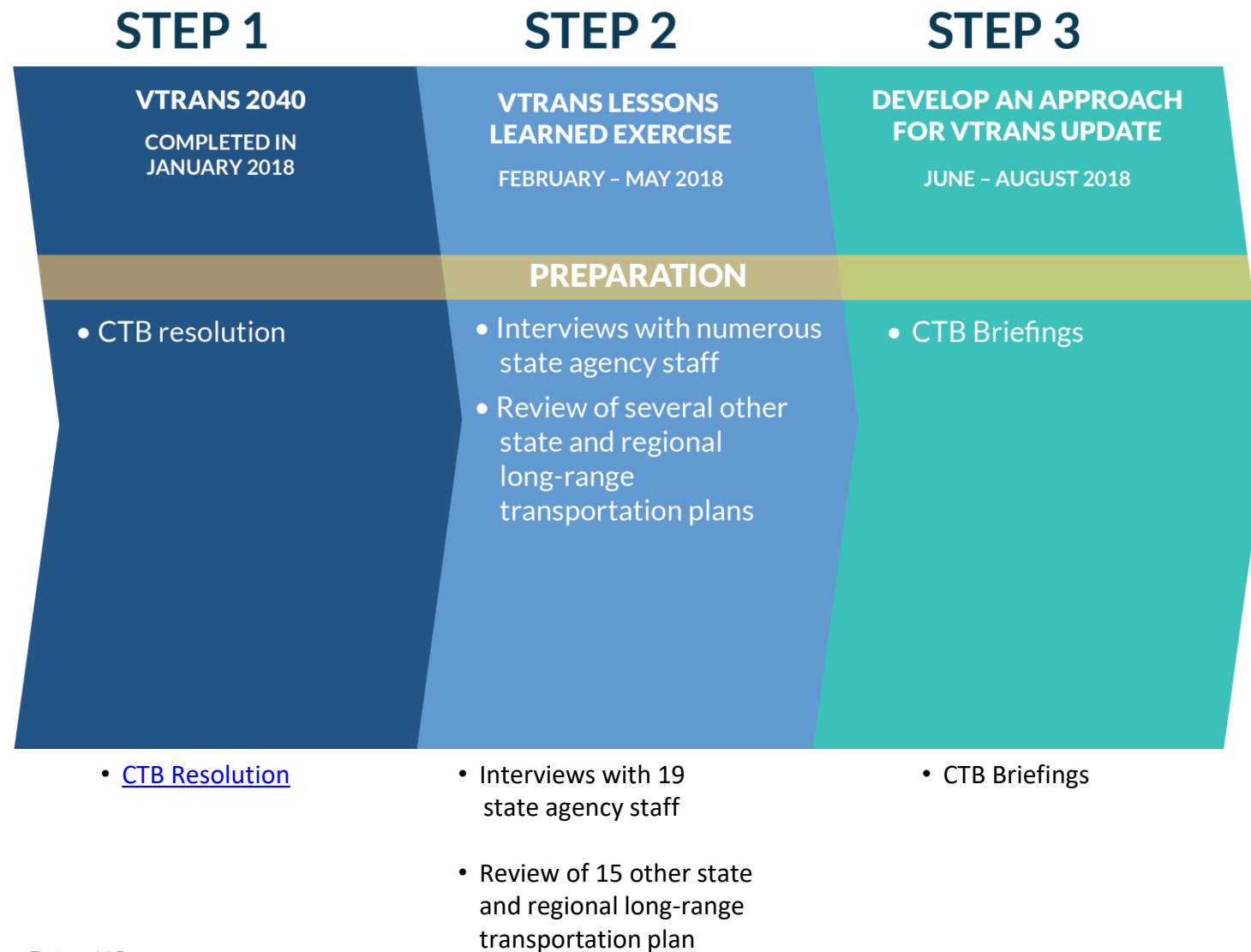
- What is a Mid-term Need?



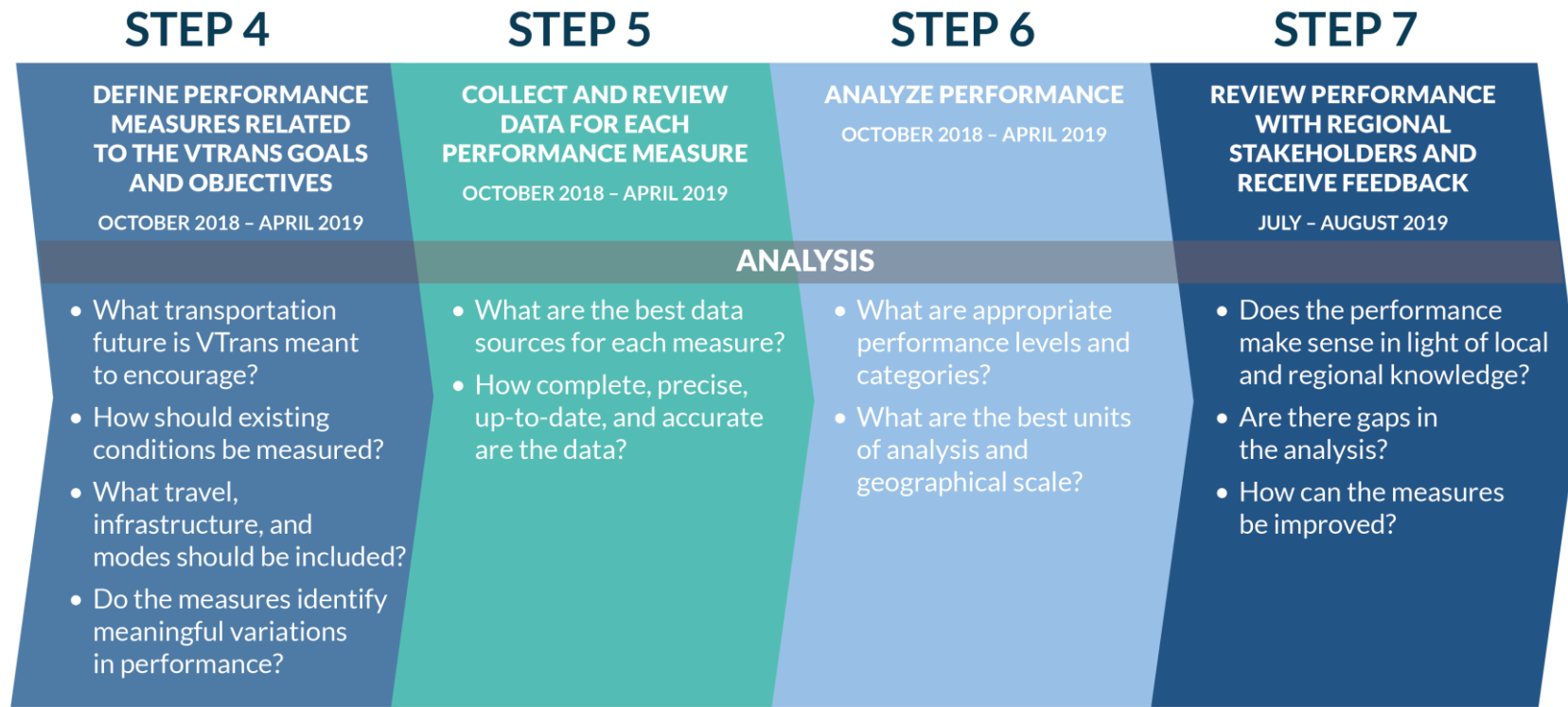
* We are here



VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW

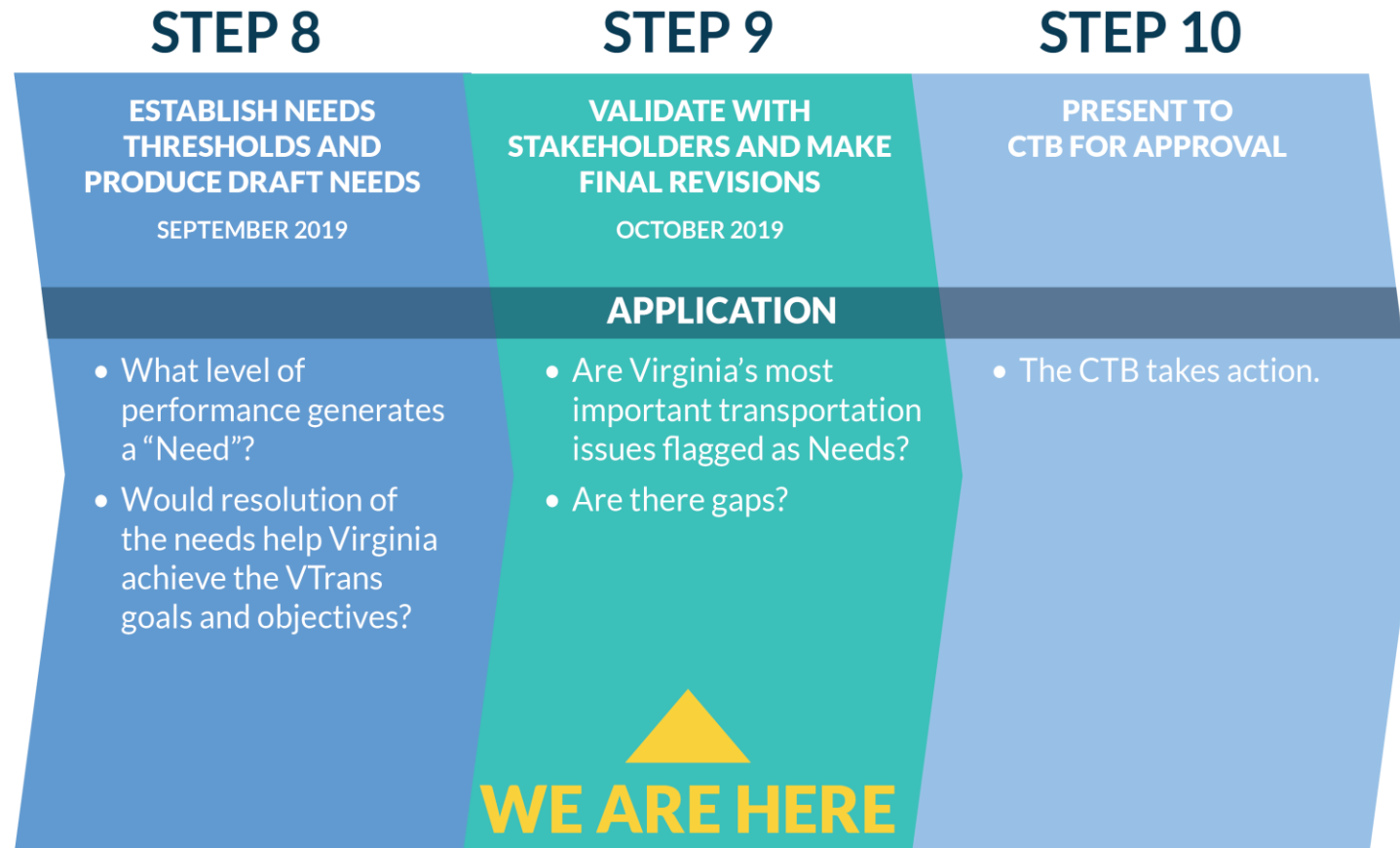


VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW



- [Presentation to the CTB](#)
- [Presentations to MPOs in early and late spring](#)
- [Webinar—VTrans Needs Assessment Overview](#)
- [Webinar—VTrans Urban Development Area Needs Assessment](#)
- [Presentations during CTB Spring Transportation Meetings](#)
- [13 Regional Workshops](#)

VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW



- [Documentation of changes to Mid-term Needs Identification Methodology and thresholds](#)

- CTB Briefings
- Webinar—Draft VTrans Mid-term Needs

VTRANS OUTREACH AND ENGAGEMENT ACTIVITIES*

9 

VTRANS STEERING
COMMITTEE MEETINGS



1500

SUBSCRIBED TO
VTRANS NEWSLETTER



9,600

VISITORS TO THE
VTRANS WEBSITE

38 

MEETINGS AND
WEBINARS FOR MPOS,
PDCS, AND LOCALITIES

13 REGIONAL WORKSHOPS
ATTENDED BY

- 83 Cities and Counties
- 30 Towns
- 15 MPOs
- 16 PDCs
- 16 Transit Agencies
- 4 TDM Agencies
- 4 Airports
- 3 Universities
- Various Other State and Regional Stakeholders

9 

PUBLIC OPEN
HOUSES

3 

PRESENTATIONS AT
CTB WORKSHOPS

1000+ 

COMMENTS
(IN PERSON OR ON WEBSITE)

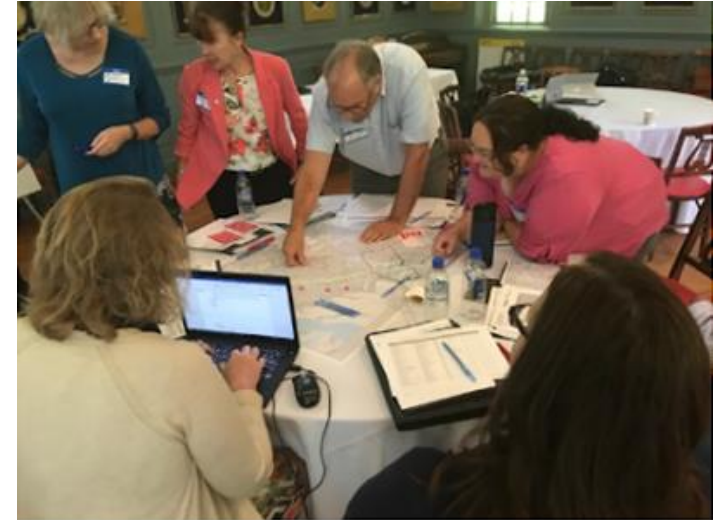
VTRANS OUTREACH AND ENGAGEMENT ACTIVITIES – REGIONAL WORKSHOPS

- VTrans Regional Workshops
 - Conducted between July 29 and August 22, 2019
 - All MPOs, PDCs, towns, cities, counties, and several other agencies were invited

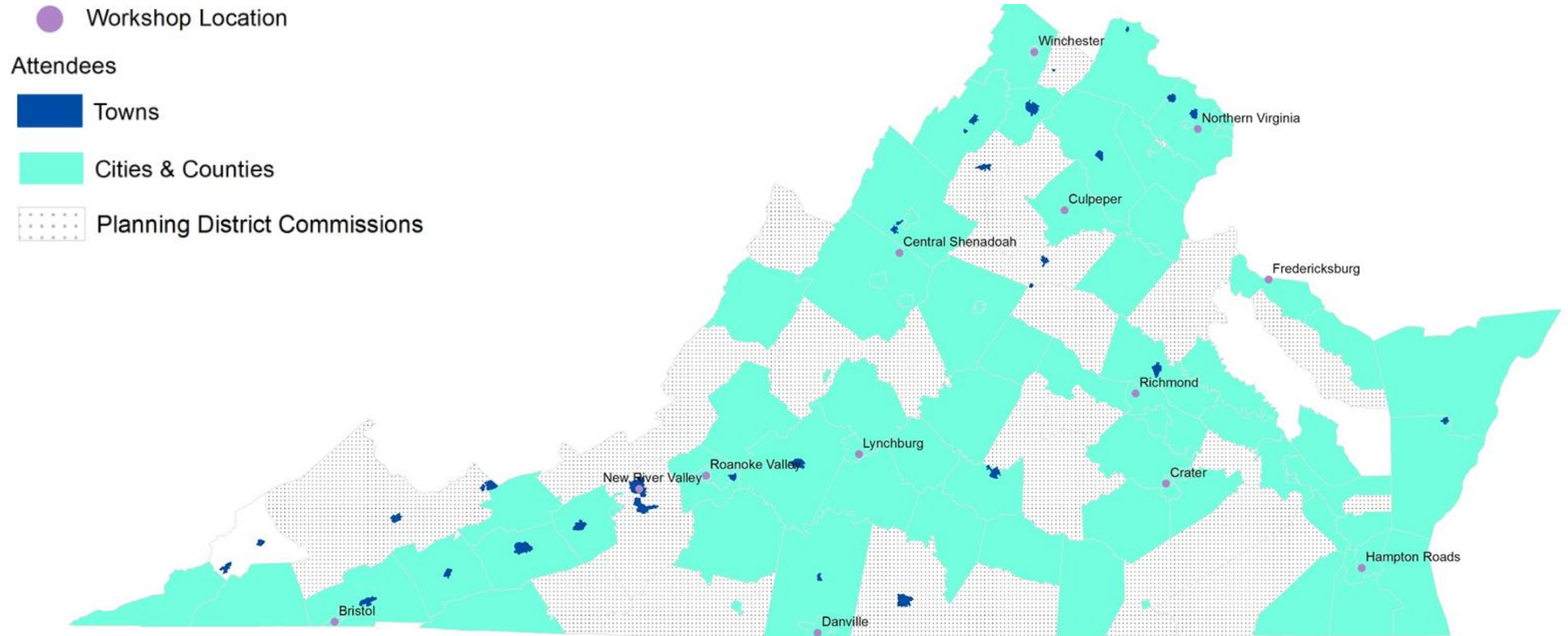


VTRANS OUTREACH AND ENGAGEMENT ACTIVITIES – REGIONAL WORKSHOPS

- VTrans Regional Workshops
 - Attended by:
 - o 83 Cities and Counties
 - o 30 Towns
 - o 15 MPO's
 - o 16 PDC's
 - o 16 Transit Agencies (several transit departments that are part of cities and counties)
 - o 4 TDM agencies
 - o 4 airports
 - o 3 universities
 - o Various other state and regional stakeholders (Port of Virginia, VA Department to Aviation, TMPD, TED, VDOT residencies, etc.)
 - Detailed meeting summaries were prepared and reviewed by those in attendance ([Weblink](#))

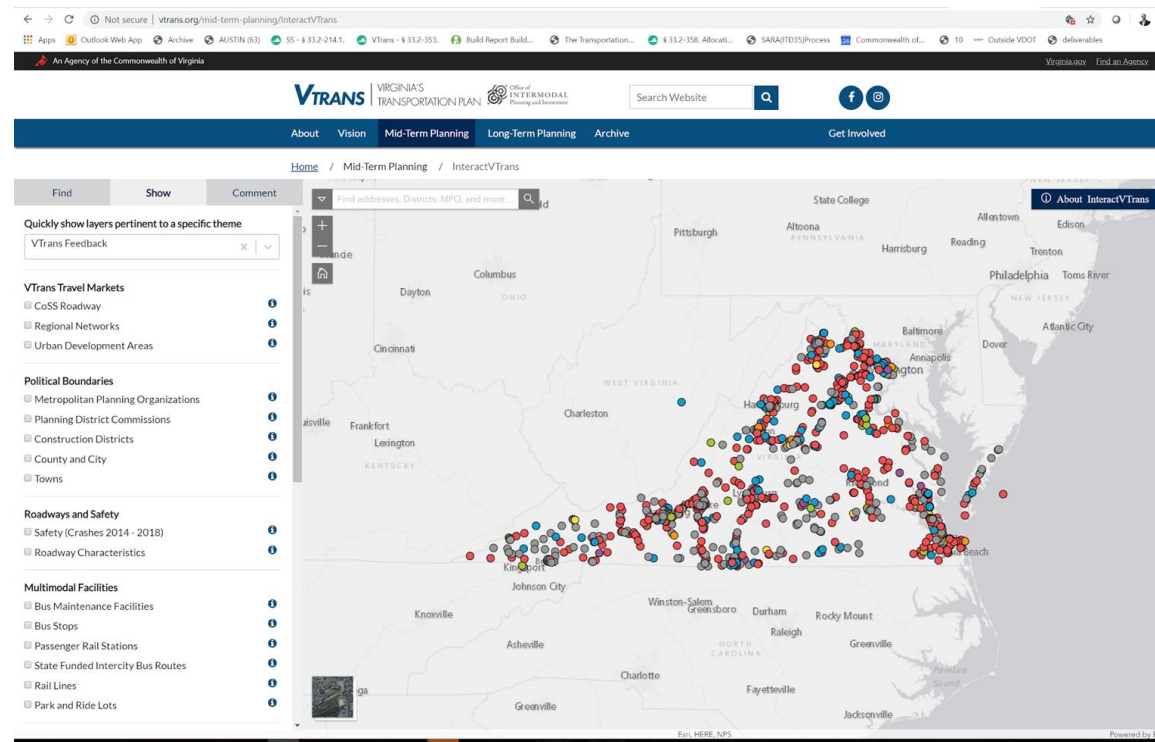


VTRANS OUTREACH AND ENGAGEMENT ACTIVITIES – REGIONAL WORKSHOP



VTRANS OUTREACH AND ENGAGEMENT ACTIVITIES – REGIONAL WORKSHOP

- We received two types of comments:
 1. Location-based comments
 2. On methods and thresholds (captured in Workshop Summary - Synthesis of Comments)



Over 900 comments entered in *InteractVTrans*

VTRANS OUTREACH AND ENGAGEMENT ACTIVITIES – REGIONAL WORKSHOP

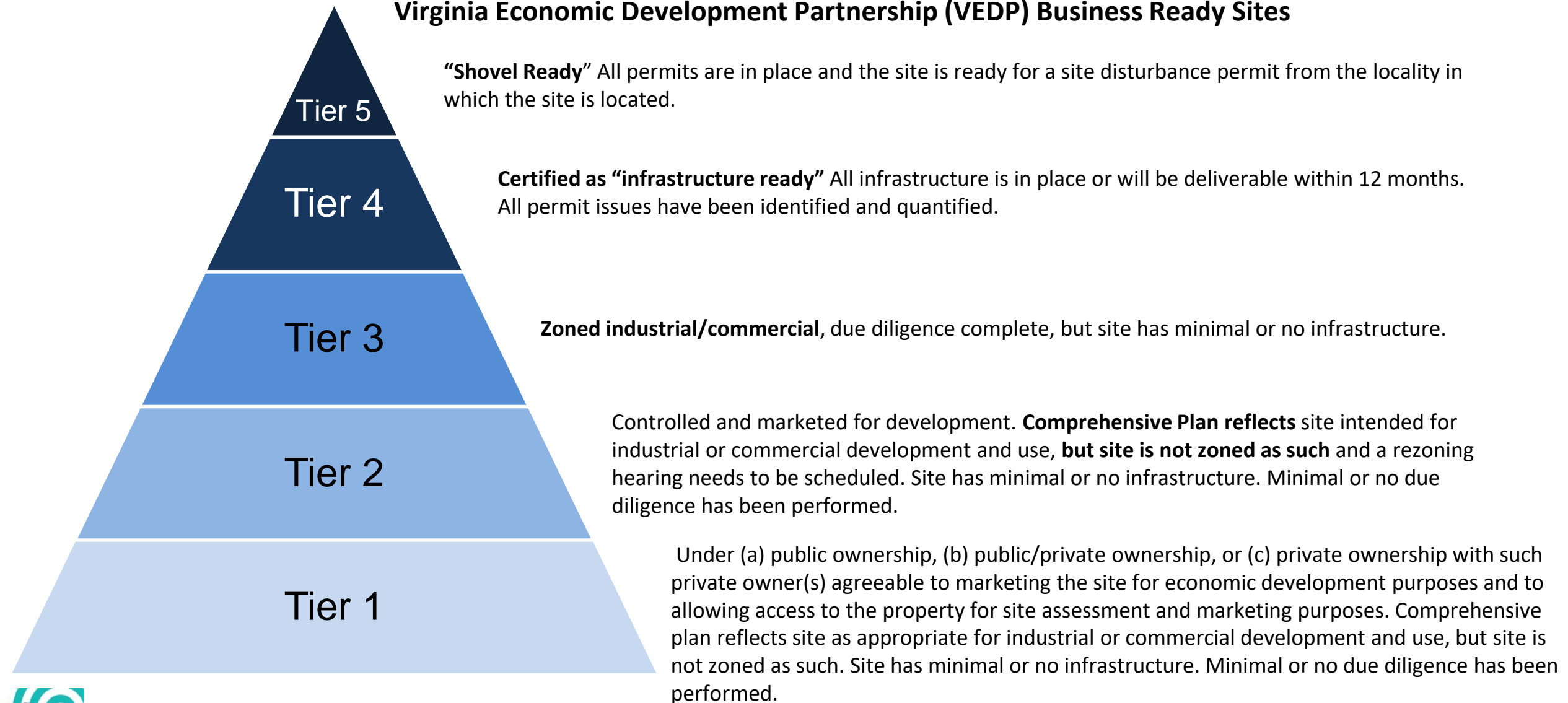
- Changes based on Regional Workshops
 - Made over 30 changes to the VTrans measures and thresholds.
 - There were several other suggestions that require more time for implementation.
 - For a complete list, please refer to [this](#) document.

Example

ID	Measure	Method or Threshold Shared at Regional Workshop	Comment Received	Comment Reference	Action taken	Change made for Needs Identification
1	Percent of Person-Miles Traveled in Excessively Congested Conditions (PECC)	Option for PECC Thresholds - 60%, 75%, and 90% of Posted Speed Limited	Support for speed threshold of 75% of posted speed limited	CSPDC #2	Yes	Draft VTrans Needs are based on speed threshold of 75% of posted speed limited.
2		Time period - weekday 6 am to 8 pm.	Ensure that weekend travel is captured	Bristol #1, 33, Fredericksburg #4, 5, Hampton Roads #8, Richmond # 3	Yes	Threshold is based on weighted average of weekday and weekend.
3		Time period - weekday 6 am to 8 pm.	Ensure that the measure captures seasonality	Roanoke Valley #10, Hampton Roads #8, Bristol #1	Yes and requires more work	We confirmed that the method takes into account seasonal variations. We will need more time to develop a method to reflect large variations between seasonal and non-seasonal traffic and their impact on the need identification method.
4		Applied to Interstates and Select Limited Access Facilities	Request to clarify criteria for selecting facilities as limited-access.	Lynchburg #1, NOVA #12, Culpeper #4	Yes	Updated LAF list to include more segments (used a logic that allowed shorter segments of less than 10 miles if they connected to another LAF)

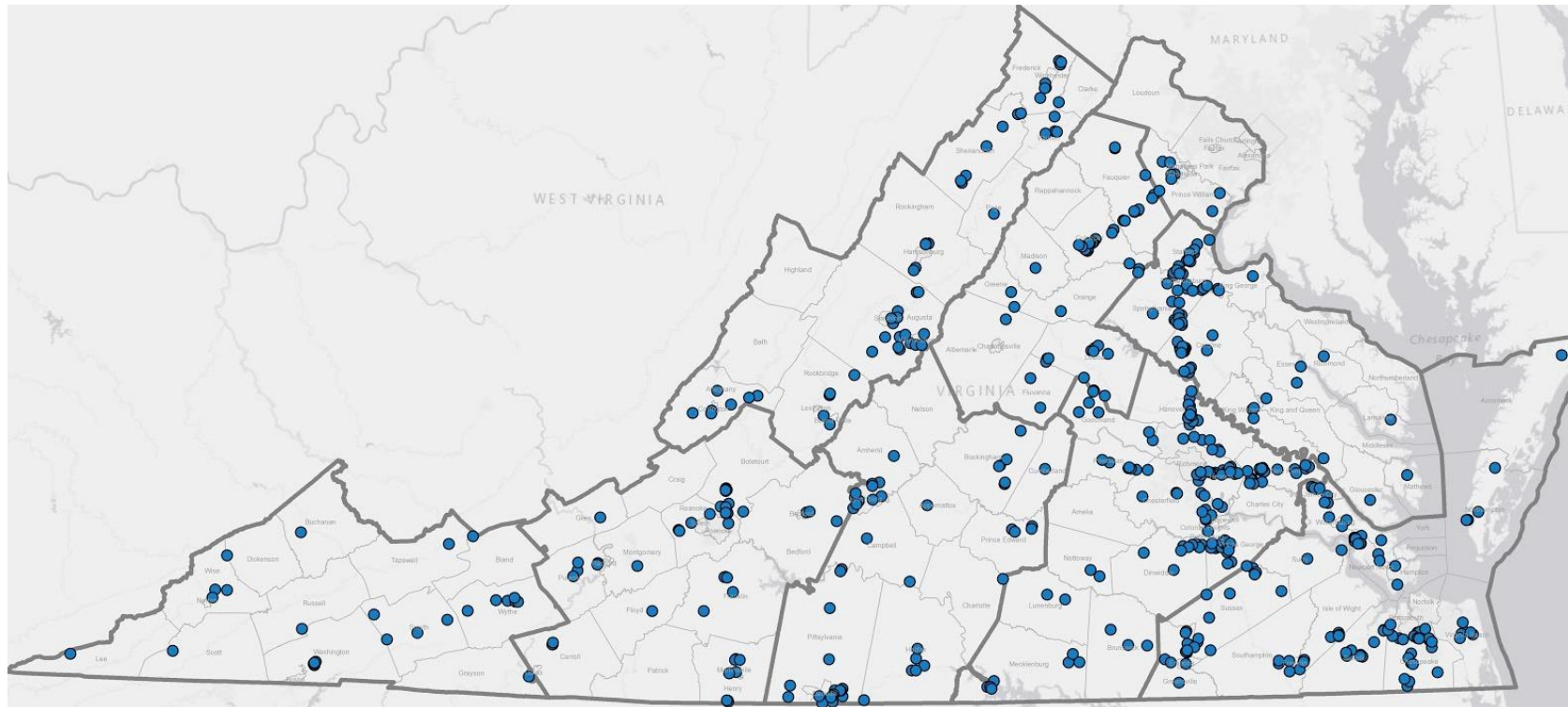
MID-TERM NEEDS ASSESSMENT | NEW MEASURE AND CATEGORIES

Virginia Economic Development Partnership (VEDP) Business Ready Sites



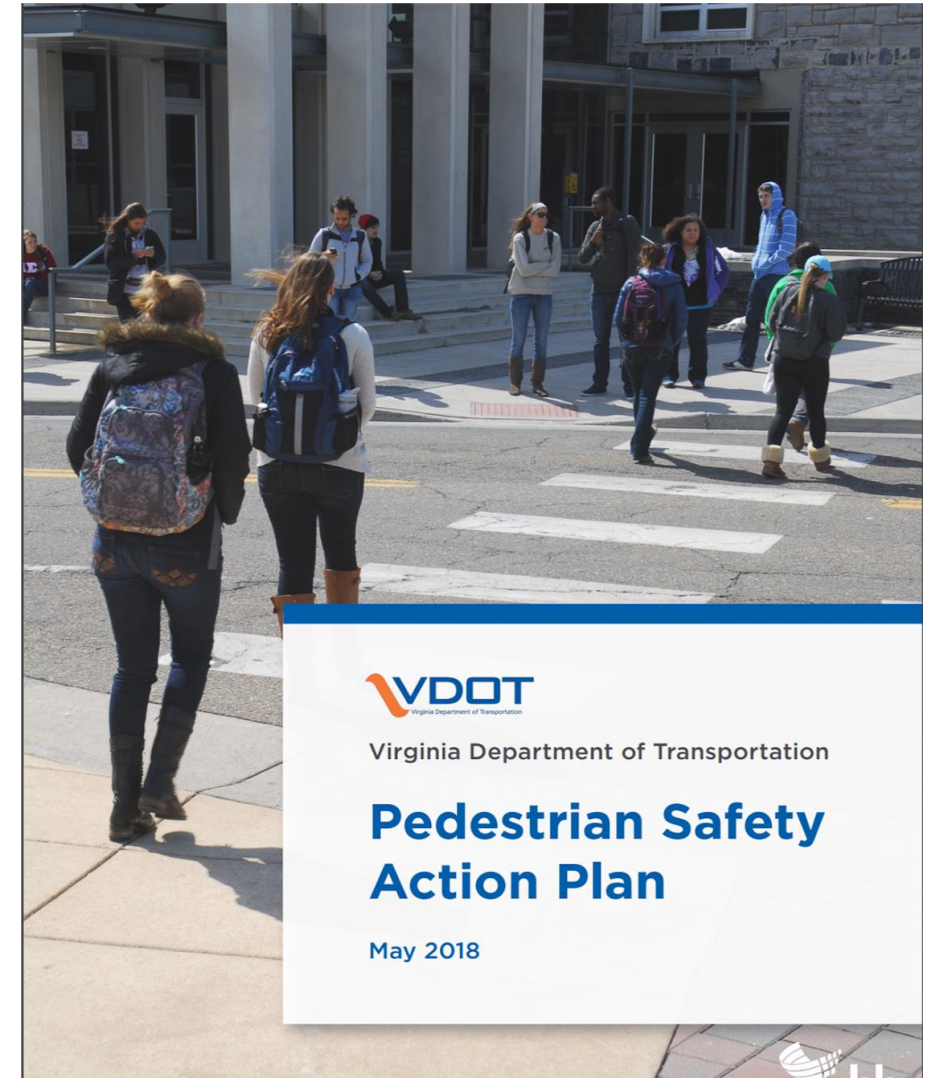
MID-TERM NEEDS ASSESSMENT | NEW MEASURE AND CATEGORIES

- Access to Industrial and Economic Development Areas
 - For Sites with Readiness Status 3 or higher, access from the nearest CoSS (highway, rail, port, etc.)
 - *“Need to connect or improve access to and from the nearest CoSS for sites that have achieved readiness status of Tier 3 or higher in VEDP’s Business Ready Site Program.”*



MID-TERM NEEDS ASSESSMENT | NEW MEASURE AND CATEGORIES

- Pedestrian Safety Improvement Corridors
 - Based on [VDOT's Pedestrian Safety Action Plan](#)



MID-TERM NEEDS ASSESSMENT | NEW MEASURE AND CATEGORIES

- Method for Identification of Need for Safety Improvements at Segments and Intersections
 - For each Construction District, the VDOT Top 100 Potential for Safety Improvement (PSI) Intersections and Segments
 - Intersections and Segments meeting the following criteria:
 - Locations on PSI List 2+ years out of last five years
 - and, on Fatal/Injury PSI List 2+ years out of last five years
 - and, with at least 3+ Fatal or Injury crashes at the intersection or segment over the last five years


MID-TERM NEEDS ASSESSMENT | NEW MEASURE AND CATEGORIES

- Capacity Preservation: For Corridor of Statewide Significance (CoSS) and Regional Networks (RN):
 - *“Preserve and enhance capacity by improving access management, reducing signals or signal phases, and implementing innovative intersection configurations.”*

MID-TERM NEEDS ASSESSMENT | NEW MEASURE AND CATEGORIES

- Transportation Demand Management
 - Limited-Access Corridor of Statewide Significance (CoSS) and other Limited-access Facilities within Regional Networks (RN):
 - *“Need for new or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs.”*
 - Non-limited Access CoSS outside of RNs:
 - *“Need for new or expanded park and ride facilities, rail and public transit services and facilities, bicycle and pedestrian facilities, and commuter assistance programs.”*
 - Within RN, non-interstate CoSS, non-limited access CoSS, all remaining non-local streets:
 - *“Need for new or expanded public transit services and facilities, rail and public transit services and facilities, bicycle and pedestrian facilities, commuter assistance programs, and emerging technologies such as travel apps and shared-mobility that help reduce Vehicle Miles Travel (VMT).”*

MID-TERM NEEDS ASSESSMENT | REVISED MEASURES AND CATEGORIES

VTrans Goal	Mid-Term Needs Measures and Categories	CoSS	Regional Network	UDA	State-wide
 Economic Competitiveness	Congestion: Percent Person Miles Traveled in Excessively Congested Conditions (PECC)*	✓	✓		
	Congestion: Travel Time Index (TTI)**	✓	✓		
	Reliability: Level of Travel Time Reliability (LOTTR)	✓	✓		
	Reliability: Passenger and Intercity Rail On-time Performance	✓			

* Interstates and select limited access facilities within Regional Networks

** All of non-limited access CoSS, plus all other facilities within Regional Networks




MID-TERM NEEDS ASSESSMENT | REVISED MEASURES AND CATEGORIES

VTrans Goal	Mid-Term Needs Measures and Categories	CoSS	Regional Network	UDA	State-wide
 Accessible Places	Competitiveness of Transit Accessibility to Activity Centers for Workers		✓		
	Non-Motorized Access to Activity Centers for Workers		✓		
	Transit Access for Equity Emphasis Areas		✓		
	Access to Industrial and Economic Development Areas (locally-determined)*				✓
	UDA Area Needs (locally-determined)**			✓	

* Locations included in Virginia Economic Development Partnership’s Business-Ready Site Program

** Includes improvements such as bicycle and pedestrian infrastructure, circulation and access, safety, transit enhancements and access, etc.

MID-TERM NEEDS ASSESSMENT | REVISED MEASURES AND CATEGORIES

VTrans Goal	Mid-Term Needs Measures and Categories	CoSS	Regional Network	UDA	State-wide
 Safety	Locations with high number of crashes and high crash severity				✓
	Pedestrian Safety Improvement Locations				✓
 Proactive System Management	Capacity Preservation	✓	✓		
 Healthy, Sustainable Communities	Transportation Demand Management	✓	✓		



DRAFT NEEDS

MID-TERM NEEDS ASSESSMENT | KEY DIFFERENCES

1. Method Rooted in Performance-based Planning

- “Connecting performance measures to goals and objectives through target setting provides a basis for understanding and sharing information with stakeholders and the public.”
- We presented results of initial data analysis at the Regional Workshops; and,
- Modified methods, performance measures, and targets based on the feedback received.

Source: FHWA (https://ops.fhwa.dot.gov/plan4ops/performance_based.htm)

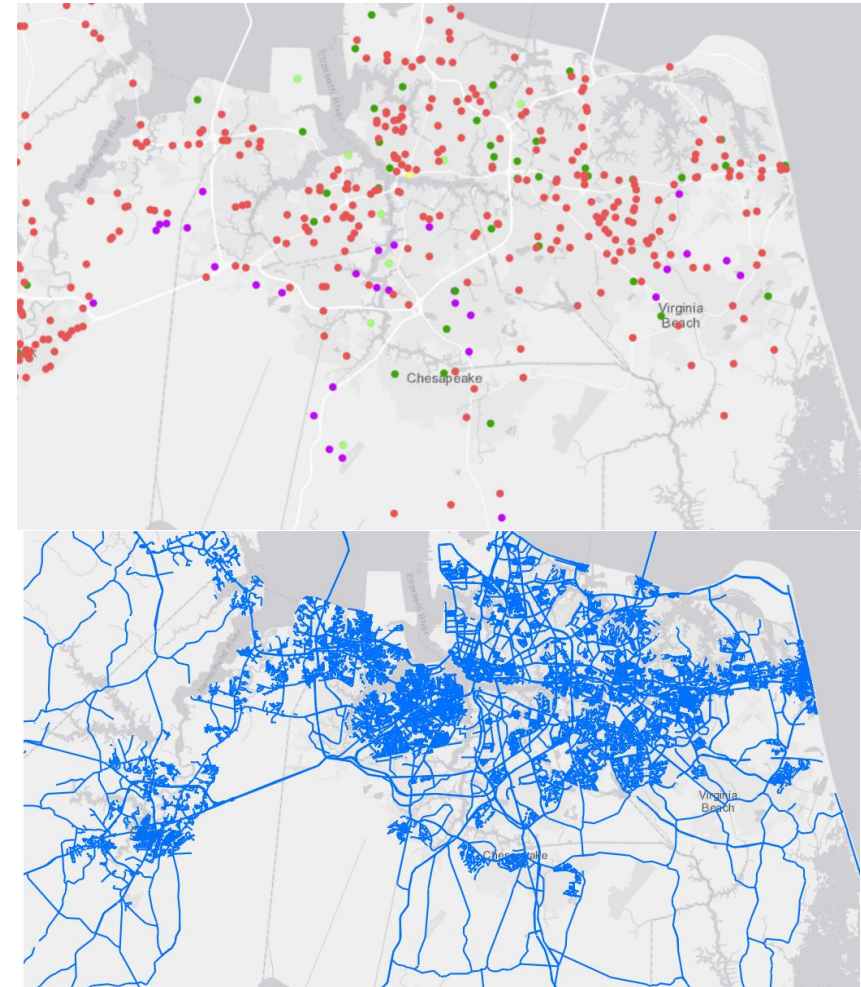
MID-TERM NEEDS ASSESSMENT | KEY DIFFERENCES

2. Inclusion of Industrial and Economic Development Areas (IEDA)

- Based on Virginia Economic Development Partnership’s (VEDP) [Business-Ready Site Program](#)
 - Established pursuant to § 2.2- 2238 C. of the Code of Virginia of 1950, as amended (the Code), **to identify and assess the readiness of potential industrial or commercial sites** in the Commonwealth of Virginia (the Commonwealth) **for marketing** for industrial or commercial economic development purposes, thereby enhancing the Commonwealth’s infrastructure and promoting the Commonwealth’s competitive business environment.
- Presented a tentative idea at the Regional Workshops and supported by those in attendance

MID-TERM NEEDS ASSESSMENT | KEY DIFFERENCES

3. Method of Analysis and Presentation
 - Needs are more specific and assigned to:
 - **Nodes:** Intersections, Rail Stations, Activity Center Centroid, Industrial and Economic Development Area.
 - **Segments:** Congestion, Reliability, Transit Access, Non-motorized Access, etc.



MID-TERM NEEDS ASSESSMENT | KEY DIFFERENCES

3. Method of Analysis and Presentation

- Needs are binary in nature to minimize need for interpretation
- Needs are prepared to be viewed holistically
 - Example: Need for **Travel Time Reliability Improvement** and with Need for **Safety Improvement**

VTans2040 Needs

D. VA 288 Corridor Reliability and TDM



VA 288 is a key corridor connecting activity centers such as Innsbrook and West Creek to major workforce residential areas in Chesterfield and serves as an important bypass around the region. There are some key bottlenecks with reliability issues and limited TDM options currently serving this corridor.

Innsbrook and West Creek are key regional Knowledge focused activity centers and some of the largest employment centers in the region and a sizeable portion of their workforce commutes from Chesterfield County via VA 288. Along VA 288 are key local service activity centers serving the surrounding residential populations.

The major issues along this corridor are the bottlenecks at key interchanges and the lack of TDM or other alternative mode choice options which reduces the efficiency of the corridor and the surrounding transportation system.

The 2019 VTrans Update

Time Reliability Improvement (Richmond Central)

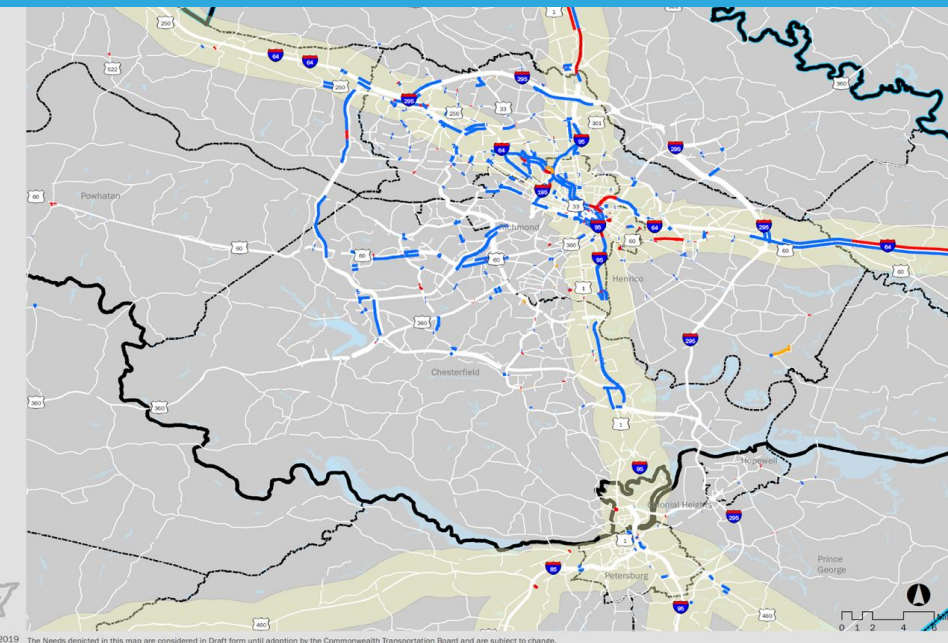
- Need for Congestion Mitigation
- Need for Travel Time Reliability Improvement
- Need for Congestion Mitigation and Need for Travel Time Reliability Improvement

- Annual Average Daily Traffic (AADT)
- 0 - 10,000
 - 10,001 - 25,000
 - 25,001 - 50,000
 - 50,001 - 75,000
 - Greater than 75,000

- Counties and Regional Networks
- Construction Districts
- Buffer around Primary Corridor of Statewide Significance Facilities
- Water



VTRANS VIRGINIA TRANSPORTATION PLAN 10/3/2019



The Needs depicted in this map are considered in Draft form until adoption by the Commonwealth Transportation Board and are subject to change.

MID-TERM NEEDS ASSESSMENT | NOTEWORTHY ITEMS

1. Draft Mid-term Needs are subject to change based on:
 - Guidance received from the Secretary and other CTB members
 - Agency and public feedback
 - Additional quality checks
 - Further analysis to address identified limitations/weaknesses



MID-TERM NEEDS ASSESSMENT | NOTEWORTHY ITEMS

2. Needs are not solutions

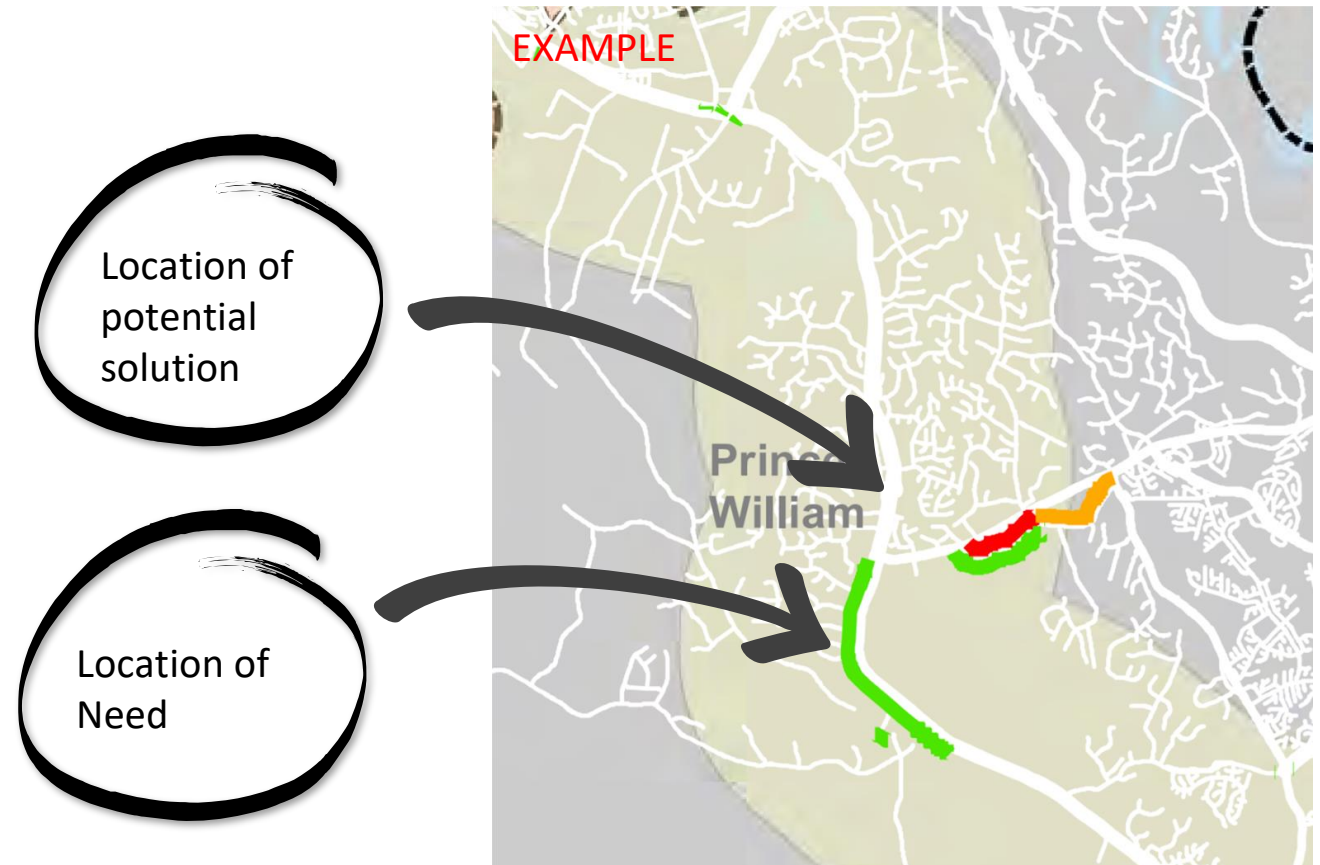
- A highway Congestion or Reliability Need may also be addressed by rail or transit



Source: [Potomac Local](#)

MID-TERM NEEDS ASSESSMENT | NOTEWORTHY ITEMS

3. Location of a Need may not necessarily be same as the location of the solution
 - A solution to a Need may be elsewhere on the same facility or on a parallel facility



MID-TERM NEEDS ASSESSMENT | NOTEWORTHY ITEMS

4. Consider taking a comprehensive view of the Mid-term Needs

- There is one document per Construction District for Mid-term Needs. It includes Needs for CoSS, RN, UDA, and Safety
- Mid-term Needs can be **viewed across travel markets and need types.**
 - Example: Identify segments that have both, Need for Congestion Mitigation **AND** Need for Travel Time Reliability Improvements
 - Example: Identify segments that have both, Need for Travel Time Reliability Improvements **AND** Need for Safety Improvement

MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

1. Print-ready Documents

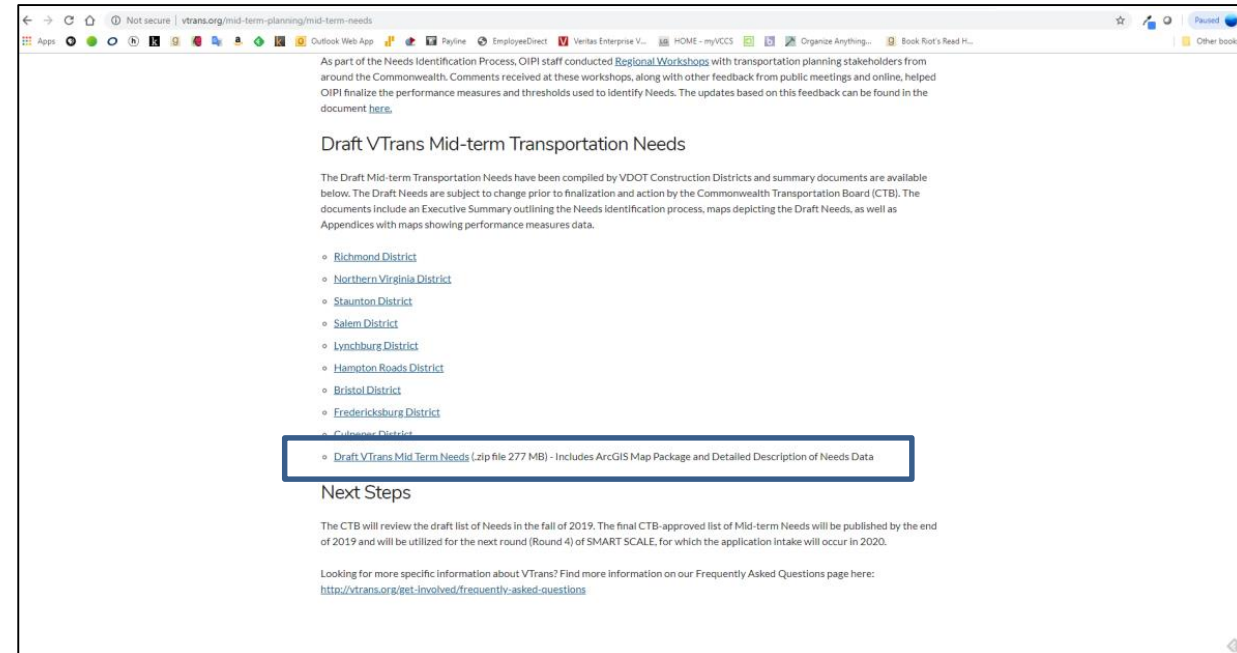
- Executive Summary and Maps displaying Vtrans Mid-term Needs
- Available by Nine (9) Construction Districts on VTrans website:
 - [VTrans Mid-term Needs webpage](#)
 - VTrans Online Meetings > [Fall Transportation Meetings](#)
- Targeted at: Users who prefer hard copies



MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

2. Database to download

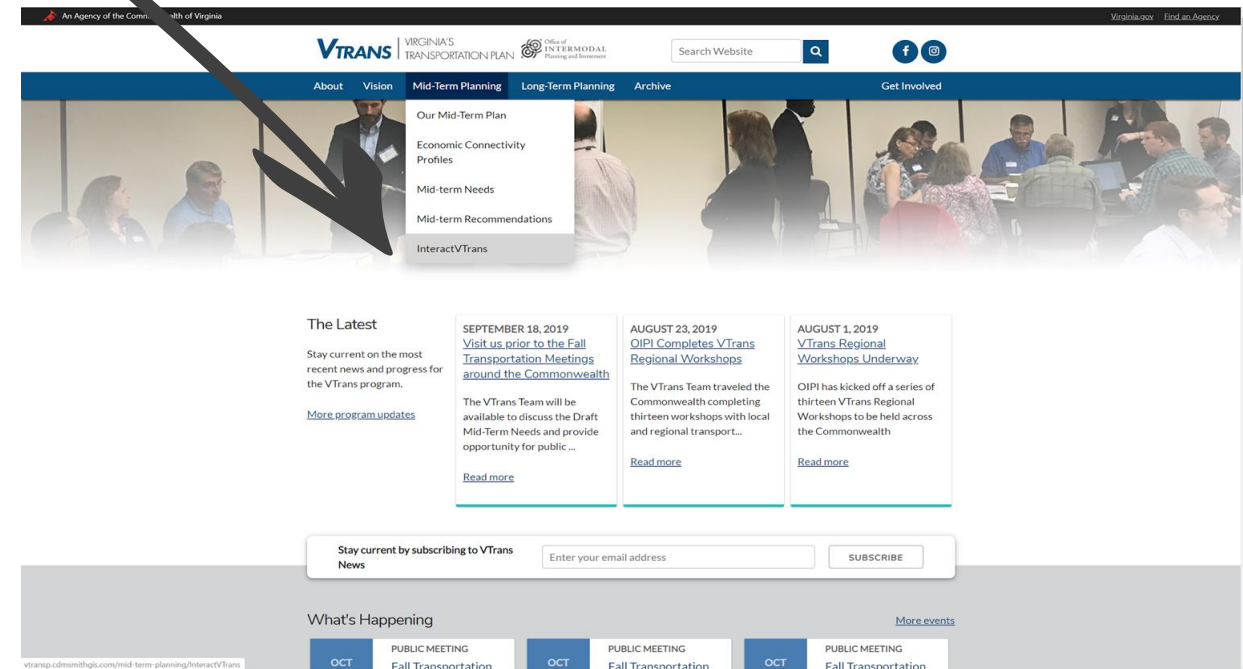
- ArcGIS Map Package, description of fields (nodes and segments), and Guide to InteractVTrans
 - ArcGIS Map Package includes all Mid-term Needs: Congestion, Reliability, Safety, UDA, IEDA, etc.
 - Available as one zip file on VTrans website:
 - [VTrans Mid-term Needs webpage](#)
 - VTrans Online Meetings > [Fall Transportation Meetings](#)
- Targeted at: Power users who have access to ArcGIS and want to build customized queries and develop maps



MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

3. [InteractVTrans](#)

- User: Like ability to zoom in and out



MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

1. **“FIND”** - ability to: query, filter, and download VTrans data specific to a city, county, MPO or PDC area and other areas of geographic interest

[InteractVTrans](#) serves three key functions

The screenshot shows the InteractVTrans web application. The 'Find' tab is highlighted with a red circle and a red arrow pointing from the text on the left. The interface includes a search bar, navigation tabs (About, Vision, Mid-Term Planning, Long-Term Planning, Archive), and a map of Virginia with various geographic features highlighted in different colors. The 'Find' panel on the left contains sections for 'Locations' and 'Search Criteria'.

Find Layers Comment

Use this query tool to find features by location and attribute

Locations
Limit results to specific areas (optional)
Select a Location Type
Items: 0

Search Criteria
Find features in up to three layers

1. Feature Type to Search For (Required)
Select a Search Criteria Layer
2. Feature Type to Search For (Optional)
Select a Search Criteria Layer
3. Feature Type to Search For (Optional)
Select a Search Criteria Layer

Clear Find

MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

1. **“FIND”** - EXAMPLE: In **Salem Construction District**,

Need for **Congestion Mitigation**

AND

Need for **Travel Time Reliability Improvement**,

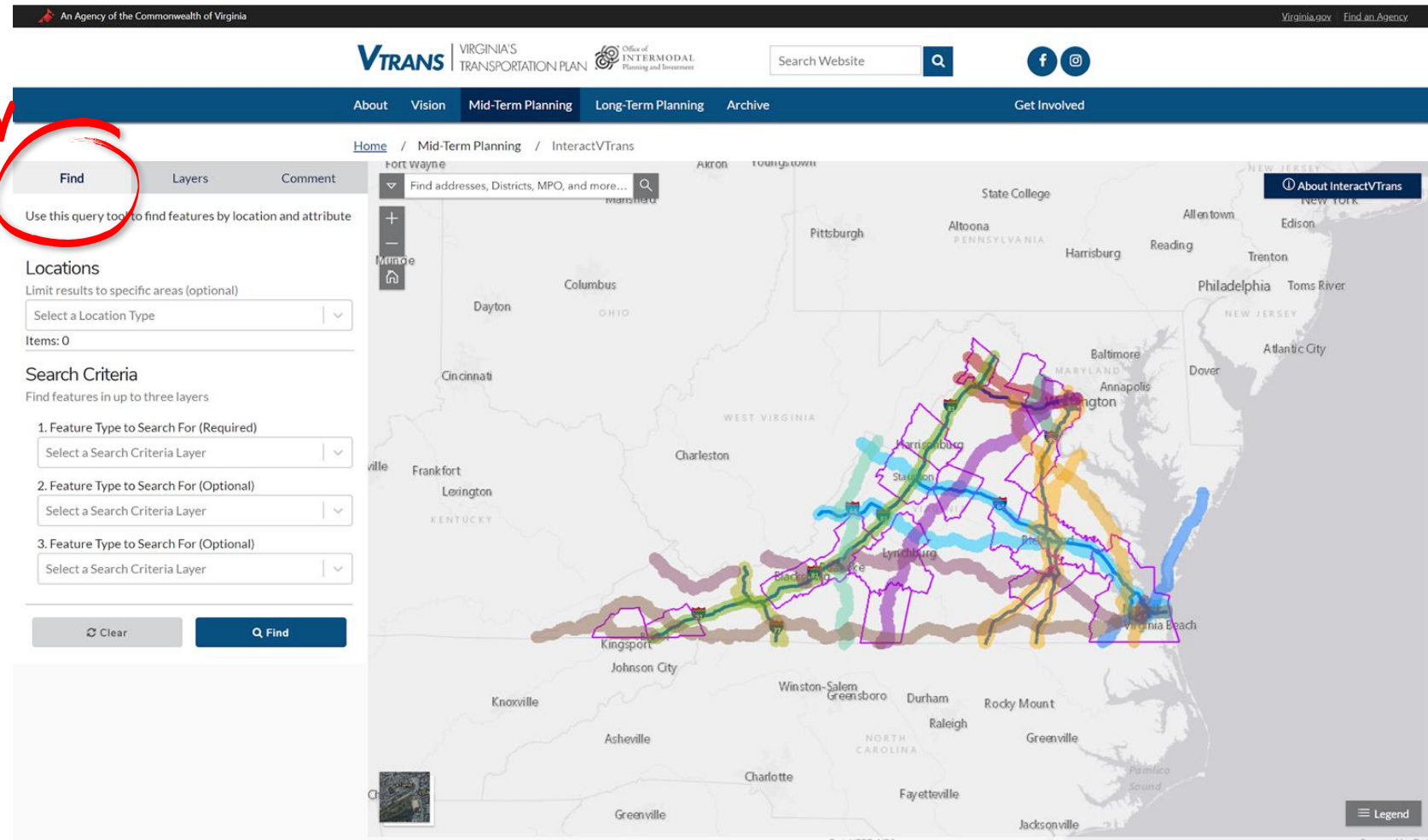
AND

Need for **Safety Improvement**

AND

Need for **Corridor Preservation**

[InteractVTrans](#) serves three key functions



MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

1. **“FIND”** - download Mid-term Needs as a table or as a shapefile

Once the Board adopts Mid-term Needs, please ensure that state agency staff and localities are using the **adopted** Mid-term Needs for development of SMART SCALE applications

[InteractVTrans](#) serves three key functions

The screenshot displays the InteractVTrans web application. The top navigation bar includes 'About', 'Vision', 'Mid-Term Planning', 'Long-Term Planning', and 'Archive'. The 'Mid-Term Planning' section is active. A search bar is located in the top right. The main content area is divided into a left sidebar and a main map area. The sidebar has a 'Find' section with a search bar and a 'Download Results' dropdown menu. The dropdown menu is open, showing two options: 'As Tables (CSV)' and 'As Shapefiles (SHP)'. Below the dropdown, a list of road names and their corresponding speed limits is displayed. The main map area shows a map of Virginia with various road segments and their associated speed limits, with different colors representing different speed categories. A red arrow points from the text on the left to the 'Download Results' dropdown menu in the screenshot.

Roadway Characteristics	Number of Speed (MPH)
Cifax Rd	35
Knoll Woods Dr	25
Indian Ridge Dr	25
Roswell Rd	25
Waterlick Rd	35
Horizon Dr	25
Pisgah Rd	40
Moneta Rd	45
Suburban Rd	45

MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

2. **“LAYERS”** - turn on and off data layers of interest

[InteractVTrans](#) serves three key functions

The screenshot displays the InteractVTrans web application. The 'Layers' tab is highlighted with a red circle and a red arrow pointing to it from the text 'LAYERS' in the previous block. The interface shows a map of Virginia with various colored overlays representing different data layers. The left sidebar contains a list of layers including 'VTrans Travel Markets', 'Draft VTrans Mid-Term Needs', 'Political Boundaries', 'Roadways and Safety', 'Multimodal Facilities', 'Intermodal Facilities', 'Committed Projects and Studies', 'Other', and 'Basemap and Reference'. The top navigation bar includes 'About', 'Vision', 'Mid-Term Planning', 'Long-Term Planning', and 'Archive'. The search bar and social media icons are also visible.

MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS

3. **“COMMENT”** - by dropping a point on the map and noting a specific comment or idea

[InteractVTrans](#) serves three key functions

The screenshot displays the InteractVTrans web application. At the top, there is a navigation bar with links for 'About', 'Vision', 'Mid-Term Planning', 'Long-Term Planning', and 'Archive'. Below this, a secondary navigation bar shows 'Home / Mid-Term Planning / InteractVTrans'. A search bar is located on the right side of the page. The main content area features a map of Virginia with numerous colored points (red, blue, green, yellow) overlaid on it. A red arrow points from the text 'noting a specific comment or idea' to the 'Comment' button in the navigation bar. The 'Comment' button is circled in red. Below the map, there are 'Cancel' and 'Submit' buttons. The page footer includes the VTRANS logo and the text 'VIRGINIA'S TRANSPORTATION PLAN'.

MID-TERM NEEDS ASSESSMENT | METHOD TO ACCESS RESULTS



[Demonstration](#)

MID-TERM NEEDS ASSESSMENT | NEXT STEPS

- Please explore datasets for accuracy and completeness
- If you see something unexpected, please let VTrans Team know:
 - comment@vtrans.org
- We expect to make some changes and refinements before Commonwealth Transportation Board action is requested



MID-TERM NEEDS ASSESSMENT | TIMELINE

Date	VTrans Task
October 15 - November 13	Fall Transportation Meetings
October 29	Webinar: Draft Mid-term Needs and InteractVTrans
November 8	Webinar: Draft Mid-term Needs Related Q&A
December 11	December CTB Meeting: Request for CTB action
Before the end of 2019	OIPI intends to publish final approved list of Mid-Term Needs
April 1, 2020	Deadline for localities to adopt new UDAs in Comprehensive Plans
Spring-Summer 2020	SMART SCALE Round 4 proposals screened with updated Mid-Term Needs



QUESTIONS/DISCUSSION

OIPI Staff Contact Information:

Name	Phone	Email
Jitender Ramchandani	804.786.0868	Jitender.Ramchandani@oipi.Virginia.gov
Katie Schwing	804.786.2362	Kathryn.Schwing@oipi.Virginia.gov
Chris Wichman	804.786.2366	Chris.Wichman@oipi.Virginia.gov



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TRANSPORTATION PLAN