



# TRANSPORTATION AND MOBILITY PLANNING

Feeding the Program

Marsha Fiol

Transportation and Mobility Planning Division Director

February 19, 2020

# Mission

## VDOT Mission:

**Our mission is to plan, deliver, operate, maintain and support a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.**

## Transportation and Mobility Planning Division Mission:

**Use performance-based planning to identify problems, work cooperatively with stakeholders, and develop prioritized, targeted solutions that can be readily implemented**

# Division Structure

Planning reports to the Chief Engineer and plays critical role in project development

**Division Director**  
**Marsha Fiol**

<b>Assistant Director– <i>Ben Mannell, AICP</i></b>	<b>Assistant Director– <i>Terrell Hughes, PE</i></b>	<b>Planning and Investment Resources– <i>Tammy Poore</i></b>
Highway Programs	Conceptual Planning	Work Programs (VDOT/MPO/PDC)
Planning Data Solutions	Multimodal Planning	Administrative & Training Budgets
Travel Demand Modeling	SMART SCALE Support	

## Central Office– 34 Staff

- Procedures, Program Management
- Guidance, Technical Assistance
- Complex Project Management

## 9 District Offices– approx. 34 Staff

- SMART SCALE leads
- Planning study leads
- Oversight of regional planning efforts at MPOs and PDCs

# Where do Projects Come From?



...*Planning!*

Local

Regional

State

Federal/state mandates

Where do projects come from?

Scenario List								
SYIP	Interstate	Primary	Secondary	Urban	Enhancement	Transit	Rail	Other
<a href="#">Program Overview</a>	<a href="#">Program Line Items</a>	<a href="#">Transaction Log</a>	<a href="#">Deleted Line Items</a>	<a href="#">Reports</a>				
<a href="#">Show Filters</a>								
Scenario Overview								
Name	LIVE SYIP: FY21-26					Description	FY21-26	
Year	2021					Total Line Items	6188	
Allocations & Projected Funding								
	Previous	2021	2022	2023	2024	2025	2026	
Total Funding		\$0	\$0	\$0	\$0	\$0	\$0	
Total Programming	\$28,250,183	\$3,798,507	\$2,769,788	\$2,584,878	\$2,070,258	\$1,972,532	\$0	
Difference		(\$3,798,507)	(\$2,769,788)	(\$2,584,878)	(\$2,070,258)	(\$1,972,532)	\$0	
*Values in Thousands of Dollars								
Estimates & Expenditures								
	PE	RW		CN	Total			
Estimate	\$8,119,112	\$3,636,475		\$32,003,024	\$41,758,611			
Expenditures	\$2,210,814	\$1,646,041		\$9,300,584	\$13,157,581			
Difference	\$3,908,298	\$1,990,435		\$22,702,440	\$28,601,030			
*Values in Thousands of Dollars								
Authorizations								
	PE	RW		CN	Total			
Authorized	\$762,909	\$850,579		\$1,965,363	\$3,578,850			
Expenditures	\$2,210,814	\$1,646,041		\$9,300,584	\$13,157,581			
% of Authorized Expended	289.79%	193.52%		473.22%	367.65%			
*Values in Thousands of Dollars								
<a href="#">Home</a>   <a href="#">STIP</a>   <a href="#">Pool</a>   <a href="#">PCES</a>   <a href="#">IPM</a>   <a href="#">Funding</a>   <a href="#">CERS</a>   <a href="#">SYP</a>   <a href="#">SSYP</a>   <a href="#">Dashboard</a>								
© Copyright 2006 Virginia Department of Transportation. All Rights Reserved. <span style="float: right;">Six-Year Improvement Program v2.3</span>								

# What is Planning's Role in Project Development?

VTrans Vision, Needs and Priorities



Arterial Preservation, STARS and Corridor Planning Programs

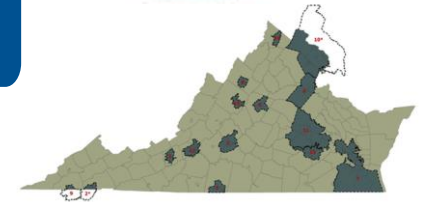
Public Involvement



Planning Data Sources



Regional Planning

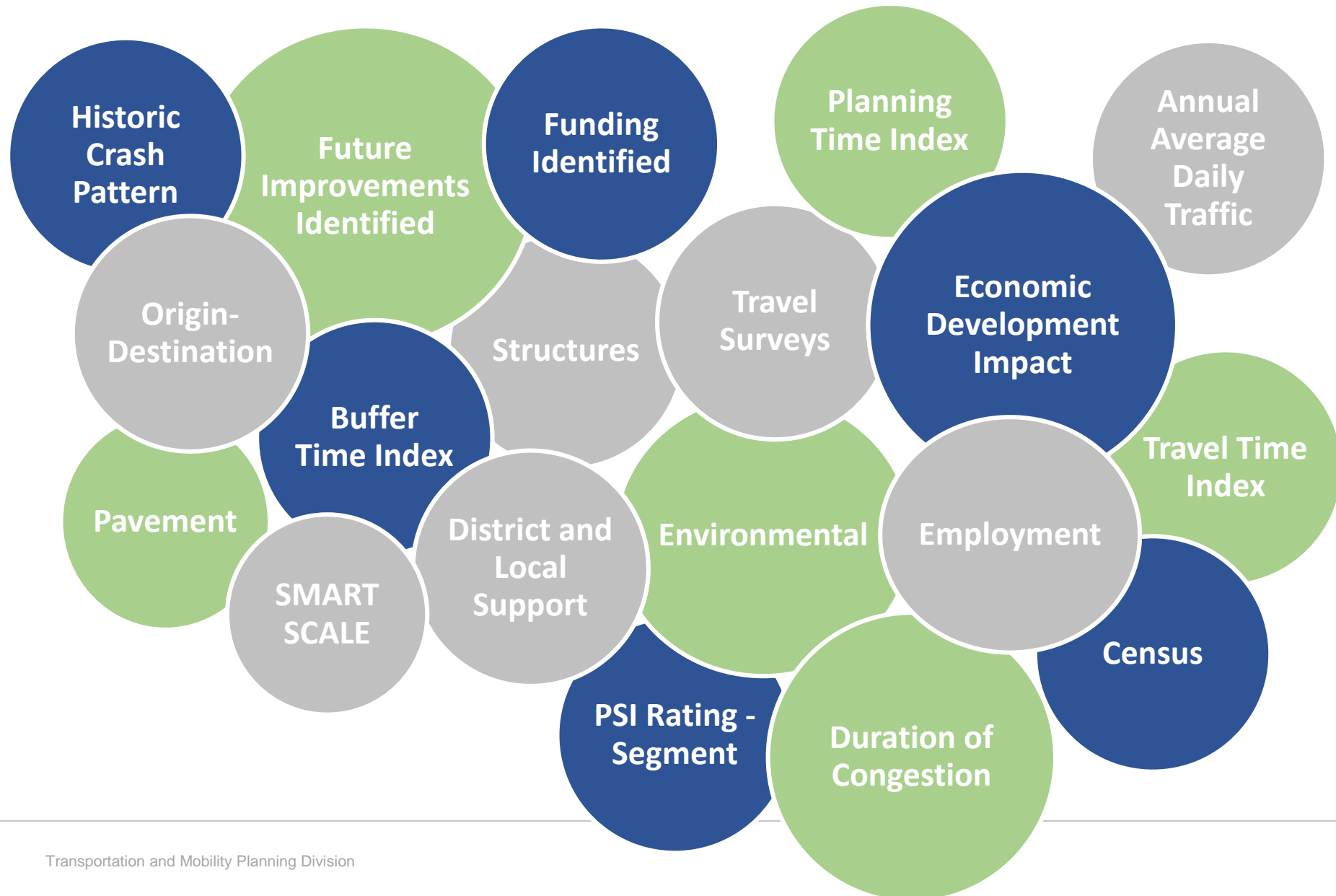


# Project Development and Funding Today

- Performance-based
- Addressing underlying issues and looking for greatest return on investment
- Accelerated project development- projects fully funded
- Engagement with decision-makers and public early on



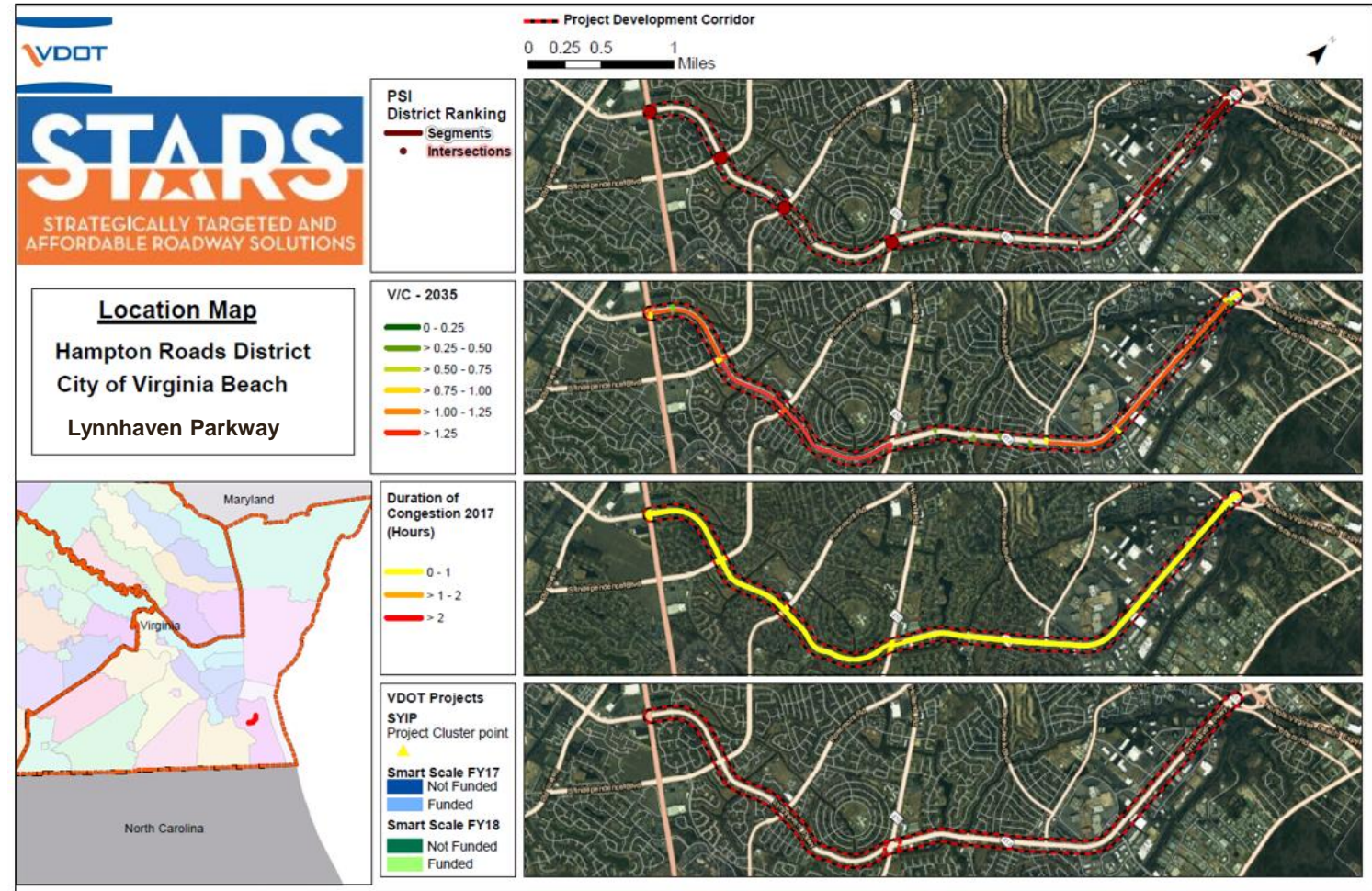
# Data Resources:





# Data Resources: Supporting Project Development

- **SMART SCALE = Data Driven Process**
  - Mapping of key performance metrics
  - Correlating SMART SCALE applications to issues is the first step to successful applications
- Using data for other funding programs
  - Not a requirement, but can help
  - Makes applications more defensible





# Planning Data Sources- Pathways 4 Planning

<https://VDOTP4P.com/>

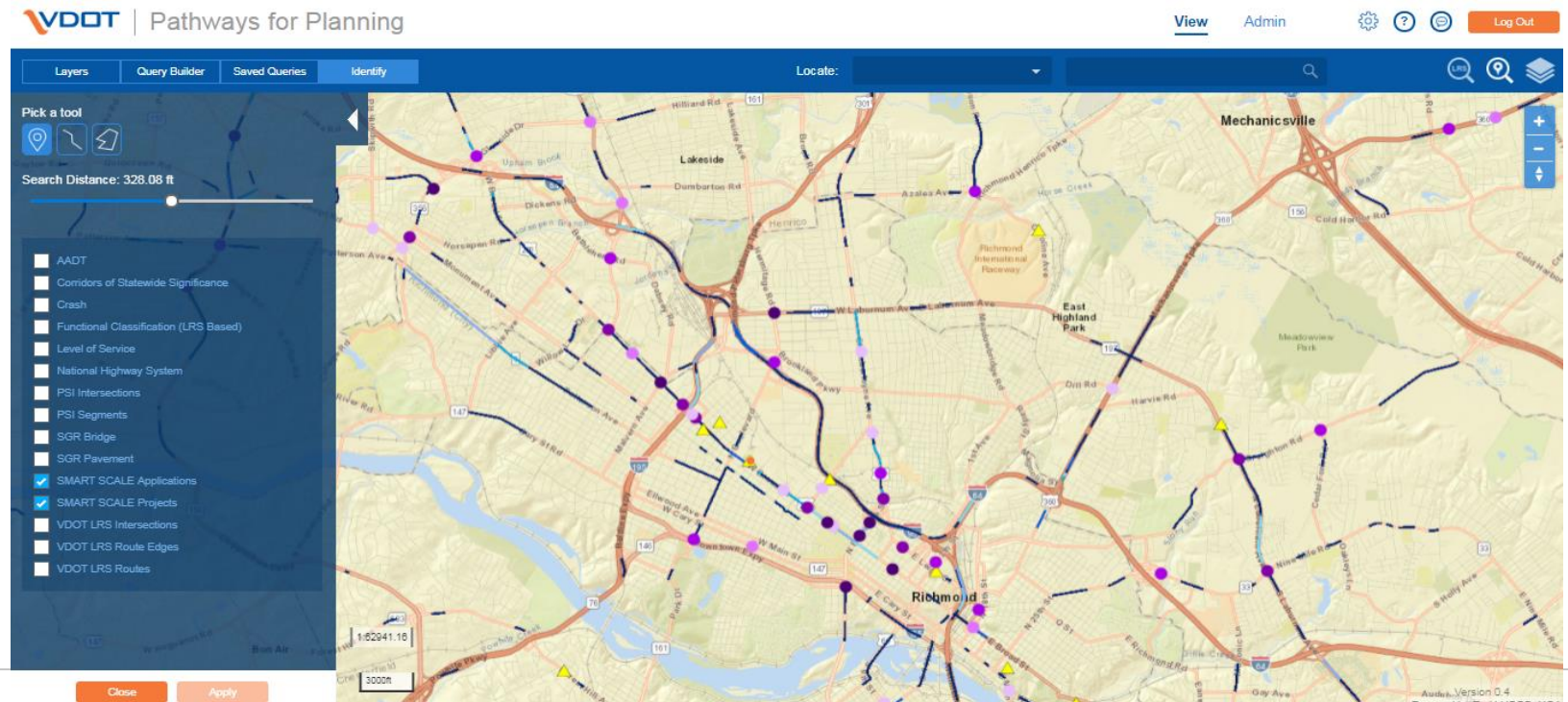
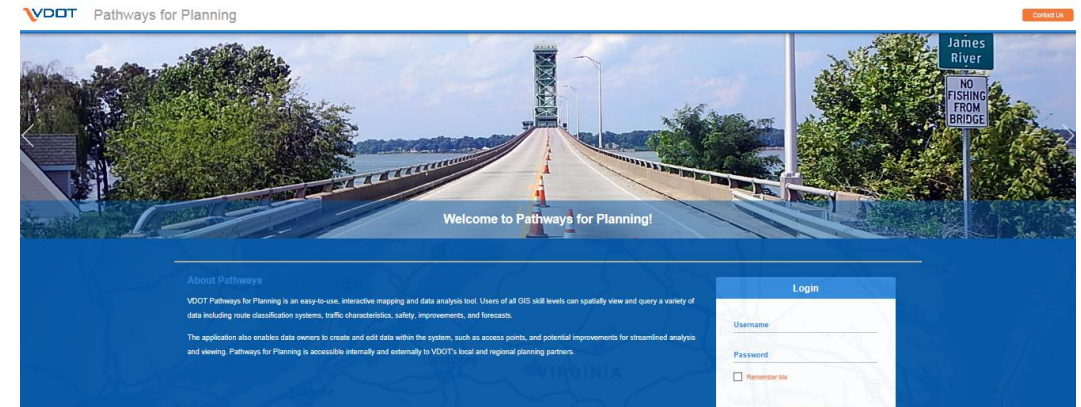
Email: P4P@vdot.virginia.gov

## Using “Big Data”

- Sharing
- Querying
- Absorbing

## Objective:

- Targeted solutions
- Funded projects



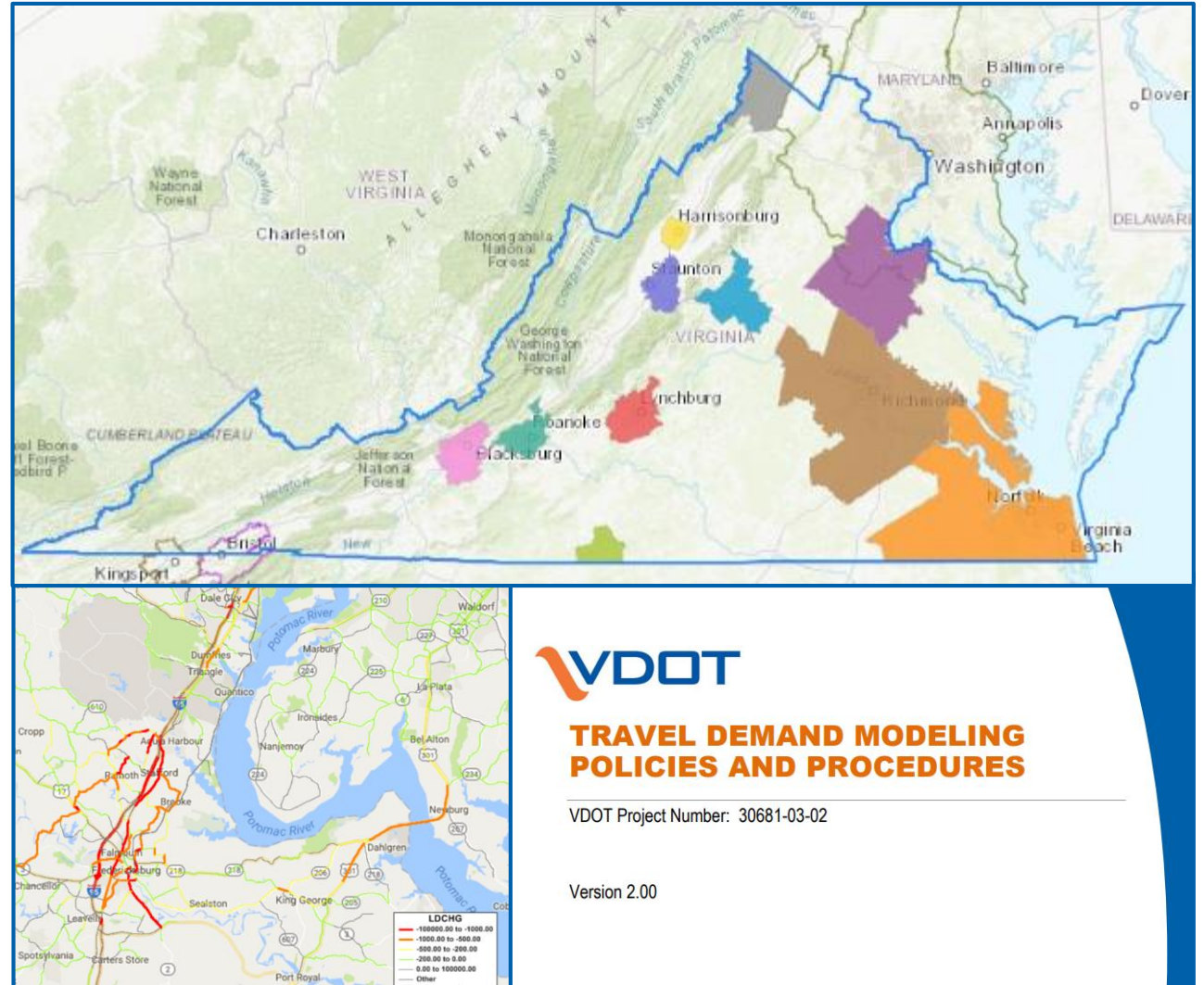
# Data Resources: Forecasting

Travel demand modeling program used to support planning process

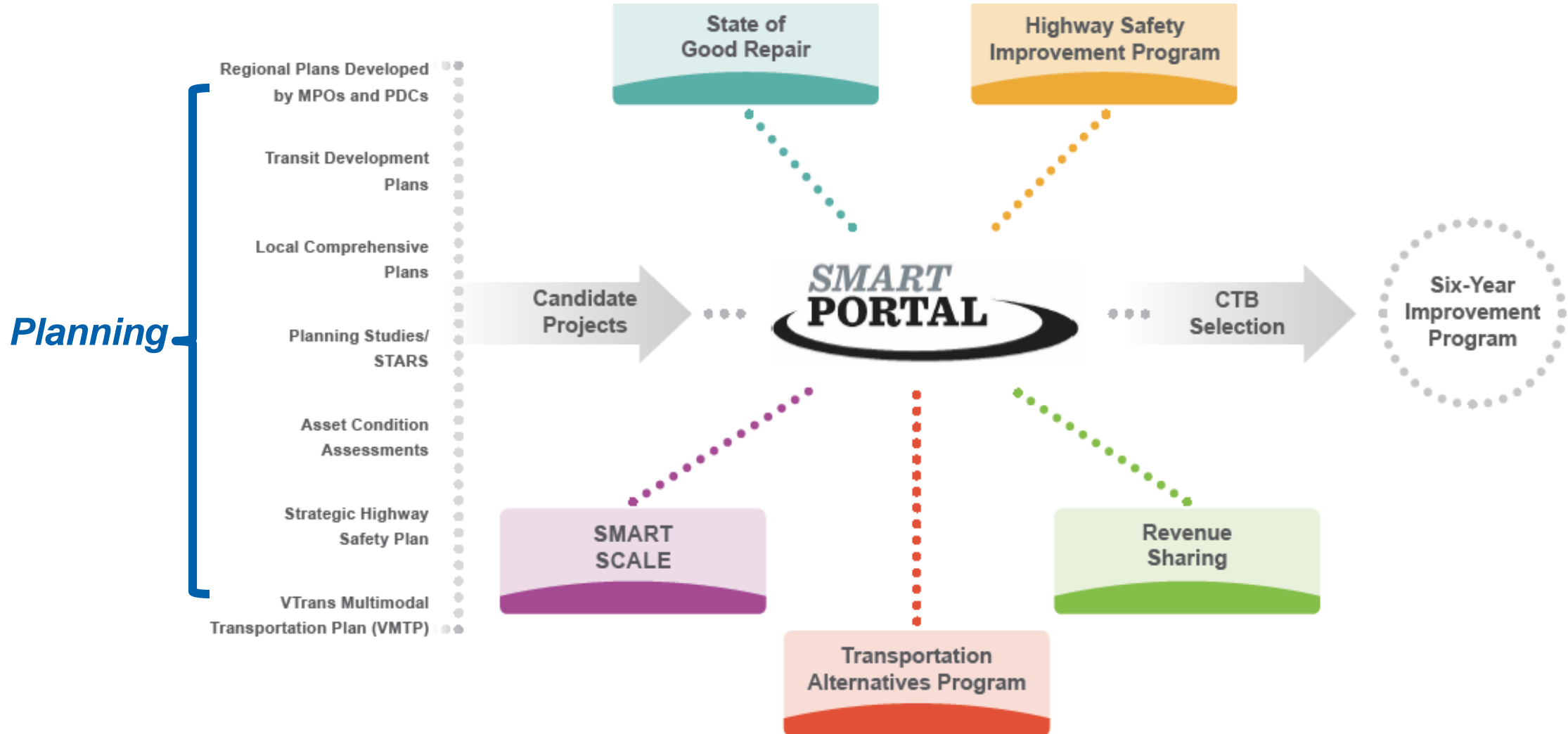
- Traffic forecasts
- Alternative transportation scenarios
- Policies

Can help answer questions such as:

- When will a trip be made?
- Where are people and goods traveling?
- How are people and goods traveling?
- Which route will they take to complete the trip?



# Developing Candidate Projects





# Public Involvement

## VDOT Planning Policy:

Requires all planning studies to include a public involvement component

Encourages use of virtual public involvement, alternatives to traditional engagement

Critical with SMART SCALE where concepts and estimates quickly become projects and budgets



facebook

Instagram



I-95 Corridor Improvement Plan



**Welcome**

**I-95 Corridor Improvement Plan**

The purpose of the I-95 Corridor Improvement Plan is to identify targeted operational and capital multimodal improvements that will increase safety, reduce congestion, and improve reliability of the I-95 corridor through the Commonwealth of Virginia.

[View study area map](#) [Begin](#)

Interstate 95 runs approximately 179 miles through Virginia, from the North Carolina border to the Woodrow Wilson Bridge at the Potomac River and connects Petersburg, Richmond, Fredericksburg, and Northern Virginia.

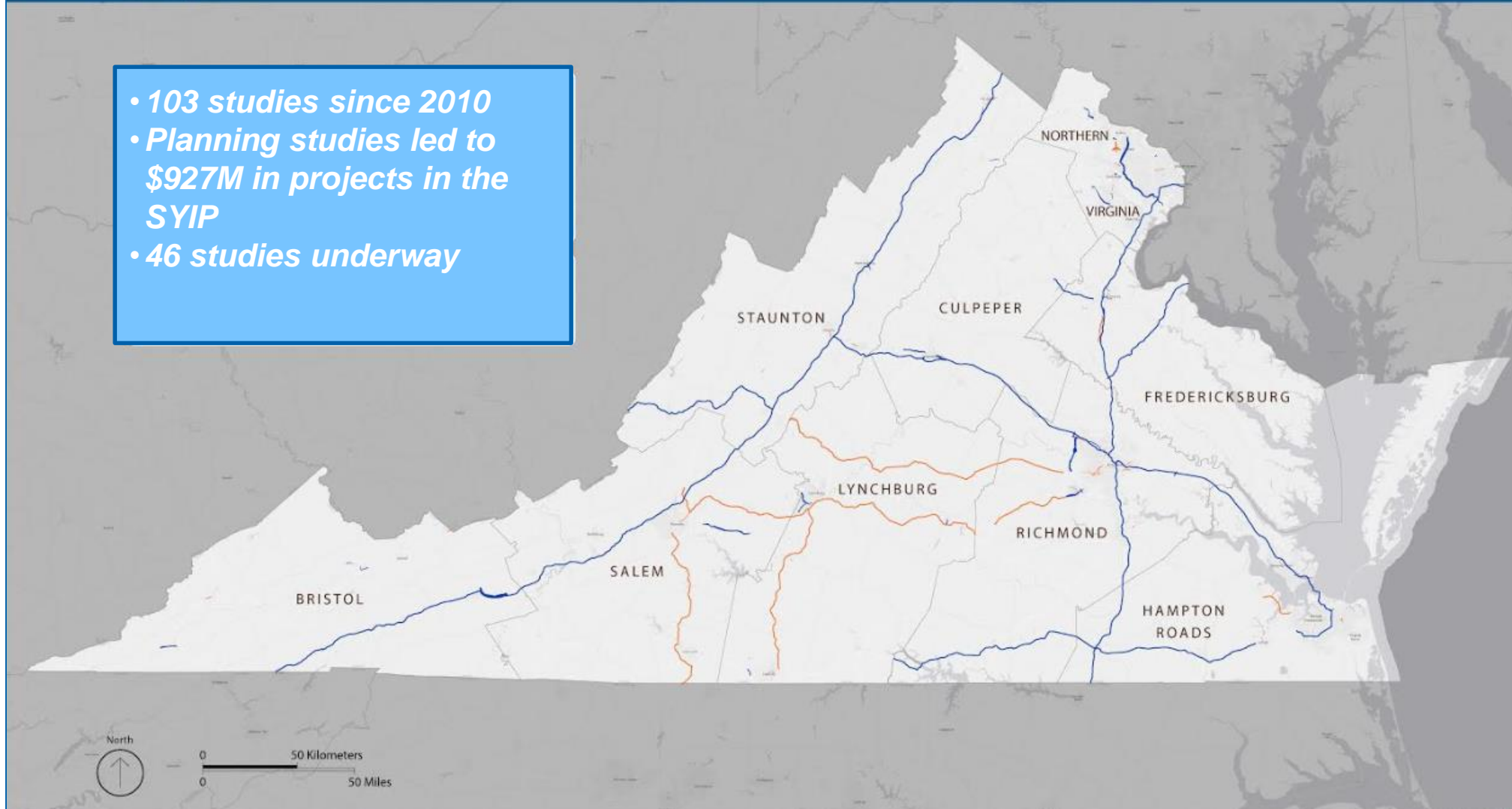
**WELCOME** **QUICK SURVEY** **MAP MARKERS** **WRAP UP**

[Help](#) [Privacy](#) [About MetroQuest](#)

February, 2020

***Planning studies offer a high return on investment***

- *103 studies since 2010*
- *Planning studies led to \$927M in projects in the SYIP*
- *46 studies underway*

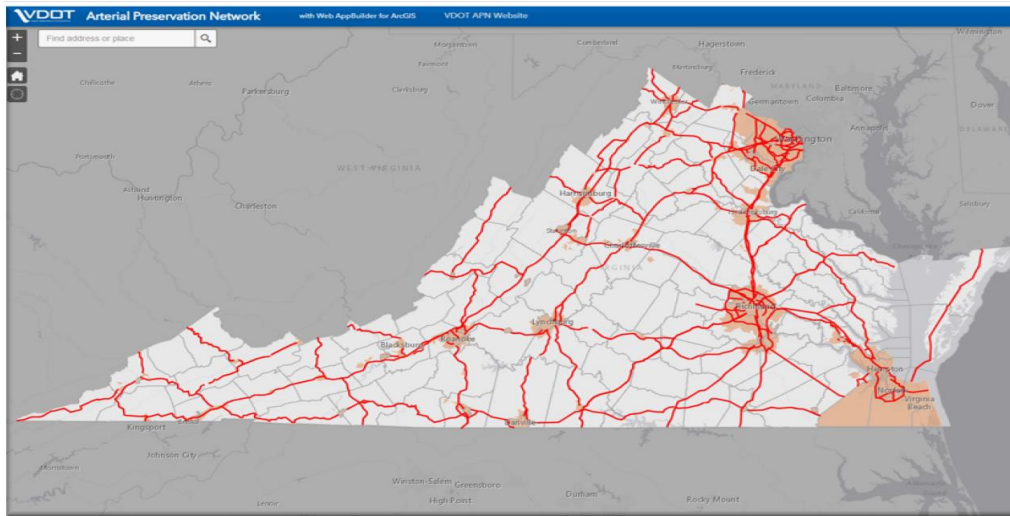


# Arterial Preservation Program



Designed to **preserve and enhance the safety and capacity** of arterial highways - plan now to reduce future costs

## Arterial Preservation Network



## Program Goals

**Increased safety for all users**

Local economic development goals are integrated

Mainline through traffic is served with priority



# Special Studies

- Tasked with major studies such as I-81 and I-95 Corridor Improvement Plans
- I-64 Corridor Improvement Plan is currently underway





# STARS Program

(Strategically Targeted Affordable Roadway Solutions)



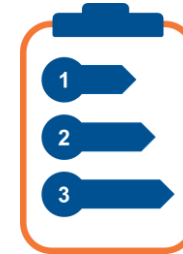
## Study Area Selection

- Data-driven
- Stakeholder involvement



## Conduct Detailed Analysis

- Safety
- Congestion
- Operations
- Solutions



## Prioritize Recommendations

- BCA
- Coordination
- Advance to SYIP



## Programming and Implementation

- Pipeline of projects
- Supported by multiple funding sources

# Planning: Approach

Multidisciplinary

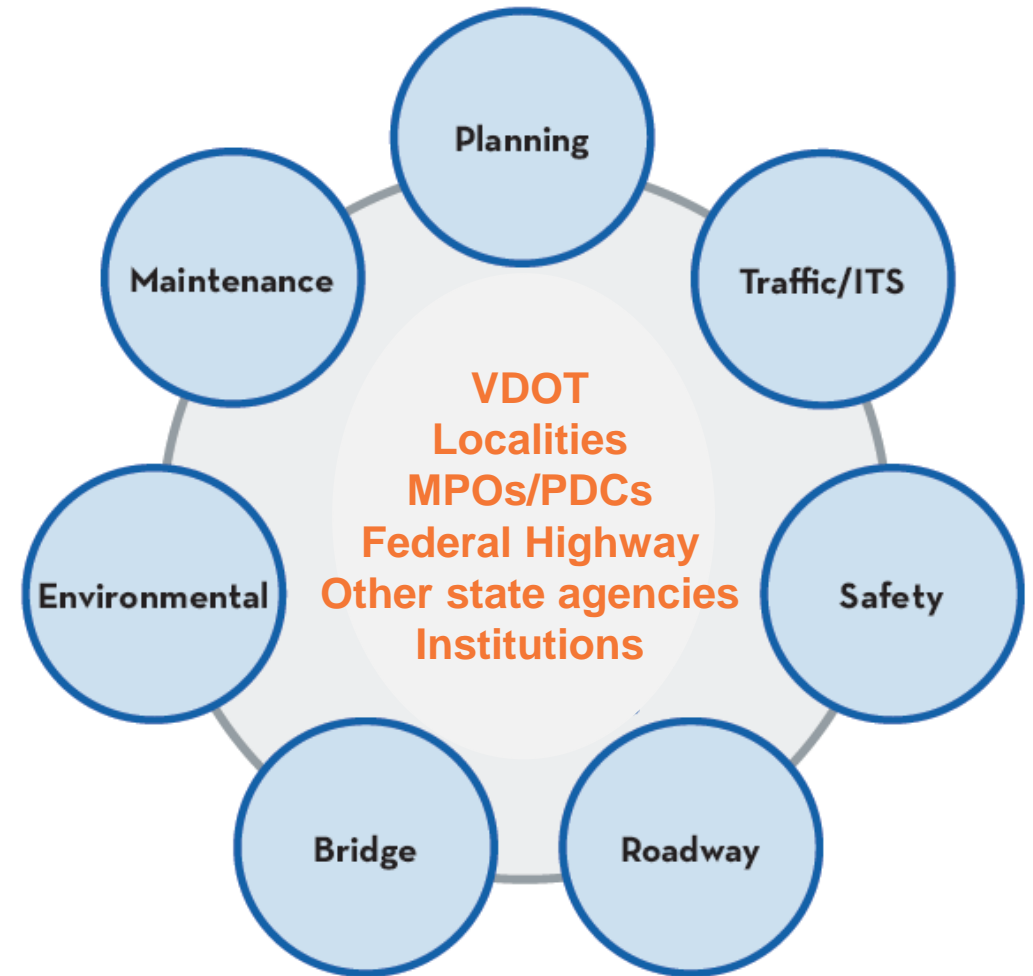
Data-driven

Accelerated  
Process

Tests Concepts

Improving  
Accuracy

Implementable,  
Targeted Solutions



# Why are Arterial Preservation and STARS Important to Project Delivery?

The screenshot shows the VDOT Six-Year Improvement Program web application. At the top, it says "VDOT Virginia Department of Transportation" and "Six-Year Improvement Program". Below that is a navigation bar with "Home", "User's Guide", and "About". A secondary navigation bar lists "All Projects", "Major Projects", "MPO", "Fund", and "Reports". The main content area is titled "All Projects" and includes search filters for Program (FY14 FINAL), District (Richmond), Jurisdictions (Richmond), Residencies, and Road System (All). There are also fields for Route, ZIP, UPC, and Keyword, with "Search" and "Reset" buttons. Below the filters, it says "Project Search Results (89 Projects found)" and "Export Project List". A table of project results is visible, with columns for UPC, Description, Route, District, Estimate, Previous, FY15-19, and Balance. Two logos are overlaid on the screenshot: "ARTERIAL PRESERVATION PROGRAM" and "STARS STRATEGICALLY TARGETED AND AFFORDABLE ROADWAY SOLUTIONS".

UPC	Description	Route	District	Estimate	Previous	FY15-19	Balance
78245	VIRGINIA CAPITAL TRAIL - WESTERN SECTION	0005	R				
97840	LANDSCAPE INTERSTATE I-95 GATEWAYS INTO THE CITY OF RICHMOND	EN10	R				
105055	I-95/I-64 OVERLAP ISSUES	0095	R				
93087	RTE 165 - BRIDGE REPLACEMENT OVER RTE 76, CSX, RAMP S	0195	R				
92609	POCAHONTAS PARKWAY - T895 - VDOT OVERSIGHT	0895	R				
104891	VIRGINIA PORT AUTHORITY - CRANE PROCUREMENT	0000	Richmond	\$4,200	\$1,130	\$484	\$2,570
104892	GREEN OPERATOR (GO) RICHMOND DRAYAGE TRUCK REPLACEMENT PROG	0000	Richmond				\$16
T10724	PORT OPPORTUNITY ZONE IMPROVEMENTS	9999	Richmond				
80510	CN OF TRANSPORTATION ENHANCE & INFRASTRUCTURE OF VMFA PROJECT	SLEN	Richmond				
T1811	CITY OF RICHMOND: EMPLOYEE TRIPREDUCTION PROGRAM	TRIP	Richmond				

*They create a project development pipeline that readily feeds the SYIP*

Data driven

Accuracy of cost estimates and schedules

Solutions that can be funded in the SYIP

# SMART SCALE Support

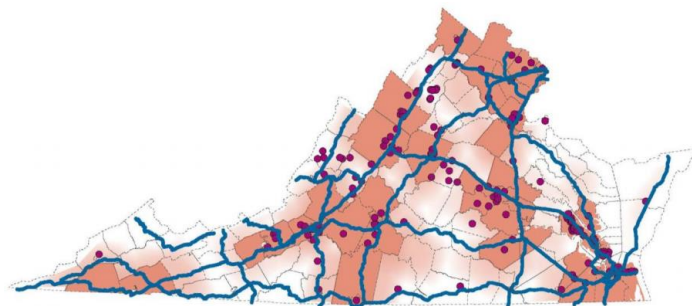


## Planning Division:

- Assists in screening applications
- Leads congestion and accessibility measure scoring, assists in environmental measure

## District Planners:

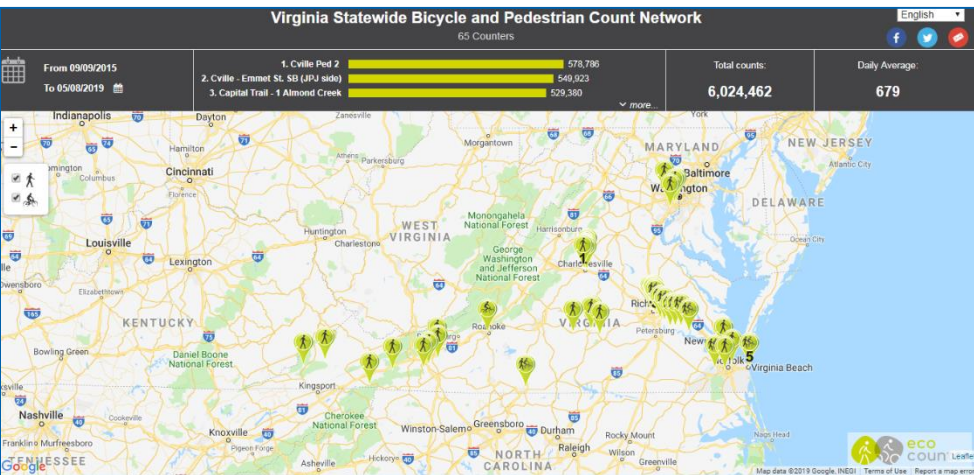
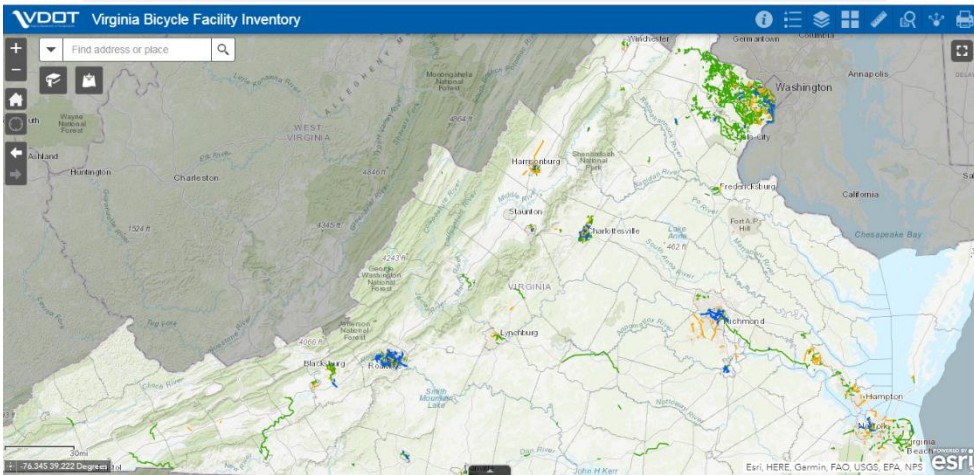
- Serve as SMART SCALE POCs
- Review all applications and project changes after funding



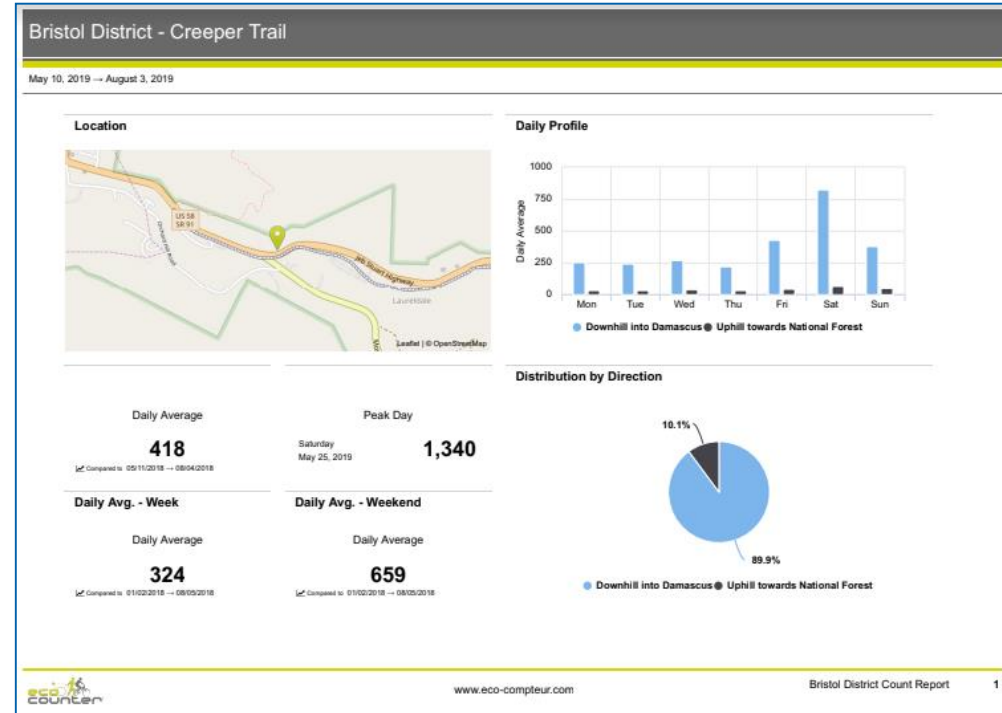
Project Located in Typology Category A	Congestion Mitigation		Safety		Accessibility			Environment		Economic Development		Land Use
	Person Throughput	Person Hours of Delay	Number of Fatal and Injury Crashes	Rate of Fatal and Injury Crashes	Access to Jobs	Access to Jobs for Disadvantaged Populations	Access to Multimodal Choices	Air Quality and Energy Environmental Effect	Impact to Natural and Cultural Resources	Project Support for Economic Development	Intermodal Access and Efficiency	Travel Time Reliability

# Statewide Bicycle and Pedestrian Program

## Interactive Facility Map



## Bike/Ped Count Program



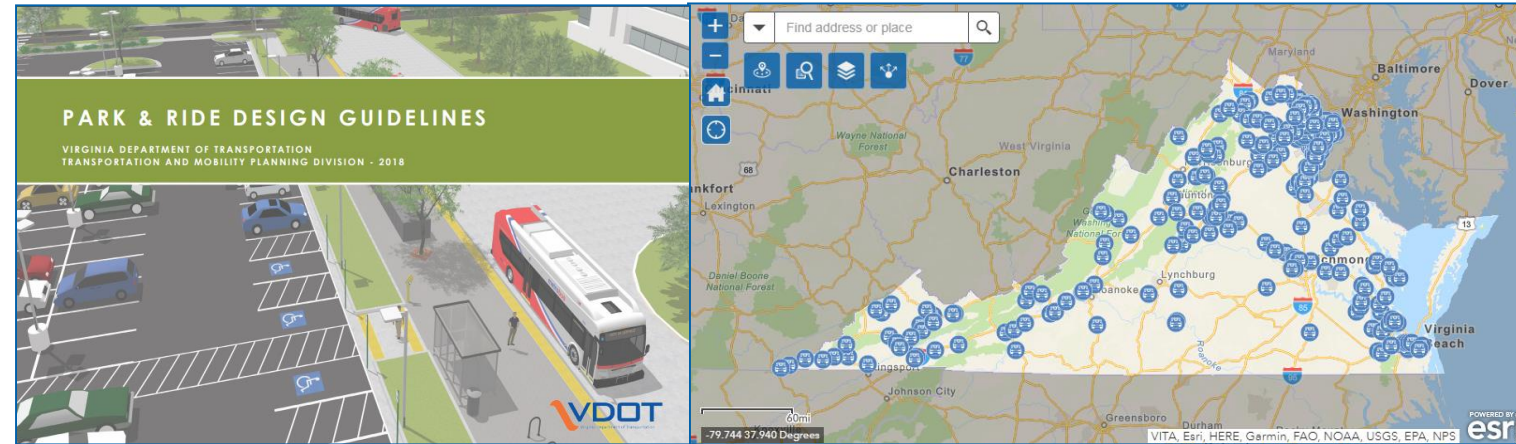
Statewide Bicycle and Pedestrian Program



# Transportation Demand Management

- **Focus Areas**

- Park & Ride Lots
- HOV Lanes
- Slugging
- Innovation / Technology
- DRPT Coordination



## Safe Routes to School Program

- **Focus Areas**
  - Non-Infrastructure grants
  - Mini-grants
  - Crossing Guard Appreciation Day
  - Transportation Alternatives Grant coordination



# A project makes it into the SYIP- now what?

Planning Boundaries/  
Functional  
Classification/ National  
Highway System

MPO Constrained Long  
Range Plans and  
Transportation  
Improvement Programs









# MPO Planning and Programming Documentation

## CLRP

A minimum 20-year plan that includes long range and short-range multimodal transportation strategies/actions

## TIP

A minimum 4-year plan reflecting investment priorities identified in the CLRP

## How are the CLRP and the TIP related?

All regionally significant construction and maintenance projects, regardless of funding, must be in both the CLRP and TIP if they are within an MPO

A project cannot move forward unless it is included in the MPO adopted CLRP, TIP, and federally approved STIP



# Resources

## ***Arterial Preservation Program:***

[http://www.virginiadot.org/projects/arterial\\_management\\_plans.asp](http://www.virginiadot.org/projects/arterial_management_plans.asp)

## ***STARS Program:***

<http://www.virginiadot.org/projects/stars.asp>

## ***Park and Ride Program:***

<https://www.virginiadot.org/travel/parkride/faqs.asp>

## ***Bicycle and Pedestrian Program:***

<http://www.virginiadot.org/programs/bikeped/default.asp>

## ***Safe Routes to School Program:***

[http://www.virginiadot.org/programs/ted\\_Rt2\\_school\\_pro.asp](http://www.virginiadot.org/programs/ted_Rt2_school_pro.asp)

**QUESTIONS?**

