

VDOT STATE TRAILS OFFICE

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Statewide Multiuse Trails Plan released May 1

Statewide Multiuse Trails Plan

- ✓ PDF version and interactive ArcGIS StoryMap version are now available!



Why create a Statewide Multiuse Trails Plan?

- **The State Trails Office (STO) was established in January 2023 through a 2022 General Assembly budget amendment**
- **Key initiatives included:**
 - **Develop a State Trails Plan**
 - Establish an Information Clearinghouse / Resource Hub
 - Create a Trail Type and Surface Selection Guide



Statewide Multiuse Trails Plan Overview

Developed in a phased approach:

- **Phase 1**
 - Public outreach and engagement
 - Data collection and methodology
 - State of the existing and planned multiuse trails system
 - Needs assessment
- **Phase 2**
 - Data cleaning and preparation
 - Descriptive elements analysis
 - Results
 - Case studies
 - Next steps



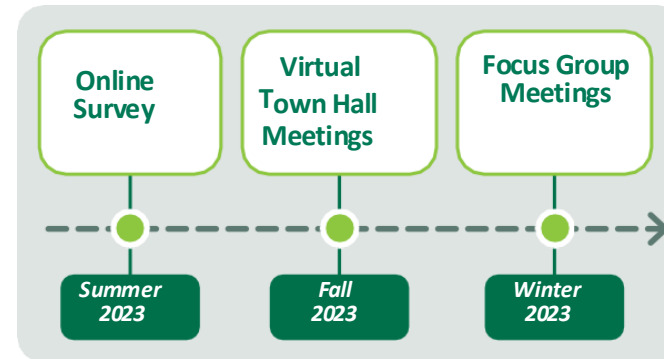
Phase 1 Public Outreach and Engagement

Public Outreach Objectives:

- Understand how residents currently use multiuse trails
- Understand barriers to using multiuse trails
- Understand desires for existing and future multiuse trails

Engagement Methods:

- Online survey
- Virtual town hall meetings
- Focus groups



Phase 1 Public Outreach and Engagement

State Trails Office Advisory Committee:

- Established to help guide the public engagement process, validate the planning process, provide feedback, and promote events across networks
- Included representatives of the following organizations:

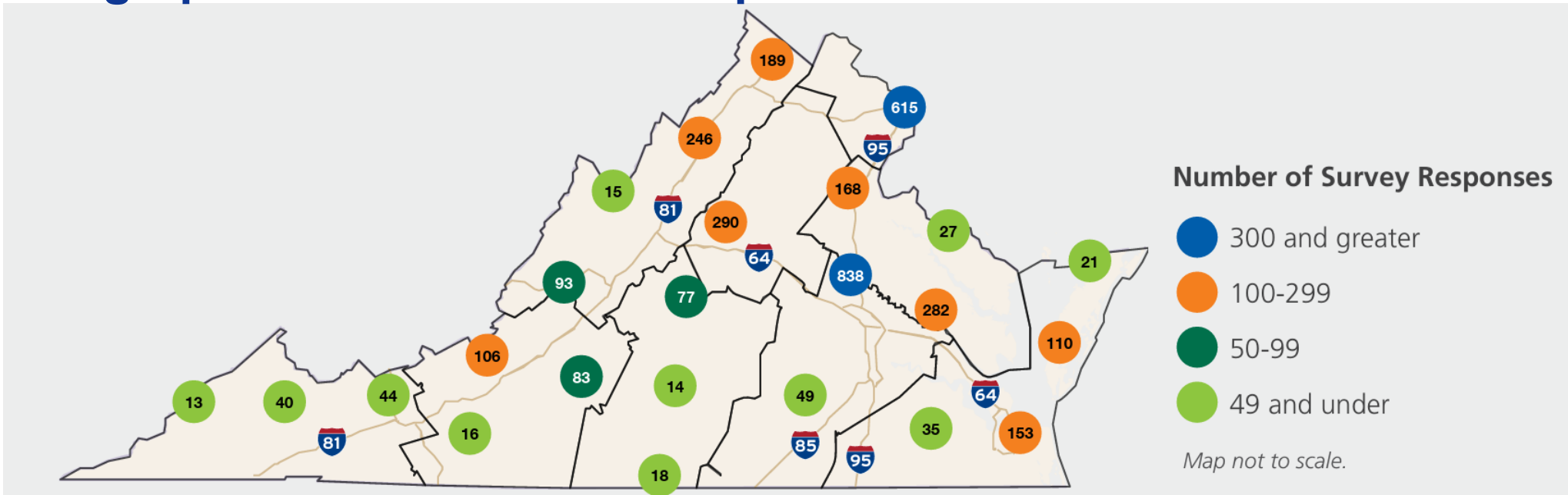


Phase 1 Public Outreach and Engagement

Survey Outcomes:

- Active September 20, 2023 – October 25, 2023
- 5,777 Responses

Geographic Distribution of Responses



Public Outreach and Engagement Outcomes

Public Engagement Takeaways:

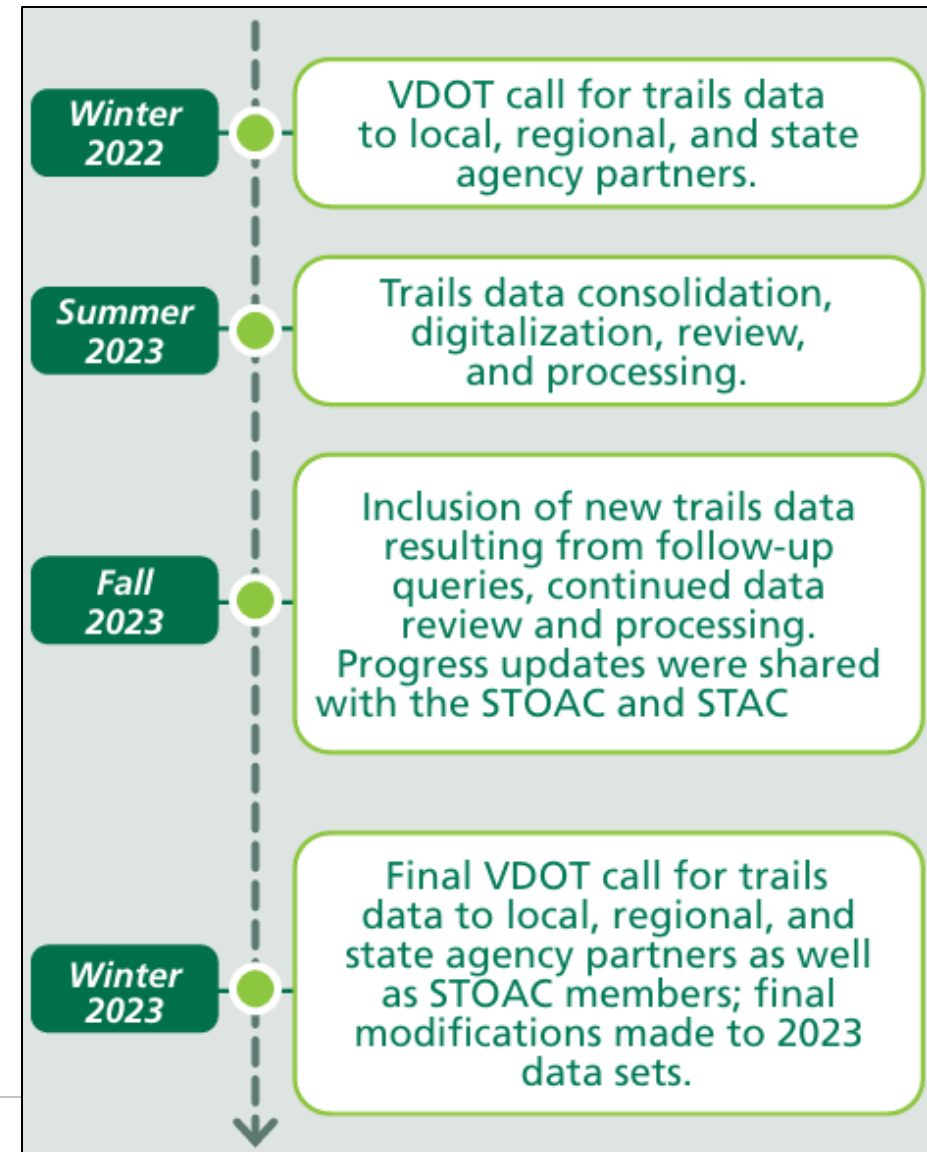
- **Access is the most consistent barrier and desire**
 - Residents want multiuse trails closer to home and connected to everyday destinations
- **Safety concerns**
 - Road-crossing conflicts at intersections
 - Varying modes and speed conflicts on shared use paths
- **Strong desire for trails that provide utility**
 - Access to workplaces, services, recreation, and transit and not just recreation



Planned Multiuse Trails Data Collection

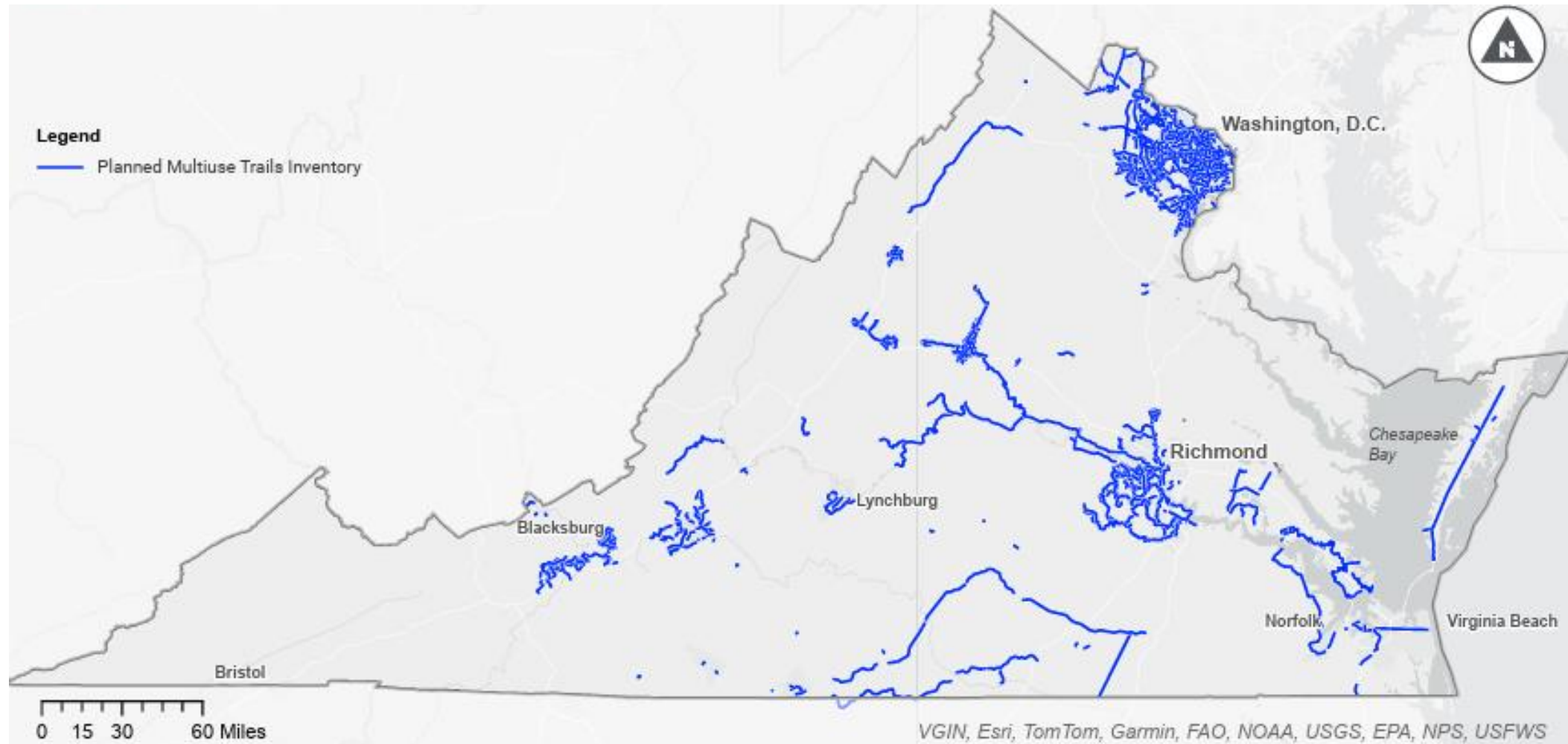
Methodology:

- **Data was drawn from approved local and regional plans**, including active transportation, bike/ped, trails, and greenway plans.
- **Partners were asked to provide key attributes** such as name, type, owner, surface, status, and locality.



Data Collection Results

Planned Multiuse Trails Inventory:



State of the Multiuse Trails System

Statewide indicators of how the existing and planned multiuse trails serves Virginians:

- **Indicators draw from four datasets:**
 - **Population density (American Community Survey (ACS) 2021)**
 - **Disadvantaged communities (USDOT/Justice40 + ACS 2021)**
 - **Job density (Longitudinal Employer-Household Dynamics (LEHD) 2021)**
 - **VDOT safety priority corridors (Pedestrian Safety Action Plan (PSAP) top 1% crash-risk corridors, 2016–2020)**



State of the Multiuse Trails System

Indicator	Metric	Statewide Total	Existing Multiuse Trails	Percent within Buffer	Planned Multiuse Trails	Increase	Existing and Planned Multiuse Trails	Percent Within Buffer
Population	People within a half-mile buffer	8,582,479	3,098,094	36.10%	3,325,544	1,217,477	4,315,571	50.28%
Underserved Communities	People in Justice40 census tracts within a half-mile buffer	1,920,205	381,005	19.84%	556,580	325,769	706,774	36.81%
Employment	Jobs within a half-mile buffer	3,635,927	1,746,212	48.03%	1,825,358	519,115	2,265,327	62.30%
Safety	Miles of statewide priority corridors within a half-mile buffer	4,281	2,393	55.91%	2,368	651	3,044	71.12%

- **1,600+ miles of existing multiuse trails**
- **2,900+ miles of planned multiuse trails**

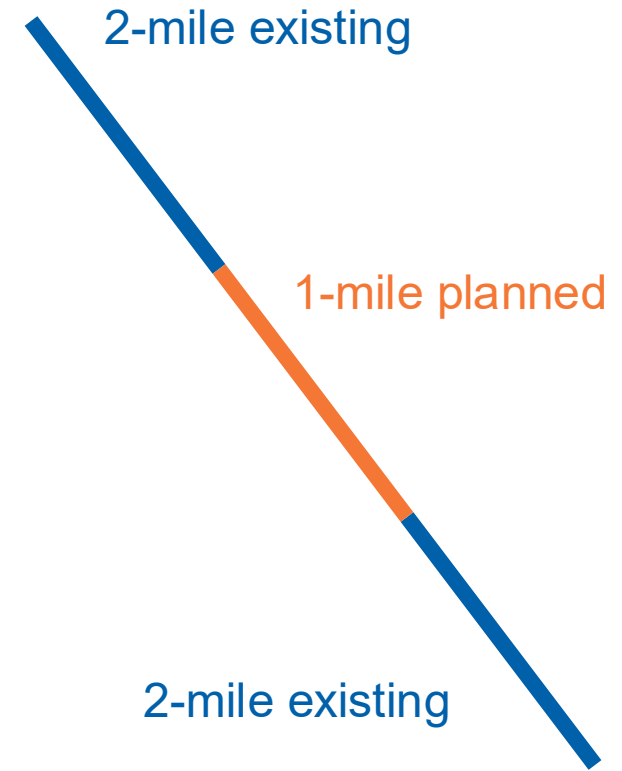


How can we identify potential projects of regional significance?

Regionally Connected – Join by Distance

- Spatial analysis was conducted to identify planned trails that extend or fill the gaps in the existing trail network (0.1 miles distance)
- Length of these combined segments were calculated
- 3-mile threshold applied for trail segment to be regionally connected

Example: A 1-mile trail that bridges a gap between two 2-mile trails could be considered 5 miles in total length



How can we measure a planned trail's potential connectivity?

Element	Data Source	Join Distance: High-Density	Join Distance: Low-Distance	Scoring	Notes
Landmarks	VGIN landmarks data (government facilities, libraries)	0.25 miles	0.5 miles	Number of landmarks within set distance of each trail, shown as whole number.	Users are more likely to use trails for commuting or routine travel if located within a 10-minute walk in urban areas or 20-minute walk in rural areas.
Schools	VGIN landmarks data (filtered to schools) and National Center for Education Statistics (NCES)	0.25 miles	0.5 miles	Number of public and private schools within set distance of each trail, shown as whole number.	Users are more likely to use trails for commuting or routine travel if located within a 10-minute walk in urban areas or 20-minute walk in rural areas.
Transit Stops	Open-source transit data (DRPT GTFS, Open Street Map)	0.5 miles	1 mile	Number of transit stops within set distance of each trail, shown as whole number.	Users are generally willing to travel farther off-trail to reach transit stops than amenities.
On-Road Bicycle Facilities	VDOT on-road bicycle facilities inventory (designated bike lanes)	500 feet (~0.1mile)	500 feet (~0.1mile)	Total miles of on-road bicycle facilities within set distance of each trail.	Trails can serve as connectors to on-road bicycle facilities.
U.S. and State Bicycle Routes	AASHTO, VDOT maintained bicycle routes, National Park Service	0.5 miles	0.5 miles	Total miles of U.S. and State bicycle routes within set distance of each trail.	Trails can serve as connectors along national U.S. and State bicycle routes.
Pedestrian and Bicyclist Safety Action	VDOT	500-foot buffer (~0.1mile)	500-foot buffer (~0.1mile)	Total miles of trail that is within set distance of PBSAP facilities that are parallel to regional trails	Trails can serve as alternative travel options along corridors with significant bicycle and pedestrian safety needs, functioning more as replacements than as connections.
Parks	Trust For Public Land (Complete U.S. Park-Serve® Dataset)	0.25 miles	0.5 miles	Total park acreage within a set distance from each trail, shown in acres	The methodology scores park access for both high- and low-density trail typologies, giving trails credit based on the park acreage they connect.

State Multiuse Trails Plan Phase 2 Results

Trail Sta... All Existing Planned

Scoring ... All
Landmarks S... 0 - 100
School Density S... 0 - 100
PBSAP Sc... 0 - 100
Park Acreage S... 0 - 100
Transit Sc... 0 - 100
Bike Facilities S... 0 - 100
Typology Both
Regional Trail Crit... No category selec...

This dashboard maps the planned and existing trails dataset used for Phase 2 of the VDOT State Trails Office's State Trails Plan.

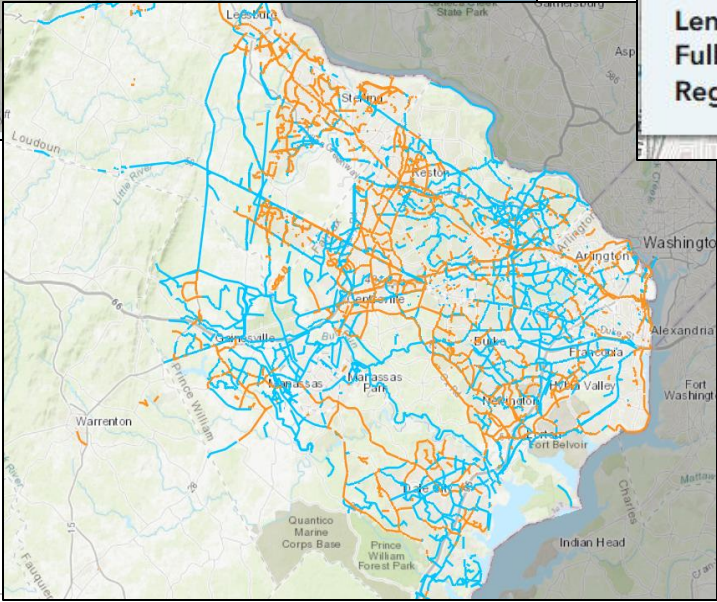
The dataset was analyzed to measure how both existing and planned multiuse trails connect to schools, parks, transit stops, landmarks, and existing bike/pedestrian routes, as well as a trails location relative to PBSAP corridors. Each trail segment was scored for its overall connectivity, with adjustments to make comparisons fair across different trail lengths.

Use the category filters along the top row to explore the dataset by these scores. Filters let you see how individual trail segments performed in the descriptive elements analysis, helping identify where trails already provide strong connections and where new opportunities could improve access, safety, and mobility. Existing trails are shown in orange and planned trails are shown in blue.

*This dataset reflects information compiled in 2023 and may not include all existing or planned trail projects. It is intended to complement and support ongoing trail

Planned trail: S Van Dorn Street

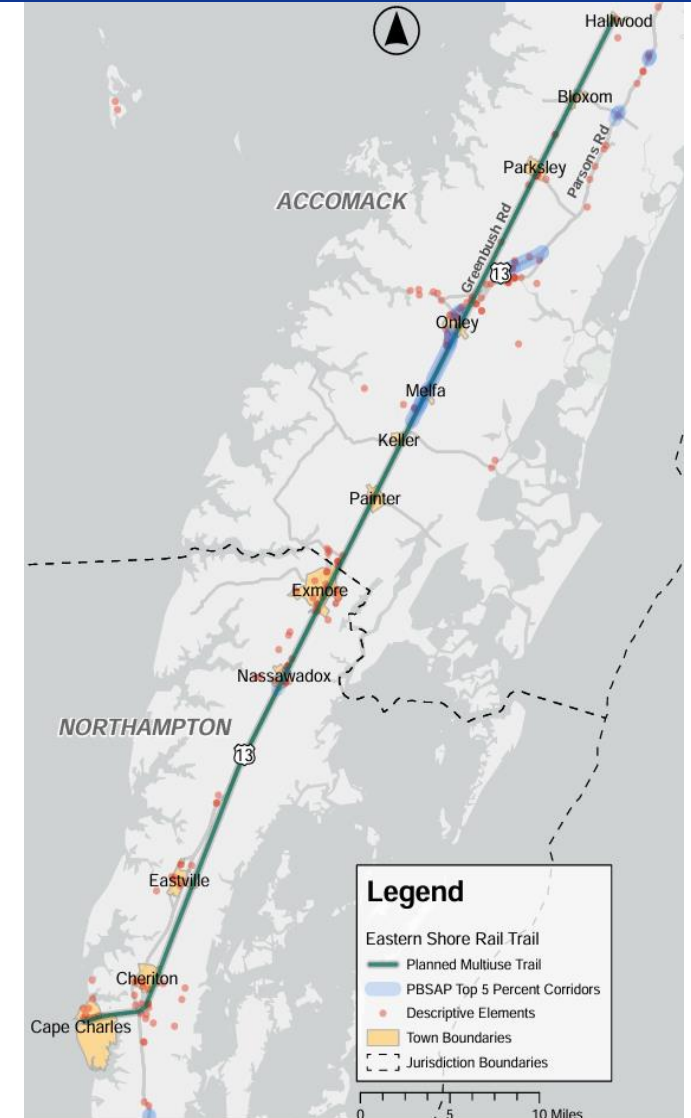
Trail Name: S Van Dorn Street
Existing or Planned? Planned
Overall Score: 96.20
Landmarks Connectivity Score: 77.50
School Connectivity Score: 81.60
PBSAP Overlap Score: 91.60
Park Acreage Score: 0.00
Transit Connectivity Score: 63.80
Bike Facility Connectivity Score: 97.00
Length: 0.65 miles
Full Dataset Tier: Top
Regional Trails Tier: N/A



Case Studies in the Plan

Descriptive Elements Analysis Information

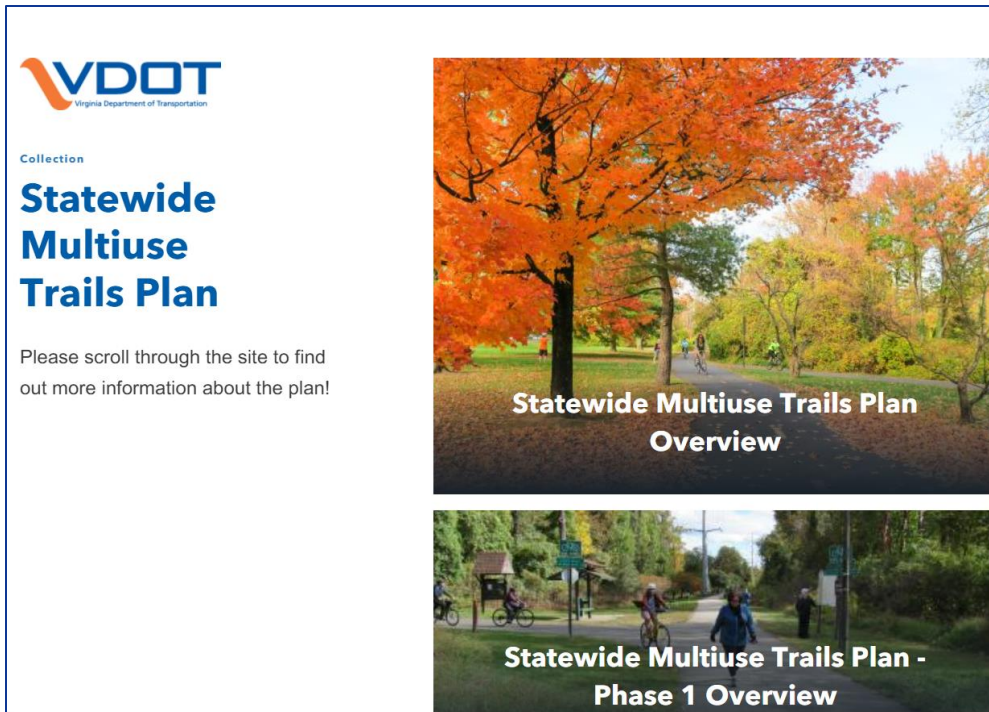
Category	Data	Normalized Data**	Percent Score***
Park Acreage Connected	0 acres across 0 parks	0	0
VA Landmarks Connected	29 landmarks	0.59	55.7
Transit Stops Within 1 mile	87 stops	1.76	21.5
VA Private Schools Within 0.5 miles	2 schools	0.04	83.1
VA Public Schools Within 0.5 miles	5 schools	0.10	65.7
Bicycle Facility Mileage	0 miles*	-	0
Bicycle Routes Mileage	0 miles*	-	0
Mileage of Trail in PBSAP Corridor	5.74 miles*	-	98.8
Regional Trail Percent Score			70.3



Statewide Multiuse Trails Plan deliverables

PDF version and interactive ArcGIS StoryMap version

<https://sto-resource-hub-vdot.hub.arcgis.com/pages/statewide-multiuse-trails-plan-1>



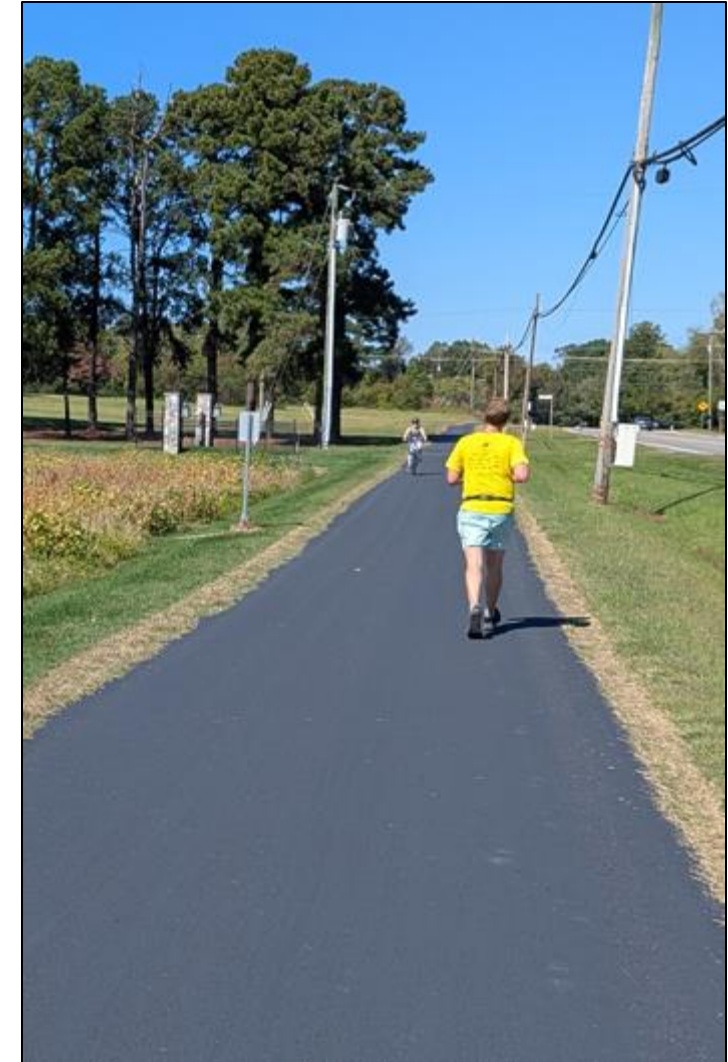
Planned Multiuse Trails inventory refresh



Next Steps

State Trails Office Next Steps:

- **Clean and refine polyline segments to better capture all trail connections, especially for multi-segment trails**
- **Conduct ongoing data analyses and collection**
- **Technical Assistance**
 - **Cost estimating technical assistance for proposed projects**
 - **Assist smaller localities with planning proposed projects**
 - **Ongoing Ready, Set, Go! (RSG!) pre-TAP application project scoping**



Contact Us:

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