REPORT OF THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION

DAHLGREN RAILROAD HERITAGE TRAIL: SUITABILITY AS A RECREATIONAL AREA FOR INCORPORATION INTO CALEDON STATE PARK

TO THE CHAIRS OF THE HOUSE APPROPRIATIONS COMMITTEE AND THE SENATE FINANCE AND APPROPRIATIONS COMMITTEE



COMMONWEALTH OF VIRGINIA RICHMOND October 1, 2022

PREFACE

This report has been prepared in accordance with the requirements of House Bill 30, Item 375 K, of the 2022 Virginia Acts of Assembly that stipulates, "*The Department of Conservation and Recreation, in consultation with the Dahlgren Railroad Heritage Trail Association, shall review the properties of the Dahlgren Railroad Heritage Trail, consisting of approximately 15.7 miles in King George County, Virginia, and make recommendations to the Chairs of the House Appropriations and Senate Finance and Appropriations Committees by October 1, 2022, on the Trail's suitability as a recreational area for incorporation into Caledon State Park, to preserve the historical trail and enhance Caledon State Park facilities, the Trail, and recreational opportunities for the citizens of King George County and visitors to Caledon State Park. In its review, DCR shall consider (i) any one-time and/or ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park; (ii) management of the area or park by a combination of public and private entities; (iii) potential user activities at the area or park including but not limited to camping, hiking, bird watching, equestrian activities, and biking; and (iv) operation of the area or park with only those improvements minimally necessary for activities listed herein and consistent with the preservation and protection of the property's conservation values and natural resources."*

The Department of Conservation and Recreation offers the following report, attachments, and findings resulting from the requested suitability review of the trail corridor.



Prepared by the Department of Conservation and Recreation October 1, 2022



EXECUTIVE SUMMARY

In 2022, the General Assembly of Virginia passed House Bill 30, Item 375 K directing the Virginia Department of Conservation and Recreation (DCR) to review the properties of the Dahlgren Railroad Heritage Trail ("DRHT" or "the Trail") and make recommendations on the Trail's suitability as a recreational area for incorporation into Caledon State Park, to preserve the historical trail and enhance Caledon State Park facilities. The language directing the DCR to complete this review also provided a limited time to complete this work, with the final report being due to the Chairs of the House Appropriations and Senate Finance and Appropriations Committees by October 1, 2022.

This study drew upon a site analysis, internal DCR team expertise, and a review of the Trail properties, constraints and other existing conditions that would impact the Trail's suitability as a recreation area for incorporation into Caledon State Park. A needs assessment, based on a review of road crossings and reports developed by the National Park Service (NPS), the George Washington Regional Commission (GWRC), and the Rappahannock Area Health District and Mary Washington Healthcare, was conducted and used to further define transportation and recreation needs identified in the region. Stakeholder outreach included phone and email interviews, a listening session and a mailing to adjacent landowners. An assessment of the market included a review of DRHT permits issued, participation in DRHT events, online reviews of the Trail, and an analysis of the population served within a two-hour drive. To assess local demand for potential user activities at the area or park, including but not limited to camping, hiking, bird watching, equestrian activities, and biking, individuals who have participated in these activities in the past twelve months were mapped by block group. Various management options were explored, including management of the area by a combination of public and private entities.

Table 1 provides a summary of one-time or ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park that DCR would need to consider to operate a multi-use trail along the corridor. The summarized costs are for the operation of the area or park with only those improvements minimally necessary for activities listed herein, consistent with the preservation and protection of the property's conservation values and natural resources and are an estimate only. These costs include resource management and law enforcement to ensure the protection of those resources.

Table 1

One-time Cost Items	Cost (Dollars)
Road Crossings	\$375,600
Renovation	\$4,809,244
Construction	\$15,568,320
*Acquisition	\$2,044,393
Equipment	\$359,000
Total One-time Cost Items	\$23,156,557
Ongoing Cost Items (Recurring)	\$353,092

One-time and Ongoing Expenses Associated with the Trail's Acquisition and Incorporation into Caledon State Park

*Note: This table does not include any acquisition costs that may be associated with required site distance easements at Indiantown Road, Muscoe Place and Lambs Creek Church Road.

These costs represent what is needed to bring the facility up to standards the public expects from a state park¹ and includes ongoing (recurring) costs for full-time staff to patrol the trail as well as annual operations including general operations, routine maintenance, wage staff, and resource management activities. These costs represent those that were able to be identified in the limited time provided to complete this report. Additional costs may exist, however additional time may be necessary to research, analyze, and compile this information.

In addition to the costs noted in Table 1, other costs that are not as easy to quantify must be considered. These include opportunity costs related to alternative uses for the corridor, such as a light rail. Other concerns include how park ownership will impact properties bisected by the Trail and its potential to bring additional growth to the area.

Benefits examined for this study include revenues, travel distance, property values, economic impacts, transportation impacts, health care, and quality of life improvements. An example of these benefits highlighted in DCR's research comes from a study of the Potomac Heritage Trail in Northern Virginia, which identified the following:

- Annual reduced morbidity savings of \$2.4 million per mile
- Annual avoided health care costs of \$390,000 per mile
- Avoided transportation costs of \$29,000 per mile

¹ The state park standard in this instance is defined as equal to the conditions maintained at other state park managed rail to trail facilities such as High Bridge Trail State Park, New River Trail State Park, and Wilderness Road State Park.

While many of these benefits could be achieved with a trail that is in private or public hands or owned and managed through a public-private partnership, key benefits to ownership by the Commonwealth that this report highlights include: limited liability, improved level of service in the urban crescent, and more staff and maintenance resources for Caledon State Park. Expanded promotion and marketing of the Trail, law enforcement and maintenance would come with additional staff resources. Local zoning ordinances which may limit recreational facility development may also apply differently or not at all to property owned by the Commonwealth.

An important component of this report focused on community outreach. While not required by the language of House Bill 30, Item 375 K, DCR recognizes the importance of stakeholder engagement. While there was a limited timeframe to complete this study, staff utilized various outreach methods, including phone, email, direct mailings, and a listening session. With additional time, staff would have been able to complete additional outreach and listening sessions or other public engagement. Despite the limited timeframe, based on feedback received, it is clear that stakeholders are passionate on both sides of the two-decade-long debate regarding the suitability of the Trail as a recreation area for incorporation into Caledon State Park.

Based on the data collected and analyzed in DCR's review of the properties of the DRHT, including consideration of this trail, which unlike other rail trail options is already partially developed and is proximate to an existing state park; and in evaluating the considerations identified in the legislative language, DCR concluded that the DRHT could be a suitable recreation area for incorporation into Caledon State Park. However, recommendations regarding the advisability of acquiring the property for incorporation into Caledon State Park are beyond the scope of this study. This report identifies the following issues that would need to be resolved prior to any acquisition:

- 1. Prior to any acquisition, the issues identified below would need to be resolved.
 - Identify additional property needed to resolve adjacent property landowner and sight distance concerns and provide adequate parking at trailheads;
 - Complete any necessary Trail realignment (for example, needed realignment at Little Ark Baptist Church to avoid bisecting a cemetery);
 - Reassemble property rights (i.e., utility easements) severed from parcels of interest; and
 - Mitigate any unsafe conditions, such as firearms used toward the trail at a privately owned shooting range and facility.
- 2. Resolution of outstanding issues would require+ investment of additional staff time and resources, and would need to be adequately planned for in advance; and
- 3. Any outstanding stakeholder feedback should be reviewed and, where appropriate, considered in the decision-making process for the future of the Trail.

Addressing these issues would enable DCR to better understand and plan for how complex issues surrounding land acquisitions, easements, relationships with adjacent property landowners, and one-

time and ongoing (recurring) costs would be handled should the DRHT become a part of Caledon State Park.

In doing so, it would also better position DCR to take actions to preserve the historical trail and enhance Caledon State Park facilities, the Trail, and recreational opportunities for citizens of King George County and visitors to Caledon State Park, should it be determined that it become a part of the park and under the management of the DCR.



Figure 1 - View of the Trail corridor in the dappled light

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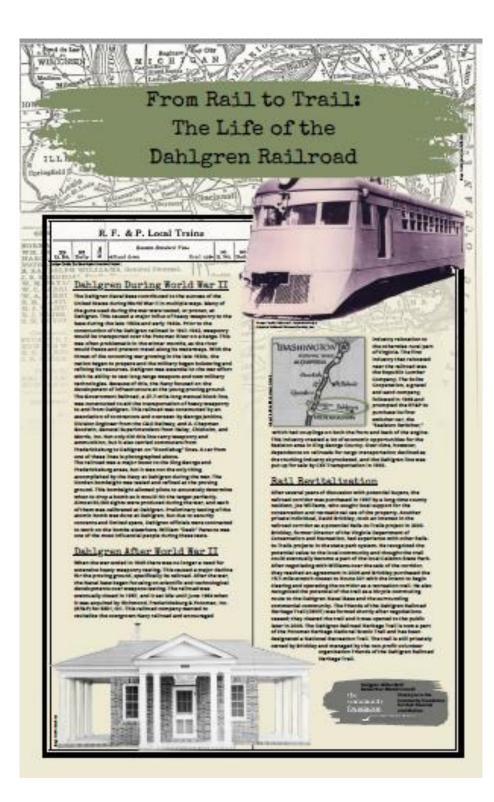


Figure 2 – Panel from the kiosk installed by a Boy Scout near Route 301

APPENDICES

A. History

- a. Key dates
- b. Article by Dawn Bowen, Building a Trail and Connecting a Community The Establishment of the Dahlgren Railroad Heritage Trail.
- B. Outreach
 - a. Stakeholder list
 - b. Listening session agenda and notes
 - c. Position papers
 - d. Summary of stakeholder feedback
 - e. Summary of adjacent landowner feedback
 - f. King George County Resolution of Support

C. Market Potential

- a. Market Potential Index Maps
- D. DRHT Concept Plan
- E. Benefits and Costs
 - a. Advancing Trails to Support Multimodal Networks

LIST OF ACRONYMS

Community Health Improvement Plan		
Department of Conservation and Recreation		
Dahlgren Railroad Heritage Trail (the Trail)		
Environmental Systems Research Institute		
George Washington Regional Commission		
Health Equity Assessment Toolkit		
Memorandum of Agreement		
Metropolitan Planning Organization		
Mary Washington Health Care		
National Environmental Policy Act		
National Park Service		
Natural Resources Conservation Service		
Naval Support Facility		
National Trails System		
Northern Virginia Gun Club		
Northern Virginia Shooting Facility		
Off-Highway Vehicle		
Potomac Heritage Trail		
Payment in Lieu of Taxes		
Rappahannock Area Health District		
US Department of Transportation		
Web Soil Survey		



Figure 3 - The Trail through invasive species

INTRODUCTION

A group of trail enthusiasts in King George County advocated for state ownership of the Dahlgren Railroad Heritage Trail ("DRHT" or "the Trail") for many years to protect the Trail in perpetuity under professional management. In the 1989 Virginia Outdoors Plan, the state's comprehensive plan for recreation and land conservation, the potential for a trail was first identified utilizing the Dahlgren Junction Railroad spur (p. 189)¹. In 2005, after one prime parcel of rail bed was sold, a former Delegate and previous Director of the Department of Conservation and Recreation (DCR) acquired the property, except for an exclusive utility easement retained by the former landowner. The new landowner formed the Dahlgren Railroad Heritage Trail Association, which first met in April of 2006. On National Trails Day that same year, about 50 supporters celebrated the trail's dedication. The Friends of the Dahlgren Railroad Heritage Trail ("Friends") was formed in the spring of 2006 to turn the concept into reality. After many years of volunteer efforts to improve the corridor for recreational use, the trail remains in private hands.

The 2022 General Assembly of Virginia passed House Bill 30, Item 375 K directing DCR to review the properties of the DRHT and make recommendations on the Trail's suitability as a recreational area for incorporation into Caledon State Park. The study required DCR to also consider how to preserve the historical trail and enhance Caledon State Park facilities, the Trail, and recreational opportunities for citizens of King George County and visitors to Caledon State Park. As part of its review DCR was also directed to consider the following:

- (i) any one-time and/or ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park;
- (ii) management of the area or park by a combination of public and private entities;
- (iii) potential user activities at the area or park including but not limited to camping, hiking, bird watching, equestrian activities, and biking; and
- (iv) operation of the area or park with only those improvements minimally necessary for activities listed herein and consistent with the preservation and protection of the property's conservation values and natural resources.

SCOPE OF STUDY

This study will review the properties of the Dahlgren Railroad Heritage Trail, considering only those items required by House Bill 30, Item 375 K, and in doing so, make recommendations on the trail's suitability as a recreational area for incorporation into Caledon State Park, this review is of limited duration, concluding by October 1, 2022 when the final report is to be submitted to the General Assembly. Specific questions this study will address include the following:

- Could the existing uses along the Trail (camping, fishing, hiking, bird watching, biking and horseback riding) be continued as part of a state park with minimal improvements?
- Will the Trail enhance Caledon State Park and the recreational opportunities available to the public?
- How can the historic DRHT be preserved?
- Could management be a combination of public and private entities?
- Is there a need for the Trail to be owned and operated by the Commonwealth?
- Is the community, as a whole, supportive of making the Trail part of Caledon State Park?
- Is there a market for the recreational opportunities the Trail could provide?
- Is the corridor suitable for facility development and incorporation in Caledon State Park?
- What are the one-time and ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park? Are there public benefits to offset these costs over the long term?

PROJECT LOCATION

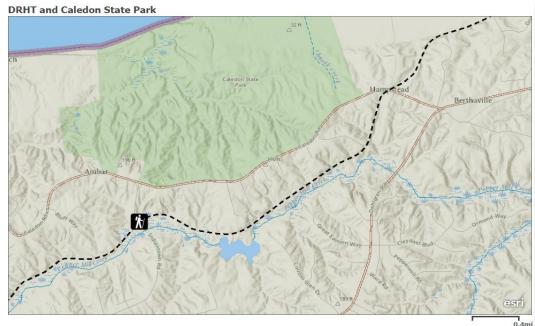
The Trail is in King George County in the Outer and Northern Coastal Plain. It is near both the Washington and Fredericksburg metro areas. While the legislation specifies 15.7 miles of trail, which is the portion that extends across six parcels under one landowner, this study will include the final mile needed to reach Route 301, indicated in red on the location map. With the additional mile, the trail corridor consists of approximately 282.6 acres between Bloomsbury Road (Route 605) and James Madison Parkway (Route 301).

A large parking area is located at the western end of the Trail off Bloomsbury Road. Two smaller parking areas provide trailheads along Comorn Road (Route 609) and Indiantown Road (Route 610). Trail users access the trail on the eastern end through informal agreements with businesses.



Figure 4 - The Dahlgren Railroad Heritage Trail location map

The Trail passes within a quarter of a mile of Caledon State Park's eastern boundary and within a half mile at Indiantown Road. The Trail passes through the Chotank Creek Natural Area Preserve adjacent to and east of the state park, which is on private property and closed to visitors except for those following the Trail.



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community | Sources: Esri, USGS | Esri, NASA, NGA, USGS, FEMA | VGIN, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Figure 5 - The Trail near Caledon State Park.

BACKGROUND

The Trail has been designated as a National Recreation Trail by the US Secretary of Interior, and an important segment of the <u>Potomac Heritage National Scenic Trail</u>. It follows an abandoned rail line constructed in 1942 to transport munitions for the Navy to support the war effort. Ownership passed out of federal hands in 1965 when the rail corridor was sold to the RF&P Railroad. A private citizen purchased 16.7 miles of the abandoned line in 1997. More history is available in Appendix A through a compilation of key dates by the Friends and an article by Dawn Bowen.

METHODOLOGY

To develop this report, staff consulted research conducted by others, including a 2022 Concept Plan completed by the National Park Service (NPS) for the Friends, a 2021 George Washington Regional Commission (GWRC) Greenways Feasibility Study, a 2020 King George Transportation Needs study also completed by GWRC, and an FY23-25 Community Health Improvement Plan developed by the Rappahannock Area Health District and Mary Washington Healthcare. A broad suite of ESRI tools were used to develop maps and other report content.

DCR staff contacted stakeholders identified by King George County's Parks and Recreation Director, the Friends, and the Northern Virginia Gun Club/Northern Virginia Shooting Facility (NVGC/NVSF). Staff also contacted adjacent landowners using a list provided by the county.

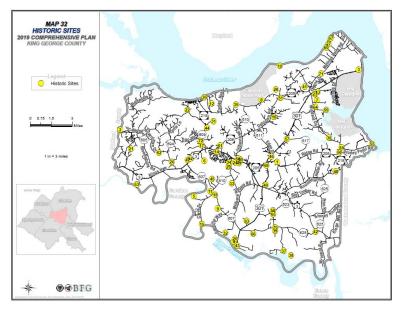
In addition to riding and photo-documenting the entire route, staff toured key locations along the facility guided by Jim Lynch with the Friends, who provided important background information. Staff also toured the NVGC/NVSF that is bisected by the Trail.

A listening session was held on August 16, 2022, for stakeholders, where speakers both in support of, and in opposition to, the trail's incorporation into Caledon State Park had equal opportunity to comment, and additional questions were posed to the group. Stakeholders were also engaged through phone calls, emails, and direct mail sent to adjacent property landowners.

EXISTING CONDITIONS

Bordered by the Potomac and Rappahannock Rivers, King George County serves as a natural land gateway to the Northern Neck. The county has a diverse mix of businesses from light industrial to military and government contracting. The largest employer, the Naval Support Facility (NSF) Dahlgren, provides over 10,000 military, federal, and civilian jobs. Highly skilled jobs serve the seven commands at Dahlgren, which include the Naval Surface Warfare Center, Navy Air and Missile Defense Command, Aegis Ballistic Missile Defense Program, and the Joint Warfare Analysis Center.

US Route 301 and Interstate 95 provide access to the Metro DC area and Richmond. The Virginia Railway Express and Amtrak share a rail station in historic downtown Fredericksburg.



Formed in 1720, the county covers about 183 square miles, which includes the birthplace of James Madison, the childhood home of George Washington, and the site of the signing of the Leedstown Resolutions (a precursor to the Declaration of Independence). One historic and archeological district and 14 sites are listed on the National Register of Historic Places in King George County, including historic homes and churches. Eight historic sites are within a mile of the Trail: Strawberry Hill, Cleydael,

Figure 6 - Map of historic sites from King George County's Comprehensive Plan

Mount Stuart, Smoot Estate, St. Paul's Episcopal Church, Hobson, Marmion and Eagle's Nest. A number of archeological sites are within a mile as well, particularly on the eastern end of the Trail closer to the Potomac River.

The NPS completed a <u>feasibility study</u> in 2020 to determine whether the Northern Neck, which included King George County, met the criteria to become a National Heritage Area. The area met all ten evaluation criteria required to be eligible for designation, and the study has been provided to Congress for consideration. Language in the study explains the area's national significance:

The history of Virginia's Northern Neck has been shaped by its geography and especially its location between two major rivers. The natural boundaries of the Northern Neck—the Potomac River on the north, the Rappahannock River on the south, and the Chesapeake Bay on the east—have had a profound impact on the region's economic, political, and social development. Prior to European settlement, the rivers provided sustenance and served as political boundaries between competing groups of American Indians. With the arrival of European settlers, these same rivers became highways for trade that encouraged the creation of tobacco-based plantations relying on chattel slavery. Within the larger framework of Tidewater Virginia, this economic success and geographic isolation from the rest of Virginia fostered the establishment of a political leadership that drove many of the debates leading to the American Revolution and played a major role in shaping the American republic. Three future presidents of the United

States (George Washington, James Madison, and James Monroe), two signers of the Declaration of Independence (Richard Henry Lee and Francis Lightfoot Lee), and one of the most significant figures of the American Civil War, (Robert E. Lee) were born on the Northern Neck.

The same geographic factors that enabled the 18th century's burst of wealth and political influence contributed to changes in the region's economic and political fortunes in the first half of the 19th century, as the proximity to major rivers exacerbated the impact of two wars. The collapse of the tobacco trade resulted in the dislocation of many prominent families. The post-Civil War years brought an economic resurgence, as access to water transportation and a burgeoning seafood industry again made the Northern Neck an agricultural center for the rapidly industrializing areas to the north and west. However, the advent of the automobile, the mid-20th-century decline in water transportation, and the development of the major transportation networks west of the fall line undercut the region's economic advantage. This series of changes created the Northern Neck of today, where the legacy of a distant past survives along with the diminished remains of its post-Civil War resurgence.

DEMOGRAPHICS

King George County's population increased from 16,803 in 2000 to 23,584 in 2010, a 40 percent increase that far exceeded the 13 percent overall population growth of the Commonwealth for that period. Over the next decade, the increase slowed to 13.3 percent for a total population of 26,723 and projections by the Weldon Cooper Center estimate just under 30,000 in 2030. There are approximately 141.8 people per square mile.

Using July 2021 population estimates from the US Census Bureau, 77.4 percent of the county's population are white, 6.6 percent are Hispanic or Latinos 16.1 percent are Blacks or African American, and 1.7 percent are Asian. The median household income is \$96,711, with 6 percent of households in poverty.

LAND USE

King George County is located within the Chesapeake Bay watershed, which covers approximately 64,000 square miles. The Potomac River, with a basin that covers more than 14,600 square miles, is about two miles wide at the Nice Bridge (Route 301).

The Rappahannock River watershed is approximately 2,715 square miles, flowing from the eastern slope of the Blue Ridge Mountains. It is one of the country's longest free-flowing rivers, running for approximately 184 miles. It is also considered to be one of the most scenic rivers in the eastern United States, enjoying a 5,000-acre streamside forest buffer that extends over 23 miles upstream from Fredericksburg.



Figure 7 - Trail with view of adjacent farmland

The region has important habitats for a number of coastal species and plant communities. There are many common fish species as well as shellfish, including the blue crab and the American oyster. There is a large array of common mammals, amphibians, reptiles, birds, and insects.

ZONING

The Trail passes through primarily rural and limited agriculture zoning districts until it approaches Route 301, passing gradually into single family dwelling units and general trade districts. On the western end, an industrial park marks the beginning of an active rail line that connects to Fredericksburg.

Because of zoning restrictions, the Friends are not allowed to add restrooms or other infrastructure to the Trail. The current bypass of the Little Ark cemetery is a nonconforming use. According to the King George County's zoning department, the use of the Trail is currently nonconforming as it runs through several different zoning districts. In some zoning districts, the use of an outdoor recreation facility is permitted only by special exception. in others, an outdoor recreation facility is not permitted at all. Section 1.10 of the Zoning Ordinance states that, "no nonconforming use or structure shall be enlarged or increased to occupy a greater area than was occupied at the effective date of adoption or amendment of this ordinance unless such enlargement does not result in an increase of nonconformity or is for a change to a use permitted in the district." Extending the Trail or adding buildings would constitute an increase in nonconformity. The Friends have not applied for a special exception in the zoning districts where this use could be permitted.

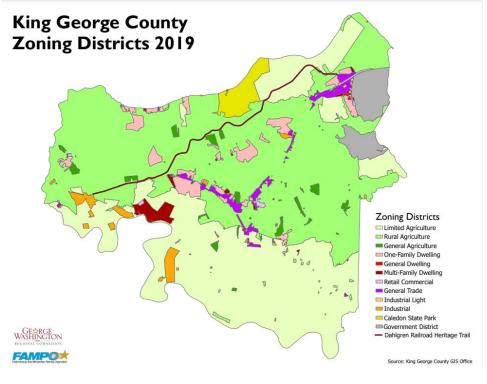


Figure 8 - King George County Zoning Districts Map

NATURAL RESOURCES

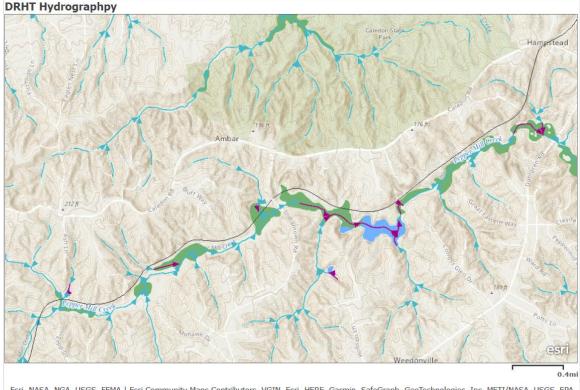
The Trail parallels Pepper Mill Creek for about 4.5 miles, providing opportunities for scenic views, sounds and smells from swamp marsh habitat. According to a concept plan developed for the Trail by NPS, several of the wetlands near the Trail have a rank of *4: Very High* for conservation purposes. Activities in wetland areas are regulated by the US Army Corps of Engineers, but the Trail is generally elevated above these areas along causeways.

The Trail is surrounded by mostly deciduous and mixed forests, with glimpses of open water and wetlands, grasslands, shrubs and some development. It passes through about 2,400 feet of Chotank Creek Natural Area Preserve, an 1108-acre preserve along the Potomac River that is part of the Virginia Natural Area Preserve System. Although the Preserve adjoins Caledon State Park, it is part of Cedar Grove Farm and not open to the public. Significant natural community types and active bald eagle nests are on the property, which is held in a conservation easement.

The Trail passes over the following named waterbodies and has 177 culverts of various sizes, which were identified by reviewing 1942 plats:

- Lambs Creek
- Popcastle Creek

- Peppermill Creek (twice)
- Williams Creek



Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, VGIN, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA | VA-DCR Division of Natural Heritage | VA-DCR, Natural Heritage Program | VA-DCR Natural Heritage | Virginia Department of Conservation and Recreation, Division of Natural Heritage | VA-DCR, Natural Heritage | VA - DCR Natural Heritage | USGS The National Map: 3D Elevation Program. Data Refreshed July, 2022. | USGS TNM – National Hydrography Dataset. Data Refreshed July, 2022.



A shooting facility operates on both sides of the Trail between Comorn and Indiantown Roads. DCR staff met with the NVGC/NVSF investor-owners and walked the site to see a lower gun range south of the Trail and an upper gun range north of the Trail. The lower range is between the Caywoods and Fox Run subdivisions. The property includes over 200 acres with multiple facilities for shooting pursuits including two of handgun ranges, two rifle ranges, skeet and trap, and archery. Two ranges impact the Trail; a rifle range is directly sighted in the direction of the Trail and poses a high risk. To mitigate that risk, NVGC/NVSF uses people to stand on the Trail and alert the range master or approaching users by radio. The range master then announces cease fire until the users have passed through. Additional site work is needed to ensure the safety of Trail users at the rifle range. The other range having direct impact is a handgun range that parallels the Trail. There appear to be sufficient earthen berms in place to mitigate any risk at this location. The NVGC/NVSF has also erected wooden panels to prohibit accidental wandering onto the range.



Figure 10 - The Upper and Lower Range at the Northern Virginia Gun Club



Figure 11- Trail bypass around Little Ark Baptist Church cemetery

The Trail separates Little Ark Baptist Church, an African American Church, from its cemetery. The Friends have created a temporary detour that makes the church property whole again. A recent \$25,000 grant will help formalize a bypass around the cemetery.

At the western end of the Trail, informal agreements with businesses provide some parking for the Trail users. Other users access the Trail from their residence or workplace. These arrangements meet current demand but will not provide adequate parking for a state park.

DEVELOPMENT SUITABILITY

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS), the area is comprised mostly of Ultisols, reddish, clay-rich, acidic soils that are stable materials for construction projects. High seasonal water tables limit onsite sewage disposal systems in some areas, but water and sewer lines owned by the county come within a half mile of the Trail in several areas.



Figure 12 - Water and sewer lines near the DRHT

WSS data on the suitability and limitations of the soils for recreational development and other activities indicate that just under half of the area within a mile of the Trail is "somewhat limited" for picnicking and camp development, which may require special planning, design or installation during construction. Remaining areas that are not wet are very limited for development.

The railroad grade is gentle and suitable for a wide range of uses. Numerous road crossings provide easy access to the corridor.

POTENTIAL HAZARDS

Landslide potential is considered moderate in King George County. Storm surge, excessive rain, non-rotational winds, tornadoes, snow and ice from winter storms and nor'easters, flooding, erosion, drought, extreme heat, thunderstorms and wildfires represent some of the medium to high risks faced by the people who live and visit the area. Pandemics, civil disturbances, technological hazards (i.e. cybersecurity risk, aging infrastructure, hazmat, biohazards, and industrial accidents) and impaired waterways have also been identified as potential hazards. A corridor preserved for bike and pedestrian use can play an important emergency services role during catastrophic events if it is built and maintained to support appropriate weights.

PROPERTY CONSTRAINTS

DCR's Real Property Office reviewed the six parcels that make up the Trail and the last mile to reach Route 301, and identified 18 existing easements or property rights/constraints held by several entities that would require negotiation if the agency were directed to acquire the corridor by the General Assembly. Table 2 on the following two pages summarizes those constraints.

Table 2 Property Constraints along the DRHT

Tax Map #	Constraint	Current Property Owner	Right Holder	Applicable Instruments	Notes
21-RR-69	30' ROW and Utility Easement (lot 7A)	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 4, Sec. 1)	Applies to a portion of the Property; benefits lot 7A
21-RR-69	30' Exclusive Utility Easement	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 4, Sec. 2)	Applies to entire Property; includes right to relocate the Exclusive Utility Easement "pursuant to its sole and absolute discretion."
21-RR-69	Permanent Construction Easement	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 5, Sec. 3)	PCE extends an additional 20' beyond the outside edges of 30' Exclusive Utility Easement and the Lot 7A Easement
21-RR-69	Right to clear, unobstructed access	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 5, Sec. 2)	Applies to entire Property
21-RR-69	Right to place equipment within easement areas	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 5, Sec. 2)	Applies to Lot 7A Easement and Exclusive Utility Easement
21-RR-69	Right to change quantity and type of utilities within easement areas	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 5, Sec. 2)	Applies to Lot 7A Easement and Exclusive Utility Easement
21-RR-69	Right to enter upon Grantee's land adjacent to easement areas	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 5, Sec. 2)	Applies to Lot 7A Easement and Exclusive Utility Easement
21-RR-69	Right to assign any and all rights to any public or private utility company	Ridgewood 2000	O.D.R., LLC	Deed: 080028010 (Page 5, Sec. 2)	
21-RR-69	Property shall be used for the development of a non-motorized	Ridgewood 2000	General restriction	Deed: 080028010 (Page 6, Sec. 1)	

	recreational trail to be available to the public				
21-RR-69	Property shall not contain any paved trail portions that exceed 12' in width	Ridgewood 2000	General restriction	Deed: 080028010 (Page 6, Sec. 2)	Excludes parking areas for trail users
21-RR-69	Conservation Easement (Unfulfilled to DCR's knowledge)	Ridgewood 2000	General covenant	Deed: 080028010 (Page 7)	Requires that the Grantee shall place the Property under conservation easement within 180 days of the deed date
9-6D	None Known	The Friends			
9-82E	40' Non-exclusive Utility Easement	Joy G. Veazey	Roger Williams	Deed: 970038040 (Page 2)	
9-82BB	40' Non-exclusive Utility Easement	Joy G. Veazey	Roger Williams	Deed: 970038040 (Page 2)	
9-82BB	Temporary Easement for Ingress and Egress	Joy G. Veazey	Joy G. Veazey	Deed: 160059330 (Page 2-3, Parcel Four)	Easement terminates upon Grantor's completion of a gravel road over and across Parcel 5 (unknown to DCR whether this has occurred)
9-9-10	40' Non-exclusive Utility Easement	Monmouth West Limited Partnership	Joseph L. Williams	Deed: 970038040 (Page 2)	
9-82GG	40' Non-exclusive Utility Easement	Kwan H. Ham and Hoe Chun- Ja Ham (Sheetz)	Joseph L. Williams	Deed: 970038040 (Page 2)	
9-82GG	50' Access Easement	Kwan H. Ham and Hoe Chun- Ja Ham (Sheetz)	301 & 614 Property, LLC	Deed: 080045610 (Pages 1-2)	Permanent non- exclusive easement for ingress and egress benefitting TMN 9-82FF

NEEDS ASSESSMENT

The following needs assessment examines reports compiled by others to determine local and regional priorities. Since the linear park serves both transportation and recreation needs, both are included in this section.

TRANSPORTATION

Since the pandemic, deaths and injuries of cyclists and pedestrians are at their highest in four decades. Prior to the pandemic, there were 27 bike and pedestrian accidents in King George County in the period from 2013-2019. Thirteen of them, including two fatalities, occurred on US 301 and Route 206 north and northwest of the Naval Support Facility Dahlgren. At the August 16th listening session, stakeholders noted that there are very few safe places to walk or ride bicycles in the county except for the Trail, since roadways do not have sidewalks or bike lanes.

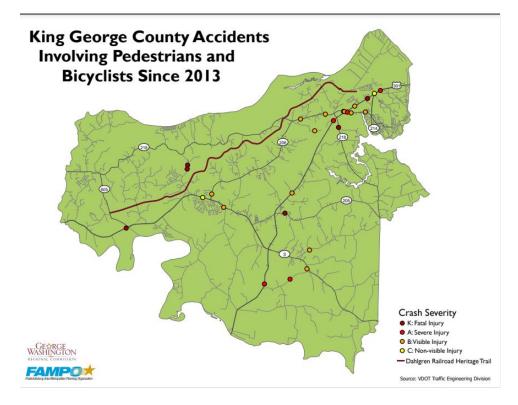


Figure 13 - Accidents involving pedestrians and bicyclists in King George County from 2013-2019

Staff from the George Washington Regional Commission have expressed concerns that public ownership may restrict multimodal use of the corridor if it is needed to serve future

transportation needs as the county grows. Acquisition from private owners may offer increased opportunities for public-private partnerships that could serve long-term alternative transportation uses (for example, bus rapid transit to serve the military base).

To serve existing transportation needs in King George County, the Trail should be upgraded to what the Virginia Department of Transportation (VDOT) refers to as a temporary aggregate shared use path: this standard requires a cap of 6 inches of temporary aggregate base topped with 2 inches of crushed limestone fines, graded smooth and compacted. Costs are based on preparing the grade and finishing, placing, compacting, maintaining, and removing material as required. Other improvements are needed at road crossings.

ROAD CROSSINGS

There are eight named road crossings and four private roads that intersect the Trail. According to Virginia's Average Daily Traffic interactive map (2019 data), they are mostly low volume roadways. These crossings are identified from west to east in Table 3.



Figure 14 - Comorn Road crossing along the DRHT

Road Name	Route Number	Average Daily Traffic	
Bloomsbury Road	Route 605	620	
Lambs Creek Church Road	Route 694	870	
Comorn Road	Route 609	2,900	
Muscoe Place	Route 608	290	
Tomahawk Drive	Private	Unknown	
Indiantown Road	Route 610	570	
Salisbury Retreat	Private	Unknown	
Caledon Road	Route 218	3,000	
Panorama Drive	Private	Unknown	
Deep Cove Landing Road	Private	Unknown	
Owens Drive	Route 614/624	1,500	
*James Madison Parkway	Route 301	15,000	

Table 3 DRHT Roads Crossings (West to East)

*Note: Since people use the Trail to commute to the Dahlgren base, a safe crossing at Route 301 is needed, although it is not part of the corridor evaluated for this report.

Although public road crossings are marked with warning signs to alert drivers about the Trail crossings, additional safety improvements are needed. The VDOT Fredericksburg District reviewed the Trail intersections with VDOT-maintained roads. Sight distance is short at Indiantown Road, Muscoe Place, and Lambs Creek Church Road. In these locations it may be advantageous to acquire sight distance easements so that proper sight distance can be achieved. Signage on the Trail for trail users at all road crossings needs to be added, as well as gates to prevent motorized vehicles from accessing the Trail. Crosswalks may be needed for all public roads that bisect the Trail.



Figure 15 - A typical road crossing along the Virginia Capital Trail

According to VDOT District staff, any connection between Caledon State Park and the Trail should be developed so that it will encourage users not to travel along Route 218 to make the connection. In its current alignment, this road would not facilitate a safe pedestrian or bicycle on-road connection due to the curvature and grade above the Trail. If a connection to the existing Park were to be envisioned, a separate ROW would need to be planned, negotiated, acquired, and constructed at an additional cost not captured in this report.

REGIONAL GREENWAY FEASIBILITY STUDY

In 2021, the George Washington Regional Commission published a Greenway Feasibility Study to prioritize potential greenway connections for future funding opportunities. Survey results included in the study identified five priorities for implementation:

- Virginia Central Railway Tunnel under I-95
- Virginia Central Railway Trail Feeder in Spotsylvania
- DRHT Trail connections west to Stafford County
- Tidewater Trail (Rt. 2 to Shannon Airport)
- DRHT connectors to Caledon State Park

The top 5 factors discouraging people from trail use were:

- Lack of nearby connections to other greenways
- Unsafe street crossings
- The distance to get to the trail
- Lack of existing greenways and trails
- Motor vehicle traffic

KING GEORGE COUNTY COMPREHENSIVE PLAN

The Trail is identified in the 2019 King George County Comprehensive Plan and should be eligible for funding through state and federal sources. Several new programs funded by the Bipartisan Infrastructure Law would complement existing programs used for linear park development in Virginia. These programs are primarily available to local, regional metropolitan planning organizations (MPO) and state applicants.

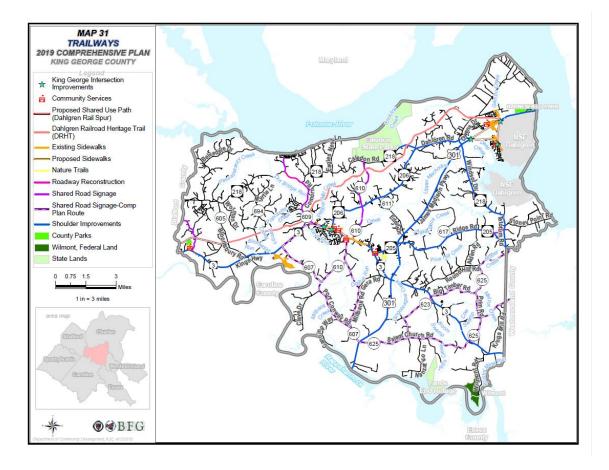


Figure 16 King George County Trailways identified in the 2019 Comprehensive Plan - King George County Trailways Feasibility Study

The <u>2018 King George County Trailways Feasibility Study</u> recommends that the DRHT serve as the "spine" of the countywide bike/trail network and that improvements be made to primary and secondary roads that "feed" into the DRHT, with trailhead and parking areas located at strategic locations to provide better access.

RECREATION

Recreation, leisure, and sports activities play an important role in communities. Their many benefits include improving individuals' health and well-being, contributing to individuals' empowerment, and promoting the development of inclusive communities.

VIRGINIA OUTDOORS DEMAND SURVEY

According to the 2017 Virginia Outdoors Demand Survey, 52 percent of households in the George Washington Recreational Planning Region thought trails were the most needed outdoor

recreation opportunity, higher than the state average of 43 percent. Natural areas ranked as the greatest need, with 54 percent of households identifying this need in both the state and region.

With carrying capacity pressures impacting all the Virginia State Park facilities along the Potomac River, providing additional access to trails and natural areas through the Trail could serve as a pressure relief valve, adding acreage that improves the level of service for state parks, trails and natural areas in this high-demand area.

COMMUNITY HEALTH IMPROVEMENT PLAN

The Rappahannock Area Health District developed a Community Health Improvement Plan in 2022 to make informed decisions about how the community should address its most pressing issues. The number one priority identified in the plan is mental health. There is a well-established connection between the recreation and interaction with nature and improved mental and physical health.

COMMUNITY OUTREACH

Community outreach involved stakeholder interviews by phone and email, a stakeholder listening session and outreach to adjacent landowners. Results from these efforts are summarized below.

DCR staff reached out to 197 stakeholders to determine whether there was public support for integrating the Trail into Caledon State Park. King George County and the Friends group identified 66 stakeholders, many of whom represent organizations, who were contacted for stakeholder interviews, with 48 recorded responses. At DCR's request, King George County also identified 131 adjacent property landowners, who were solicited by direct mail to gather feedback on the Trail's suitability as a recreation area for incorporation into Caledon State Park. As a result of this outreach to both groups, responses from stakeholder interviews indicated a general preference for the Trail becoming part of Caledon State Park.

Of the 48 stakeholders interviewed, 32 were in favor of the trail becoming part of Caledon State Park, 9 were opposed, and 7 were neutral. Of the 19 comments received from adjacent landowners who responded to a direct mail request, 7 were in favor and 9 were opposed to the Trail becoming part of Caledon State Park. Three responses did not state a preference but indicated that more information was needed.

Stakeholders in favor of the Trail's integration into Caledon felt that State ownership would make the Trail accessible to more people, with more amenities and activities as well. With the Trail's

important wetlands and preservation values, there was a desire to bring more natural resource and technical expertise into Trail management. It is growing more difficult for volunteers to maintain as usage increases, and some needed repairs are beyond the scope of an all-volunteer organization. Better advertising and promotion, increased security, and the ability to tap into additional funding resources were also mentioned as coming with State ownership. Removing the need for a permit and combining Friends groups (of Caledon State Park and the DRHT) to reduce scheduling conflicts and volunteer staff redundancy, were other benefits. There was the recognition that this unique 16-mile stretch of trail is an asset that would be difficult to re-create, and that the Trail could anchor/connect to other trails, resources and opportunities.

Stakeholders opposed to the Trail's integration into Caledon said it would be a waste of taxpayer dollars, since the Trail already exists. Other stakeholders expressed concerns more related to the operation of the trail generally, such as issues with trespass, litter, and property rights. Owners of the Gun Club thought State ownership posed a significant risk to their operation. Providing security would be an expensive ongoing cost, as some bad actors have been tearing down signs, stealing cameras, trespassing, and riding ATVs after hours. Some were concerned about theft, burglary and violence, and others did not think the Trail had enough use to justify improvement costs. A list of stakeholders, a summary of their feedback related to whether the park should become part of Caledon, notes from the listening session and adjacent landowner comments are available in Appendix B.

KING GEORGE COUNTY RESOLUTION OF SUPPORT

The King George County Board of Supervisors submitted a resolution of support (Appendix B) for making the Trail a part of Caledon State Park. The resolution was unanimous.

DAHLGREN NAVAL SUPPORT ACTIVITY SOUTH POTOMAC

DCR staff have engaged with personnel at the Naval Support Activity South Potomac command for the Naval Support Facility (NSF) at Dahlgren regarding their feedback for this review. While they are neutral on the trail becoming part of the state park system, they welcome the outdoor recreational opportunities provided by the Dahlgren Rail Heritage Trail and look forward to continuing to partner with community organizations in an effort to enhance the natural environment in and around the Dahlgren area.

MARKET

The market of existing DRHT users can be examined through permits, which are required due to the Trail's private ownership, issued by the Friends, and event participation. The potential market if the Trail becomes part of the state park is estimated by a population/drive time analysis, a

standard methodology for estimating potential usage based on proximity. Maps of who may be using the Trail by activity type and block group were created using ESRI's Community Analyst software. This analysis provides more insight into who would benefit from the Trail in King George County.

PERMITS

According to the Friends there have been 5,255 permits issued to users of the Trail since 2006. In 2022, 999 have been issued as of August 19, averaging about 133 a month. Although permits are required, many DRHT users assume the trail is public and do not acquire them. The breakdown of permits by location gives some idea of who is currently using the Trail, although it represents an undercount.²

- King George: 3,051 (58%)
- Stafford: 254 (4.8%)
- Fredericksburg: 1,440 (27.4%)
- Colonial Beach: 98 (1.86%)
- Dahlgren: 81 (1.5%)
- Other locations: 283 (5.4%)

EVENTS

There are several significant trail running events that are held on the Trail every year. These have been consistent in increasing participation and attracting runners from several neighboring states. Due to the popularity of the races, the number of events is increasing. The events are:

- 50K race held in August
- Half-marathon held concurrently with the 50K in August
- Winter half marathon held usually in February
- Fun run, "Sheetz-to-Sheetz," 14 miles, held in March

Other more informal events also occur on the Trail through "meet-ups." Sometimes a group may announce a DRHT run or walk on their social media outlets. Groups that have used the Trail include: Moms Run This Town; Team Red, White and Blue; Fredericksburg Walking Club; Boy Scout Troops; Fredericksburg Rucking Club; and bicycle racing teams.

² Approximately 1% of the data is missing, as some requests only included street addresses and no city/postal code.



Figure 17 - Dog walking is a popular activity along the Trail

ONLINE REVIEWS

Online reviews through various outlets like TripAdvisor, TrailLink, and BringFido give some indication of the appeal of this Trail to various users who generally give high ratings. While there are some complaints about the Trail surface and noise from gunshots, others praise the scenic qualities and the peace and quiet.

PARTICIPATION IN ACTIVITIES BY BLOCK GROUP

Through ESRI's Community Analyst software, specific activities like birdwatching, mountain biking, horseback riding, hiking, and jogging, can be related to household participation at the block group level. This database is based on survey data from MRI-Simmons. It provides the expected number of consumers and a Market Potential Index for the sports and leisure market. Based on this data, maps can indicate how consumers within King George County block groups chose to recreate within the past 12 months. For example, within the block group that includes Caledon State Park, with a median household income of \$109,595, the following percentage of adults/households are expected to have participated in the following recreation activities based on national propensities to use various products and services:

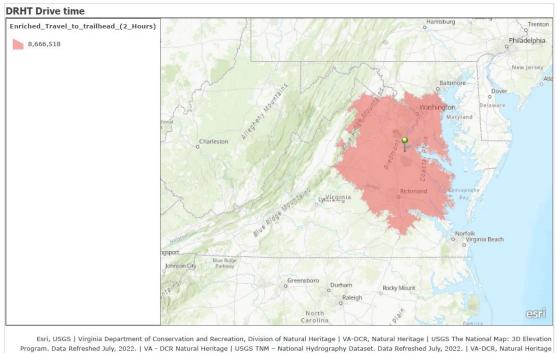
- Participated in mountain bicycling in the last 12 months-4.3%
- Participated in hiking-20.2%
- Participated in horseback riding-2.5%
- Participated in jogging/running-13.6%
- Households that did birdwatching-7.9%

Although not an activity specified for this report, 37.7% of households in this block group are expected to have participated in walking for exercise in the last 12 months.

These maps and a breakout of the sports and leisure market potential for the block group including Caledon State Park are included in Appendix C.

POPULATION AND DRIVE TIME

The total population within an hour's drive of the Bloomsbury Road trailhead is 756,631. Because a two-hour drive would encompass parts of three metro areas, the population served increased to over 8.6 million. According to a 2021 report based on comment cards from Virginia State Parks, many people travel over two hours to visit a state park (78 percent of visitors responding in 2020 traveled more than 50 miles to visit the park; 52 percent that same year traveled more than 100 miles).



Program | VA-DCR Division of Natural Heritage | VA-DCR Natural Heritage | VGIN, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS



MANAGEMENT OPTIONS

The Trail is uniquely positioned to benefit from public and private cooperative efforts. The Friends members, an existing organized group, want to continue supporting the Trail. The county has worked with the Friends for many years and wants to continue promoting the Trail. Since Caledon State Park is within a half mile of the Trail, a relationship exists between the Friends of

the Park and the Friends of the Trail, whose members see value in merging to eliminate redundancy. The NPS also may be interested in investing in this area since it intersects four national trails on the Potomac River. This segment of the Potomac Heritage Trail serves as a gateway to the Northern Neck.

PRIVATE

The Trail is currently operated through the largesse of private owners. The Friends, a 501(c)3, can access funding for operations through the following mechanisms:

- Advertising and sponsorships
- Local partnerships
- Private grants and philanthropy
- In-kind donations
- Individual donations and crowdfunding

The Friends have expressed a willingness to continue supporting Trail maintenance efforts; however, as a 501(c)3 with an annual income under \$50,000, they are limited to what they can provide.

LOCAL

For a number of years, the Board of Supervisors of King George County, the Friends, and Ridgewood 2000 (owners) have worked together to have the Trail integrated into Caledon State Park. In the King George County Trailways Feasibility Study and the Memorandum of Agreement (MOA) between the partners, both from 2018, specific reference is made of that goal. In the interim, the county has worked cooperatively with the landowner and the Friends to leverage a great recreational asset for the enjoyment of citizens and visitors alike. In September 2020 the MOA was cancelled due to a change in insurance coverage of the Trail by the landowner Since that time, King George County has continued to work to promote the recreational amenity but no longer has a formal relationship with the Friends or Ridgewood 2000.

Although King George County is not interested in owning and managing the Trail, there are opportunities to capture revenue from linear park projects through the following mechanisms at the local level, in addition to ballot measures, grants, and fees:

- Increase in revenue from the transient occupancy/short-term rental tax
- Increase in revenue from the meals tax
- Increase in local taxes due to increased land value throughout the corridor and/or tax increment financing (TIF)
- Joint development fees

- Development impact fees or negotiated exactions
- Sales tax district
- Business improvement district (BID) or other special assessment district (SAD)

If the county can capture revenue through one or more of these means, investment in Trail improvements in partnership with Trail owners could be justified.

STATE

The Trail could be a state-owned and operated facility. If DCR owns and operates the Trail, the surface would be upgraded in a manner similar to other Virginia State Park-managed rail trails. These include High Bridge Trail State Park, New River Trail State Park, and a rail trail facility at Wilderness Road State Park. Day-use facilities (i.e., trailheads, restrooms, picnic areas, orientation kiosks, interpretive signs) and any overnight facilities would be located with citizen input through a master planning process. Some revenue could be captured through park operations, however, rail trails are particularly difficult to monetize through parking fees because of the number of access points.



Figure 18 - Existing planks over wet areas along the Trail

Much of the funding would come from ballot measures, grants, or line items in the state budget. There is no dedicated general funding for state parks in Virginia. State parks are funded with a mix of General Assembly appropriations, and revenue generated through admission fees, overnight accommodations and merchandise sales. There is competition for this limited pool of funds as well as the need for meeting existing financial obligations.

While there are limiting factors, some of the advantages of state ownership include limited liability, improved level of service in the urban crescent, and more staff and maintenance resources for the park. Expanded promotion and marketing of the Trail, law enforcement and

maintenance would come with additional staff resources. The Commonwealth is also not subject to local zoning ordinances that restrict recreational facility development.







Figure 19 - Virginia State Parks maintains several rail trail facilities as state parks. Pictured are New River Trail State Park (upper and lower left), and bicyclists along High Bridge Trail at High Bridge State Park (upper right).

FEDERAL

The Trail is a designated section of the Potomac Heritage National Scenic Trail. The network of national scenic and historic trails is larger than the interstate highway system and connects more than 6,000 thousand communities with access to the outdoors. In 1968 the National Trails System Act authorized a feasibility study for a "Potomac Heritage Trail," subsequently completed and published by the Bureau of Outdoor Recreation in 1974. In 1983 an amendment to the Act (PL 98-11) recognized a corridor for development of the Potomac Heritage National Scenic Trail (PHT) based on the narrative and a generalized map in the feasibility study. Administration of the PHT is delegated to the NPS, and Director's Order 45: National Trails System (NTS) and a companion Reference Manual provide guidance for NPS staff and partners. The NPS provides interagency coordination, policy development, partnership training, financial assistance, technical assistance, research, communications, networking, mapping, and reporting for the benefit of the NTS.



Figure 20 - The eastern end of the Trail with Potomac Heritage Trail and DRHT kiosks

Section 7 of the Act authorizes the Secretary of the Interior to enter into agreements with various entities for management of PHT segments. All NTS trails are cooperatively managed by design and in full collaboration with partner organizations. Cooperative management partners generally contribute more funds and in-kind resources to NTS management each year than appropriated federal funds. Today the evolving PHT network is managed by various governmental agencies and nonprofit organizations. 54 U.S.C. § 101701 allows the Secretary of the Interior to enter into challenge cost-share agreements with any state or local government, public or private agency, organization, institution, corporation, individual, or other entity for the purpose of sharing costs or services in carrying out authorized functions and responsibilities.

The Federal Government supports a wide range of project types and sizes, but timing depends on the federal fiscal year and the application process. Projects typically involve National Environmental Policy Act (NEPA) or other environmental reviews and are often tied to achieving certain objectives related to the funding source.

In 2021, the NPS completed a DRHT Concept Plan for the Friends that provides background for this report. It is included in the Appendix D.

PRESERVING THE HISTORIC CORRIDOR

House Bill 30, Item 375 K directed DCR to make recommendations to preserve the historical trail. Although the corridor does not have historic register designation, there is a rich history associated with the Trail that is interpreted at the Dahlgren Heritage Museum. With the corridor currently in private hands, one way that it could be preserved is to place it in public ownership. A future private owner may not value the ecosystem and recreation services the Trail currently provides and may sell the corridor to the highest bidder. Whether public ownership is a longterm easement, or a fee simple purchase depends on negotiations between the seller and future buyer. House Bill 30 also directed DCR to explore management of the area by a combination of public and private entities. Local, state, and federal interests could work cooperatively with the private sector to encourage recreation opportunities that don't interfere with existing ecosystem services in the area.

To capitalize on resources available at various levels of government and within the private sector, the future landowner could develop a Memorandum of Agreement (MOA), a written, formal understanding of the agreement between the public and private sector partners. This document would spell out the obligations and commitments of the parties to allocate and minimize each party's risks. It can also be referred to as a contract and is legally binding.

COST-BENEFIT ANALYSIS

A long-distance linear park is unique because it functions as both a transportation and a recreation amenity. A transportation costbenefit analysis would consider capital, operating and maintenance expenditures; residual value/remaining service life; and innovative technologies and techniques under costs. Benefits could include safety, travel time savings, operating cost savings, emissions reduction, facility and vehicle amenity, and health according to <u>guidance</u> the US Department of Transportation provides for discretionary grant programs.



Figure 21 - Existing picnic area at the Bloomsbury Road trailhead

While a study that combines these approaches may be a useful next step, the scope of this study is to identify "any one-time and/or ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park," and specifically "operation of the area or park with only those improvements minimally necessary" for camping, hiking, bird watching, equestrian activities, and biking "consistent with the preservation and protection of the property's conservation values and natural resources."

For recreation areas, some typical practices for evaluating benefits include analysis of the housing market to measure property value increases, travel costs methods to determine how far people would travel to experience the recreation area, stated preferences from surveys, and economic impact (the benefits of a given asset compared to the expenses that it generates). Costs include

the cost of travel to the destination for the user and the acquisition, construction/renovation and maintenance/operations costs accrued by the provider.

соѕтѕ

The costs identified in this section include land acquisition, construction, and annual operating costs to bring the Trail up to state park standards as well as manage and maintain the Trail and all support facilities in such a way as to promote public health, safety, and trust. This includes providing security and promoting public safety through the enforcement of laws, regulations, and policies in a consistent and just manner. These costs represent those identified in the limited time given to complete this study, and there may be additional costs that are not captured as part of this report.

There are other costs that are more difficult to define and outside the scope of this report. For example, there are opportunity costs related to potential alternate uses of the corridor. Some adjacent landowners have concerns with the implications of their properties being bisected by land owned by the Commonwealth, while others want the corridor preserved for a future use, like light rail. Others are concerned that state park ownership will bring unwanted growth. All these costs should be weighed with the benefits before moving forward.

LAND ACQUISITION

Costs for land acquisition have been compiled from the approximation of market values and estimates of due diligence costs. There are outstanding issues that would have to be resolved before pursuing an acquisition, including the identification of any additional property that may be needed to resolve adjacent property owner and sight distance concerns and to provide adequate parking at trailheads. For properties that are bisected by the Trail, easement agreements not already in place would need to be considered. Property rights (like utility easements) that may have been severed from parcels of interest would have to be reassembled.

CORRIDOR VALUATION

The table below provides a rough approximation of fee simple market value for the historic rail corridor areas of the six subject parcels. This valuation does not constitute an appraisal and should only be used for preliminary planning purposes. Additionally, certain assumptions have been made, including the following:

- Fee simple ownership is appropriate and permissible for all properties.
- Parcels with excess land not needed for purposes of the Trail can be subdivided.

- Any necessary Trail realignment, including exchanges of land between Little Ark Baptist Church, Ashton Family LP and Ridgewood 2000 (for the preservation of the church cemetery), will be completed before any property is conveyed to the Commonwealth.
- Any and all property rights that have been severed from the subject properties (e.g., utility easements) will be reassembled to meet Commonwealth standards.

Tax Map Number	Owner	Total Parcel Acreage	Last Sale Price	Current Assessed Land Value	Estimate of Current <i>Corridor</i> Market Value*	Notes
21-RR-69	Ridgewood 2000 (Utility Easement Holder: O.D.R., LLC)	238.72	\$442,500	\$652,400	\$1,523,238	This estimate of market value INCLUDES the value of the Utility and Permanent Construction Easements
9-6D	The Friends	0.279	\$0	\$1,400	\$1,400	Not part of RR Corridor; intended to be donated
9-82E	Joy G. Veazey	5.339	Unknown	\$40,000	\$34,067	
9-82BB	Joy G. Veazey Trustee	15.998	Unknown	\$400,000	\$19,781	Corridor acreage: ~3.1
9-9-10	Monmouth West Limited Partnership	19.777	Unknown	\$343,600	\$22,333	Corridor acreage: ~3.5
9-82GG	Kwan H. Ham and Hoe Chun-Ja Ham (Sheetz)	2.5299	\$1,750,000	\$1,708,100	\$3,573	Corridor acreage: ~0.56
TOTAL		282.6429		\$3,145,500	\$1,604,393	

Table 4 Corridor Valuation

*Parcels 9-82BB, 9-9-10, and 9-82GG have been valued based on their contributing rail-trail corridor areas only. The entirety of each parcel may need to be acquired depending on future development plans as an addition to Caledon State Park or if seller desires. This table does not include any acquisition costs that may be associated with required site distance easements at Indiantown Road, Muscoe Place, and Lambs Creek Church Road.

DUE DILIGENCE

Items in Table 5 estimate additional costs involved with acquiring these properties.

Table 5 Due Diligence Costs

COST ITEM	AMOUNT		
Appraisal	\$50,000 - \$100,000		
Survey	\$190,000		
Boundary Marking	\$100,000		
ESA Phase 1	\$10,000		
Title and Settlement Services	\$10,000		
DGS/OAG Fees	\$10,000		
Miscellaneous	\$20,000		
TOTAL	\$440,000		

The total estimated amount for acquisition and due diligence would be approximately \$2.1 million.

CONSTRUCTION

Although DCR would utilize an existing facility, the DRHT, work is required to bring the facility up to state park standards. Amenities like restrooms are also needed to provide the type of experience that state park users have come to expect. Vault toilets and other amenities are not included in construction costs for this feasibility study. If DCR acquires the corridor, a master planning process will identify needed facilities, appropriate locations, and associated costs and phasing. Construction costs itemized in Table 6 are based on "those improvements minimally necessary for camping, hiking, bird watching, equestrian activities, and biking," which can continue through special use permits and temporary facilities.

As part of capital improvements previously identified as needed at Caledon State Park, a new maintenance facility is needed. This facility could also support the Trail. Caledon State Park is situated approximately at the halfway point of the Trail. A shared maintenance complex would cost \$1 million to construct. Based on the Park's current operations, the equipment needed to operate a rail trail would cost \$359,000.

One of the most significant limiting factors for the Trail is the existing parking, which is adequate at the western end but needed at the eastern end. Limitations the current "handshake on agreements" with businesses must be formalized or additional property identified before any transfer could occur. Opening a state-managed facility will bring increased demand that will put pressure on local businesses and organizations that currently allow parking. There is a clear need to acquire both land and capital fund support to build out parking lots on the eastern end of the Trail.



Figure 22 - Existing trailhead at Indiantown Road

The other limiting factor involves restrooms, which are not provided by the Friends. Although primitive camping could be allowed through special use permits, due to the lack of amenities such as water and restroom facilities purchasing additional land would be needed for full-service campground and bathhouse development. These features would be located and phased through a master planning process.

Table 6 One-time Costs

COST ITEM	AMOUNT
Crosswalks, signs and gates at road crossings	\$375,600
Equipment	\$359,000
Construction (Maintenance Facility and Trail Improvements (16.63 miles)	\$15,568,320
*Renovation of existing structures	\$4,809,244
Acquisition	\$2,044,393
TOTAL ONE TIME COST	\$23,156,557

*Renovation of existing train cars is not included in this figure, which is based on the linear feet of existing culverts as shown on the 1942 plats. Train cars will require investment to ensure they are stabilized from deterioration and made safe.



Figure 23 - A culvert that needs repair at milepost 6

ENVIRONMENTAL CONSIDERATIONS

Culvert renovation and replacements will likely cause minimum impact to wetlands that will require permits prior to construction. Permits are often issued for culvert replacement.

Although the area surrounding the Trail provides suitable habitat for small whorled pogonia, a rare perennial orchid, a survey for this resource would not be needed because substantial tree clearing is unnecessary. The construction footprint will not exceed the existing 80' wide corridor, which is not dedicated as part of Chotank Creek Natural Area Preserve. Only erosion and sediment control measures and an invasive species management plan



Figure 24 - Trail marker with kudzu at the milepost 2

will be needed if the Trail should become part of the park. Future build-out of any areas outside the existing trail corridor would require further environmental review.

OPERATION

The Friends have spent \$1,026.59 on trail maintenance over the past year. Still, this amount does not capture most everyday expenses that are paid out-of-pocket by volunteer maintainers (i.e., equipment purchases, gas, oil, repairs, parts, etc.).

The list below captures most of the maintenance work completed by a handful of volunteers for public benefit:

- Mowing/bush-hogging/weed whacking
- Limb lopping, clearing encroaching branches
- Routine tree clearing
- Major storm event tree clearing (A snowstorm last January required a major, one-time effort, and many community members came out to help).
- Clearing side-ditches
- Tread improvements (applying surface aggregate, laying planks in muddy areas)
- Repairing culverts

The Friends do not collect volunteer hours. Much of the work is completed on an ad hoc basis, with people contributing as they have time. An occasional work party may include Navy personnel from Dahlgren or clubs from Fredericksburg (e.g., Team Red, White and Blue). Some Trail neighbors maintain a section by clearing the Trail as they walk, mowing an area or clearing a downed tree. A few years ago, the Friends estimated 1,500 volunteer hours per year for the NPS study, with 80 percent of that volunteer time dedicated to trail maintenance.

Developing and equipping a maintenance area and hiring two park rangers would help address issues like trespass and litter identified by some adjacent property owners and alleviate the pressure on volunteers to perform all trail maintenance. Improving the trail surface and visibility at road crossings would improve the trail experience, which in turn would attract more use.

For DCR to operate the facility at existing state park standards, the following annual operating costs will be needed.

COST ITEM	AMOUNT
Two full-time staff	\$186,393
*Annual operations	\$166,699
TOTAL RECURRING COST	\$353,092

 Table 7 - Ongoing (Recurring) Costs for Staffing and Operations

* This includes general operations, routine maintenance, wage staff, resource management activities.

BENEFITS

Although the following benefits are not specific to the Trail, methods used to measure benefits used in other locations provide insight into what could be measured in King George County. There may also be benefits to adjacent landowners like an increased law enforcement presence and more accountability that are intangibles outside the scope of this report.

REVENUES

Linear parks have more edge than traditional state parks and it is difficult to collect parking fees that offset operating costs. What would be a challenge, or limiting factor for DCR, is a benefit for the local community as park access is closer and easier. Besides parking fees, other potential revenue sources, which may require additional development, are listed below:

- Special permit or entrance fees for special events
- Special permit fees for concessions within the right-of-way
- Merchandise sales
- Picnic shelter rentals
- Camping fees
- Equipment rentals
- Donations
- Interpretive program fees
- A membership organization could collect revenue from a range of membership levels and solicit and accept donations on behalf of a trail.



Figure 25 - Existing campsite along the Trail

TRAVEL DISTANCE

Based on a report reviewing 2021 visitor comment cards, ¾ of state park visitors traveled over 50 miles to visit a state park. About half traveled over 100 miles.² With 8.6 million people within a two-hour drive of Caledon State Park, visitation will have to be limited to the carrying capacity of the resource, which would expand with additional parking at trailheads.

PROPERTY VALUE

In a feasibility study for a rail trail in the Shenandoah Valley completed in 2021, VDOT staff estimated that property values could increase 3-4 percent within the more developed areas along the corridor if a trail was constructed. Since the Trail already exists, impacts could be measured

by comparing the price of residential properties with similar attributes in terms of structure, location, and amenities to quantify the impact of the benefit derived from proximity to the trail. With distance and access to the trail facility as the primary variable, a quantitative value can be determined based on property proximity to the facility.

ECONOMIC IMPACT

According to a study of the Economic and Fiscal Impacts of Virginia's State Parks in 2021³, economic activity created by state parks was associated with approximately \$272.1M in valueadded effects, which is a measure of the park system's contribution to the gross domestic product of the Commonwealth. These effects are especially important at the park-by-park level where most of the impact is retained in the local area.

Although High Bridge Trail State Park is in a much more rural part of the Commonwealth, this 32mile rail-trail generated \$6.0M in value-added effects, including \$506K in state and local taxes. With 159,990 day-use visitors, this park also generated \$10.2 million in economic activity in 2021 (\$6.5 million in adjusted economic impact).

A <u>2021 study</u> of the Potomac Heritage National Scenic Trail by the Northern Virginia Regional Commission revealed the following economic findings for restaurants and retail establishments related to outdoor activities within 1.5 miles of the 140-mile trail through Northern Virginia:

- \$86.8 million in total annual revenue generated by 254 trail-facing businesses
- \$3.8 million generated by 16 outdoor retail establishments
- \$83 million generated by 238 restaurants

TRANSPORTATION IMPACTS

Based on data from StreetLight, commuting on the Potomac Heritage Trail accounts for:

- 1.9 million miles of walking annually
- 4.6 million miles of biking annually
- 45,000 miles of commuting each year per average mile of trail

Using IRS estimates of per-mile personal vehicle ownership costs (\$0.56/mile in 2021) and DC area-specific estimates for the cost of pollution, the trail provides more than \$4 million in annual avoided transportation costs (average of more than **\$29,000 per mile of trail**).

- \$3.7 million personal vehicle costs avoided
- \$480,000 environmental costs avoided

Reductions in environmental pollutants:

- 27 metric tons of CO
- 1.2 metric tons of NOx
- 2,500 metric tons of CO2e

HEALTH CARE

The study also found that the Potomac Heritage Trail helps prevent 32 deaths per year. Using an economic benchmark of \$11 million per avoided fatality (calculated by USDOT), the <u>HEAT</u> model suggests that there are \$349 million in annual reduced mortality benefits, or more than **\$2.4 million per mile** of trail. Another \$55 million accrues from avoided health care costs.

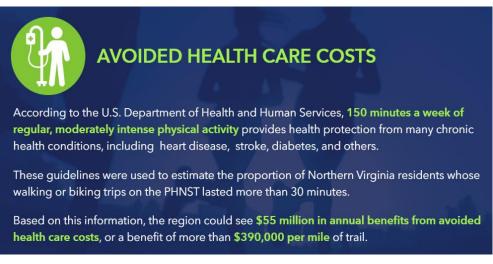


Figure 26 - Infographic from the Potomac Heritage Trail Equity and Impacts Study

QUALITY OF LIFE IMPROVEMENTS

Linear parks are now recognized as an important part of modernized transportation systems, but they also perform important recreational and ecosystem functions. Healthy parks are safe, visually appealing, accessible, and inviting. They also preserve and protect biodiversity, provide natural buffers, support outdoor recreation, and define a sense of place or community.

Additional active transportation benefits are highlighted in the info brief Advancing Trails to Support Multimodal Networks in the Appendix E.

CONCLUSION

This report set out to answer a series of questions to meet the tasks outlined in House Bill 30, Item 375 K. The questions and answers are summarized in the paragraphs below.



Figure 27 - Linear parks connect people to nature

Existing uses along the trail (camping, fishing, hiking, bird watching, biking and horseback riding) could be continued as part of a state park with limited trail surface and crossing improvements as compared to other rail trail projects, provided that temporary restroom facilities are provided for camping and other special events.

If a maintenance facility and associated equipment are added to Caledon State Park, both the park and the Trail will benefit. The long-distance rail trail and associated events would make

additional recreational opportunities available to the public.

The historic rail trail may be best preserved through public ownership, and this is also the expressed interest of the current private landowner as there are limits to what the Friends can provide. Additionally, as long as the Trail is privately owned, the corridor may be subject to development pressures. Culverts that are now 80 years old will also need to be replaced, at a cost far above the resources of a 501(c)3 with an annual budget of less than \$50,000.

There is some community support for state ownership and management of the Trail. Of the 48 stakeholders interviewed, 32 wanted the Trail to become part of Caledon State Park, 9 were opposed and 7 were neutral. Of 19 adjacent landowners who responded to direct mail, 7 were in support, 9 were opposed, and 3 were neutral. Every member of the King George County Board of Supervisors is in favor of the Trail becoming part of Caledon State Park.

There is a market for the recreational opportunities the Trail could provide, both within King George County and in nearby metro areas. Based on the potential market, proximity to state facilities, and the availability of water and sewer, the corridor appears suitable for development and incorporation in Caledon State Park. Additional soil analysis and geotechnical data would be needed to site facilities along the trail should future master planning propose it.

There are both limiting factors and advantages if the Trail is owned and operated by the Commonwealth of Virginia. The one-time and/or ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park are outlined in Table 8.

Table 8

One-time and Ongoing Expenses Associated with the Trail's Acquisition and Incorporation into Caledon State Park

One-time Cost Items	Cost (Dollars)	
Road Crossings	\$375,600	
Renovation	\$4,809,244	
Construction	\$15,568,320	
*Acquisition	\$2,044,393	
Equipment	\$359,000	
Total One-time Cost Items	\$23,156,557	
Ongoing Cost Items (Recurring)	\$353,092	

*Note: This table does not include any acquisition costs that may be associated with required site distance easements at Indiantown Road, Muscoe Place and Lambs Creek Church Road.

As detailed in this report there are a number of costs and limiting factors to consider, in making recommendations on the Trail's suitability as a recreation area for incorporation into Caledon State Park. Likewise, based on site location, local and regional priorities, and state park system needs, there are numerous benefits to the Trail becoming a part of the existing park.

Based on a review of this information, DCR has concluded that the Trail could be a suitable recreation area for incorporation into Caledon State Park. However, in arriving at this conclusion this report makes the following recommendations:

- 1. Prior to any acquisition, the issues identified below will need to be resolved.
 - Identify additional property needed to resolve adjacent property landowner and sight distance concerns and provide adequate parking at trailheads;
 - Complete any necessary Trail realignment (for example, needed realignment at Little Ark Baptist Church to avoid bisecting a cemetery);
 - Reassemble property rights (i.e., utility easements) severed from parcels of interest; and
 - Mitigate any unsafe conditions, such as firearms used toward the trail at the property owned by a local gun club.
 - 2. Resolution of outstanding issues will require investment of additional staff time and resources, and will need to be adequately planned for in advance; and

3. Any outstanding stakeholder feedback should be reviewed, and where appropriate considered in the decision-making process for the future of the Trail.

Addressing these recommendations will enable DCR to better understand and plan for how complex issues surrounding land acquisitions, easements, and relationships with adjacent property landowners, and one-time and ongoing (recurring) costs will be handled should the Trail become a part of Caledon State Park.

In doing so, DCR will be better positioned to take actions to preserve the historical trail and enhance Caledon State Park facilities, the Trail, and recreational opportunities for citizens of King George County and visitors to Caledon State Park, should it be determined that it become a part of the park and under the management of DCR.

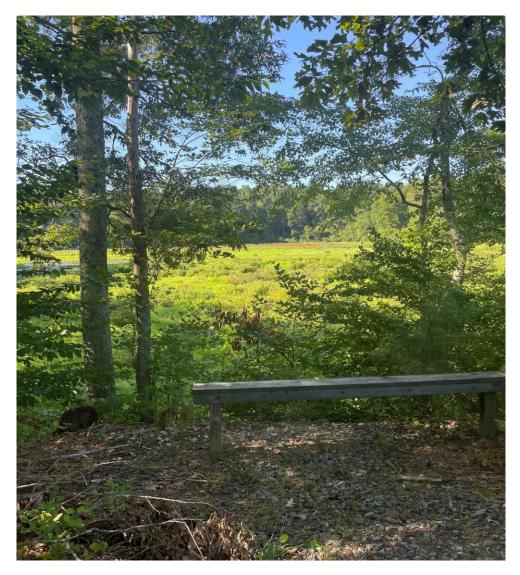


Figure 29 - View of the swamp marsh from the DHRT

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¹ The 1989 Virginia Outdoors Plan: A Plan for Meeting Virginia's Outdoor Recreational Needs and Conserving the Environment. Commonwealth of Virginia. June 1989

² VIRGINIA STATE PARKS: YOUR COMMENTS COUNT SURVEY RESULTS 2021, by Vincent P. Magnini, Ph.D. College of Business and Economics Longwood University Delivered: March 14, 2022.

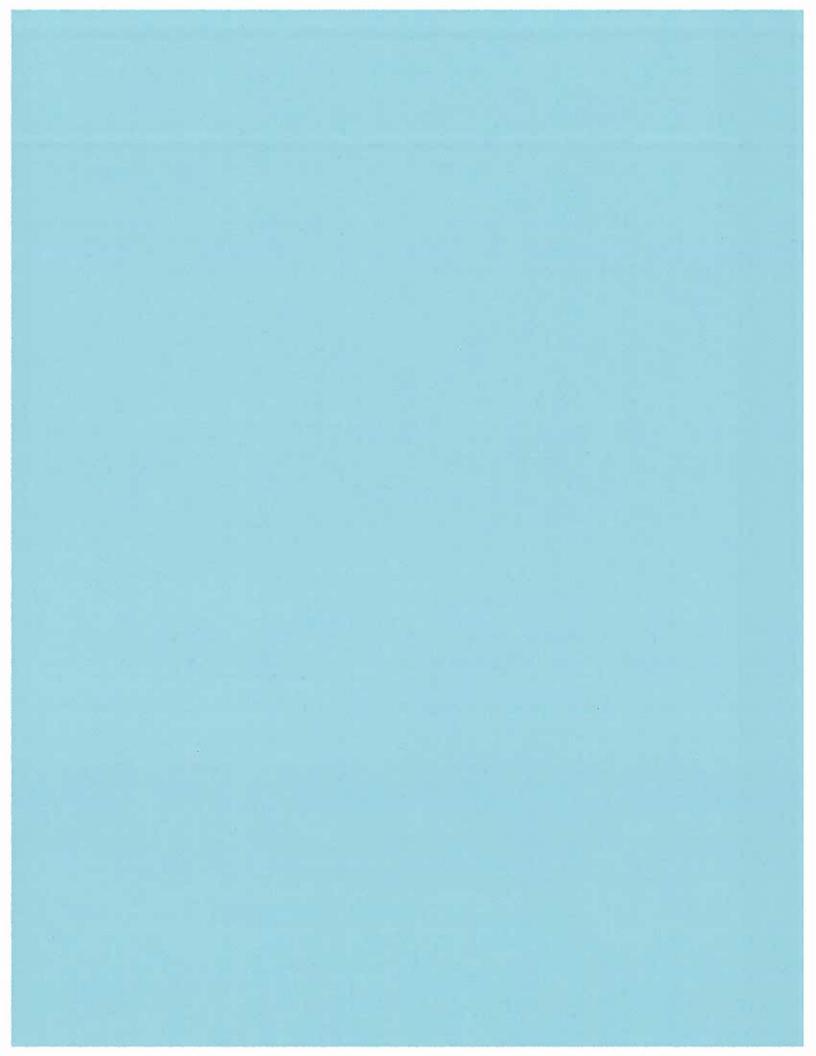
³ THE ECONOMIC AND FISCAL IMPACTS OF VIRGINIA'S STATE PARKS: 2021, by Vincent P. Magnini, Ph.D. College of Business and Economics Longwood University Delivered: Jan. 28, 2022.

Appendix A

History

a. Key dates

b. Building a Trail and Connecting a Community The Establishment of the Dahlgren Railroad Heritage Trail, article by Dawn Bowen



HISTORY OF THE DAHLGREN RAILROAD HERITAGE TRAIL

The Dahlgren Railroad Heritage Trail (DRHT) is a 15.7-mile rails-to-trail located in King George County, Virginia. It has been designated as a National Recreation Trail by the U.S. Secretary of Interior, and it is an important segment of the Potomac Heritage National Scenic Trail.

1942: The US Government builds the Dahlgren Branch to connect the RF&P railroad main line near Fredericksburg to the Dahlgren Navy base to support the war effort.

1957-1963: The Dahlgren Branch Line operated until 1957, during which time it was also used as a passenger line. It ceased operation in the early 1960's and was declared surplus by the U.S. Government.

1965: The U.S. Government sold the Dahlgren Branch to RF&P Railroad.

1990: The RF&P removes most of the rails from the unused King George County segment of the Dahlgren Branch.

1993- 1994: CSX acquires RF&P. CSX attempts to sell the Dahlgren branch in King George to adjacent property owners but fails.

1995 – 1997: King George Resident Joseph L. Williams purchases the abandoned 16.7-mile rail line from CSX.

1998-1999: Virginia Department of Conservation and Recreation (DCR) includes the "Dahlgren Junction Trail on the "Connecting Our Commonwealth" map at the 1999 Governor's Conference on Greenways & Trails.

2000: King George County Sierra Club promotes acquiring the corridor as a rails-to-trail with a connection to Caledon Natural Area (now Caledon State Park). There would be no financial cost to King George County. The King George Board of Supervisors declined.

2001: The rail corridor is listed in the updated Virginia Outdoors Plan.

2006: David Brickley purchases the DRHT from Joe Williams.

2006: Friends of the Dahlgren Railroad Heritage Trail, an IRS 501 (c)(3) non-profit was formed to improve and protect the corridor.

2006: The Friends of the Dahlgren Railroad Heritage Trail cleared standing trees, debris and the remaining railroad ties from the railbed, improving the trail base, and opening the use of the trail to the public. No-charge trail permits were introduced.

2008: Two vintage RF&P train cars, a caboose and a box car were donated to the Friends and are placed on existing rails at the Bloomsbury Road trailhead. The trailhead improvements and partial restoration of the cars were Eagle Scout projects. The trail has benefited immensely by contributions from local Scouts and their troops.

2008: The first DRHT trail race is inaugurated. This race, an ultramarathon at 50KM, continues to be popular, and has spawned several other long-distance races on the trail.

2011: The Caledon State Park Master Plan mentions a connection to the DRHT via a new parking area and trailhead on the western edge of the park. The parking area was funded by the Friends of Caledon.

2015: The King George Board of Supervisors supports the acquisition of the DRHT by the state for an addition to Caledon.

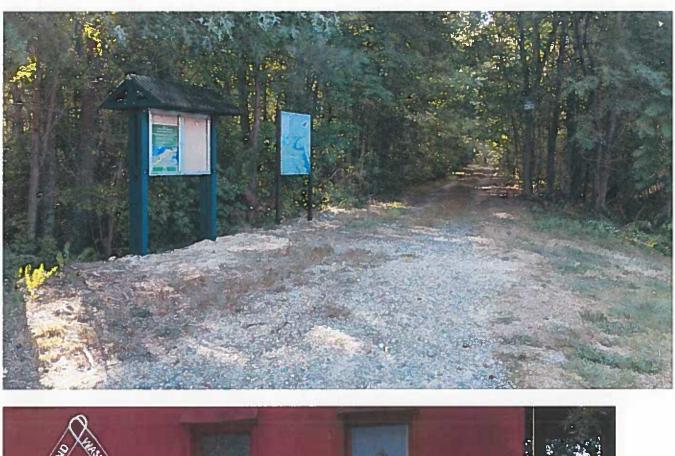
2018: Brickley and the Friends of the Dahlgren Railroad Heritage Trail sign an agreement with the King George Board of County Supervisors making the trail part of King George County Parks and Recreation Department system while still owned by Brickley and maintained by the Friends. The County continues to support Virginia's acquisition of the DRHT to be part of Caledon State Park. The Dahlgren Railroad Heritage Trail is designated as a National Recreation Trail by the U.S. Secretary of Interior, Ryan Zinke as well as a segment of the Potomac Heritage National Scenic Trail.

2019: King George County with the support of the Friends and other county organizations is awarded a grant from the National Park Service through their Rivers, Trails and Conservation Assistance program. The grant will support the creation of a Concept Plan for the DRHT. Delayed due to the covid pandemic, the Concept Plan was completed in in April of 2022.

2020-2022 The Friends of DRHT are awarded a grant from the Community Foundation to improve two of the trailhead parking areas. The Community Foundation also awarded a significant grant to Little Ark Baptist Church to support moving the DRHT onto adjacent property so the original railbed can be returned to the church. The King George Board of Supervisors pass a resolution supporting state park status for the DRHT. The trail races continue to be very popular drawing 100s of runners from across the region.

August 2022. A new kiosk and history panel was installed at the end of the historic Dahlgren Junction Line railbed across from the old "railroad gate" into the Navy Base at Dahlgren. The railroad history was researched by the Dahlgren Museum with support from the Community Foundation. The entire project was conducted by Wil Tolley, Troop 191, King George for his Eagle Scout project.







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Building a Trail and Connecting a Community: The Establishment of the Dahlgren Railroad Heritage Trail

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Building a Trail and Connecting a Community

The Establishment of the Dahlgren Railroad Heritage Trail

DAWN S. BOWEN University of Mary Washington

The Dahlgren Railroad Heritage Trail (DRHT) is a controversial rails-to-trails development project on an abandoned right-of-way in King George County, Virginia. The Friends of the DRHT, an organization formed in the spring of 2006 to turn an idea into reality, has made remarkable progress since that time, clearing land, creating a trail head, marshalling support from county residents, and educating those who are opposed to trail development. Establishment of the trail brings an unprecedented recreational resource to the county, which is experiencing rapid population growth. This article explores the context of railsto-trails conversion, the organization of Friends of the DRHT, its efforts to develop and promote the trail, the opposition which the group has faced, and the progress it has made in overcoming these obstacles.

El Dahlgren Railroad Heritage Trail (DRHT) es un proyecto de desarrollo controversial que busca convertir en calzadas las vías de tren abandonadas en un área pública del condado de King George, en Virginia. La organización 'Friends of the DRHT,' una organización creada en la primavera de 2006 para convertir una idea en realidad, ha tenido avances notables desde aquel entonces, logrando limpiar terrenos, crear un trailhead, liderando el apoyo de los residentes del condado, y educando a aquellos que se oponen al desarrollo del proyecto. El establecimiento de las calzadas, constituiría un recurso recreacional sin precedentes para el condado, el cual está experimentando un rápido crecimiento demográfico. Este artículo explora el contexto del proyecto de conversión de rieles en calzadas, la organización 'Friends of the DRHT,' sus esfuerzos por desarrollar y promover el proyecto, la oposición que ha experimentado ese grupo, y los progresos que han obtenido en vencer tales obstáculos.

KEY WORDS: recreational trails, grassroots organization, rails-to-trails

INTRODUCTION

In King George County, Virginia, a rapidly growing locality twenty miles east of Fredericksburg, conversion of the former Dahlgren railroad line into a multiuse trail is underway. The line, hastily constructed by the U.S. military in the months after the bombing of Pearl Harbor, was sold to private interests in the 1960s, abandoned in the 1990s, and purchased by a King George resident in 1997. A decade later, the Dahlgren Railroad Heritage Trail (DRHT) has been developed as a private trail extending nearly 16 miles through the county (Figure 1). Conversion of this abandoned rail line into a multiuse trail was made possible by Friends of the DRHT, a group formed in April, 2006, which has dedicated countless volunteer hours to develop and maintain the trail, as well as to encourage county residents and elected

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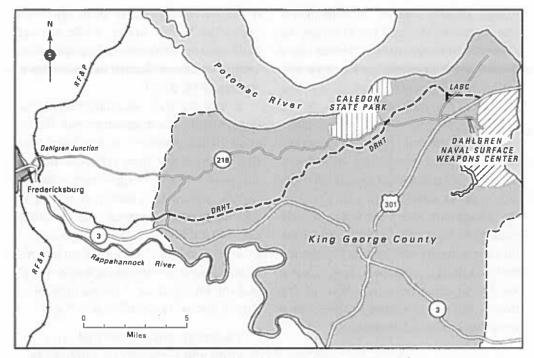


Figure 1. Location of the Dahlgren Railroad Heritage Trail.

officials to support the project. The ultimate goal of the Friends is to turn the trail over to the state for funding, operation and maintenance, but considerable local opposition, as well as the lack of the support from county officials, has slowed the process. This article reviews the establishment of DRHT within the context of a national movement, describes the formation of its Friends, assesses the progress that the group has made, and identifies the obstacles it has encountered as it works to promote the trail. It demonstrates how a group of dedicated private citizens has succeeded in creating a trail despite considerable opposition, and traces the steps that have been taken to make this trail an integral part of the county's life and landscape.

In late 2006, the Friends of the DRHT contacted a nearby university to seek an intern to help with their research. The matter came to the author's attention during a conversation with a student interested in this position. Seeing it as a way to combine classroom instruction with practical application, the author and a colleague met with the Friends' President to discuss what the group wanted to have done and how our students might become involved with the organization. In the spring of 2007, we supervised the work of a dozen undergraduates who conducted research on the history of the Dahlgren railroad and the formation of Friends of DRHT, and produced maps documenting land use on either side of the trail and identifying waterways and access routes that cross it. Some of the group, including the author, attended bi-weekly Friends' meetings throughout the semester and, on three occasions, most students participated in trail events that included tie removal, clean-up, and hikes. In doing this, we became participant observers in the

process, dealing most often with people who supported the trail but also meeting some who were against it. A Friends board member made available her extensive collection of newspaper clippings and letters about the trail, dating back to the mid-1990s, as well as some historic materials about the rail line's construction. Interviews were conducted with board members as well as with individuals who had no direct involvement with the trail. The documents and interviews, in combination with articles and letters to the editor appearing in both the King George and Fredericksburg newspapers, have made it possible to construct a narrative of this project, and to understand positions taken by its supporters and opponents.

THE RAILS-TO-TRAILS MOVEMENT

The non-profit Rails-to-Trails Conservancy (RTC) was formed thirty years ago "to create a nationwide network of trails from former rail lines and connecting corridors to build healthier places for healthier people," and sought to accomplish this mission by supporting "local efforts to transform the dream of a trail into a tangible community asset" (RTC 2007). Today, communities across the United States are benefiting from the development of former railroad lines into walking and biking paths. Peter Harnik (2007), co-founder of RTC, explains the phenomenon, largely Midwestern in origin, as smart and simple. Turning abandoned rail corridors into public trails was a logical outcome as local citizens began walking along these routes. Only recently has the movement taken on national proportions. At present, more than 1400 trails have been established and 13,500 miles

of former rail lines have been converted across the United States, while another 1200 rail-trail projects totaling more than 14,000 miles are planned or under development (RTC 2007).

In Virginia, state law mandates that the Department of Conservation and Recreation (DCR) produces an Outdoors Plan that incorporates data collected from a survey of "citizens' outdoor recreation activities, park user preferences and opinions on natural resources and conservation" (VDCR 2006). In 2006, 49 percent of those responding to the survey agreed that establishing "trails for hiking and walking" was the state's greatest recreational need (VDCR 2006). The draft plan declares:

The integration of parks and open space into a locality's comprehensive plan is critical to improving quality of life. Emphasis should be placed on components such as hiking and biking trails.... The integration of these activities into community planning makes walkable, livable communities a reality, especially where local parks and recreation departments work in concert with economic development, tourism and planning departments to create a community vision that connects open space, land conservation and outdoor recreation opportunities. Citizens across the state are emphatic that these important outdoor recreation resources must continue to be acquired and protected (VDCR 2006, p 3).

The plan noted that the proposed Dahlgren trail would be a link to the Potomac Heritage National Scenic Trail, a corridor being developed along the Potomac River to connect Chesapeake Bay with the Allegheny Highlands (VDCR 2006). Its completion will add still another component to the country's network of recreational trails, which has attracted considerable attention in both academic and non-academic circles. With state recognition of its efforts, the Friends hope that its second goal of integrating DRHT with regional and national trail and greenway networks will soon be realized (Friends 2007a).

The vast literature that addresses the various components of trail creation has largely been created by advocacy organizations such as the RTC, American Trails, state and county planning agencies, and local trail organizers. For example, the American Trails website lists more than 2400 publications related to existing trails and trail building, as well as the management of, advocacy for, and education about trails (American Trails 2008). These studies, which are overwhelmingly positive in their assessment of trail creation, deal primarily with user demographics and the impact that trails have on local communities.

One of the best known rail-trail conversions, the Washington & Old Dominion trail, took place in northern Virginia.¹ Bowker et al. (2004) surveyed trail users for the Virginia DCR in 2003-04, gathering data on user demographics and their opinions about trail amenities. In addition, the study sought to determine benefits for trail users and economic impacts of the trail within the region. Their data indicate that the trail "is being successfully managed to meet the needs and expectations of a majority of users," and has had a significant economic impact on the local economy (Bowker et al. 2004, p 26). In two similar studies of another trail, the Virginia Creeper Trail (VCT) in the southwestern part of the state, Bowker et al. (2004; 2007) again gathered data on user demographics and economic impacts. They conclude that despite the trail's distance from major population centers, it has had broad economic benefits on the region (Bowker et al. 2007, p 257).

Other social scientists have documented the real or potential economic impacts of trails on property values. A study by the **Recreation and Leisure Studies Program** at the University of Nebraska-Omaha addressed concerns that critics of new trail development in Omaha had about the impact of trails on property values. Greer (2000) surveyed residents who lived within one block of three different trail segments, and found that nearly twothirds of survey respondents believed that their homes would be easier to sell because of their proximity to a trail, with 42 percent suggesting that the sale price would increase (Greer 2000, p 10). Nicholls and Crompton (2005) examined three neighborhoods in Austin, Texas, to assess the impact of proximity to greenways on property values. They conclude that in two of the three neighborhoods there has been a generally positive impact on the sales price of homes adjacent to the greenways, while in a third case, there was no significant impact of either a positive or negative nature. Campbell and Munroe (2007) have assessed the potential economic impact on the Catawba Regional Tail, a planned trail in Mecklenburg County, North Carolina. Their study indicates that "proximity to a greenway increases property values, and thus home prices, in a predictable manner." They caution, however, that as other studies have shown, several years must pass before "the full premium is capitalized

into the value of the land," but that "real estate premiums associated with the [trail] may increase over time" (Campbell and Munroe 2007, p 134).

Moore et al. (1992) broke new ground by examining the benefits of rail trails and the perceptions of adjacent land owners. Interestingly, attitudes toward individual trails tended to improve over time, with one-quarter to one-third of survey respondents reporting a "much better attitude about living near [the] trail now compared to [their] initial reaction." Survey results also indicate that the majority of trail neighbors had experienced "relatively few problems" with the trails and were "satisfied with having the trail as a neighbor" (Moore et al. 1992, p ii). These findings are supported by Turco and Lee (1996), whose study of an urban rail-trail system in Illinois demonstrated that many homeowners changed their opinions about living next to a recreational trail. "Among those residents who did not look forward to the trail being developed in their backyards," they say, "most had changed their opinions and viewed the trail in a more favorable light." Examining the 35-mile long Mohawk-Hudson Bike-Hike Trail in upstate New York in an effort to "foster ideas for improving the trail as a neighbor," Feeney (1997) also observed that most adjacent landowners were satisfied with the trail and that they, too, believed that "living near the trail was better than they had expected."

Largely lacking in the literature are analyses of the process of rail-trail creation, which is the principal focus of this study. One exception is the work of Davis and Morgan (1997), who address the historic antecedents of the Virginia Creeper Trail (VCT) and the successful but controversial efforts to establish the trail. The VCT is a thirty-four mile long trail running from Abingdon in the west through the town of Damascus to the North Carolina border. The authors documented the history of the organization of the Virginia Creeper Railway in the late nineteenth century and its subsequent construction in the early twentieth. By the 1970s, the railway's owner, the Norfolk & Western, could no longer justify the cost of the maintaining the line, and the ceased operations on these tracks in 1977. A few months later, Dr. David Brilhart, a member of a local planning commission

brought forward a Washington Post article about making trails out of abandoned right-of-way corridors. Several successful "rail-to-trail" conversions had occurred in the early '70s in Wisconsin. Inspired by these stories, Dr. French Morre, Jr. (then Abingdon's Vice-Mayor) and a few other investigate and decided to pursue the idea (Davis and Morgan 1977, p 68–69).

As part of its efforts to expand recreational opportunities in the Mount Rogers National Recreation Area, the U.S. Forest Service (U.S.F.S.) purchased an eighteenmile long portion of the right-of-way stretching from Damascus to the North Carolina border for use as a hiking/biking trail in 1978. The town of Abingdon continued its efforts to acquire another portion of the right-of-way. Although there was vocal support for a trail, the Board of Supervisors ultimately voted down the proposal. Three long years later, the Virginia Commission for Outdoor Recreation and the Tennessee Valley Authority allocated funds for the purchase of the thirteen-mile section between Abingdon

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and Damascus. In 1982, the towns of Abingdon and Damascus purchased those parts of the right-of-way needed to complete the trail. Today, half of the trail corridor is located on federal lands while the remainder belongs to local governments (Davis and Morgan 1977, p 69–71).

Repairs to existing bridges and trestles took nearly a decade to complete, but designation of the VCT as a National Recreational Trail by Congress in 1986 helped to quicken the pace. The trail was completed in 1989. Today, the Virginia Creeper Trail Club, a volunteer organization, works to keep the trail clean, and assists the towns and the U.S.F.S. with tree removal and erosion prevention (Davis and Morgan 1977, p 71-73). The VCT has become one of the most popular recreational trails in the state (Bowker et al. 2007). Its success could not have occurred without significant cooperation between private groups and public agencies, and the procedure that was followed is seen as a model for the development of other trails, including the Dahlgren Railroad Heritage Trail.

THE DAHLGREN RAIL TRAIL

During World War I, the U.S. government established a proving ground at the present site of Dahlgren in sparselypopulated King George County, to test and improve naval weaponry. The facility expanded in the late 1930s as the U.S. began building up its defenses in anticipation of the Second World War. Dahlgren's isolation, which had once been an advantage, now became a significant disadvantage as the military needed to move heavy munitions to the site. In 1939, the government purchased a right-of-way for a railroad, contracts were tendered, and construction began in early 1941. The Japanese attack on Pearl Harbor accelerated the timetable, and the first train reached Dahlgren in 1942 (McCollum 1977; Curley 1994). The railroad ran nearly thirty miles from Fredericksburg to the base, and operated until 1957, carrying passengers as well as freight (Friends 2007a). Thereafter, it sat idle until it was declared surplus, and the General Services Administration placed it on the market. The government offered the line to both King George and an adjoining county for half a million dollars, but neither was interested in acquiring it (Curley 1994). The Richmond, Fredericksburg, and Potomac Railroad (RF&P) company purchased the line in 1965 for \$605,000 (Griffin n.d.), and used it until 1992, when it was sold to CSX Transportation (Friends 2007a). A year later, CSX offered the rail bed to adjacent landowners but not enough of them were interested, so it was put up for sale (Friends 2007a). The property remained on the market for several years before Joe Williams, a former chairman of the King George Planning Commission, bought it in December, 1997.

Before Williams purchased the property, a number of short-lived attempts had been made to establish a trail along the right-of-way. In November 1993, a King George resident proposed to the Board of Supervisors (BOS) that a trail be built, "but the supervisors did not act on his suggestion" (Anderson 1994). A year later, County Administrator Eldon James suggested applying for an Intermodal Surface Transportation Efficiency Act (ISTEA) grant to purchase the railway land for a Dahlgren Railroad Trail (Friends 2007a). The BOS authorized James to pursue this option, but as it turned out the grant money was not available (Anderson 1994). In October 1997, Jo Turek, Director of the County's Department of Parks and Recreation, recommended that it seek to acquire the land for a county-run trail with grants from ISTEA and the American Greenways program. Once again, the BOS declined to support these measures (Turek 1997; Friends 2007a).

The most concerted effort to convert the right-of-way to a trail occurred in January 2002, when Virginia State Delegate Albert Pollard, whose district included King George County, submitted House Bill 1339, which would authorize the Virginia DCR to accept the abandoned railway as a gift from the Conservation Fund, which had an agreement with Williams to purchase the property (Friends 2007a). The bill passed unanimously. According to the King George Journal, the bill stated "that any costs associated with the land transfer would be borne by the DCR's Conservation Resource Fund" and the trail would be managed jointly by DCR and staff of nearby Caledon State Park (Cook 2002). According to the Journal, the county Supervisors "appeared miffed that they had not been consulted on the project" (Cook 2002). Pollard called a town meeting in February 2002, and heard from about forty King George residents who expressed several concerns, including the potential for trespass on neighboring properties, "public safety on the trail, and expenditure of tax money" (Finch 2002). Pollard then vowed to make several amendments to address these concerns, and the bill was carried over to the next legislative year, when the state Senate refused to support it after learning of the adjacent landowners' concerns (Cook 2002). No additional effort was made at the state level to resurrect these plans.

In 2000, the King George County Board of Supervisors, concerned about the impact of unprecedented growth, contracted with a group of economic development consultants to formulate a plan that would help the county adjust to changing demographic conditions. The report, completed in 2002, offered "recommendations to preserve the County's way of life while accommodating growth and change" (Hammer, Siler, George Associates 2002). The County has experienced rapid growth in the last decade and a half, with its population increasing from 13,500 in 1990 to 21,700 in 2007 (U.S. Census Bureau 2008). Its Planning Office has approved an average of 350 permits for new singlefamily home construction each year since 2000 (U.S. Census Bureau 2000-2007). This growth has placed real strains on local infrastructure, and many residents are concerned that too much construction is occurring without appropriate planning. The report made numerous recommendations for promoting new employment growth, but also emphasized that tourism could become an important component of the area's economy. While access to historic sites was one dimension of the recommendations, another was the establishment of new recreational resources. A campground, a picnic area, a town plaza at the courthouse, and a public park on a former landfill site were mentioned, as well as a "rails to trails" project along the former railroad line (Hammer, Siler, George Associates 2002). But in spite of

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the growing need for recreational spaces and the clear benefits of such a trail to the County, its Board of Supervisors, bowing to the wishes of a few influential landowners, has been unwilling to support its development, even though it had commissioned the study that recommended creation of the trail.

THE FRIENDS OF DRHT

In 2005, David Brickley, a former Delegate of the Virginia House (1976-1998) and later director of the Virginia Department of Conservation and Recreation (1998-2002), acquired development rights to the trail from Joe Williams (Branscome 2006a). Fear that properties through which the rail line ran would be sold off (as was the case with one prime parcel) led Brickley to take this action (J. Herrink 2006a). In March 2006, an article about the planned trail appeared in Fredericksburg's Free Lance-Star. David Jones, a hiking and biking enthusiast, responded by urging Brickley to organize supporters as quickly as possible (D. Jones 2007). Brickley formed the Dahlgren Railroad Heritage Trail Association, which held its first meeting on April 30, 2006 (Brickley 2006). By the end of the meeting, a draft campaign plan had been formulated. This contained a statement of the group's goals, its strengths and weaknesses, a plan for communicating trail news to the community, and tactics and a timeline for trail completion (Friends 2006a; 2006b). Work began on the trail immediately, with more than a mile cleared during the first week (D. Jones 2006). The impetus for the quick action was the planned opening of the trail on June 3 to coincide with National Trails Day (Figure 2).

On that day, about fifty supporters gathered to dedicate the trail and celebrate the group's accomplishments. David Jones, now DRHT's president, provided a brief history of the Dahlgren Railroad, while Brickley spoke about the trail's organization and its volunteers, remarking that "within a few days they had cleared and put rock dust over a mile of the old railroad line." He continued: "This is what volunteerism is all about. . . . If the federal government had hired these guys to go down to New Orleans, they would have rebuilt the city in a month and a half" (J. Herrink 2006b). Another speaker, George Solley, a Fredericksburg city councilman and chairman of the Fredericksburg Pathways Committee, a group dedicated to expanding and connecting trails in the city and surrounding counties (Branscome 2006b).

Trail opponents were also present at the ribbon cutting ceremony. They posted signs along public roads and chanted antitrail slogans (Figure 3; J. Herrink 2006b). One of their objections was that many trail supporters are not county residents. John Headley, chairman of the King George Republican Committee and a vocal critic of the trail, reported that "his group had photographed county stickers on vehicles at . . . locations where supporters had parked . . . and that of a total of 51 vehicles, 31 were from outside King George" (J. Herrink 2006b). Brickley, the trail's developer, acknowledged that he is not a resident of King George, but declared that despite the awkwardness of this situation, his desire to "preserve the trail" and "save what we have before we lose it" was his



Figure 2. Trail with rails and ties on site. Photo by author.

paramount concern (J. Herrink 2006a). He concluded: "If generations to come are able to use this, I think it will be a tribute to all of us" (Branscome 2006b).

COUNTERING THE OPPOSITION

Numerous King George residents have written letters to the editors of local newspapers to complain about a variety of concerns about the trail, including crime, property damage and vandalism, and legal liability. One example is a letter written by a Dahlgren resident who asserted that "murderers from other areas have dumped bodies here, some close to the proposed trail," and that the trail would give terrorists easy access to the Naval Surface Warfare Center at Dahlgren (Reed 2006). Concerns about privacy were expressed by another county resident who specifically feared an increase in incidents of trespass (Barker 2006). Still another woman reported that trails such as these were not safe, supporting her view by saying that at some time in the past her sister had been attacked along a rail trail in Maryland (Gulotta 2006).

Several members of DRHT's Board of Directors, as well as other citizens from King George and surrounding communities, have written to local papers to counter the arguments made by opponents and to voice support for the trail. In response to the issue of crime, Friends Vice President Dave Fedorchak cited an RTC study



Figure 3. A visible sign of Trail opposition. Photo by author.

in an op-ed piece published in the Free Lance-Star:

Stories of trails attracting drug dealers, murderers, and rapists are perpetuated by trail opponents with only a handful of newspaper headlines to back up their assertions.... Despite numerous studies that have concluded that rail-trails do not generate crime, concerns persist and fear of the unknown continues to provide fertile ground for trail opponents (Tracy & Morris 1998, quoted in Fedorchak 2006).

Another letter came from James Lynch (2006), a DRHT board member, who wrote: "No one claims that [trails] are 100 percent safe," but that "anecdotes (sometimes referred to as 'red herrings') should not serve as the basis for policy decisions." Despite empirical evidence showing that trails do not generate crime, opponents continued to attack trail supporters over this issue.

As Doherty (1998) notes, many trails have faced opposition in the initial stages of their development, but in most cases trails opened without "significant controversy." Loosely organized but vocal opposition has confronted the DRHT since its inception. As with many such projects, this opposition has come from adjacent landowners and other residents who fear that noise, litter, and crime will accompany trail development, but, like other railtrail projects, many opponents have found "that their fears about the trail do not materialize" (Doherty 1998). Doherty (1998) reports that only five percent of trail projects encounter illegal attempts to block progress. Trail opponents in King George

appear to have committed several illegal acts as forms of intimidation and harassment. Four picnic tables, valued at \$250 each and built by local Boy Scouts, were stolen in February, 2007. A descriptive sign at the trailhead was also stolen; trees have been cut on adjacent land and allowed to fall onto the trail itself, impeding the path of those trying to use it; discarded carpets and other debris have been left at trail crossings; and a cooler filled with maggot-infested fish was left at the trailhead (Friends 2007b). The most serious act of intimidation came in March 2007 during a St. Patrick's Day fund-raising hike, when dozens of people were on the trail. Several individuals, supposedly "shooting skeet," fired in the direction of the trail, and some hikers were struck by falling leaves and twigs. Sheriff's deputies were called to the scene and, while no charges were filed, those responsible were vilified in the press (Colwell 2007).

The strongest opposition to DRHT has come from the Northern Virginia Gun Club (NVGC), which uses the trail embankment as a backstop for its rifle range, and the Little Ark Baptist Church, whose cemetery was bisected by the railroad. Both groups have legitimate concerns that the Friends of DRHT has attempted to resolve from the start. John LoBuglio, President of NVGC, stated that half of the shooting range could not be used if the trail opened and that he and other members were "worried that someone may not be seen back there" (Branscome 2006b). In July, 2007, two dozen members of DRHT and the NVGC built a bridge, literally and figuratively, to overcome this problem. The King George Journal reported that "while such a project would normally warrant only a mention here, this 8 foot long bridge project spanned a chasm" (Staff Reporter 2007). The reporter continued:

[NVGC] and the DRHT have sought to resolve their differences over the use of the section of the DRHT that runs through the [NVGC property]. A break-through came earlier this year when the [NVGC] unilaterally agreed to close their long range rifle range unless a full complement of range safety officers was available to insure the safety of trail users. In return the DRHT agreed to temporarily re-route the trail while permanent safety modifications could be made on the old rail bed so that both groups can enjoy full safe unfettered use of their property.... On Saturday morning the culmination of many hours of discussion and negotiations bore fruit and the by-pass trail was roughed in as a gesture of good will and cooperation by both groups.

This single act reflects the positive environment that the Friends has sought to create from the start as it works with adjacent landowners and other residents to convince them of the trail's benefits.

Little Ark Baptist Church, serving a historic African-American congregation since 1876, is located near the eastern end of the trail. When the railroad was constructed in 1942, church leaders were not consulted about the routing of the tracks, which were laid through its cemetery, cutting it in half (Figure 4). The Rev. Ben Jones, current pastor of the church, has said that he "isn't 'for or against' the trail but simply doesn't want it to disturb the cemetery"



Figure 4. The cemetery at Little Ark Baptist Church. The unmowed section represents the tracks' former location. Photo by author.

Branscome 2006b). That opinion was repeated in October 2006 when Dr. Jones remarked that the disturbance of a black cemetery is a "cause for concern" (Dennen 2006). A week later, Dr. Jones wrote a four-page letter to the DCR requesting that DRHT be deleted from the state's Outdoors Plan (B. Jones 2006). The church hired a firm employing ground penetrating radar to scan the portion of the trail that cut through the cemetery, and according to Dr. Jones, the company "identified 'anomalies in the area of the trail that are consistent with anomalies found where there are known to be human remains in the cemetery'" (B. Jones 2006).

The leadership of Little Ark Baptist Church has said little publicly, but trail opponents charge that DRHT is "racist and anti-Christian" because the trail property cuts through the cemetery (Branscome

2006b). A "public service announcement" flyer distributed at the opening ceremony by the Republican Party declared: "If you are not from King George, you should apologize to residents for coming into the county and reopening a dark chapter in our history. What kind of person finds it acceptable to plan a private/public use trail that would once again shamefully desecrate a church cemetery of our brothers and sisters in Christ who just happen to form a racial minority?" (Headley 2006). Protesting the trail's opening, Republican Chairman John Headley called the trail a "public nuisance," and emphatically stated: "We're not going to allow anyone to desecrate a cemetery" (Branscome 2006b). A congregation member, when asked if he thought there were any racial overtones to the project, remarked: "If it were anything other than a black church they wouldn't have considered the trail" (R. Herrink 2006).

DRHT has made it clear from the beginning that the existence of a trail through the church property is not acceptable. Its website states: "Out of respect for the congregation of Little Ark Baptist Church, trail users are not currently authorized to use the portion of the trail property that passes adjacent to the Little Ark Baptist Church cemetery" (Friends 2007a). The plan from the start, according to Brickley, has been to reroute the trail around the church and "deed to the church the trail property running through its cemetery" (Cook 2006). "Running the railroad through the church's cemetery was an 'act of discrimination that happened 64 years ago,'" and Brickley wants to "reverse that discrimination" by "offering a solution" (J. Herrink 2006b). Discussions are still underway. DRHT has reached a tentative agreement with LABC to route the trail around the church property, reconnecting with the trail on the opposite side of the cemetery. While the issue remains unresolved, there is a plan in place for future action. In the meantime, the cemetery has been left undisturbed and anyone hiking the entire length of the trail must use a public road that skirts the church property.

EVALUATION

It is remarkable how much Friends of DRHT has accomplished in the past two years. Clearing, preparing, and maintaining the trail with volunteer labor has been easy when contrasted with their other tasks. There are still many minds that need to be changed, but the group is making progress on that front as well, as the agreement with the NVGC demonstrates. DRHT has held eight public events at the trail since it opened in June 2006. Most of these have been family oriented hikes to raise funds for trail maintenance and improvements. In March, 2008, trail organizers hosted the first "Trails-n-Tails" festival in conjunction with the King George Animal Rescue League. Volunteers set up an agility course for the dogs and games for children, buses provided transportation for dogs and their owners to other trail access points for the "Fido 5 Miler" and the "Hike with your Hound," a local caterer provided food, and a musician supplied the music. Despite chilly temperatures and the threat of rain, approximately two hundred people participated, most with their dogs, with the event raising more than \$1500 for the two groups. Several people interviewed by a reporter stated that this was a good opportunity for them to see the trail for themselves (Byers 2008a). The most recent milestone occurred in July when a golden spike was driven into a small portion of restored track, and a 1919 boxcar and a 1917 wooden caboose arrived on the site. Both of the rail cars were once used by the RF&P, and now stand as sentinels at the trail head (Barnabi 2008).

When asked how the Friends came to be so organized, so quickly, and to have accomplished so much, its President, David Jones (2007), responded: "We drew on our experience, both corporate and volunteer oriented, to develop our strategic plans." The group also relied extensively on the experience of other rail-trail efforts, contacting both the RTC and American Trails, and using the resources available on each organization's website. This is a project that a core group of supporters has been committed to from the start, and they remain dedicated to the cause. In the face of adversity, the group has been reasonable and cautious with every decision, and has treated opponents with respect, using the carrot but never the stick to persuade them that DRHT brings only benefits to the county. As DRHT's third anniversary approaches, the initial uproar against the trail has been quieted; hundreds of residents now use the trail; and volunteers continue to maintain the trail and clear debris. Although the Friends are well satisfied with their success, a few are concerned about the organization's future role and the timetable for the state's takeover of the trail. At a recent meeting, Brickley encouraged the group by reminding them that DRHT was in the Virginia Outdoors Plan and that the state still wanted to acquire the property as a park. Brickley's statements and an awareness that a few Supervisors may now be supportive of the trail seemed to offer renewed hope; David Jones made a presentation about DRHT to the BOS in December 2008, asking them for their support and making clear that this trail has not used nor will require any funding from the county (Friends 2008). Despite growing support for the trail, a local reporter noted that the Supervisors have "yet to make firm New Year's resolutions" (Byers 2008b). With Friends assistance, and perhaps with the support of the County BOS, Brickley plans prepare a proposal that the state acquire the trail for a 2009 session of the Virginia General Assembly (Friends 2008).

In 2007, Brickley said that he hoped that the BOS would "have the vision necessary" to take this unique opportunity to preserve green space [such as the trail] because it diminishes with each passing day (Brickley 2007). In the last year, King George County has continued to experience rapid development, with more land being cleared for subdivisions and strip malls. It is an ongoing problem in the Washington metropolitan area, and as the Editor of the *Free Lance-Star* reminded his readers in 2006, the process was likely to be contentious:

'Progress' is tough, especially in rural areas where the view out the back porch hasn't changed in a lifetime. Resisting development and its inevitable impositions on the rural way of life is a natural response. . . . Fundamentally, everyone needs to try to discern what's best for the people of King George. If the experience of other localities nationwide holds true, both sides may find that a path through peaceful woods, open to all, is actually a boon (E. Jones 2006).

NOTE

1. The first section of the W&OD Trail was created in Falls Church in 1974. By 1988, 45 miles of trail had been developed.

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DAWN S. BOWEN is Associate Professor in the Department of Geography at the University of Mary Washington in Fredericksburg, Virginia, 22401. Email: dbowen@umw.edu. Her research interests include ethnic settlement. migration, and popular culture.

Appendix B

Outreach

- c. Stakeholder list and questions
- d. Listening session agenda, questions and notes
- e. Position papers
- f. Summary of stakeholder feedback
- g. Summary of adjacent landowner feedback
- h. King George County Resolution of Support



Patron: Delegate Luke Torian

STATE SENATOR U.S. CONGRESS STATE DELEGATE Tim Kaine Mark R. Warner Party: D Party: D **Bichard H. Stuart** Margaret B. Ransone Robert J. Wittman More In More Info District: 99 District: 28 District: 1 Party: R Party: R Party R Capitol Phone: (804) 698-7528 Capitol Phone: (804) 698-1099 More Info District Phone: (804) 472-4181 District Phone: (504) 491-8892 Email | More Info Email | More Info **External Stakeholders** participant August 16 nterview Phone Friends of Dahlgren Railroad Heritage Trail Dave Jones, Ronny Harris ٧ VV v Corridor Owner **Ridgewood 2000 David Brickley** V **Utility Easement Owner** ODR, LLC **Roger Williams** ٧ Adjacent property owner V Stuart Ashton Ashton Family Limited Partnership Little Ark Baptist Church **Pastor Larry Robinson** V Jay Jarrell ٧ Adjacent property owner Laurie Schlemm ٧ ٧ Friends of Caledon State Park David Beale v VDOT-Fredericksburg District ٧ Dept. of Wildlife Resources **Todd Engelmeyer** Northern Neck Heritage Area Lisa Hull ٧ **Rob Maple** Fredericksburg Trails Alliance George Washington Regional Commission ۷ Kari Barber, Ian Ollis v Potomac Heritage National Scenic Trail Jeri DeYoung Superintendent **Potomac Heritage Trail Association** Karen Jones and Bill Neidringhaus VA Assoc for Parks **Tim Kennel** ٧ ٧ VA Horse Council Sally Aungier v **King George County** Nick Minor v ٧ King George Tourism Advisory Committee Warren Veazey (Outdoor Rec) ۷ King George Parks & Rec Advisory Committee Jim Lynch **Christopher Clarke** ٧ v King George County v DRHT/Little Ark liaison Michele Segala Johnson ۷ Northern Neck Land Conservancy Lisa Biever V v Friends of the Rappahannock **Brent Hunsinger** ٧ Dahlgren Museum Ed Jones, Jeron Hayes Kristen Loescher ٧ **Arsenal Events Lions Club** Lloyd Adams, Julie Huffman v ٧V Northern VA Gun Club/ Northern VA Shooting Chris Mays, Seth Rinaldi, Pete Walton, Richard ٧ Dodson Facility v Sierra Club-Rappahannock Group Bill Johnson V Volunteer Cathy Cavender v ٧ Still Hot to Trot Old People's Riding Club Sue Berry, Tina Dodd, Sam Kambeck Rappahannock Railroad Museum **Dennis Overcash Olde Towne Bicycles** Geoffrey Murphy v ٧ **Bike Works** Andre Randolph Trek Ben Huck

, 48	19	TOTAL Responses or attendees	
/		Sports Shooting Association Adjacent land owner to DRHT	David Adams Roberto Serrano Cruz
/		Proprietor, SI, LLC ; 7254 Peppermill Rd, King George President, Legislative Director, Virginia	Tim Spivak
		Director, King George 4H Youth Shotgun Shooting Program	Jim Dooley
		Match Director, IUS Practical Shooters Association (USPSA/IPSC) Steel Challenge	Don Fenton
		President, Modern American Rimfire Series; Proprietor Impact Data Books Inc, & Impact Tactical Training and Consulting	Tony Gimmellie
		Gibson Guns	Jerry Gibson
		Match Director, US Practical Shooters Association (USPSA/IPSC) Practical Shootiers)	Dave Farley
		President, King George Shooting Assn	James R Morgan
'	1	Adjacent/Bisected Land Owner to DRHT	John Lobuglio
		President, Virginia Citizens Defense League	Phillip Van Cleave
		Community Planning & Liaison Officer (CPLO)Naval Facilities Engineering Systems Command (NAVFAC), NSF Dahlgren	Thomas Hastings
/		King George Sheriff	Chris Giles
'		King George Fire Chief	David Moody
		Rappahannock Area Health District	Olugbenga Obasanjo, MD, District Health Director
		Bishop Events	Travis Bishop
		Northern Neck Audubon Society	Kevin Howe
		Commonwealth Foxhounds Pony Club Virginia Bicycling Federation	Cheryl Manning, Sandy Hoyer Brantley Tyndall
		Fredericksburg Pathway Partners	and the second se
		Fredericksburg Walking Club	Sharon Vines Jamie Jackson, Aaron Frank
		VA Runner	Matt O'Neill
		Ainsleys Angels	Michelle Tritt
		HIE Manager	Lisa Caswell
		Fredericksburg Area Running Club	David Lovegrove, Vic Culp
	V٧	The Big WOW	Constantin Langa, Paula Van Alstine
		River Rock Outfitters	April Peterson
	4	Fredericksburg Cyclists	Joe Bonds
	٧٧	The Meadows	Jim Buckley, Vic Balasi
	V	Master Naturalists	Jenna Veazey
	V	Boy Scout Troop 191 Sheetz to Sheetz Run	Aaron Snyder Chris Chalkley

.

Stakeholder questions Dahlgren Railroad Heritage Trail (DRHT) feasibility study Phone/Email interviews

- 1) There has been interest in making DRHT part of Caledon State Park for many years to protect the trail in perpetuity and to bring it under state park management. Do you support this addition to the park? Why or why not?
- 2) What is your vision for the trail as part of Caledon State Park in terms of
 - allowed uses (for example, hiking, bird watching, equestrian activities, and biking)
 - supporting facilities,
 - connections to destinations, and
 - the preservation of conservation values and natural resources?
- 3) How can this trail and the park provide opportunities for outdoor recreation and active transportation that are missing in King George County?
- 4) What are visitors from outside the county hoping to find when they visit Caledon State Park and DRHT?
- 5) What needs to happen to preserve the historical trail?
- 6) Do you have suggestions for how the park and trail could be jointly managed for the benefit of the taxpayer?
- 7) For adjacent landowners: What would the change (from non-government-managed to state park managed) mean for you?

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Agenda

Training Room at Fire Company #1

8122 Kings Hwy, King George, VA 22485

6-8 p.m.

NOTE: Parking at the Fire Station is limited. Please park on the gravel area of the citizen's center

6 p.m. Welcome

6:20 Study overview

6:30 Dave Jones, Friends of the Dahlgren Railroad Heritage Trail

6:35 Pete Walton, Northern Virginia Gun Club/Northern Virginia Shooting Facility

6:40 Question and Answer

7:00 Break

7:15 Question and Answer

7:35 Re-cap discussion

7:50 Next steps

8:00 Adjourn

Send additional comments by August 26 to:

Jennifer Wampler

Jennifer.wampler@dcr.virginia.gov

804-786-9240

Ground Rules for Ensuring a Civil Conversation

One of the hallmarks of a democracy is its citizens' willingness to express, defend, and perhaps reexamine their own opinions, while being respectful of the views of others. To ensure a civil conversation:

- Show respect for the views expressed by others, even if you strongly disagree.
- Be brief in your comments so that all who wish to speak have a chance to express their views.
- Direct your comments to the group as a whole, rather than to any one individual.
- Don't let disagreements or conflicting views become personal. Name-calling and shouting are not acceptable ways of conversing with others.
- Let others express their views without interruption. Your Dialogue leader will try to give everyone a chance to speak or respond to someone else's comments.
- Remember that a frank exchange of views can be fruitful, so long as you observe the rules of civil conversation.

Stakeholder Questions

- What are the pros and cons that we should consider to public ownership of DRHT
- Are there important existing or future trail connections to the rail corridor you would like to see identified in the feasibility study?
- Do you think the trail is or could be a regional tourism attraction?
 Why or why not?
- Are there other future needs besides trail use to consider for this corridor if it comes under state ownership?
- If you were creating a list of options for how to fund a trail project, what would be on your list?
- If you were creating a list of options for the long term maintenance and operations of a linear park, what would be on your list?
- What are some important topics for future study in relation to the trail?

Send additional comments by August 26 to:

Jennifer Wampler

Jennifer.wampler@dcr.virginia.gov

804-786-9240

Virginia State Budget Item 375

Leisure and Recreation Services (50400)

K. The Department of Conservation and Recreation, in consultation with the Dahlgren Railroad Heritage Trail Association, shall review the properties of the Dahlgren Railroad Heritage Trail, consisting of approximately 15.7 miles in King George County, Virginia, and make recommendations to the Chairs of the House Appropriations and Senate Finance and Appropriations Committees by October 1, 2022, on the Trail's suitability as a recreational area for incorporation into Caledon State Park, to preserve the historical trail and enhance Caledon State Park facilities, the Trail, and recreational opportunities for the citizens of King George County and visitors to Caledon State Park. In its review, DCR shall consider (i) any one-time and/or ongoing expenses associated with the Trail's acquisition and incorporation into Caledon State Park; ii) management of the area or park by a combination of public and private entities; (iii) potential user activities at the area or park including but not limited to camping, hiking, bird watching, equestrian activities, and biking; and (iv) operation of the area or park with only those improvements minimally necessary for activities listed herein and consistent with the preservation and protection of the property's conservation values and natural resources.

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Training Room at Fire Company #1 8122 Kings Hwy, King George, VA 22485 August 16, 2022 6-8 p.m.

Attendees:

DCR: Melissa Baker, Director, Virginia State Parks, Ken Benson, Potomac District Manager, Virginia State Parks, David A. Bryan, State Parks Planner, Virginia State Parks, Nina Cox, Park Manager, Caledon State Park, Virginia State Parks, Kelly McClary, Director, Division of Planning and Recreation Resources (PRR), Frank Stovall, DCR Deputy Director – Operations, Jennifer Wampler, State Trails Coordinator, PRR, Samantha Wangsgard, Chief Planner, PRR

Chris Clarke, King George County Parks and Recreation Michele Johnson, DRHT/Little Ark Liaison Pete Walton, Richard Dodson, Northern Virginia Shooting Facility Sue Berry, Sam Kambeck, Still Too Hot to Trot Old People's Riding Club Chris Chalkley, Sheetz to Sheetz Run Jenna Veazey, Master Naturalists Jim Buckley, The Meadows Constantin Langa, Paula Van Alstine, The Big Wow Ronny Harris, Dave Jones, Friends of the Dahlgren Railroad Heritage Trail Julie Huffman, Lions Club Jeron Hayes, Naval Support Activity, South Potomac Warren Veazey, King George Tourism Advisory Committee Laurie Schlemm, Friends of Caledon State Park Stuart Ashton, Adjacent property owner David Brickley, Property owner

Kelly McClary welcomed the group and provided background information on the project. Jennifer Wampler reviewed the project status and timeline.

- · Visited and photo-documented the entire trail
- Created a stakeholder list based on users of the trail provided by the Friends of the Dahlgren Railroad Heritage Trail (DRHT) and a list of parks and recreation stakeholders provided by King George County (some of whom are here tonight)
- Interviewed about 30 people, mostly representing stakeholder organization
- One in-person meeting with stakeholders
- Mapped the trail and potential connections
- Identified what we think will be most of the cost items to incorporate the trail into Caledon State Park
- Research to understand existing conditions
- Will compile all data received by Aug. 26
- Finish draft plan for internal review mid-September

Ms. Wampler invited a representative from the Friends of the DRHT and the Northern Virginia Shooting Facility/Northern Virginia Gun Club (NVSF/NVGC) to each speak for five minutes.

Attendees reviewed the pros and cons of making the trail part of Caledon State Park as summarized from stakeholder phone interviews. The list below represents what was reviewed and added during the discussion.

Pros	Cons
Brings people into nature	Existing easement on property is problematic
Proper oversight and management of trail and conservation areas	Can't get from Caledon State Park to the trail safely
Take burden off Friends group	Others using firearms near trail (rural area and hunting allowed on private property)—not safe
Better advertising and utilization	State would have to acquire more land to connect the trail and expand parking lots
Better event coordination with the park, reduce admin/event planning conflicts	Potential state regulation of private property would impact gun rights
Trail surface improvements would lead to a safer, better experience for trail users	Trail already exists without taxpayer support
The park and trail would be more accessible to more people	No cost-benefit analysis done
More amenities (restrooms, camping, etc.)	Only so much public money to go around—public safety is more important—prefer funds used for public safety
More activities and programs	Many other uses for corridor—economic development potential
Improve the corridor's longevity-trail sustainability	Who will be new liaison for landowners?
Non-motorized way for people to commute to work	Dead cell zones along trail—how to access trail for emergency response?
Only way to protect trail in perpetuity	Sheriff must patrol, may have to hire more deputies
Brings financial, technical expertise and public awareness	Trail is not designated as historic in any registers
Reduction of unauthorized users from trail	
Encourage community connectedness to outdoors	
Great way to show off King George and Virginia	
Corridor is great resource that is not often available Serving many uses—a unique asset	and the second
Outdoor recreation is key for physical/mental health	
Difficult to recreate this opportunity for an off-road trail in King George	- Agentication of the second s
Potential for increased tourism/more group visitation	
Removes requirement for a permit	
Rail bed of historic significance to the region and county	THE DESIGN AND DESIGNATION OF
More variety and choices for outdoors person	ALC STATES AND A S
Conserves many more acres of natural habitat	

Friends group coordinates with Sheriff's office— established relationship that could continue	North The Transformer and the second se
Sets county up for the future	and the second se
Increase economic impacts/benefits	VICE IN AN A COMPANY OF A COMPANY
No place to walk elsewhere that connects destinations	- Internet and Internet a
Friends group cannot provide amenities, violates	and the second s
zoning—but State can	IT OF THE THE PARTY OF THE SECOND CONTRACTOR OF THE
Identified in county's Comprehensive Plan	and the second sec

The group reviewed desired connections to the trail as reviewed on a map and discussed what is captured in existing plans.

The trail is a designated segment of the Potomac Heritage National Scenic Trail and already connects to the Northern Neck Heritage Trail Bicycle Route (an on-road route). An important connection is to Caledon State Park, but there is a desired connection to the Maryland trail network across the Nice Bridge and into other regional trail networks in Fredericksburg and Stafford.

From the George Washington Regional Commission Regional Greenways Plan:

- DRHT to Caledon State Park and Barnesfield Park (Tier 1 priority)
- DRHT trail connections to West Stafford County (Tier 1 priority)
- Belmont-Ferry Farm Trail to King George along Route 3 (Tier 2 priority)

From the King George County Comprehensive Plan:

- Indiantown and Comorn Roads, and part of Routes 3, 206 and 218 (shared road signage in county's Comprehensive Plan)
- Naval Surface Warfare Center Dahlgren Division (NSWCDD) intersection improvements

From the April 2020 Development and Prioritization of Transportation Needs in King George County: Bicycle and pedestrian improvements are also needed, specifically on US 301 and Route 206 north and northwest of the NSWCDD. A little under half of all accidents involving bicyclists and pedestrians within King George County since 2013 occurred in this area, so efforts for improvements should be focused here. Shared use paths and signalized crosswalks along these major roadways could help safely accommodate these travelers, and provide access to the NSWCDD from the other sides of US 301 and Route 206.

In response to a question about whether the trail is or could be a regional trail attraction, attendees said it already is. People come from outside the area (from other states and countries) to participate in races. DCR ownership would increase visitation.

In response to a question about other future needs for the corridor, attendees described the unique historic features of the trail which could be preserved and interpreted. Educational exhibits, living history exhibits, interpretive signs (for example—signs could be placed at historic Little Ark Baptist Church, part of the historical society of Northern Neck). Refurbished train cars and pump car on the existing track section could be used to interpret the railroad history.

Attendees provided the following list of potential resources for funding the project:

- Grants
- Readiness and Environmental Protection Integration (REPI) grants
- State can apply for money that isn't available now
- Nature Conservancy
- Trust for Public Land
- Allow equine trailer use and charge per axle
- Increase charge at Caledon State Park
- Partnering with private business groups
- Bipartisan infrastructure Law (BIL) grant opportunities
- Fundraising events
- Concessions
- Eagle Scout projects
- Fredericksburg Ruck Club, Volksmarch fees or event sponsorship
- Hopyard Farm development should give land for trail

This list of options for the long term maintenance and operations was generated by the group.

- Volunteers
- Culverts
- Ditch cleaning
- Stone dust
- Fire department access
- Tree/brush removal after storms
- Maintaining soft spots caused when ditches get clogged
- Maintaining crosswalks
- Signage replacement
- Restroom
- Parking
- Help Northern Virginia Shooting Facility/Northern Virginia Gun Club (NVSF/NVGC) and other private landowners install protective barriers (hunting issues)

Topics for future study identified by the group include:

- Study bypass of NVSF/NVGC (or state could purchase the property)
- Develop mutual agreement between State and NVSF/NVGC
- Work together with all groups to identify work-arounds for property issues
- Identify land to purchase for eastern trailhead(s) University of Mary Washington campus? Walmart?
- State should cover liability and maintenance for donated easements
- Determine how to get to Fredericksburg (bike-pedestrian connection from trail)
- Study how to incorporate the industrial park into the trail facility (physical connection and interpretation). A future park site is planned for the landfill. How we handle our waste should be interpreted to encourage best practices.
- Unintended consequences of future development—thoughtful, pro-active planning is needed
- Set aside green space
- County roads have no shoulders and pedestrians and bicyclists have no safe options for travel.

Attendees were thanked for their time and the productive conversation. Ms. McClary described the next steps in the process, which require General Assembly action. The meeting was adjourned at 8 p.m.

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Northern Virginia Shooting Facility/Northern Virginia Gun Club

Position Paper On

Feasibility Study for Incorporating the Dahlgren Railroad Heritage Trail into Caledon State Park

20 August, 2022

Purpose

The Northern Virginia Shooting Facility, Inc., (NVSF) and the Northern Virginia Gun Club (NVGC) provide the following thoughts concerning the Virginia Department of Conservation and Recreation (DCR) feasibility study of incorporating the Dahlgren Railroad Heritage Trail (DRHT) into the Caledon State Park. We submit the following comments for inclusion in the DCR's study report which reflects our good faith response to the overall theme of the DCR questionnaire about this issue as well as our thoughts after two of our Board Members attended the DCR hosted listening session on 16 August 2022.

Executive Summary

The Northern Virginia Shooting Facility, Inc., (NVSF) and the Northern Virginia Gun Club (NVGC) do not support incorporation of the DRHT into Caledon State Park for the following reasons:

- 1. The cost to acquire and maintain such acquisition for the State of Virginia and King George County while not creating significant additional trail benefits, beyond those which currently exist.
- 2. An acquisition creates substantial risk for NVSF/NVGC to continue our current operation of our shooting facility.
- 3. As property owners whose property is currently bisected by a private owner of the trail, state ownership would solidify this bisection into perpetuity.
- 4. The feasibility study lacks insight from landowners adjacent to the trail. Further, we feel any report DCR submits, is biased heavily in favor of the current trail owner and its partner organization(s). The fact that the list of stakeholders that DCR interviewed were solely identified by the DRHT and/or Friends of the DRHT.
- 5. No cost estimates on the financial cost to the state regarding additional purchase and/or maintenance of the proposed acquisition was provided during the 16 August listening session.

Background

- The Gun Club began operations in the fall of 1959 with the creation of two related but separate corporations; the Northern Virginia Shooting Facility (NVSF) and the Northern Virginia Gun Club (NVGC). The NVSF manages the facility proper which includes land management, structure construction and upkeep of the property. The NVGC operates the ranges, manages membership and supports club sanctioned events.
- In December 1968, the Shooting Facility purchased a nearly 170 acre tract of land in King George County, Virginia. The property purchased was bisected by the old CSX Railroad Right of Way which now is part of the DRHT. At that time, the trail was not available for sale. In 1969, NVSF constructed a combined set of pistol and rifle ranges in the southern section of the property south of began construction of a range south of and adjacent to the old CSX Railroad Right of Way. The range has

been in constant use since it was constructed and incorporates berms for rifle and pistol fire out to 100 yards and utilized the CSX berm for firing out to 200 yards. In 2003 the Facility purchased another parcel of land to the east which increased the amount of land to slightly more than 233 acres.

- The establishment of the trail in 2006 created safety concerns for those who now began using the trail. As a result, a mutually agreed upon bypass agreement was agreed upon in 2007 permitting trail users to traverse NVSF property out of the line of any fire from the lower set of ranges. While the agreement wasn't an optimal solution, it provided a safe path for trail users. In 2010 NVSF began construction of a new pistol range (pistol caliber cartridges only) adjacent to the DRHT with a direction of fire not affecting the DRHT.
- During 2015, the trail landowner cancelled the by-pass agreement asserting, inaccurately, that NVSF organized a letter writing campaign against purchase of the trail by the State. The cancellation of the bypass agreement made use of the lower rifle range more difficult for shooters. When this occurred, out of due caution, NVGC restricted the use of it southern rifle range to individual shooters, denying the majority of Club members the ability to practice long guns on our property. This eventually led NVSF/NVGC to build an additional, new range at a cost of over \$360,000.00 north of the 2010-built pistol ranges- NVGC's new, Upper rifle range opened in May 2019, four years after the abrupt cancellation of the by-pass agreement. The lower rifle range remains an active range for Club sanctioned matches and other events, including hosting of Boy Scout of America Troops 875 and 1887 who undergo marksmanship training and camping on this range. While the lower range is in use, NVGC provides trail watchers who call a cease fire on the lower range when an individual occasionally traverses the trail. There are currently 549 members of NVGC and approximately 600 members who have purchased shares of NVSF.

Discussion

The following represent our views of why NVSF/NVGC is opposed to the incorporation of DRHT into Caledon State Park.

Additional cost for the State of Virginia and King George County while not creating any additional trail benefits beyond those which currently exist.

- DRHT, as currently established, provides a venue for individuals to walk, ride or bicycle along its
 property at no cost to the tax payer. Using private funds and donations the DRHT supports itself
 and maintains and improves its property in much the same way as NVSF/NVGC does through
 member dues and donations.
- Any property tax revenue collected would be lost, should the State acquire the property.
- The State would assume all operating and maintenance costs for the upkeep of 15 + miles of trail property (~239 acres).
 - Work currently performed by volunteers would be performed by State or County employees at tax-payer expense.
 - Additional cost may involve land clearance, signage, restroom facilities and other services that state citizens have grown to expect at tax-payer expense.
 - The State and/or County would require additional funds to prevent trespass on landowners' property, especially those tracts posted for hunting at tax-payer expense.

- Significant portions of the DRHT pass through designated wetlands and resource protected areas which increase the cost of maintenance for the state in those environmentally sensitive areas.
- The King George County sheriff indicated during a King George Board of Supervisors business meeting in 2016 that his office would incur increased costs to patrol this publicly held area.
- There is no direct access between DRHT and Caledon State Park. The DCR representatives at the recent meeting, admitted that the state would have to acquire additional land and/or right-of way to connect the trail with Caledon State Park. Obviously, this would be at taxpayer expense.
- The State would likely need to purchase additional property in areas where access to the trail crosses private property or areas adjacent to public roads with limited or no available parking at tax-payer expense.
- In addition to the existing safety barriers, the state may elect to construct additional physical barriers adjacent to the NVSF property, to thus mitigating any possibility of injury to trail users.
- Additional access to the trail (land acquisition) may be needed for portions of the trail which currently has limited access for first responders. A further tax-payer expense.
- It's unclear if utility rights, which were held by Joe Williams (deceased) or his heirs convey to the State, should the state purchase DRHT property. When Mr. Williams sold the trail to David Brickley in 2006, Williams maintained the utility rights to the property. The State may need to acquire the utility rights for the 15 plus miles of the trail at tax-payer expense.
- Question five of the DCR survey asks, "What needs to be done to preserve the historical trail?". The Virginia Department of Historic Resources (DHR) does not list DRHT as a historic site (<u>https://www.dhr.virginia.gov/historic-registers/king-george-county/</u>); and, it does not appear that DRHT meets the state's criteria to be considered a historic site according to the DHR's <u>Virginia Land Conservation Foundation FY2023 Historic Area Preservation Category</u> guide. These two factors indicate it would be wasteful to spend taxpayer funds under the guise of preserving a site due to its historic nature when that site is not considered historic by the state.
- Sale of the trail to the state primarily monetarily benefits only the current property owner.

There is substantial risk for NVSF/NVGC to continue operations of our shooting facility, and potential risk for property owners whose property would be permanently bisected by the state

- Incorporating the DRHT into the State Park System poses a substantial risk to our operations because unknown future laws and regulations, enacted by either the Virginia legislature or the Governor's office or local Governments may deny, restrict, , or otherwise diminish the use, carrying or possession of firearms on or near state or other government owned/controlled property. NVSF/NVGC considers incorporating DRHT into a State-owned entity, carries substantial risk for our operation.
 - Recent legislation enacted by the Legislature and recent executive decisions have restricted the ability of citizens to carry firearms in certain areas owned or administered by the State. Within the past several years, the Legislature has passed laws limiting the carrying of firearms in or in proximity to state owned buildings, facilities, enterprises, etc.,)
 - Recent legislation enables local governmental bodies to restrict the carry of firearms within set distances (upwards of 500 feet) from certain government operated/owned facilities (schools,

public parks, government buildings, etc.,). There are 16 counties (Albemarle, Arlington, Fairfax, and Loudoun) and large cities (Alexandria, Blacksburg, Charlottesville, Dumfries, Fairfax City, Falls Church, Herndon, Petersburg, Richmond, Roanoke City, Winchester and Newport News) which have passed this type of legislation. We are concerned that members in legislature could view those as a model for future restrictions on firearms and pass similar legislation state-wide.

- Gun rights and access to firearms are a highly contentious issue within the state legislature and locally within King George County. Recently, King George County declined permission for the construction of a firearms range in another area of the county which indicates an anti-gun bias.
- During the 16 August DCR listening session we were provided a list of stakeholders who DCR had contacted as part of their study. A DCR representative informed us the list of stakeholders for this issue was provided to them by DRHT. There are over 200 separate parcels of land along the path of the trail with some 40 landowners who own parcels on both sides of the trail. The DCR stakeholder listed 3 property owners other than the trail and utility rights owner. There is a fundamental question of landowners' rights in relationship to the development of the trail as a state park. As the trail winds its way through countryside it cuts through the properties of many local owners, limiting full use of their land. Depending on the nature of the landowner, this can be a minor to major inconvenience.
 - There are concerns whether the state, by acquiring the DRHT, could restrict the rights of landowners to cross park land routinely and without restrictions to access all of their property.
 - The State did not conferred with all land owners whose property is adjacent to the DRHT or whose property is bisected by DRHT, limiting the ability of tax paying stakeholders to comment on how an acquisition of property impacts them.
 - Acquisition by the state of DRHT to preserve the DRHT "in perpetuity", significantly devalues the property value land owners who possess large tracts of land which will permanently divided should the DRHT be incorporated into Caledon.

Other Factors for Consideration for Inclusion in the DCR Feasibility Study

DRHT Usage – Most cost-benefit analysis examine the use rates of an object over a fixed quantum to determine how beneficial some thing or object is. During the 16 August listening session, we learned that there is limited-data on how frequently or infrequently the trail is used. When asked during the session, DRHT members indicated that they did not know the answer to this question. Since no study has been performed and information on use rates of the trail is based on either conjecture and/or casual observation.

 Our casual (un-scientific) observation of traffic on the DRHT adjacent to the NFSF lower range shows a use rate of between none and perhaps 5 to 6 users during a typical Saturday and Sunday mornings throughout the year. These observations were made when NVGC normally holds rifle matches at its lower range and spans the period from when we re-established our trail watch requirements in May of 2016 following the cancellation of the By-Pass MOU to today. While we recognize there are many factors which impact this observation, we have observed this pattern for the past several years. We do not use the lower range on days we know DRHT holds its races or a special events. Over time, we have developed at-least the informal opinion that, except for the two special events each year, the DRHT is lightly used in the vicinity of NVSF. We acknowledge use rates would likely be higher near areas with more abundant parking or easier access to the trail or where the trail is near more densely populated areas.

- Our review of the past three DCR "Access to Outdoor Recreation Survey Results" for FY 2018, 2020 and 2021 show high respondent rates in the Northern Virginia and Richmond areas and very few responses in or around King George County suggesting low demand for a state operated trail.
- Our review of DCR regional Featured Projects for Region 16 (George Washington) does not list
 preserving the DRHT as a featured project for the region. This information suggests that usage of or
 interest in incorporating DRHT into Caledon State Park may not be of high interest by either survey
 respondents or DCR past project studies.

Before recommending a major investment in transitioning to a state park, we recommend DCR perform an independent study to determine usage rates at various times and places along the trail.

Introduction of Data Bias through Inclusion and Exclusion. The budget amendment which is the genesis of the DCR study introduced significant bias into the terms and conditions of the study DCR was to perform. The amendment only required DCR to consult with the DRHT. DCR, to its credit, expanded the aperture for comments on this issue, but did not adequately identify all stakeholders. for this issue. We learned on 15 August that DCR received the list of stakeholder from DRHT. This demonstrates extreme bias as DRHT has a vested interest in affecting a positive DCR report supporting the purchase of the trail by the state. In contrast, only one or two parties who previously expressed derogatory comments for the purchase were included on the list of stakeholders. The vast majority of stakeholders either have a vested or close interest for supporting purchase of the property.

- According to the Project Management Body of Knowledge (PMBOK) Guide, a universal and widely accepted guide for private and government decision makers, "A stakeholder is an individual, group, or organization who may affect, be affected by or perceive itself to be affected by a decision, activity, or outcome of a project."
- The DCR list of stakeholder's identified 47 stakeholders.
- Only four land owners (two explicitly and two through inference) were listed as stakeholders, aside from the trail and utility easement owner.
- There are over 200 parcels of land adjacent to the trail and DRHT indicated on 16 August that there are approximately 40 land owners who own property that is bisected by the trail parcel.

Sub-Dividing Trail Parcels for Sale to Private Owners via State Acquisition of the Trail. The State Legislature may wish to consider purchase of the trail property and then sub-dividing the parcel into smaller parcels and offering parcels of the property for sale to land owners whose property is bisected by the trail or who own significant portions of property adjacent to the trail.

- The land was condemned and used to support the war effort in WWII and subsequent rail service into the 60s.
- The land remains one contiguous parcel of land of nearly 238,72 acres (Parcel 21 RR 69, ref KG County GIS data).
- When the land was offered for sale in the 1990s by CSX, it was not subdivided into the original
 parcels of lands from which the US government acquired it through condemnation. It was sold
 as one, 16 plus mile long contiguous lot. Unsurprisingly, no individual land owner stepped
 forward to purchase the large parcel of land as the entire parcel was far too large for any one
 purchaser.

- The DRHT property which bisects NVSF is approximately 12 acres and 2/3's of mile long (which represents slightly over 5% of the overall DRHT acreage and less than 4% of the overall trail's length.
- A cursory review of King George GIS data indicates there are multiple property owners with property bisected by the DRHT parcel.

Conclusion

Incorporating DRHT into Caledon State Park and having the State of Virginia assume responsibility for operating and maintaining a trail currently run by a private, non-profit entity increases the cost to Virginia taxpayers while not necessarily increasing the capability the trail currently offers; and, it potentially negatively impacts landowners and places the rights of landowners at risk. These concerns are compounded by the lack of any cost-benefit analysis or data related to trail usage, significant bias introduced into the study by the terms and conditions stated Virginia State Budget Item 375, the likelihood of additional expenses related to a purchase of the trail occurring in the future and a lack of dialogue by the State with all significant stakeholders to help identify hidden costs and impacts this decision. Because of all these factors, the Northern Virginia Shooting Facility and the Northern Virginia Gun Club does not support the State purchase of the DRHT for inclusion into Caledon State Park.

Compiled Responses from the Friends of the Dahlgren Railroad Heritage Trail

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DAHLGREN RAILROAD HERITAGE TRAIL FEASILIBITY STUDY LISTENING SESSION

REBUTTAL TO COMMENTS MADE BY A REPRESENTATIVE OF THE NORTHERN VIRGINIA GUN CLUB

- 1. The overwhelming members of the Northern Virginia Gun Club, including the listening session speaker, are not residents of King George County.
- 2. Arguments about the Virginia legislature changing gun laws so that it would infringe on Second Amendment rights have no substance whatsoever. The DRHT as a privately owned recreational asset currently has a strict prohibition on the carrying or use of guns on the trail. How the legislative can make that stricter than it is now is an impossibility.
- 3. The old argument that adjoining landowners should be able to take back land that was condemned and paid for 80 years ago was decided by the courts many decades ago. This is the same argument that still is thrown around about the Shenandoah National Park's acquisition in the 1930's.
- 4. Property values along the trail actually increase due to the proximately of a rail-to-trail asset. Studies from the Virginia Capitol Trail demonstrate this fact, with landowners advertising that their homesites are next to the trail, thus allowing a premium sales price.
- 5. The Northern Virginia Gun Club has not been supportive of state acquisition since the owner stopped them from using the railroad embankment on this private property as a backstop for shooting on their range. They are lucky that they were not taken to court for this infringement on another owner's property.
- 6. DCR is encouraged to contact the King George Sheriff's Office to review any complaints received about the DRHT. Further, to the best of our knowledge there has never been a complaint involving the Northern Virginia Gun Club.
- 7. Equestrian activities are currently only authorized during special events by the Friends as equestrian use requires some oversight since the DRHT is currently maintained completely by volunteers. Were the DRHT a state park, it is expected that equestrian activities would be authorized as in other state parks.
- 8. The DRHT is an important segment of the PHNST, and is a National Recreational Trail.

August 20, 2022 David Brickley

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Re: Agenda for DRHT listening session tonight



Wed, Aug 17, 11:42 AM

to me, Jim, Nina, David, Laurie

I wanted to address some mistaken statements that were made last night.

First, I am one of those people whose property (40 Acres) is split by the DRHT. I have 9 acres south of the DRHT and the remainder is north of the DRHT. I have no legal easement across the trail to that nine acres and that is fine with me. No development will ever happen on that wet nine acres. Jim Lynch has reached our to all of the adjoining property owners and we have received very few replies. I have never received anything from the Northern Virginia Gun Club about the trail contrary to their claim last night that they have contacted all adjacent property owners.

Second, It is not true that the Friends violated the MOU that was signed with the Northern Virginia Gun Club or the Northern Virginia Shooting Facility. We had asked the gun club to write and support the DRHT. One of the letters that came to light was written by an officer of the Gun Club and the signature indicated that fact. The MOU stated that the gun club would support our efforts to become a state park and this letter clearly violated that condition of the MOU and the Friends terminated the MOU as was our right. Further, that temporary bypass was created to give the gun club time to correct their illegal use of the trail property as a bullet impact area. Clearly using someone else's property as a bullet impact area is illegal. It is not true that no one owned the railroad property when the gun club was established. The trail of ownership for the DRHT is clear and easy to follow and there is no period of time when there was no owner of the DRHT property since 1942. Finally the gun club's temporary bypass was not usable by bicyclists. The bypass trail was extremely steep and rough and was NEVER maintained by the gun club. Every single time that I rode my bicycle to work I had to physically push my bicycle over the entire temporary bypass.

As far as usage statistics are concerned. We do not have an electronic vehicle counter to determine the number of people using the trail. The use of the DRHT is via a free permit application. The Friends of the DRHT have issued over 3000 of those permits...most of those permits have gone to residents of King George. It should be pointed out that VERY FEW of the members of the Northern Virginia Gun Club are residents of KG.

It was stated that since the trail has been maintained up to this point by volunteers and all expenses have been borne by a group of VERY few people. That was stated as a reason to never allow this to become a state park because it will cost the state too much money so we should just leave it under the control of the Friends. This is grossly unfair. We buy all the gas for rail clearing and mowing. We shoulder all the costs associated with running and maintaining our machinery. We remove all the trash that careless users drop on the trail. We cannot build any permanent structures on the trail...this includes rest rooms, shelters, pavilions, or storage facilities. Further a small group of volunteers is shouldering ALL of the costs of this maintenance for all of the businesses that profit from our events and ALL of the legal users as well as patrolling the trail for illegal users. The Friends spend hours after each storm cleaning the downed trees and trimming limbs. Our users suffer from having no toilet facilities or running water to name just two critical reasons the DRHT should be a state park. It was correctly stated that our parking areas need to be increased and we have been working on that.

Finally, our restrictions on use of the DRHT by equine groups is due to a failure of any one of those groups to join us as partners to patrol and clean up after their animals use the trail. While horse manure is not especially a detriment to the trail surface; a lot of it from unrestricted use would be a burden. Horses tend to scuff their feet and wear troughs into the trail surface...those troughs need to be addressed and removed or prevented and in spite of our efforts we have been unable to convince an equine group to step up and assume responsibility as our partner.

I do hope that this helps to sort the wheat from the chaff...The Friends have been breathing that chaff in for over 16 years. We think that we deserve to be rewarded for our efforts by making the DRHT a part of Caledon State Park. Caledon State Park should include the Lake Caledon property as well as the DRHT to eliminate concern about connections to Caledon and parking. The Lake Caledon property would allow Caledon to erect and maintain small rental cabins for trail users and travelers on the Potomac Heritage National Scenic Trail.

We have respected our neighbors and we have taken their suggestions and concerns to heart when they have been expressed. We have been exposed to verbal abuse. At our first event...a hike on the trail to celebrate St. Patrick's Day in 2007. We had gun "enthusiasts" set up a skeet shooting station in an open field near mile marker 0 and fire at skeet toward the trail...you could literally hear shotgun pellets falling through the leaves as children walked with their parents on the trail. That is unacceptable and only a single instance of the abuse the friends have experienced over the years by the rigidly uninformed.



Northern Virginia Gun Club history

LTE to explain our position on canceling the MVGC MOA

In 1941 the USN bought a strip of land to extend a rail line from the existing Fredericksburg line out to their base in Dahlgren. It was used until the 60s to haul freight and as a commuter train line. The Northern Virginia Shooting Facility bought 218 acres in King George that was bisected by the trail in 1970s to create a shooting facility that the Northern Virginia Gun Club rents.

In 1993 the rail property was put up for sale with no takers until 1997 when Joe Williams bought it and tried to get the state to buy it for a State Park. David Brickley was the head of DCR in 2002 when a bill was submitted for the Park system to acquire it.

In 2006 Joe Williams and David Brickley got a local group of hikers, bikers, and horseback riders to help clear the 10' wide center section of the trail for free permit use, leaving 50 to 140' of land on either side wooded and undisturbed.

In 2007 the Friends of the DRHT, the trail owners and NVSF signed a MOU to open a temporary bypass onto NVSF land for trail users to follow, taking them off the trail for several hundred feet of the trail that was located near the long rifle range that the NVGC had built. This agreement was solely written to advantage the NVGC, as the trail property and its right to unobstructed legal use of the trail was differed, instead using a 3 foot wide steep path across a stream and up and down two hills. It was entered into by the Friends of the trail with the understanding of all parties that the end state of the trail was its entry into the state park system. It was a temporary measure with the understanding that the NVGC would quickly make improvements of its range to return it to a legal and safe state that did not endanger people on adjacent properties.

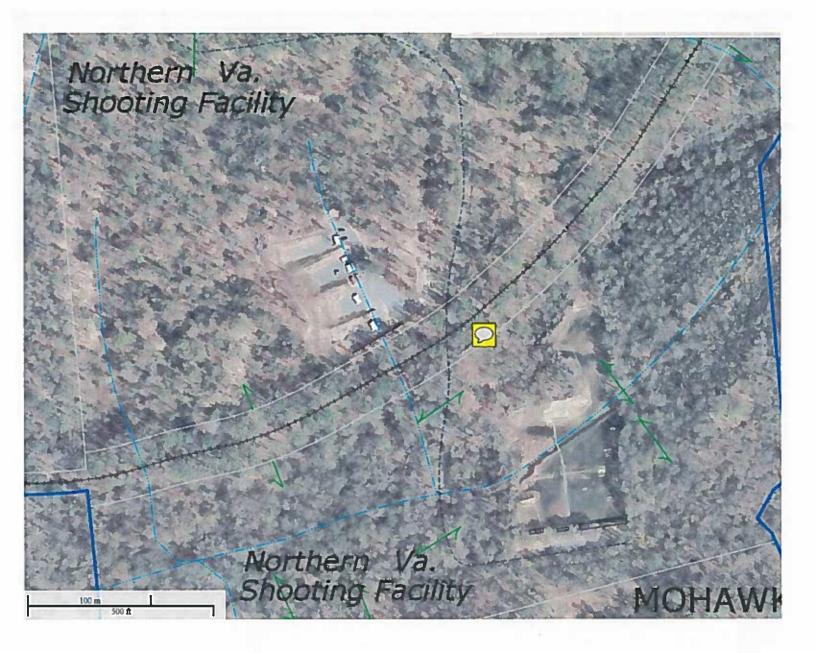
In the past 9 years the NVGC has made many improvements to its other gun ranges, including building a new pistol range along the trail property that includes a concrete wall to protect pistol shooters from possible stray rounds from the long range.

The NVSF and NVGC have made no effort to solve their unsafe rifle range that impedes the safe and legal use of the trail property and impedes its property rights. Their members have made vocal and false statements that have prevented the trail from becoming a State park and continue to cry "What about our property rights" while all this time impeding the trail's property right to the use of its land with worry of a neighbor shooting across the line and hitting a trail user.

For the above reasons the MOA has been canceled and all parties are free to continue to use their own property's for all legal and safe uses. Property rights end at the property line and a neighbor has no right to curtail your uses of your land by any of their actions that cross that line.

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VIRGINIA SHOOTING SPORTS ASSOCIATION

FOUNDED IN 1938. OVER 75 YEARS OF PROTECTING VIRGINIA'S GUN RIGHTS AND THE SHOOTING SPOPTS.

CABELA'S AFFILIATE PROGRAM MEMBER

Up to \$300 Off at the Firearms & Shooting Event

SATURDAY, FEBRUARY 7, 2015

Amendment Affecting Northern Virginia Gun Club Pulled

VSSA received word from its lobbyist early this morning that the Senate budget amendment that would have had an adverse impact on the operation of the Northern Virginia Gun Club has been withdrawn. We will know for sure when the final Senate budget is announced but the fact it has been announced to the press is a very good sign. The Fredericksburg Free Lance Star reports:

A bill that would have turned a private trail in King George County into a state park made it to the General Assembly for the first time this session, then was withdrawn Friday.

Still, supporters of the Dahlgren Railroad Heritage Trail said they're encouraged the proposal was included in a Senate bill.

The club was not the only group of people who would have been affected by the amendment it is the belief of VSSA that those promoting the amendment had not provided full disclosure to Senator Hanger, the patron of the amendment, as to all of the landowners that would have been affected if it had passed.

First, thanks to the VSSA legislative team for their work with committee members to help get the amendment pulled. A special thanks also to all of the members of the Northern Virginia Gun Club and VSSA members who contacted the Senate Finance Committee and let their voice be heard in support of protecting the club. Should something change between now and the time the Senate budget is announced tomorrow, VSSA will alert the membership.

POSTED BY VSSA AT 11:36 AM

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LABELS: DAHLGREN RAILRCAD HERITAGE TRAIL, FRIENDS OF THE DRHT, HORTHERN VIRGINIA GUN CLUB, SENATOR EIMIETT HANGER VSSA



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MEMORANDUM OF AGREEMENT AMONG FRIENDS OF THE DAHLGREN RAILROAD HERITAGE TRAIL NORTHERN VIRGINIA SHOOTING FACILITY, INC. DAHLGREN RAILROAD HERITAGE TRAIL ASSOCIATION, INC. AND O.D.R., LLC

WHEREAS, the Northern Virginia Shooting Facility, Inc.; the Friends of the Dahlgren Railroad Heritage Trail; and the Dahlgren Railroad Heritage Trail Association, Inc., agree that it is for the mutual benefit of each organization and its membership to establish an agreement for the safe. non-motorized use of walkers, hikers and cyclists along the property known as the Dahlgren Railroad Heritage Trail; and

WHEREAS, O.D.R., LLC, the owner of the property known as the Dahlgren Railroad Heritage Trail, is in agreement with the terms of this memorandum; and

WHEREAS, this AGREEMENT is also for the benefit of those members and users who participate in shooting activities on the property of the Northern Virginia Shooting Facility, Inc., and its affiliate organization, the Northern Virginia Gun Club; and

WHEREAS, the undersigned have agreed that a bypass trail will be constructed on property owned by the Northern Virginia Shooting Facility, Inc. along a mutually agreed designated route which will be accessed by Dahlgren Railroad Heritage Trail users in place of portions of the existing Dahlgren Railroad Heritage Trail where it divides adjoining property of the Northern Virginia Shooting Facility, Inc.; and

WHEREAS, this designated route will serve as a temporary "detour" around that portion of the existing Dahlgren Railroad Heritage Trail that bisects the rifle and pistol ranges belonging to the Northern Virginia Shooting Facility; and

WHEREAS, this AGREEMENT recites the terms and conditions of this understanding,

NOW, IT IS THEREFORE RESOLVED THAT:

1. A temporary bypass trail for non-motorized use will be constructed along a route agreed to by representatives of the above organizations when they walked the planned route in March, 2007, as shown by the attached map known as Exhibit 1.

2. The best efforts of all organizations will be provided to construct and maintain this bypass trail.

3. Each organization will fully cooperate with the processing and approval of any required permits, such as but not limited to Erosion and Control Sediment permits, needed from local state and federal governmental entities.

4. Each organization will use its best efforts to effectively work together on this project and have a continued line of communication.

5. During the term of this Agreement all authorized trail users (i.e. walkers, hikers and cyclists) will use the bypass trail where it connects on the east and west segments of the Dahlgren Railroad Heritage Trail in place of the existing railroad trail.

6. There shall be installed safety barricades across the railroad bed where the temporary bypass trail connects on the east and west segments of the existing Dahigren Railroad Heritage Trail, which barricades will be removed at such time as a permanent solution, mutually agreed to by all parties is completed. Barricades shall consist of gates with locks and appropriate signs and keys or combinations to locks, with such keys or combinations being furnished to each organization.

7. During the term of this Agreement, all authorized trail users (i.e. walkers, hikers and cyclists) will not use or attempt to use that section of the existing railroad corridor between the east and west segments of the Dahlgren Railroad Heritage Trail.

8. Maintenance of the existing railroad trail between the east and west segments of the Dablgren Railroad Heritage Trail will continue to be conducted by the Friends of the Dahlgren Railroad Heritage Trail, in coordination with the other organizations.

9. Notwithstanding paragraph 7, from time to time the Friends of the Dahlgren Railroad Heritage Trail may conduct certain special events, which may use the entire existing Trail, including that portion of the railroad trail that is the subject of this Agreement. If such events are to take place, the Northern Virginia Shooting Facility, Inc will be provided at least thirty (30) days notice prior to the date of the activity.

10. The Northern Virginia Shooting Facility, Inc. will use its best efforts to insure that firearms activity on its property will not adversely impact the safety of the authorized trail users (i.e. walkers, hikers and cyclists) using the bypass trail. Furthermore, the Northern Virginia Shooting Facility or its affiliate, the Northern Virginia Gun Club, will operate their ranges in a safe manner as not to expose any authorized trail user (i.e. walker, hiker, and cyclist) to danger or harm caused from the discharge of firearms. The names of the Northern Virginia Shooting Facility, Inc., and its affiliate organization, the Northern Virginia Gun Club, inc., shall be specifically included in the hold harmless section of the recreational permit signed by trail users.

11. This Memorandum of Agreement is effective upon the signatures of authorized representatives of each organization and shall remain in effect until terminated. This Agreement may be modified in writing by the mutual consent of the organizations, and may be terminated at any time by any organization, at its discretion, subject to requiring

at least sixty (60) days written notification by Certified Mail to each of the other organizations prior to termination.

WE THE UNDERSIGNED HEREBY APPROVE THIS MEMORANDUM OF AGREEMENT ON THE 12 DAY OF 2007

AS 10 12 FRIENDS OF DAHLGREN RAILROAD HERITAGE RAILROAD:

David C. Jones, President As to the NORTHERN VIRGINIA SHOOTING FACILITY, DIC.

11

Gerald A. Gibson, President

As to the DAHLGREN RAILROAD HERITAGE TRAIL ASSOCIATION, INC.

David G. Brickley, President

As the O.D.R., LLC:

Joseph Williams, Member

The Dahlgren Railroad Heritage Trail and the Northern Virginia Gun Club: A Perspective by Jim Lynch

September 15, 2022

The NVGC is one of approximately 130 neighbors along the DRHT. As with all of our neighbors we interact with them when there is a reason to do so, which is generally rare. With most of our neighbors, we have very little interaction. The trail passes along the back edge of their properties. Of the properties that have houses on them, very few are visible from the trail.

The NVGC is something of a special case. While many of our neighbors enjoy shooting sports, the NVGC is the only one to our knowledge that has a range that points at the trail. Others of their several ranges point toward one or more of their other twelve neighbors. I can't speak to the safety provisions in place vis a vis those neighbors. The Club has always in my estimation been very safety conscious. While I can't speak to their other neighbors, I have never had reason to question my safety while on the trail in the vicinity of the gun club.

The railroad was opened in August, 1942. The gun club was incorporated in 1964. When the club was established, trains were still running on the railroad, known as the Dahlgren Junction Line at the time. The "lower range" was set up to fire towards the railroad. Members of the club have told us that when the trains came by they would just stop shooting. This seemed to be a satisfactory safety solution.

Later, the railroad was abandoned and the railroad property was acquired by a local individual, Joe Williams. Mr. Williams would allow interested parties to access the property and I obtained a pass to do so. The railbed at the time was pretty well overgrown, so it was something of a challenge to walk on it, but good exercise and I enjoyed getting out there from time to time. And I would walk past the lower range. The shooters would always stop shooting when they saw me and I never felt in any danger.

Fast forward to the establishment of the trail. In 2006, David Brickley, a trail enthusiast, arranged with Mr. Williams to establish a rails-to-trails on the property with an aim of ultimately bringing it into the state park system. A Friends group was established and a significant donation acquired to clear the trail and remove the railroad ties. (The rails had been removed by the railroad company when they abandoned the line). The trail, now known as the Dahlgren Railroad Heritage Trail, was opened to the public in 2006.

As public use expanded, the gun club realized that they had to adopt more stringent safety procedures. They asked the Friends if they could station "watchers" on the trail with walkie-talkies. We of course said that would be fine. The watchers would radio down to the firing line to "hold fire" when a trail user came by. And call "resume fire" then the trail was clear again. This seemed to be working fine. But later, the gun club came to us and said that the watcher system was pretty inconvenient for them, and would we mind using a temporary bypass until they could figure out what to do about the safety aspect of the lower range. So we said sure, we were busy working on the trail and thought that for a little while that would be ok. We executed an MOU to that effect. The temporary bypass was very rough and rudimentary, suitable only for able bodied walkers. But in order to help the club and give them time to reach a better solution to their safety issues we agreed. This was in 2007 (22 September to be exact).

As time went on, we were pretty busy with the trail, and didn't think much about this. From time to time we would ask how they were coming with formulating a solution. We didn't get much of an indication that they were developing any practical solutions. About seven years later, the club built a new pistol range. We thought that was a little odd when they had a more pressing issue (we thought) with the lower range. Shortly thereafter, it was apparent that they were not doing anything serious about the lower range, so we decided to cancel the MOU. It might be noted that the MOU was cancellable by either party with no reason needed to be given, with 60 days' notice. So in 2015 we sent a cancellation letter to their registered agent and sixty days later we reopened the trail. We, the Friends, never got a response to our cancellation letter or any other communication about the trail being reopened. Not that any response was needed.

Shortly thereafter, the Club constructed a new rifle range to replace the lower range. I can only assume that the only solution that they were able to come up with was to build a new range. Fast forward to the present time, I have just recently become aware that they are using the old lower range on occasion using the watcher system. So my takeaway is that they have solved their range safety issue and are comfortable with the situation since we have had no substantive contact with them since 2016!

It's probably worth noting that we have the same relationship with the gun club as we do with all of our 130+ neighbors. When they have an issue contact us and we work things out. If we have an issue, we do likewise. That is the way neighbors do things.

Happy to expand on anything I've written, or answer questions.

Vs, Jim Lynch, President of Friends of DRHT and longtime user of the railroad property

Summary of Stakeholder Interviews-Question 1 Do you support this addition to the park? Why or why not?

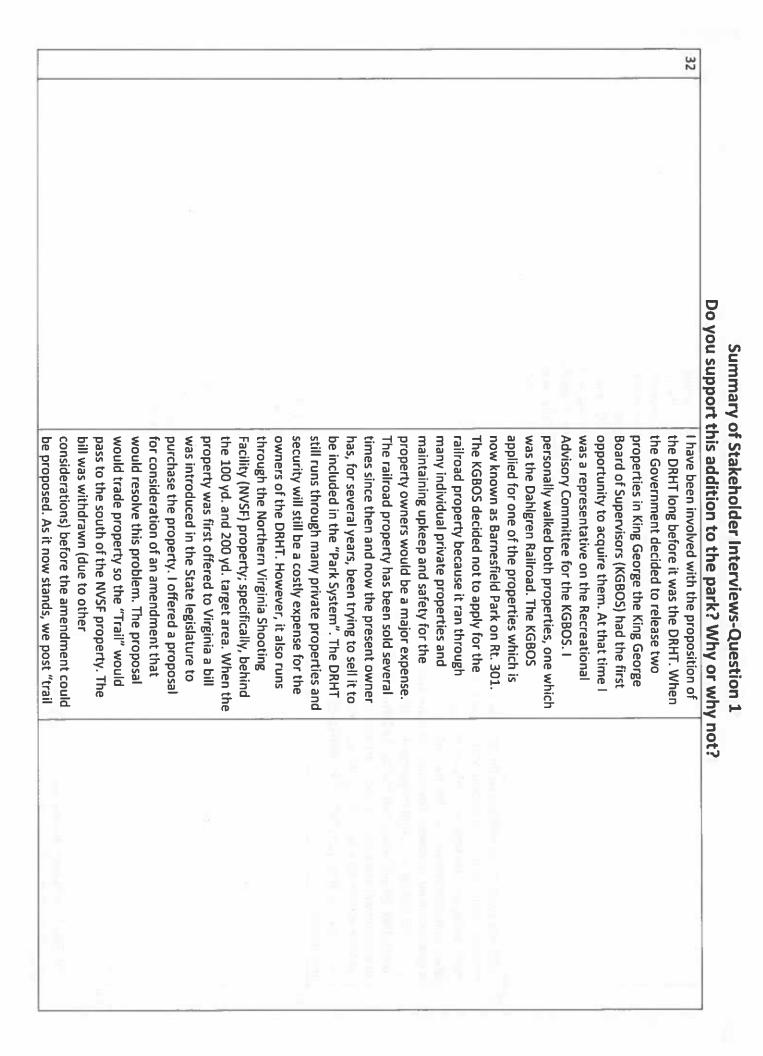
Summary of Stakeholder Interviews-Question 1 Do you support this addition to the park? Why or why not?

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	use portri equality, riave arritual pass to calegori, filinited		
	to how far you can run, running and training,		
	participates in events as well. Parking limited on		1
- 31	Dahlgren, could park at Caledon		
	Long term should be paved, less long-term		
	maintenance, or at least consistent surface. Wet,		
-	muddy areas are deterrent. Used for commuter trail		
	Since its inception the ORHT has become a clear natural		
	asset to not only King George but Virginia. This is		the second se
	evidenced by the Big WoW mentioned above, daily		
	hikers/walkers/bikers/bird watchers that use the trail,		
	and several races and events held yearly. The handful of		
	volunteers, as well as the current owner, have made		
	this possible. The amazing volunteers and the current		
	owner have remained committed to making the trail		
	everything it is today. However, unfortunately, having		
	the same owner and volunteers in perpetuity is not		the second statement of the second seco
	possible. Making the trail a public venue, by bringing it		
	under Caledon State Park, will allow it to be a natural		
	asset for years to come. In addition, while the		
	volunteers do the best they can, the trail would benefit		
	from being under professional management, such as		
	Caledon State Park. This would bring much needed		a construction of the second sec
	technical expertise and guidance that will improve the		
	trail for users. Having the DRHT part of Caledon State		
	Park, would not only benefit King George, but the entire		The second se
		The issue with the trail (look at research), William's easement, if state buvs it, limited to	State should buy and sell back to landowners but would rather see the state own than a
		10 feet of use. Unless easement is removed,	private entity
		no value to state or Caledon. Can't get to it	
		Holli the state park, upesh i collifect, too dangerous	

Do you support this addition to the park? Why or why not? the region and the country, and should be preserved for and configuration, including security, already in place at The Park Service would provide better standards of care potential user and might encourage more groups in the Washington/VA metro area to visit the region for hiking State Park. This railroad bed is of historic significance to This 15 mile long railroad corridor is a unique asset that We support the incorporation of DRHT into the Virginia It is an absolute gem in King George, great to be part of Northern Neck, and its potential connection to Caledon wonderful trail as it is, but would be made much better VP of Friends group and also on Caledon Friends group, park. It would be easier for coordinating maintenance I was on the original team in 2006 to help create trail, State Park system, specifically as an annex of Caledon Yes. The DRHT is the only 16-mi stretch of trail in the should be preserved as a trail. It would be difficult, if not impossible to recreate this opportunity for an off adds diversity of experience (longer trail hikers), and Caledon removes the required permit onus from the potential for increased tourism, as well as a regional Caledon and other state facilities. Volunteers would makes sense to combine efforts, reduce admin and local residents and visitors from other areas. It is a To protect the trail in perpetuity and bring it under It falls in line with our agencies mission, vision and public amenity for residents. Having DRHT part of continue to complement labor requirements road trail in King George County. professional management event planning conflicts opportunities. efforts. values 19 22 24 20 21 <mark>1</mark>0 23 17

27	26	25	
		This will better ensure it remaining open and available for our community to use.	Do you support t with the contributions and protections that VA DCR could provide.
	Unnecessary expense by state of VA to assume responsibility for a capability that already exists DRHT already provides trail, private funded effort through donations, not connected physically to Caledon, cost-benefit for taxpayers to fund it. Should be cost-benefit analysis. Should the state own the property, that it poses significant risk to operation of Northern VA shooting facility? Would be adjacent to state-owned land. State has placed restrictions on firearms on and around state- owned facility. Lower rifle range fire could potentially impact the trail—have trail watchers who count Jan. through Dec. maybe count 1-2 people, maybe 5-6 on weekend morning. Maybe are closer or east of Indian Town Road may have higher usage rate.		Do you support this addition to the park? Why or why not?
VDOT doesn't have a position on the trail becoming part of the park. However, any connection between the two should be developed so that it will encourage users not to use Rt. 218 as the connection. This road, in its current alignment, would not facilitate a safe pedestrian or bicycle connection due to the curvature and grade above the trail.			not?

78			l don't see why I would be in opposition.
29	Yes, I support DRHT becoming a part of Caledon State Park		
30	Huge supporter of trail, love to see it set up for long- term public access/resource for community. Wouldn't want to stand in the way		-
31		There was activity in 2015 to move to legislature, No VA gun club was concerned about this effort. Invited Del. Ransome for a visit and showed her the facility. I was just a small participant in that effort, but met the Delegate and discussed aspect asked to discuss with her. I have discussed this with her a few times since that period. I'm opposed to incorporating that trail into Caledon. I live close to trail and gun club. I have seen efforts to commercialize and expand the trail have had impacts on surrounding organizations and property owners. My family has used park, and I have friends that use trail to have impacts on county, on me and adjoining property owners. ANY improvement to that trail that passes through gun club will have deleterious effects. Have financial interest.	



not?				
of Stakeholder Interviews-Question 1 this addition to the park? Why or why not?	watchers" whenever we are using this range and cease firing when people are on the trail that passes behind the range. The issue of trading properties will have to be revisited with the NVSF should Virginia decide to acquire the DRHT property. I DO NOT and WILL NOT support the DRHT becoming part of the CALEDON PARK SYSTEM unless Virginia is willing to move the DRHT south of the range so the trail does not interfere with the NVSF using its range.		We OPPOSE the trail becoming part of the Caledon State Park. The trail bisects an existing shooting range and current or future state park regulations could have a negative effect on the shooting range. Shooting ranges, which are in short supply, are important to our membership (>13,000 paying members and >58,000 subscribed on social media) in order to be able to do firearms training and for recreational purposes.	
Summary o Do you support t		I strongly support this addition to the park. As a frequent visitor/camper at Virginia State Parks I have seen and appreciate how well they are managed, what great opportunities they are for learning and experiencing the outdoors. There are not many state parks that include a rail trail for people to walk, run, and mostly bike on and I think that having the DRHT as part of Caledon will make Caledon more attractive to people who are looking for a place to ride bikes. I also think it will guarantee that the DRHT will be protected and maintained.		Yes! The Friends have always felt that society must provide low cost recreational opportunities.
			34	S.

	controlling access to the trail.		
	I do not support this addition. The Rails to Trails folks do a great job of maintaining and		
			40
		included.	
		and preservation of this trail and the environment	
		State Park. Doing so will allow for better maintenance	
		We support the adoption of DRHT as part of Caledon	39
	properties. Threatened me.		
	Even sent-hunters in to harass neighboring		
	it up 20 years ago, always been trespassing.		
	not happy with that. Ever since they opened		
	clear them out. They have full access and I'm		
	due to trees down. I haven't been able to		
	January, my trails down to it are closed off		
	half due to severe, long COVID. The storm last		
	to patrol my property in the past year and a		
	harass me all the time. I have not been able		
	properties on both side of the trail and they		
	neighbor. I do not support that at all. I own		
	cameras, and they have always been a bad		
	down my posted signs, they break, steal trail		
	trespass on my property constantly. They tear		
	No, the trail is not a good neighbor. They		38
	would hamper my business.		
	coming through—if gun club is shut down,		
	local business. There are ramifications of		
1	I'm a member of a gun club that supports my		
	I'm an outdoor person, like idea of trail-but		37
		state park will help to remedy this deficit.	
		in public trail systems and moving the DRHT under the	
		park. The eastern portion of Virginia is severely lacking	
		Yes, I support the inclusion of the trail into the state	36
not	Do you support this addition to the park? why or why hot?	Do you support	
	the addition to the model Wike an why		

Summary of Stakeholder Interviews-Question 1 you support this addition to the park? Why or why no

not?			
Do you support this addition to the park? Why or why not?			I do not support this addition. The heritage trail goes through my property to include our driveway. I do not think the public should be that near to my property as it could become a safety hazard.
Do you support th	The Board of NN Audubon fully supports this addition to Caledon State Park. The 16 miles trail and more than 200 acres would be a fabulous addition to the historical and natural protected areas in this portion of the region - an area with more and more urbanization occurring every day.	 Yes, the FCC strongly supports the management of the OHRT by Caledon State Park for the following reasons: 1. First and most important it will finally preserve an important natural resource for all to enjoy whether you bike, hike, bird watch or enjoy other types of activities. It will remove the question of ownership and management once and for all. 2. It will preserve and protect the natural resources and history related to the ORHT. 3. With the CSP management it will provide a budget and manpower necessary to manage the OHRT properly. 4. Through the park's management there should be a level of protection for the OHRT and to address vandalism, overuse, and visitor protection. 5. It will enhance the local tourism effort in the area. It provides another opportunity for park visitors to enjoy, which may result in longer visitor stays and great visitor expenditures in the local economy. 6. It can be a major anchor to increase both the length and number of trails in the area that can connect other resources or opportunities. 7. Protect historical resources. 	
	41	42	43

46	45		44
	Yes		
		 III. Represents an unnecessary sustainment cost to state taxpayers iv. Increased number of trail users increases risk of illegal access to adjacent landowner property and associated crimes such as theft, burglary, and violence. v. My belief that land should be returned to original landowners as per original terms of quit claim vi. I am a Federal Firearms License holder. As such, I buy, sell, trade firearms with many of my customers living near and shooting at the Northern Virginia Gun Club. My concern is that conversion of the trail to a state park would impact the feasibility of the Gun Club and thus impact by business base. I would estimate a loss of income of approximately \$5,000 per year. 	I do not support for the following reasons: i. Represents and unnecessary procurement cost to state taxpayers ii. Represents an unnecessary operations and maintenance cost to state taxpayers
The GWRC staff have reviewed the options of making DRHT part of Caledon State Park and discussed with our board representatives from King George County. The GWRC does not take a position for or against as there are both benefits and challenges of this consideration. A. It is usually beneficial to preserve any available land to expand regional & state			

	recreation areas if there are state resources
	to support expansion and continued high
	quality operations. Acquisition of this
	property would provide increased
	recreational opportunities and preservation
	of conservation values whether that area
	experiences high population growth or not.
	B. A challenge here is with growth projections
	for rural and suburban areas like King George
	County, and especially connecting to an
	employment center such as Dahlgren, this
	property could be considered for
	transportation alternative systems in the
	distant future. Property may be easier to
	acquire from private ownership than the state
	if federal funds were used for acquisition.
	Acquisition from private owners may offer
	increased opportunities for public private
	partnerships should the property be acquired
	for long term alternative transportation uses.
47	
I support this addition to the park. It is a key link in the	
Potomac Heritage NST network.	
48	On behalf of Naval Support Facility Dahlgren,
	we appreciate the opportunity to provide
	comment on the Dahlgren Rail Heritage
	Irail/state park teasibility study. While we
	are neutral on the trail becoming part of the
	recreational opportunities provided by the
	Dahlgren Rail Heritage Trail and look forward
	to continuing to partner with community
	organizations in an effort to enhance the
	natural environment in and around the

Landowner Feedback Placeholder

Appendix A



A RESOLUTION

OF THE BOARD OF SUPERVISORS OF KING GEORGE COUNTY, VIRGINIA IN SUPPORT OF THE DAHLGREN RAILROAD HERITAGE TRAIL AND ITS INCORPORATION INTO CALEDON STATE PARK BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION

WHEREAS, King George County is home to Caledon State Park, one of the Commonwealth of Virginia's premier recreation facilities, located along the southern shore of the Potomac River; and,

WHEREAS, the Dahlgren Railroad Heritage Trail comprises part of a former railroad line built in 1942 and running from Fredericksburg, Virginia to the Dahlgren Naval facility campus that transported Naval munitions and thousands of Department of Defense employees for decades, playing an important role in United States military research and development efforts during those years; and,

WHEREAS, the Dahlgren Railroad Heritage Trail's railroad from Sealston in King George to the Dahlgren Naval facility has been out of use for many years and the infrastructure has been mostly removed, leaving an open trail stretching across the entirety of King George County, with portions lying very close to Caledon State Park; and,

WHEREAS, the Dahlgren Railroad Heritage Trail has been developed and utilized as a recreational trail for walking, jogging, hiking, biking, cross country skiing, and horseback riding, to the enjoyment and satisfaction of thousands of King George County citizens and visitors and it is desirous that such use flourishes; and,

WHEREAS, the Commonwealth's Department of Conservation and Recreation is presently working on a suitability study in regards to the Dahlgren Railroad Heritage Trail and its' incorporation into Caledon State Park to enhance Park facilities, the Trail, and recreational opportunities for visitors;

NOW, THEREFORE, BE IT RESOLVED, by virtue of this RESOLUTION, that the Board of Supervisors of King George County, Virginia, hereby expresses its full and enthusiastic support of the efforts of the Department of Conservation and Recreation toward the acquisition of all interests in Dahlgren Railroad Heritage Trail properties necessary to facilitate its incorporation into Caledon State Park for the further enjoyment of the citizens of King George County and visitors to the Caledon State Park.

Adopted on a motion by Supervisor Lipke and seconded by Supervisor Graver and a vote of 5-0 at their regularly scheduled meeting on the 2nd day of August 2022.

ATTEST:

Christopher Miller, Clerk of the Board



<u>Subject</u>: Resolution of Support for the Acquisition of the Dahlgren Railroad Heritage Trail by the Virginia Department of Conservation and Recreation

<u>Summary of Information</u>: The Virginia Department of Conservation and Recreation is currently conducting a suitability study in regard to the acquisition of the Dahlgren Railroad Heritage Trail and the addition of the Trail to Caledon State Park. In February 2016 the Board of Supervisors passed a resolution in support of this. DCR has requested that the Board of Supervisors reaffirm their support of this acquisition as a part of the 2022 study.

Recommended Action: Approve the resolution as presented.

Legal Review	Complete	<u>X</u> N/A
Attachments	X Yes	No

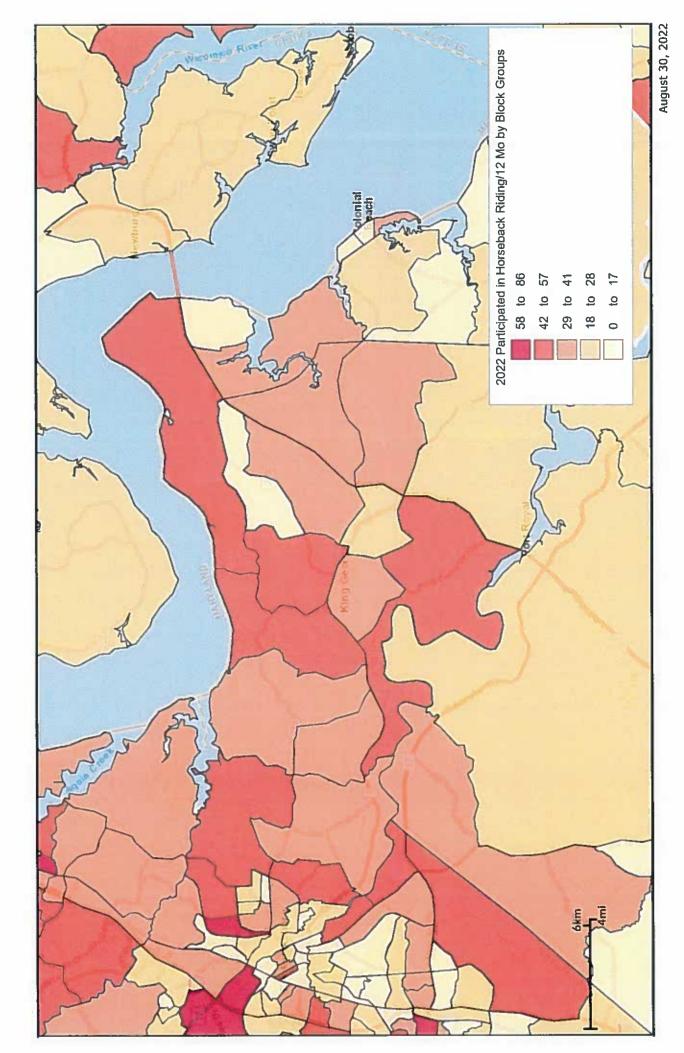
Attachments: 1. Resolution

Appendix C

Market

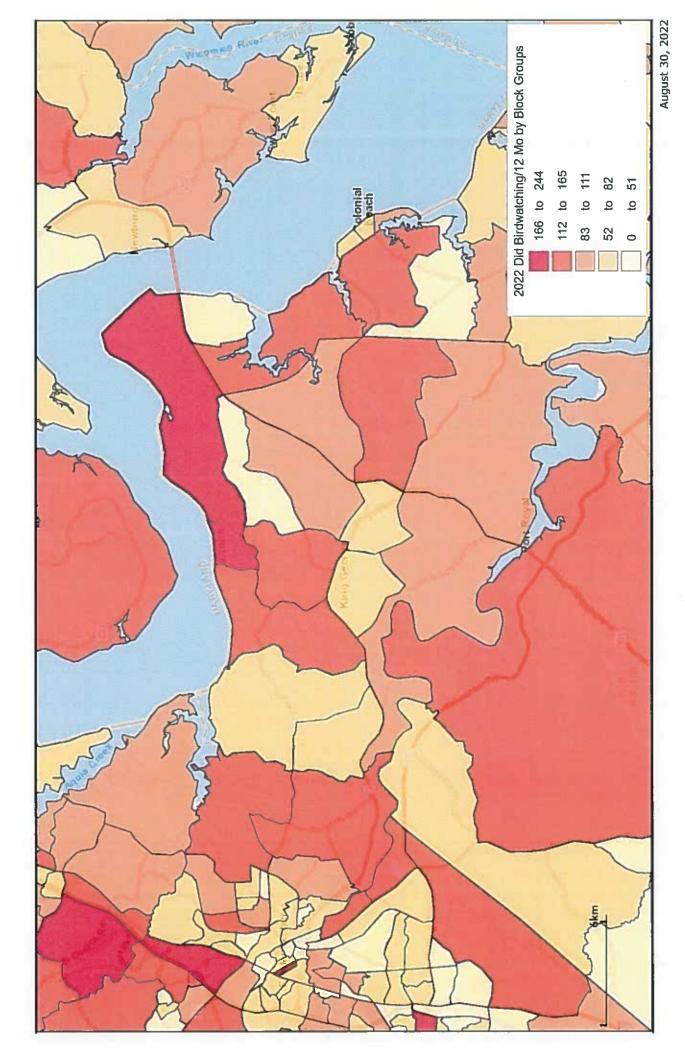
a. Market Potential Index Maps





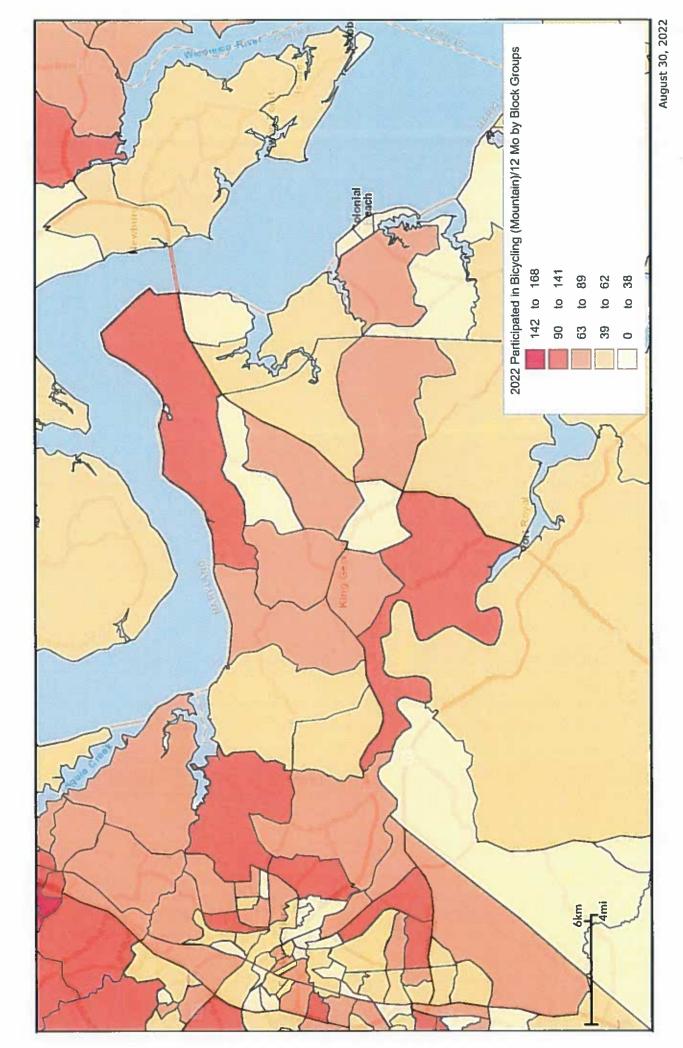
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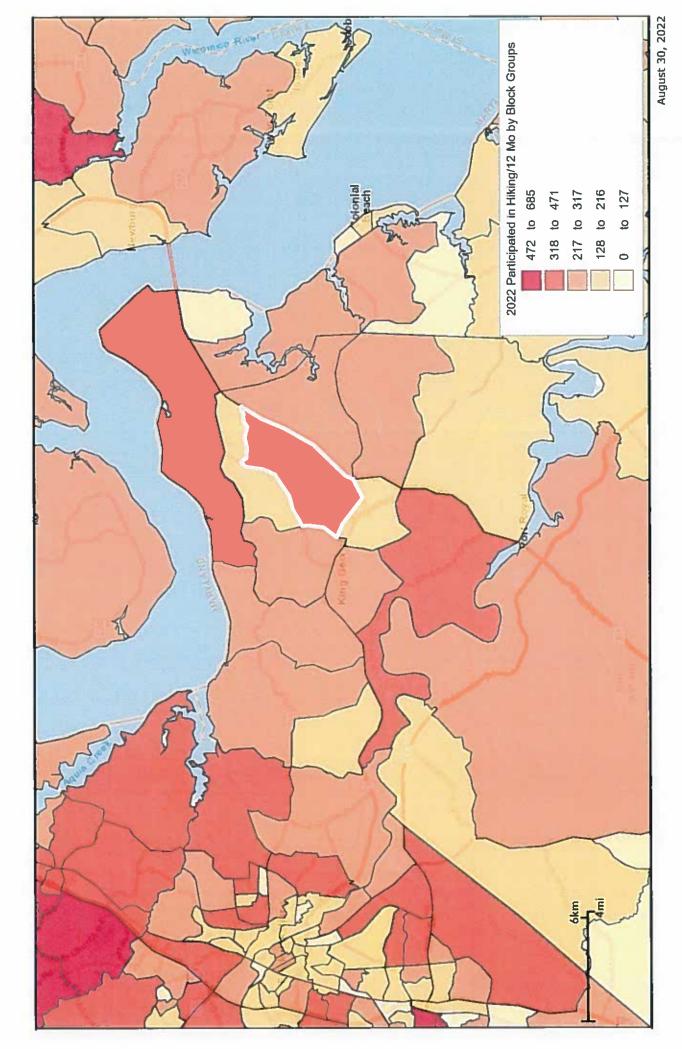
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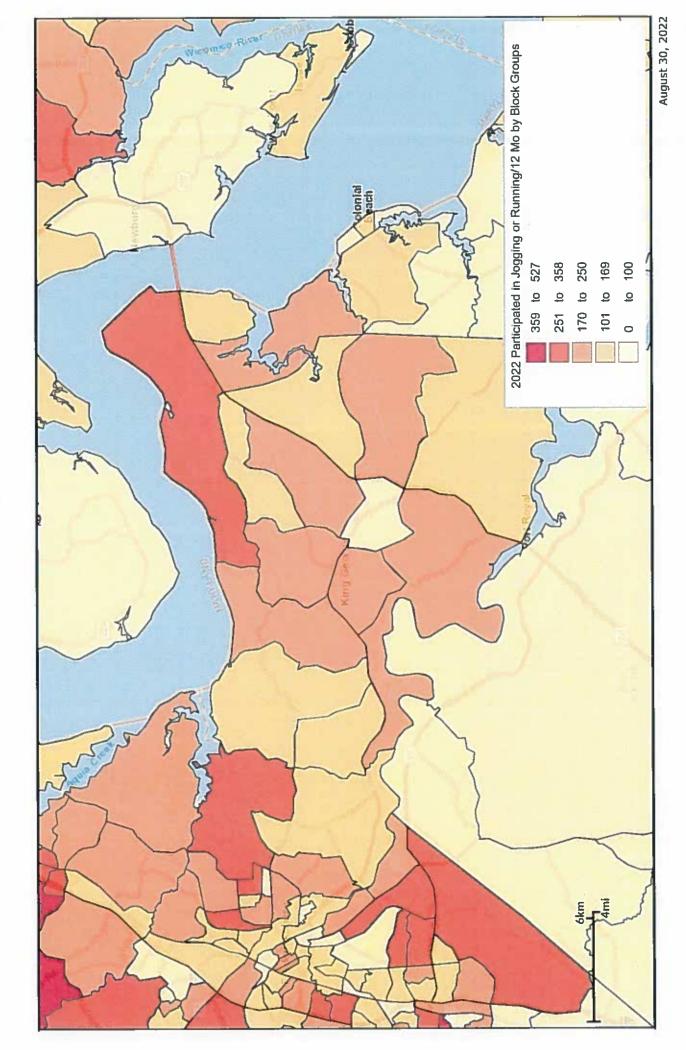


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Appendix D

DRHT Concept Plan

DAHLGREN RAILROAD HERITAGE TRAIL

CONCEPT PLAN



Image 1. Dahlgren Railroad Heritage Trail. Credit: BusinessYab

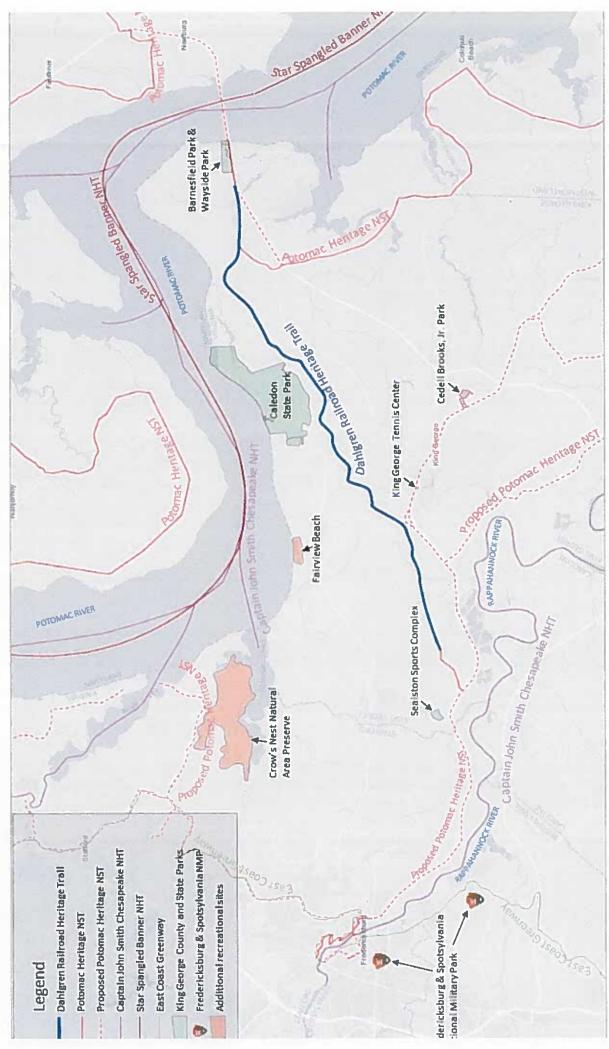
Introduction

Dahlgren Railroad Heritage Trail

The Dahlgren Railroad Heritage Trail is a 16 mile trail that follows the route of the 1940s Dahlgren Branch Rail Line, and stretches across King George County just south of the Potomac River in Virginia's Northern Neck. The trail is open for walking, running, cycling, and other non-motorized recreational uses. The trail is comprised of 240 acres of preserved sanctuary for native wildlife and natural beauty. The Dahlgren Railroad Heritage Trail is an important segment of the Potomac Heritage National Scenic Trail and is also a National Recreation Trail.

Vision Statement

The vision of the Dahlgren Railroad Heritage Trail is to become a multi-use, rail-trail greenway that is part of Virginia State Parks. By becoming a linear trail connected to Caledon State Park the trail's abounding beauty of flora, fauna, and wetlands habitats, can be preserved and maintained in perpetuity. This vision has the support, by resolution, of the King George County Board of Supervisors. Making the vision a reality will require support from the Governor and General Assembly of Virginia.



age 2. Dahlgren Railroad Heritage Trail and Regional Connections. Credit: NPS RTCA.

DAHLGREN RAILROAD HERIFAGE TRAIL

C1

Project Partners

Friends of the Dahlgren Railroad Heritage Trail

The Friends of the Dahlgren Railroad Heritage Trail is a 501(c)3 nonprofit group of volunteers that works to develop, preserve, and maintain the historic rail-trail greenway as a major recreational, tourism, and educational opportunity for the citizens of King George County and the State of Virginia. The group works to ensure that this linear trail, designated as a National Recreation Trail and an important segment of the Potomac Heritage National Scenic Trail, joins the Virginia State Parks System by becoming a part of Caledon State Park.



The mission of the King George County Department of Parks and Recreation is to effectively deliver services by providing diverse and balanced recreation programs and facilities that incorporate the needs,

interests, and desires of county citizens. With citizens' support, involvement, and interactive utilization of facilities, community, and natural resources the department contributes to maintaining community character, enhancing community spirit, developing partnerships between private enterprises, civic organizations, and individuals; hence, reaching out, enhancing lives, and contributing to community livability.

National Park Service – Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance program is a technical support arm of the National Park Service that works with communities to bring their vision for outdoor recreation and conservation to life. The Rivers, Trails and Conservation Assistance program is working with the Friends of the Dahlgren Railroad Heritage Trail and the King George County Department of Parks and Recreation to help them develop a concept plan that highlights the potential benefits of the Dahlgren Railroad Heritage Trail becoming a part of Caledon State Park.





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List of Abbreviations

B&O	Baltimore and Ohio Railroad Museum
CAJO	Captain John Smith Chesapeake-National Historic Trail
CFPC	Commonwealth Foxhounds Pony Club
DOI	U.S. Department of the Interior
DRHT	Dahlgren Railroad Heritage Trail
ECG	East Coast Greenway
FCV	Forest Conservation Value
FEMA	Federal Emergency Management Agency
GWRC	George Washington Regional Commission
IRR	Integra Realty Resources
NPS	National Park Service
NRT	National Recreation Trail
NVRC	Northern Virginia Regional Commission
РНТА	Potomac Heritage Trail Association
РОНЕ	Potomac Heritage National Scenic Trail
RF&P	Richmond, Fredericksburg, and Potomac Railroad
STSP	Star-Spangled Banner National Historic Trail
USACE	U.S. Army Corps of Engineers
VADCR	Virginia Department of Conservation and Recreation
VAFP	Virginia Association for Parks
VBF	Virginia Bicycling Federation
VDOF	Virginia Department of Forestry
VDOT	Virginia Department of Transportation
VOP	Virginia Outdoors Plan
VWC	Virginia Wetlands Catalog

DAHLGREN RAILROAD HERITAGE TRAIL

PART I - PROJECT CONTEXT

DAHLGREN RAILROAD HERTFAGE TRAIL

Project Location

King George County is located on Virginia's Northern Neck (*see Image 3*). The county is bounded by the Potomac River to the north and by the Rappahannock River to the south. As of the 2020 Census the total population of King George County is 26,679. The demographic makeup of the county is 76.7% *White*, 16.6% *Black*, 0.1% *American Indian and Alaska Native*, 1% *Asian*, and 5.6% *Hispanic or Latino*. (Source)

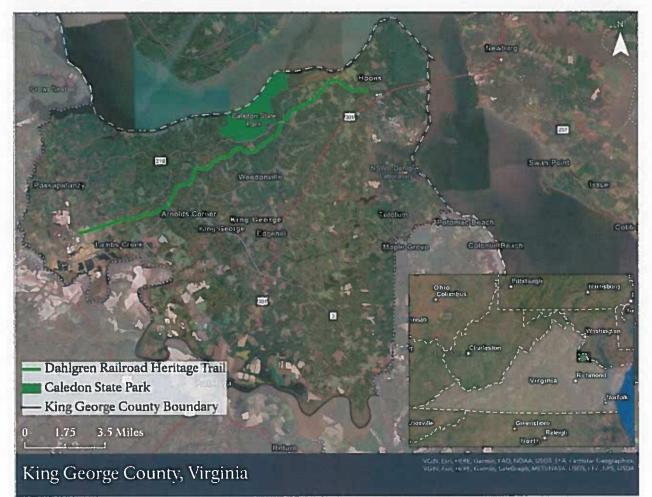


Image 3. Project Location - Context Map. Credit: NPS RTCA.

Between 2010 and 2019 the population in the county grew from 23,584 to 26,723 (approximately a 9% increase). (Source) As of 2020 the median household income in the county is \$96,711. (Source) A total of 4.5% of residents in the county speak a language other than English. (Source) The median age for King George County is 38.1. (Source) The percentage of county residents over 25 years of age who have obtained a high school diploma or a bachelor's degree or higher is 92.5% and 35.5%, respectively. (Source)

The median property value in King George County is \$315,100, and the homeownership rate is 76%. (Source) The county is the 67th most populated county in Virginia and is bordered by Caroline, Stafford, and Westmoreland counties. (Source) The economy of King George County

employs 10,001 people full-time. (Source) The largest industries are Public administration; Educational services, and health care and social assistance; Professional, scientific, and management, and administrative and waste management services; and Retail trade. (Source) The highest paying industries (in median earnings) are Public administration (\$101,643), Professional, scientific, and technical services (\$84,277), Management of companies and enterprises (\$65,417), and Utilities (\$63,594). (Source)

The population of King George County is expected to grow significantly in the next 20 years, with a "projected population of 30,494 by 2030 and 34,955 by 2040." (Source)

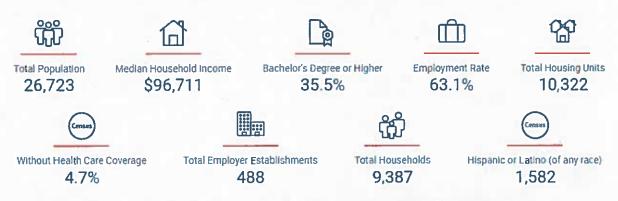


Image 4. King George County Demographics Profile. Data: U.S. Census Bureau. Credit: U.S. Census Bureau.

Property History

During World War II the U.S. government needed a railroad right-of-way to connect the Richmond, Fredericksburg, and Potomac (RF&P) Railroad with the Dahlgren Military Facility, located on the Potomac River in King George County (see Image 5). The proposed rail line was needed to transport materials, weapons, and personnel for the war effort. Through condemnation, the U.S. government acquired a corridor from Fredericksburg to Dahlgren and built the railroad known as the Dahlgren Branch, between 1942-1943. (Source) The Dahlgren Branch rail line, aside from transporting materials, weapons, and personnel, was also used as a passenger line until operations ceased in 1957.

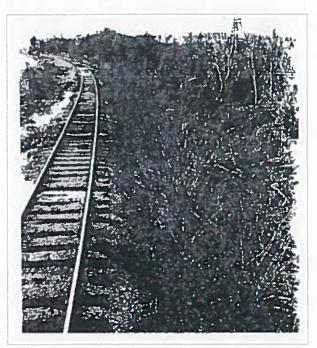


Image 5. Richmond, Fredericksburg, and Patomac Railroad, c. 1970. Credit: Government Railroad to Dahlgren Junction (June 15, 1942).

After 1957 the rail line sat idle until 1963 when it was declared surplus. In 1965 the U.S. government offered the Dahlgren Branch for sale by auction and the line was acquired by the RF&P Railroad. (Source) In 1990 the RF&P Railroad removed most of the rails from an unused segment of the Dahlgren Branch within King George County. (Source) This segment extended east from Bloomsbury Road, its western end, to U.S. Route 301 (James Madison Parkway). In 1992 CSX Transportation acquired the Dahlgren Branch from the RF&P Railroad. The following year, CSX listed the unused segment of the Dahlgren. It was this unused segment of the Dahlgren Branch that would become the future Dahlgren Railroad Heritage Trail (DRHT).

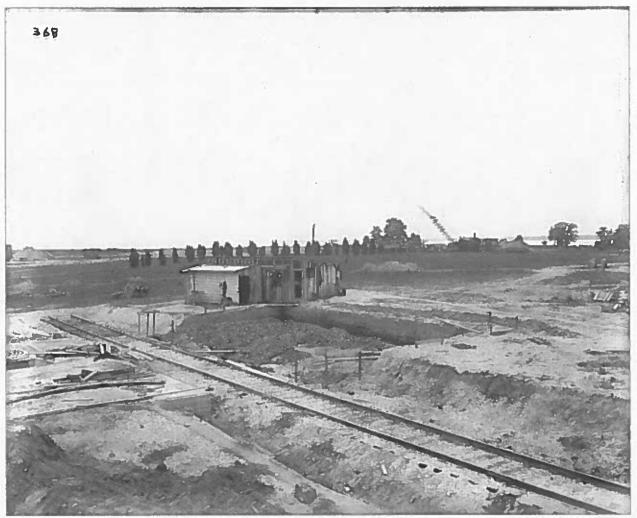


Image 6. Tracks at the Dahlgren Naval Surface Facility. Credit: Naval Surface Warfare Center Dahlgren Division, Virginia - Dahlgren Ordnance History - Plate Battery.

In 1997 King George County resident Joe Williams acquired the railroad property. In the years after his purchase, Mr. Williams continued to promote the preservation of the property as a county-owned or sponsored trail. His efforts would lead to increased support for developing a trail at the state level. In 1999 the Dahlgren Junction Trail was included in the *Connecting Our Commonwealth* map at the 1999 Governor's Conference on Greenways and Trails. The trail was also included in the updated Virginia Outdoors Plan (VOP) for 2001. Mr. Williams would

continue to pursue several options for turning the unused rail line into a community trail; unfortunately, none yielded any future plans for developing the trail.

The goal of making the DRHT a publicly-accessible rail-trail is the dream of two gentlemen, the late property owner Mr. Williams and David Brickley, a former state legislator and director of the Virginia Department of Conservation and Recreation (VADCR) and a tireless trail advocate, who purchased the property in 2006. That same year the Friends of the DRHT was formed and using only volunteer labor and equipment, the friends group cleared the railroad bed and the remaining ties. The DRHT officially opened for private, recreational use on June 3, 2006, with a ribbon-cutting ceremony. Since then, Mr. Brickley and the Friends of the DRHT have continued to maintain and improve the trail.

Today, the DRHT is an important segment of the Potomac Heritage National Scenic Trail (POHE) and is also a National Recreation Trail (NRT) (see Image 7).



Image 7. Celebration for the Dahlgren Railroad Heritage Trail designation as a National Recreation Trail and a segment of the Potomac Heritage National Scenic Trail by the U.S. Department of the Interior. Credit: Dahlgren Railroad Heritage Trail.

Trail Ownership and Friends Group

The DRHT is currently owned by Ridgewood 2000 LLP, a limited liability partnership that is controlled by Mr. Brickley, who acquired the property in 2006 to protect the rail-trail from any future development. The privately-owned trail is maintained in partnership with the Friends of the DRHT.

Since 2006 the Friends of the DRHT have made a major effort to remove rail ties, lay additional stone dust, and continue to clear fallen trees and other trail obstructions to provide a positive experience for trail users.

The members of the Board of Directors of the Friends of the DRHT are:

- Jim Lynch, President
- Warren Veazey, Vice President
- Elizabeth Buckley, Treasurer
- Paula Van Alstine, Secretary
- Dave Jones, President Emeritus
- Kevin Biondi
- David Brickley
- Jim Buckley
- Champe Burnley
- Fred Germond
- Ron Harris
- Laurie Schlemm

The efforts to make the DRHT a publicly-accessible rail-trail connected to Caledon State Park are endorsed by a growing number of organizations, including:

- King George County Board of Supervisors
- Virginia Association for Parks (VAFP)
- East Coast Greenway
- Friends of the Rappahannock
- Rappahannock Group Sierra Club
- Fredericksburg Cyclists Club
- Fredericksburg Pathways Partners
- Bike Virginia
- Virginia Bicycling Federation (VBF)
- Commonwealth Foxhounds Pony Club (CFPC)
- Potomac Appalachian Trail Club
- Potomac Heritage Trail Association (PHTA)

Local Planning and Resource Inventory

Local Planning

The county and regional plans included in this section identify the DRHT as the spine for a countywide pedestrian and bicycle trail network in King George County. As one of the few off-road trail facilities open for walking, running, cycling, and other non-motorized recreational uses, the trail supports connectivity between communities, cultural assets, green spaces, and commercial areas. The plans included in this section outline a number of goals and objectives for how county and regional governments can improve the health and wellness of King George County as a whole – from its residents, communities, economy, and natural resources to the sustainability of its local environment – through the development of land-use patterns to encourage walkable communities that provide adequate access to open space and water-based recreation, commercial hubs, and tourism amenities.

Here's how the DRHT can help achieve many of the county and regional goals to protect open space, improve the health and wellness of communities, and ensure equitable access to green public spaces:

King George County Parks and Recreation Needs Analysis (2017)

- The King George Parks and Recreation Needs Analysis identified *walking and biking trails* as the facilities of highest priority for respondents of the analysis community survey.
- As noted in the analysis, 69% of people listed walking and biking trails as a need and walking and biking trails were identified as the most valued type of facility. Trails of all types multi-use, hiking, and mountain biking are demanded by the public.

King George County Trailways Feasibility Study - The Berkley Group (2018)

- The Trailways Feasibility Study identifies the DRHT as the spine of the countywide bike/trail network in King George County that can create connections between settlement areas to facilitate non-motorized movement across the county.
- Two major recommendations of the study related to the DRHT are to, 1. Develop a Rails with Trails project to extend the DRHT westwards; and 2. Improve primary and secondary roads that feed into the DRHT and include trailhead and parking areas located at strategic locations to provide better access.

Virginia Outdoors Plan (2018)

• The VOP included a proposed extension of the DRHT known as the Dahlgren Connector into the list of *Virginia's Proposed and Existing State Connecting Trails*. The Dahlgren

Connector would link the DRHT with the East Coast Greenway (ECG) and extend POHE westwards to Fredericksburg.

- To be included in the list, the trail had to meet the following criteria:
 - Be at least 5 miles long (one way)
 - Connect to a statewide trail directly or through another connecting trail
 - Cross barriers, boundaries or jurisdictions to connect communities or natural assets
 - Have an established management entity
 - Be identified in local, regional or state plans and have grassroots support

2045 George Washington Region Bicycle and Pedestrian Plan (2018)

- The DRHT supports a key goal of the Bicycle and Pedestrian Plan, which is to *ensure* bicycle and pedestrian facilities are widely accessible and safe for all users. The plan recommends addressing shoulder and crossing improvements, shared road signage and sidewalks, at all road crossings intersecting with the trail.
- Another recommendation of the plan related to the DRHT is to extend the trail westward into Stafford County with a rail-with-trail to create a multi-jurisdictional connection.

King George County Comprehensive Plan (2019)

- The DRHT can support increased access to the Potomac River by providing a direct link to water access sites located in Caledon State Park. A recommendation of the Comprehensive Plan is for the county to seek control or acquire select new places for recreation access to these [water-based] resources.
- The DRHT also supports the county's efforts to conserve undeveloped land that provides habitat for wildlife and natural areas for the health and wellness of residents.

George Washington Regional Commission (GWRC) Greenway Feasibility Study & Plan (2021)

- The DRHT is identified as one of the major trails in the George Washington Region, which encompasses the City of Fredericksburg and the counties of Caroline, King George, Spotsylvania, and Stafford.
- The Regional Trail Network identified in the Greenway Feasibility Study & Plan prioritizes two connections to and from the DRHT: the Caledon State Park Connector and the Barnesfield Park Connector. These two connections were identified as part of *the top five trails to implement* in the George Washington Region by survey respondents.

Resource Inventory

When a community looks to develop new infrastructure or acquire an existing one, any project proposal should document the existing conditions of the landscape it is intending to manage or protect. This resource inventory identifies environmental characteristics of the project area that illustrate the conservation opportunity the DRHT presents for Virginia and its goal to "ensure the highest conservation outcomes" for the state are met. (Source) These characteristics can also inform which local, county, and state agencies, as well as community organizations and other relevant non-profits, need to be consulted in the process of developing the trail to ensure the project meets community and environmental needs.

Water Resources: Floodplain and Wetlands

Floodplain

The following two *High Risk Areas – Flood Zones*, as designated by the Federal Emergency Management Agency (FEMA), intersect with the DRHT (*see Image 8*). These zones are located in "low-lying areas that are in close proximity to lakes, ponds and other large bodies of water." (Source)

Zone A – Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage.

Zone AE – Areas with a 1% annual chance of flooding and a 26% chance over the life of a 30-year mortgage. (Source)

The benefits of floodplain protection are well documented. VADCR notes that floodplains enable more attractive and resilient ecosystems by filtering *nutrients and impurities from runoff* and providing *breeding and feeding grounds* for fish and wildlife; amongst many other benefits. (Source) Floodplains can also provide *potential access for recreation*, as is the case for the DRHT, with its goal to preserve this natural habitat in perpetuity as part of the Virginia State Parks System. (Source)

Future management of the DRHT, however, will need to take into consideration the possibility of flooding or repeat flooding along the trail. Potential flooding events will have an impact on the long-term maintenance costs associated with the trail; including the feasibility of large-scale investments in infrastructure (i.e., bridges) if these are subject to the impacts of flooding and other natural disaster events.

Wetlands

The DRHT is located atop several wetland habitats (*see Image 9*). Wetlands play a similar function to floodplains in that they filter runoff from land and act as a buffer during flooding events, providing significant benefits to the environment and communities as an ecosystem service.

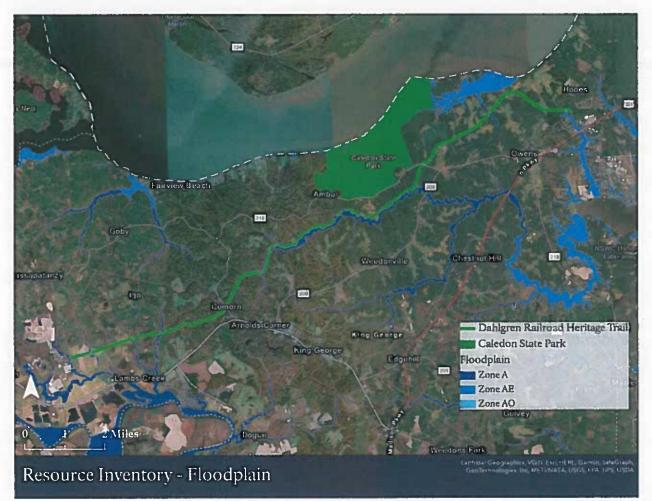


Image 8. Resource Inventory - Floodplain. Data: Virginia Natural Heritage Data Explorer. Credit: NPS RTCA.

The Virginia Wetlands Catalog (VWC) is an "inventory of wetlands and potential wetlands with prioritization summaries for conservation and restoration purposes." (Source) The catalog ranks wetlands for conservation or restoration purposes by considering a number of attributes, which include *plant and animal biodiversity, natural corridors and stream buffers, drinking water* sources for conservation, and *degraded watersheds, impaired waters, and prior converted and agricultural wetlands* for restoration. (Source)

Several wetlands intersecting with the DRHT, or are near the trail, have a rank of 4: Very High for conservation purposes (see Image 10). In the case of restoration, very few wetlands in the project area appear to be in need of restoration (see Image 11). The VWC was developed for the purpose of informing "project-design processes to make them more efficient, to assess impacts of proposed projects, and to identify possible mitigation sites." (Source) The high conservation rank of wetlands in the project area highlight the opportunity state acquisition of the DRHT presents for preserving these natural resources in perpetuity for the enjoyment of wildlife and community residents.

Additional review of the project area should be conducted to determine the potential of any impacts on other water resources. Activities in wetland areas are regulated by the U.S. Army Corps of Engineers (USACE) and VADCR.

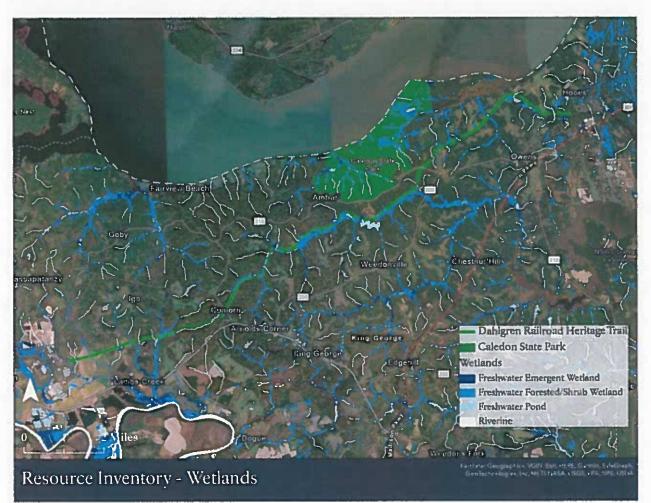


Image 9. Resource Inventory - Wetlands. Data: Virginia Natural Heritage Data Explorer. Credit: NPS RTCA.

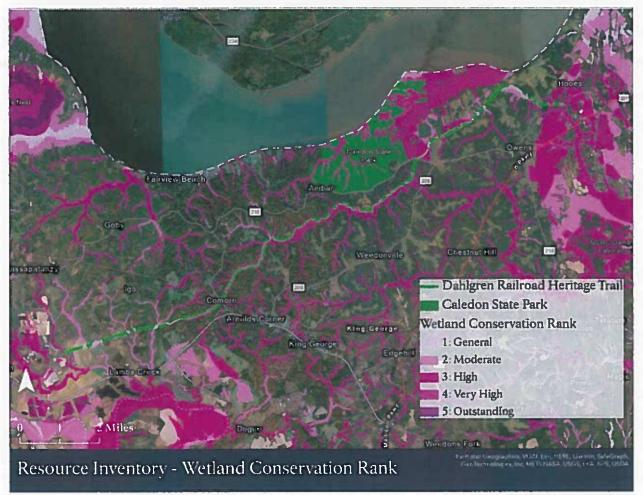


Image 10. Resource Inventory - Wetland Conservation Rank, Data: Virginia Wetlands Catalog. Credit: NPS RTCA.

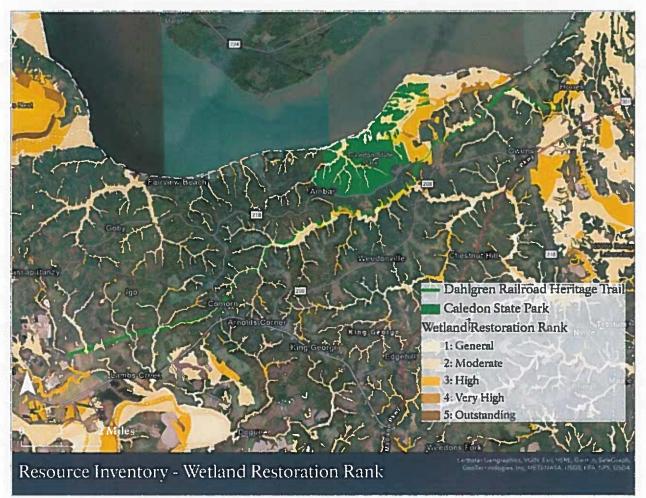


Image 11. Resource Inventory - Wetland Restoration Rank, Data: Virginia Wetlands Catalog. Credit: NPS RTCA.

Forest Conservation Value

In 2013 the Virginia Department of Forestry (VDOF) developed a Forest Conservation Value (FCV) model with the goal of maximizing "the efficiency of limited resources by focusing conservation efforts on the highest quality, most productive, and most vulnerable forestland." (Source) The FCV model has been updated since then and continues to serve as a tool for the conservation of high priority forestland in the state by evaluating criteria such as *forest management potential, connectivity, watershed integrity, threat of conversion,* and *significant forest communities and diminished tree species.* (Source)

The DRHT crosses through several forested areas ranging from an average FCV to an outstanding FCV (*see Image 12*). As an outdoor recreation amenity that provides access to nature for community residents and serves as a preserved sanctuary for native wildlife, the DRHT has the potential to continue to support Caledon State Park's mission to conserve natural landscapes in King George County and Virginia.

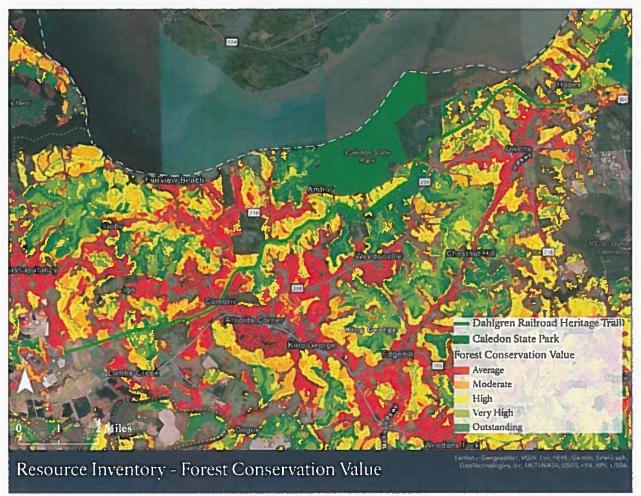


Image 12, Resource Inventory - Forest Conservation Value, Data: Virginia Department of Forestry, Credit: NPS RTCA.

DAHLGREN RAILROAD HERITAGE TRAIL

PART II - TRAIL OVERVIEW

DAHLGREN RAILROAD HERITAGE TRAIL

The DRHT is a privately-owned trail maintained in partnership with the Friends of the DRHT. The trail is in constant use by families, runners, walkers, hikers, and cyclists. Boy Scout troops regularly venture out on the trail for overnight hiking/camping adventures. Runners enjoy an annual ultra and half marathon on the trail's natural surface.

Permits are required for personal recreational use and for any organized group events of 10 or more people and/or overnight stays. A permit request for personal recreational use can be submitted <u>online</u> through the trail's website. Once the permit application has been submitted, users receive an email receipt allowing them to immediately access the trail. A permit request for organized group events can be submitted by downloading the <u>special use permit</u> and returning the application to the King George County Department of Parks and Recreation. Horseback riding is only permitted with a special use permit, and all dogs must be kept on a leash at all times while on the trail.

Use of the trail is free and open to all who observe the rules and regulations, including all federal, state, and local laws. Users are encouraged to report violations and disturbances to the King George County Sheriff's Office. The following are the trail rules and etiquette guidelines for the DRHT:

- Obey all "posted" and "no trespassing" signs. The Dahlgren Trail adjoins private property belonging to others. Do not stray off the trail.
- Leave no litter and clear litter left by others.
- No firearms may be brought onto the railroad corridor.
- Collecting railroad memorabilia is strictly forbidden and will be prosecuted. All ties, spikes, mileposts, etc. are the property of the trail and may not be removed.
- All dogs must be on a leash and are not permitted to run loose.
- Horseback riding is strictly prohibited without a special use permit.

- No camping or overnight stay is allowed without a special permit.
- Access the trail corridor appropriately. No access may be had via private subdivision roads unless specific permission has been given.
- Respect adjoining owners' rights to have horses and livestock adjoining the corridor. Do not feed horses "treats" or pet them.
- No motorized vehicles are allowed on the corridor without special permission.
- Use the corridor in a reasonable manner at all times to avoid disturbing and damaging the corridor and adjacent property. Prevent damage to all roads and driveways that cross the corridor, and protect and preserve the area's wildlife, plants and natural features.

Trail Description

The DRHT begins at State Route 605 (Bloomsbury Road) and extends east for 16 miles to its eastern terminus at the intersection of State Route 614 (Owens Drive) and U.S. Route 301 (James Madison Parkway) (*see Image 13*). Trail markers are placed every half mile, starting at the trailhead in State Route 605 (Bloomsbury Road). Signs noting the rules and etiquette guidelines for utilizing the DRHT are located at the two trailhead areas. In 2020 the Virginia Department of Transportation (VDOT), with the support of King George County, installed trail-crossing signs on the state routes that intersect with the DRHT. There are no restroom facilities or water stations on the trail.

Parking and Access

Rules and etiquette guidelines for the DRHT note that parking cannot block any gated entrance to the trail or block-in other trail users. Any car blocking a gated entrance will be towed. Cars must also be completely off the road when parking at road crossings near the trail and must not trespass onto neighboring property.



Image 13. Dahlgren Railroad Heritage Trail. Credit: Dahlgren Railroad Heritage Trail.

Segment 1: State Route 605 (Bloomsbury Road) to State Route 610 (Indiantown Road)

	Fast Facts
Length:	Approximately 8 miles
Trailheads:	1 trailhead with parking at State Route 605 (Bloomsbury Road)

Context

Segment 1 of the trail encompasses approximately eight miles and extends from the State Route 605 (Bloomsbury Road) trailhead to State Route 610 (Indiantown Road) (*see Image 14*). In this segment the trail is clear and the historic railroad ties have been removed, providing a natural surface that is even and appropriate for walking, running, and biking. The first four miles are particularly well-maintained and are suitable for wheelchairs, strollers and children.

Access, Parking and Road Crossings

State Route 605 (Bloomsbury Road) Trailhead: When the security gate is open, there are approximately 50 parking spots available. When the gate is closed, 2-3 vehicles can park outside to the left of the gate. Amenities at this location include a picnic area with a grill and a historic railroad caboose.

State Route 694 (Lambs Creek Church Road) Road Crossing: 1-2 vehicles can park off the road on each side of the trail.

State Route 609 (Comorn Road) Road Crossing: There is a small gravel parking lot on the west side of State Route 609 where the road intersects with the trail.

State Route 608 (Muscoe Place) Road Crossing: Up to 5 vehicles can park off the road on the east side.

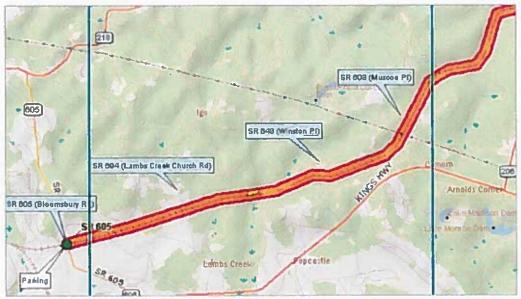


Image 14. Segment 1: State Route 605 (Bloomsbury Road) to State Route 610 (Indiantown Road). Credit: Dahlgren Railroad Heritage Trail.

	Fast Facts	
Length:	Approximately 4 miles	
Trailheads:	No trailheads	

Segment 2: State Route 610 (Indiantown Road) to Panorama Drive

Context

Segment 2 of the trail begins at State Route 610 (Indiantown Road), crosses State Route 218 (Caledon Road), and continues towards Panorama Drive within The Meadows residential subdivision (*see Image 15*). The first mile of this segment is leveled and surfaced with stone dust. The section provides an easy walking and running surface, and it is ideal for wheelchairs, strollers and children with bicycles. The rest of the segment is clear as the railroad ties have been removed; but the trail surface has not been completely leveled and covered with stone dust. There is no public trail access from The Meadows residential subdivision as all roads are private. Roads that connect to the DRHT from State Route 218 (Caledon Road) in this segment are also private.

Access, Parking and Road Crossings

State Route 610 (Indiantown Road) Road Crossing: Up to 5 vehicles can park off the road on the east side.

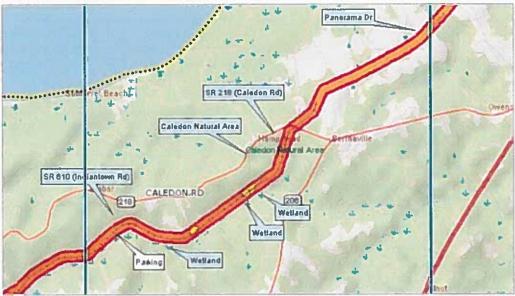


Image 15. Segment 2: State Route 610 (Indiantown Road) to Panorama Drive. Credit: Dahlgren Railroad Heritage Trail.

Segment 3: Panorama Drive to State Route 614 (Owens Drive) and U.S. Route 301 (James Madison Parkway)

	Fast Facts
Length:	Approximately 4 miles
Trailheads:	1 trailhead at U.S. Route 301 (James Madison Parkway), behind the Sheetz convenience store

Context

Segment 3 of the trail begins at Panorama Drive within The Meadows residential subdivision and continues east towards State Route 614 (Owens Drive), ending several feet behind the Sheetz convenience store located at the intersection of State Route 614 (Owens Drive) and U.S. Route 301 (James Madison Parkway) (see Image 16).

In this segment, the former rail line crosses behind the Little Ark Baptist Church property located at 15681 Owens Drive. According to the history of the church, "the earliest records of [its] history... begin with its establishment in 1876" (*see Image 17*). (Source) When the U.S. government acquired the corridor through condemnation, a time when racial segregation laws were enforced, the Dahlgren Branch rail line was constructed through the cemetery adjoining the church; providing no consideration for a re-alignment of the rail line to avoid disturbance of the historic cemetery. (Source) As a consequence, the church abandoned the section of the cemetery through which the rail line crossed.

When the Friends' group was formed in 2006, group members contacted then Reverend Dr. Benjamin Jones to introduce the DRHT. Reverend Dr. Jones expressed his wish for having the section of property through which the rail line crossed be returned to the church. As a result, the Friends' group contacted the property owner to the north of the rail line and the church, Ashton Family Limited Partnership, to request permission to create a re-alignment of the trail on their parcel; at the same time creating an opportunity to return the original section of property back to Little Ark Baptist Church. After re-acquiring their original property the church granted a temporary easement along the northwest side of the property for the trail, where it extends southeast along a 50-foot easement donated by Ashton Family Limited Partnership, and then connects with the original railroad right-of-way.

Trail users traveling west to east on the DRHT must follow the flagged trail to the north side of the existing rail bed when approaching Little Ark Baptist Church and remain off the cemetery.

Access, Parking and Road Crossings

Little Ark Baptist Church and Cemetery: Since 2021 the church has allowed trail users to utilize their parking lot.

Sheetz Convenience Store: There is a small parking lot where the trail ends behind the Sheetz convenience store, with room for three cars on each side.



Image 16. Segment 3: Panorama Drive to State Route 614 (Owens Drive) and U.S. Route 301 (James Madison Parkway). Credit: Dahlgren Railroad Heritage Trail.



Image 17. Little Ark Baptist Church. Credit: Little Ark Baptist Church Facebook page.

Amenities and Services near the Trail

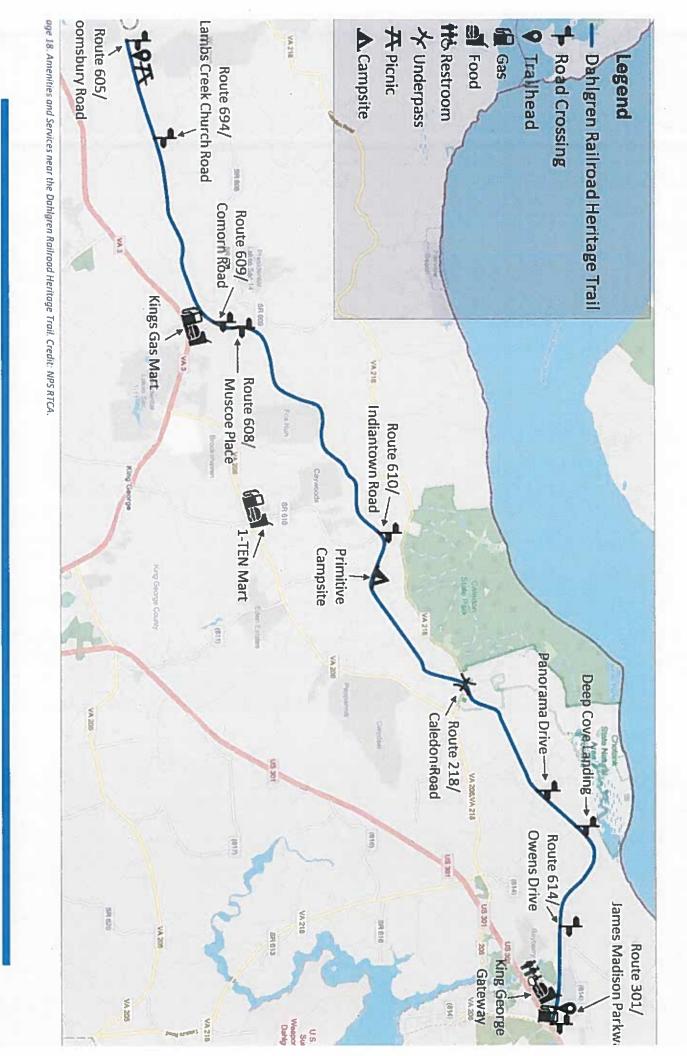
Sealston Deli: Located 2.1 miles southeast of the trailhead at State Route 605 (Bloomsbury Road), Sealston Deli is a convenience store with access to gas, restrooms, and carry-out dining.

Kings Gas Mart: Located 0.4 miles south of the trail at the intersection of State Route 609 (Comorn Road) and State Route 3 (Kings Highway), Kings Gas Mart is also a convenience store.

1-TEN Mart: Located 2.2 miles south of the trail at the intersection of State Route 610 (Indiantown Road) and State Route 206 (Dahlgren Road), 1-Mart TEN is a convenience store and gas station.

Primitive Campsite: Located approximately 0.5 miles east of the State Route 610 (Indiantown Road) road crossing, this primitive campsite is available by reservation only. The campsite was cleared and graded as part of an Eagle Scout project with later additions including a stone fire pit and a moveable fire screen. The site is popular with Boy Scouts troops and can accommodate approximately 10-15 people.

Connection to Dahlgren Community: Located south of the intersection of State Route 614 (Owens Drive) and U.S. Route 301 (James Madison Parkway), the community of Dahlgren has several lodging, restaurants, and stores that could provide service to trail users.



Trail Users

Identifying the number of trail users that have utilized the DRHT is difficult as there are no trail requires a permit, an estimate of trail users can be compiled this way. Overall, approximately 6,329 permits have been issued since the trail first opened.

Another way the Friends of the DRHT track the number of trail users is through registration counts for the various events the Friends' group hosts throughout the year. The counts may be duplicative as runners typically participate in all of these events, and a permit holder may already hold a permit to access the trail. These annual events are:

- Winter Half Marathon 148 participants in 2021; 150 participants in 2022
- Sheetz to Sheetz Run 180 participants in 2022
- August 5K and Half Marathon 102 participants in the 5K and 76 participants in the Half Marathon in 2021

Population Service Area

The DRHT is an important close-to-home recreation amenity for several counties in Virginia's Northern Neck, as it is readily accessible by car. The trail is within a 20-minute drive from the majority of residents in King George County and the City of Fredericksburg in Stafford County; and a number of residents in Caroline, Essex and Westmoreland counties, as well as Charles and Saint Mary's counties in Maryland (see Image 19).

When superimposing the population count of each census block group ¹ in King George County over the 20-minute driveshed, it is evident that the majority of residents in the county appear to be served by this privately-owned trail (the DRHT is also the largest (length-wise) amongst the other publicly-owned trails in the county) (see Image 20). The 20-minute drive measure was selected as over 50% of respondents in VADCR's 2017 Virginia Outdoors Demand Survey indicated that a close-to-home park should be within a 15-minute walk or bike ride, or within a 20-minute drive. (Source)

Because of the rural nature of King George County and the fact that most land uses within half a mile of the trail are characterized as agricultural, the walkshed analysis illustrates that there is limited accessibility to the DRHT in terms of walking distance (see Image 21). It is important to note that this limited accessibility is also due to the number and location of public access sites to the trail, as these are located at the two trailheads and the road crossings intersecting with the trail.

¹ Census block groups are a geographical area used by the U.S. Census Bureau generally defined to contain between 600 and 3,000 people; census block groups are the smallest unit for which the bureau publishes data. (Source).

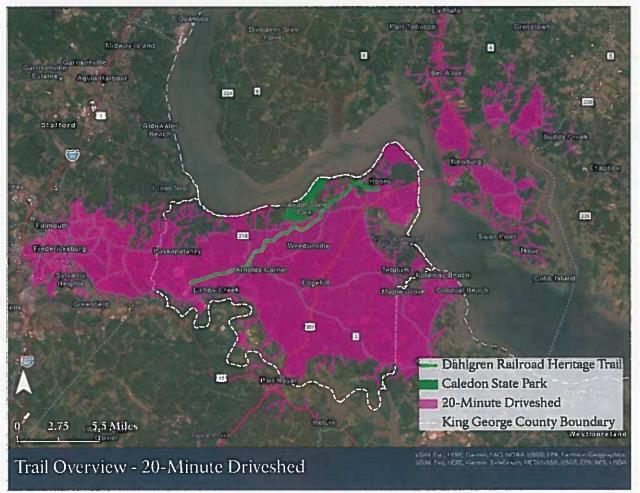


Image 19. Trail Overview - 20-Minute Driveshed. Credit: NPS RTCA.

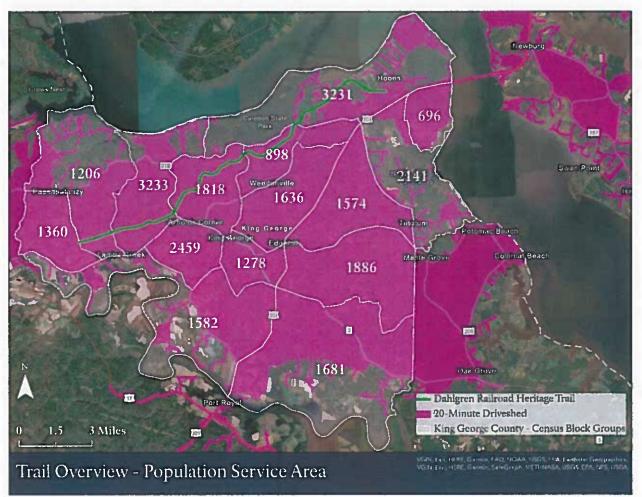


Image 20. Trail Overview - Population Service Area. Data: U.S. Census Bureau. Credit: NPS RTCA.

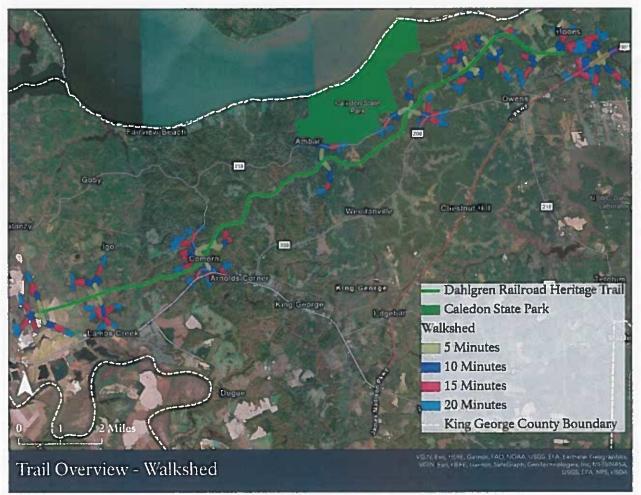


Image 21. Trail Overview - Walkshed Credit: NPS RTCA.

DAHLGREN RAILROAD HERITAGE TRAIL

PART III - CALEDON STATE PARK

DAHLGREN RAILROAD HERITAGE TRAIL

Caledon State Park is located on the shores of the lower Potomac River in King George County, just north of the DRHT and State Route 218 (Caledon Road) (*see Image 22*). The park has approximately 2,500 acres of forested land, making it a critical habitat for a variety of native plants and wildlife. (Source) The rich biodiversity of the park makes it an important natural resource for Virginia's Northern Neck as it also provides unique educational and recreational opportunities for visitors.

Caledon is widely recognized as a habitat for bald eagles and its ponds, marshes and proximity to the Potomac River, make it an attraction for birdwatchers especially during the summer (*see Image 23*). A portion of the park was designated as a National Natural Landmark in 1974 by the U.S. Department of the Interior (DOI) for having "one of the best examples of oak-tulip poplar-dominated virgin upland forest in the country" (*see Image 24*). (Source) Caledon State Park offers several amenities that visitors can take advantage of during their time on-site: a visitor center with an exhibit area; picnic shelters; a natural play area; restrooms; an environmental education pavilion; six primitive campsites; and ten hiking trails and four multi-use trails of varying length and level of difficulty. (Source)

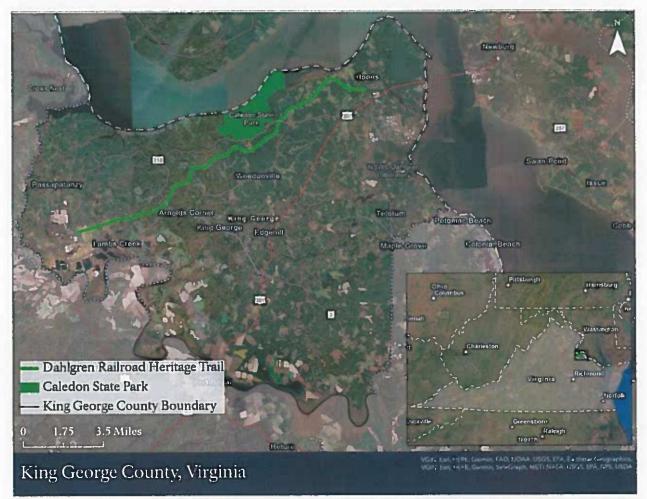


Image 22. Caledon State Park in context with the Dahlgren Railroad Heritage Trail. Credit: NPS RTCA.

In 2011 the Master Plan for Caledon State Park was reviewed as required by the Code of Virginia; which states that "every five years, each state park master plan is reviewed and updated if necessary." (Source) The 2011 review was followed with an amendment to the Master Plan in 2012 that was approved by the Board of Conservation and Recreation. A key consideration included in the 2011 update was the value placed in "connecting Caledon to other resources in the community." (Source) In fact, the update makes mention of the following: "a multipurpose trail is recommended to connect Caledon to the Dahlgren Rail Trail. This trail connector could eventually become a part of the Potomac Heritage National Scenic Trail." (Source)

It is also important to note that the 2012 amendment makes mention of the following regarding land acquisition,

> Additional land acquisition is recommended in this park to enhance park offerings, buffer the park from inappropriate



Image 23. A bald eagle being released at Caledon State Park. Credit: Virginia Department of Conservation and Recreation.



Image 24. Caledon State Park is a National Natural Landmark for its old growth oak-tulip poplar forest. Credit: Virginia Department of Conservation and Recreation.

development or protect valued viewsheds. Future land acquisitions will only be negotiated with willing property owners. The placement of conservation easements on adjacent property to preserve the natural resources, cultural landscapes and scenic resources in close proximity to the park will be encouraged. In working cooperatively with neighboring landowners, the park will be enhanced and protected over time. (Source) Proposed projects included in the 2012 amendment, which covers a 20-year timeframe, were broken down into three separate phases. Phase I prioritizes development of "a multipurpose (bicycle) trail and related trailhead with parking that will connect the park to the Dahlgren Rail Trail and eventually become a part of the Potomac Heritage National Scenic Trail;" and the expansion of the "trail system in the park to include bike usage." (Source) Taking into consideration the master plan recommendation to acquire additional land to enhance resource protection and visitor experience, and the park's willingness to work with interested property owners, the addition of the DRHT to Caledon State Park provides an opportunity to protect natural resources such as wetlands and forested areas of outstanding value in perpetuity; as well as the opportunity to enhance visitor experience by doubling the amount of trail available and creating on-road and off-road access to the park from surrounding communities.

Mention of a proposed connection between Caledon State Park and the DRHT is also included in the Regional Trail Network identified in the 2021 GWRC Greenway Feasibility Study & Plan (*see Image 25*). Known as the Caledon State Park Connector, this link would be a 0.5 mile trail that "provides safe access to Caledon State Park, with its trails and camping amenities, from the 16-mile Dahlgren Railroad Heritage Trail (DRHT)." (Source) According to survey respondents for the public outreach process of the Greenway Feasibility Study & Plan, the Caledon State Park Connector is part of the *top five trails to implement* in the George Washington Region. (Source)

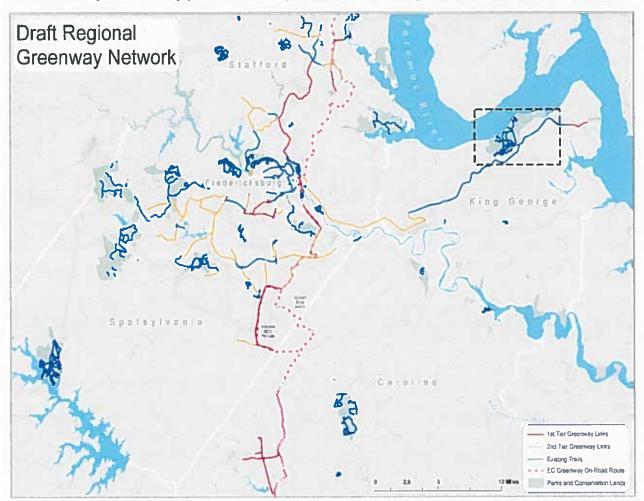


Image 25. The Caledon State Park Connector is identified as a 1st Tier Greenway Link for the George Washington Regional Greenway Network. Credit: George Washington Regional Commission Greenway Feasibility Study & Plan 2021.

A direct connection between Caledon State Park and the DRHT, whether on-road and/or offroad, would link the park to a large network of nationally-significant multi-use trails in the Mid-Atlantic region (*see Image 26*). As part of POHE, the DRHT could potentially open access for pedestrian and bicyclists to other National Park Service (NPS) units in the City of Fredericksburg and across the Potomac River in the State of Maryland. Its location on the Potomac River also presents the park with an opportunity to connect with the water trail routes of the Captain John Smith Chesapeake-National Historic Trail (CAJO) and the Star-Spangled Banner National Historic Trail (STSP). A potential key benefit for Caledon State Park in establishing a direct connection with the DRHT is access to new sources of funding and technical assistance from NPS; considering that the DRHT is already a segment of POHE, an NPS-managed trail. Another important link for Caledon if on-road and/or off-road access with the DRHT is established is a future connection to the ECG, a 3,000 mile walking and biking route extending from Maine to Florida. (Source)

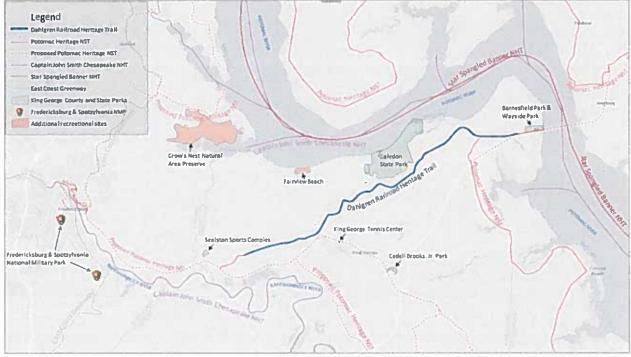


Image 26. Caledon State Park and the Dahlgren Railroad Heritage Trail in context to nationally-significant multi-use trails in the Mid-Atlantic region. Credit: NPS RTCA.

Economic Impact of Caledon State Park

Each year the VirginiaTech Pamplin College of Business compiles a report on the economic impact of Virginia State Parks. The report relies on three sources: "park visitor spending, the parks' operational expenditures... and capital investment," to identify the economic activity triggered by state parks. (Source) The report findings for 2019 identified that Caledon State Park generated \$3.4M in economic activity, with \$2.1M coming from total visitor spending. (Source) When looking at the impact of this economic activity, the park generated an estimated 31.7 jobs (28.8 of those being full time), \$1.3M in labor income, and \$185K in state and local taxes.

(Source) Capital improvement spending and non-visitor supported park operational spending for 2019 led to an estimated economic impact of \$57K and \$277K for the surrounding communities, respectively. (Source)

The potential benefits of the DRHT becoming a part of the Virginia State Parks System are multi-faceted and expand the realms of natural and resource protection and climate resilience; increased access to recreational opportunities and improved quality of life; and economic growth and opportunity for Caledon State Park, surrounding communities, and King George County. The New River Trail State Park and High Bridge Trail State Park, for example, are two non-motorized, multi-use rails-trails that are very popular in Virginia. In 2019 New River Trail State Park, which is 57 miles long, generated an estimated \$39.1M in economic activity and \$31.4M in economic impact. (Source) High Bridge Trail State Park, which is 31 miles long, generated an estimated \$10.3M in economic activity and \$8.7M in economic impact that same year. (Source)

In 2021 the Northern Virginia Regional Commission (NVRC) published a report titled *Health*, *Social Equity, and Economic Impact of the Potomac Heritage National Scenic Trail in Northern Virginia*, to "assess the public health and community-related impacts associated with the use of the trail and provide recommendations to maximize those impacts and help justify the appropriate investment of resources in trail completion, infrastructure, and programming." (Source) The following key report findings note the impact POHE has on the Northern Virginia region and its residents:

- **Trail Use.** In total, trail users walk 13.6 million miles and bike 45 million miles each year. On average this represents 100,000 miles of walking and 300,000 miles of biking for each mile of completed trail;
- *Health.* Regional residents see \$349 million in annual benefits due to decreased mortality from the trail and \$55 million annually in reduced healthcare costs;
- Economic development. The trail corridor boasts more than 250 restaurants and retail outlets representing more than \$86 million in annual revenues... On average, a tourist to the region spends more than \$300 during their stay including \$36 in local taxes;
- **Transportation.** Residents commute more than 6 million miles annually along the trail. If replaced with personal vehicles, this would result in an additional 2,500 metric tons of carbon dioxide equivalent (CO2e) in the region each year and a savings of more than \$4 million in annually, \$480 thousand in environmental and \$3.7 million in personal vehicle costs. (Source)

While POHE offers substantial benefits to the region and its residents, these benefits are not all equally distributed across Northern Virginia. "Areas along the trail with a higher concentration of socially vulnerable residents typically have fewer access points, more gaps (unfinished segments) in the trail, and more traffic safety issues than those neighborhoods with less socially disadvantaged residents." (Source) The report notes that closing the gaps in unfinished trail segments (approximately 21 miles in total) could result in the following annual benefits: *\$7.9*

million in avoided health care costs; \$52.4 million in mortality reduction benefits (-5 fatalities/year); and \$627,000 in avoided commuting costs. (Source)

DAHLGREN RAILROAD HERITAGE TRAIL

PART IV - NEXT STEPS

DAHLGREN RAILROAD HERITAGE TRAIL

40

There are several considerations the trail owner, the Friends of the DRHT, and the King George County Department of Parks and Recreation will need to get buy-in on in order to achieve their vision of the DRHT becoming a multi-use, rail-trail greenway that is part of the Virginia State Parks System.

Support from the Governor and General Assembly of Virginia

The history of public efforts to make the DRHT a part of the Virginia State Parks System is complex. In 2000 VADCR informally agreed to acquire the trail and add it to the state system. However, due to limited funds, the acquisition was predicated on support from the King George County Board of Supervisors. At that time the approval did not happen and consequently, the trail was privately acquired to protect it for future use as a recreation amenity.

In 2015 the county's Board of Supervisors unanimously passed a resolution supporting the acquisition of the DRHT by the State of Virginia. The governor at the time also supported the acquisition, but a budget amendment introduced in the Senate Finance Committee prohibiting the state from acquiring land (even as a gift), unless approved by the General Assembly, moved forward. To this day the trail owner continues to renew the pledge for selling the DRHT at no profit.

The vision of the DRHT is to become a multi-use, rail-trail greenway that is part of the Virginia State Parks System; a goal that would be accomplished through support from the Governor and General Assembly of Virginia. By becoming a linear trail connected to Caledon State Park, the trail's abounding beauty of flora, fauna, and wetland habitats, can be preserved and maintained in perpetuity.

Support from Regional and Local Government

GWRC and the King George County government have supported the acquisition of the DRHT as a state-owned rail-trail, and it is important that this support continues. As part of POHE, the DRHT plays a key role in creating future on-road and/or off-road connections to other jurisdictions in Virginia's Northern Neck and Maryland counties across the Potomac River.

Resolution of Underground Utility Easement

When the current trail owner acquired the DRHT in 2006 the previous owner insisted on retaining certain underground utility easements along the 16 mile trail. Although it is preferred that such easements be acquired by the state, there are examples across the country where existing rail-trails are managed, utilized and maintained over utility easements. (Source)

Management and Maintenance Needs

The maintenance of the trail and upkeep of existing and future amenities is essential to ensuring that the trail functions well and serves its intended purpose. The Friends of the DRHT, an all-volunteer group, continue to do a great job of maintaining the trail. However, future maintenance needs will require sufficient funding and staffing in order to provide consistent maintenance for the DRHT – including installing and managing flooding and drainage infrastructure, as well as identifying additional parking opportunities to meet growing demand for the trail.

DAHLGREN RAILROAD HERITAGE TRAIL

PART V - APPENDIX

DAHLGREN RAILROAD HERITAGE TRAIL

DRHT Tract – Market Value Appraisal

In 2014 Integra Realty Resources (IRR) developed a Market Value Appraisal for the DRHT Tract with the purpose of creating an opinion of the market value as is of the fee simple interest in the property. The client for the appraisal was the Commonwealth of Virginia, Division of Real Estate Services, and the intended use is to assist the Commonwealth of Virginia in matters relating to the acquisition of the Tracts. For a copy of the appraisal, please contact the Dahlgren Railroad Heritage Trail.

Report on the Condition of Richmond, Fredericksburg & Potomac Railroad Caboose #803

In 2012 the Baltimore and Ohio (B&O) Railroad Museum prepared a Report on the Condition of the Richmond, Fredericksburg & Potomac (RF&P) Railroad Caboose #803, located at the DRHT trailhead in State Route 605 (Bloomsbury Road). The report includes a detailed description of the outside and inside condition of the caboose, as well as recommendations and estimated costs for restoration. *For a copy of the report, please contact the Dahlgren Railroad Heritage Trail.*

DAHLGREN RAILROAD HERITAGE TRAIL

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DAHLGREN RAILROAD HERITAGE TRAIL

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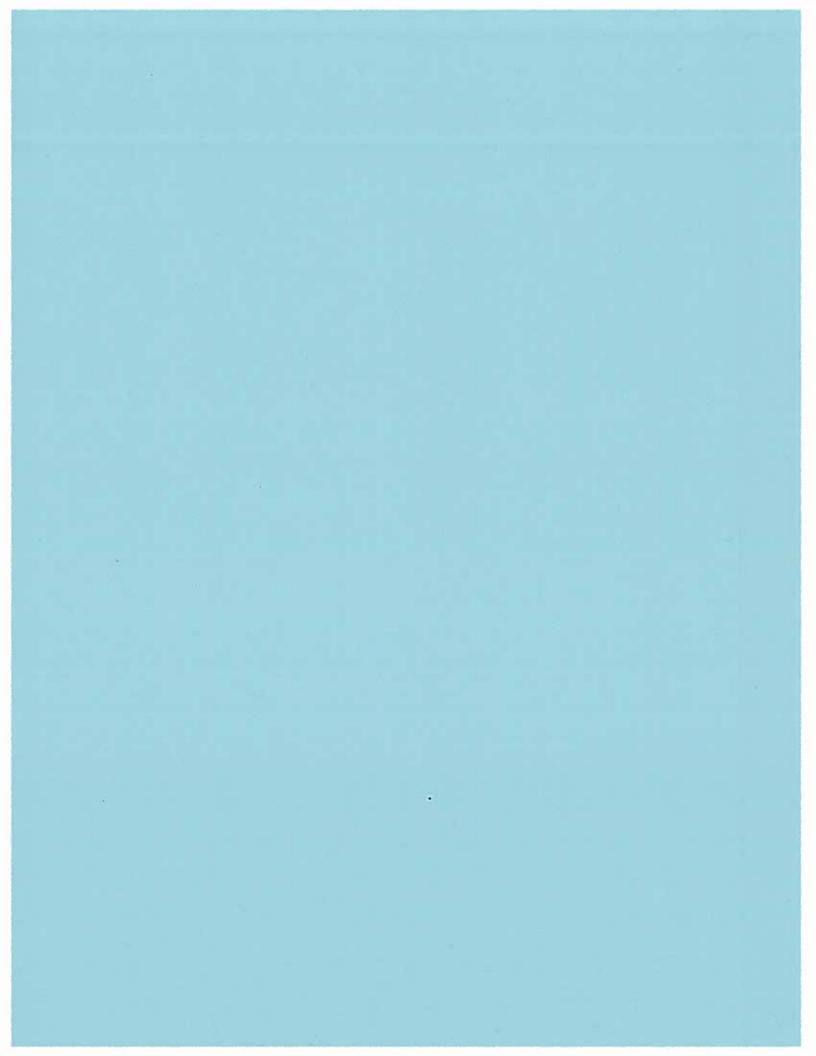
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Appendix E

Benefits and Costs

a. Advancing Trails to Support Multimodal Networks



INFO BRIEF

Advancing Trails to Support Multimodal Networks



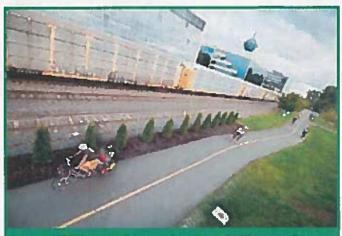
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Introduction and Background

Trails are valued by communities across the country, providing everything from inspiring experiences in open green space to invigorating daily commutes and restorative social connections. Since the early 1990s, America has undergone an historic expansion of all types of trails in every community context. As individual trails have multiplied, they have connected into vast networks crossing local, regional, and state lines. Trail networks have grown to have significant impact on many aspects of our communities, providing economic, health, transport, and social benefits. Like the development of our nation's railroads in the early 19th century, and paved road system of the 20th century, trails have evolved into an important nonmotorized, human powered element of the nation's 21st century transportation network.

Demand for access to and use of trails was growing prior to the onset of the pandemic in 2020. Participation in outdoor recreation and trail activity rose sharply in 2020 (relative to pre-COVID levels) fueled by demand in safer socialization, fitness, and a renewed interest in trail access to parks and other destinations. In November 2021, the **Bureau** of Economic Analysis released economic data for 2020 on outdoor recreation's impact on the U.S. economy. Outdoor recreation now generates \$688 billion in economic output, comprises 3 percent of U.S. employees and creates 4.3 million jobs. Of note, outdoor participation soared, especially closeto-home recreation, highlighting the importance of better access to the outdoors for all communities.

This info brief provides a fresh look at the current state of practice for trail development, reflecting new research and showing the growing applications of trails in every type of environment and community. It illustrates the overlapping and intertwined benefits of trails; provides highlevel guidance and resources on trail-focused partnerships and planning; and demonstrates the adaptability of trails in a rapidly changing world. This brief also acknowledges barriers to equitable



Source: PBIC Image Library, Adam Coppola Photography

trail development and strategies for planning and implementing trails that distribute benefits equitably.

Modern trail efforts involve numerous stakeholders and organizations working together to achieve their goals. Trail projects are most successful when three key components are fulfilled:

- Public agency buy-in: There is strong support from public agency leadership and staff that will be tasked with planning and implementing the project.
- Planning: There are resources that answer the hard questions of how the project will be built, which constituents it will serve, and how it will be funded, managed, and programmed so it meets the needs of communities.
- Community support: There is a local public support organization that assists with a variety of tasks including advocacy, public outreach, funding, and management, among others.

Having all three components in place will ensure that a project is carried from start to finish. They can also help sustain long-term success after the opening day ribbon has been cut and management responsibilities begin to mount.

Given the multiple components and roles within communities that contribute to trail development, this info brief is for anyone interested in developing trails to advance multimodal networks,



including: people working within transportation planning and engineering, public health, parks and recreation, advocacy, policy, development, economic development and foundation or corporate partners at the State, regional, and local levels.

In this brief, **trail** refers to a public facility, separate from vehicular traffic, serving a variety of user types including people walking, riding bikes, or using micromobility devices such as e-scooters, or assistive devices. These facilities may also be referred to as greenways, shared use paths, or multiuse paths. The information in this brief does not generally refer to rugged hiking, mountain biking, equestrian, ski, or off-highway vehicle trails, but it may apply to some unpaved trails. Not all trails are necessarily accessible.

Benefits of Trails

Trails provide a wide range of significant benefits to communities from environmental preservation to surface transportation network connectivity, improved health equity to economic revitalization, and historic preservation to community identity. Recognition of these far-reaching co-benefits of trails will enhance communities' ability to achieve goals around climate change mitigation, resilience, and provision of green space in urban and rural contexts.

The importance of urban nature and the value gained from preserving and promoting access to green space within populated areas through nonmotorized activities is well understood (Beatley, 2016). Trails consistently perform well when evaluated for health, transportation, social, economic, and environmental benefits. When communities pursue trails for economic and environmental benefits, it is essential that they do so while prioritizing equitable outcomes (CNT, 2020).

Active Transportation Network Connectivity

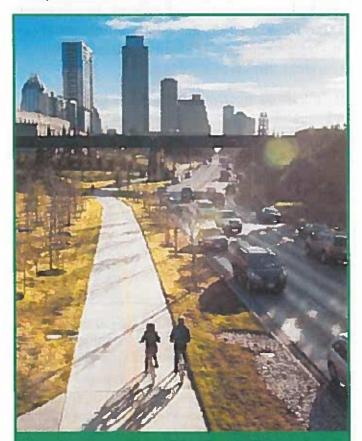
Trails have the potential to expand on-road bicycle and pedestrian networks and provide offroad connectivity. Safe, appealing nonmotorized connections are vital for communities of all sizes. As trails form a network, connecting to each other— and to community resources, business centers, transit hubs, etc.—there is a significant increase in all the various benefits associated with an individual project. Trails act in a variety of contexts: as regional long distance bicycle highways, community nonmotorized corridors in urban areas, and connectors between rural communities; as a means of handling pedestrian and bicycle traffic along higher speed arterial streets or under limited access freeways; or as safe and accessible routes to schools.

Multiuse trails can be key components of a nonmotorized transportation network within a community, expanding access to jobs and services to those without access to a vehicle. There is some indication that middle to lower income trail users tend to use trails for utilitarian purposes, and that increased trail connectivity would lead to more frequent utilitarian use (Chen et al., 2019). For example, an increase in the rate of commuting-towork by bicycle was evident with the development of an off-road trail system linking residential areas with major employment centers in Minneapolis, Minnesota (Hirsch et al., 2017).

Intermodal connectivity can improve livability, and expand the reach of multimodal travelers, especially in areas where dense trail and transit networks intersect (Hendricks, 2016). In Salt Lake City, Utah, a multiuse trail that intersected a designated transit-oriented development corridor offered opportunities to create a multimodal trail and transit network within a city (García & Crookston, 2019). In Los Angeles, <u>transit</u> makes it possible for residents to explore nature along the West Fork Scenic Bikeway.

The significant value of regional trail systems is being recognized more and more as communities realize the cumulative benefits of linking multiple local segments of trail to create a network. Large scale efforts guided by regional agencies and coalitions include the St. Louis, Missouri, region's <u>Great Rivers Greenway</u>, the <u>Carolina</u> <u>Thread Trail</u> linking 15 counties in North and South Carolina, the <u>Circuit Trails</u> in the Greater Philadelphia, Pennsylvania, region, and <u>trails in</u> <u>metropolitan Washington, DC</u>. Regional trail systems link suburban and rural areas with urban hubs and connect people to natural areas.

Research shows an unmet demand for bicycle connectivity and active transportation options in rural communities. An analysis of National Household Travel Survey data showed residents of certain kinds of rural communities walk and bike at a rate close to the national rate and for some trip types, the mode share exceeds that for residents of cities and inner or outer suburbs (Loh et al., 2012). Many suburban areas and small towns that are less dense and lack safe and connected nonmotorized travel options may especially benefit from a system of off-road biking and walking trails (Buehler et al., 2020; Dickman et al., 2016). Repurposed rail trails can bring new energy to small towns along a route and provide active transportation options in locations where transportation choices are few.



Source: PBIC Image Library, Adam Coppola Photography

Community and Individual Health

The health benefits of trails are numerous, ranging from the creation of community outdoor spaces for social interaction to promoting healthy physical activity to enhancing individual happiness and well-being. Research associates green space access with a multitude of health benefits.

The built environment and active transportation infrastructure can positively impact physical activity (Sallis et al., 2012; Smith et al., 2017). Trails have also been linked to positive increases in physical activity. Trail development in rural communities has been shown to increase walking, creating a positive benefit for those most at risk of poor health outcomes from sedentary lifestyles (Brownson et al., 2000). Physical activity in natural settings has been found to provide quantifiable benefits in mood and self-esteem (Barton & Pretty, 2010). There is also a relationship between nature connectedness and happiness (Capaldi et al., 2014). The more active a trail user is, the higher they rate their own well-being (Smiley et al., 2020). In general, trail development can be a cost-effective health intervention, with the investment in trails returning many measurable and unmeasurable individual and population level health improvements (Abildso et al., 2012; Wang et al., 2004).

However, the health benefits of walking and bicycling facilities are not always equitably distributed. The Centers for Disease Control and Prevention identifies the lack of trail resources in underserved communities as a health equity concern. The National Recreation and Park. Association and others have also identified the need for more parks and recreation facilities in disinvested areas (Rigolon et al., 2021). The COVID-19 pandemic has further underscored the need for accessible and well-designed spaces for outdoor activity and the need to ensure equitable access to those spaces (Penbroke, 2020).

Diversity, Equity, and Inclusion

Trails can support overall community equity and inclusion goals through a strong justice, equity,

diversity, and inclusion focus. In areas where long term disinvestment has occurred, which are often economically attractive for developers, new trails can be leveraged to uplift historically marginalized groups and achieve social and environmental justice goals. Green space and trail planning processes offer opportunities to confront the practices that underlie enduring disparities by elevating voices of those who have been most impacted by injustices (Yañez et al., 2021). Transformative justice in green development recognizes and advances understanding of the history of disenfranchisement and seeks to redistribute control and build wealth in marginalized communities (Anguelovski et al., 2021). "Green reparations," involving the development of green space projects to improve social equity, can be achieved if the community is involved in the process from the beginning and the outcomes for long-standing residents near the trail are centered in the decision-making process (Draus et al., 2020). Trail efforts striving to achieve these benefits include the Joe Louis Greenway in Detroit, Michigan, (see box under Equity Considerations), the Middle Branch Loop in south Baltimore, Maryland, the Circuit Trails in the Philadelphia, Pennsylvania, region, and

efforts in Austin, Texas, and <u>Portland, Oregon</u>. Chattanooga, Tennessee's extensive greenway network is an example of a community <u>striving to</u> <u>correct past oversights</u>. Their network has been praised as a model for revitalization, but the city acknowledges gaps in connectivity which continue to exclude some neighborhoods.

Economic Prosperity

Trails can generate significant economic benefit, providing access to jobs and essential services, community redevelopment, and revitalization. Benefits extend far beyond the early boost from construction activity and can lead to increases in the total economic output of an area. Regional trails can bring economic gains to very rural areas, which may experience an even more defined impact. Economic impacts of trails can be measured differently, from assessing changes in residential property value, to increased sales tax revenue and increased patronage of community businesses from tourism or other trail activity. In a standard economic analysis, measured benefits can be: direct, which are directly attributed to a trail; indirect, as supply chain effects, which are effects on the economy from purchases related to the trail itself; or induced, which are changes in spending patterns in the region. Also



called "consumption effects," induced effects are those that spill over into other sectors, such as restaurants, bike shops, local breweries, etc. (Dhongde, 2016; Domanski, 2019). Some studies measure a more narrowly defined economic contribution which quantifies trail based recreational spending, and some measure economic impact which are the net effects of the existence of a trail.

Recently, some have turned to a <u>social return</u> <u>on investment</u> (SROI) evaluation to measure the positive externalities and greater economic impact of green space and trails. Social return on investment is a "relatively new way of assessing value created by human activity" that captures extra-financial returns that are not traditionally categorized as economic benefits (Nicholls, 2017). Applying this broader lens is an effort to document the multifunctionality of urban green space, and to quantify the compounding returns derived from health, wellbeing, social, environmental, and other social benefits provided by large-scale built environment changes and improved access to green space.

Climate Change Mitigation and Resiliency

Sustainability and climate change mitigation and adaptation are critical issues for communities

Baltimore Greenway Trails Network

The Greater Washington Partnership identified the completion of the Baltimore Greenway Trails Network as an important economic opportunity. They contracted with a firm to evaluate and assess the monetary value of the social, economic, health, and economic benefits of the fully connected trail network. The \$28 million project, which will connect 75 neighborhoods within the city, has a stated goal of increasing bicycling and pedestrian connectivity for neighborhoods in the urban core that have historically lacked safe multimodal access to destinations, lifting communities up by connecting residents to opportunity.

across the country. Trails have the potential to provide sweeping environmental benefits for cities and regions. Urban and rural trails can contribute to reduction of heat island effect, carbon sequestration, stormwater and flood mitigation, habitat protection and wildlife corridors, along with improved air, noise, and water quality. Well planned, connected trail networks have the potential to encourage meaningful shifts towards sustainable modes of transportation. The Rails-to-Trails Conservancy's report Active Transportation Transforms America describes the important connection between connectivity and mode shift and offers calculations for the number of driven miles avoided and emissions reductions under different scenarios (Bhattacharya et al., 2019). Trails can be an integral part of local and regional resilience strategies and environmental planning.

Trails are also an effective conservation approach. Providing access to natural spaces can increase community engagement in conservation efforts, preserving urban green space and maintaining landscape connectivity while also fostering community-wide conservation culture. Trail planners can take advantage of the opportunity to promote conservation goals by integrating conservation values into the planning process (Courtenay & Lookingbill, 2014).

Strategic co-location of green infrastructure can expand functionality where land is limited. Trail systems can serve as green infrastructure corridors that manage urban flooding. Trees and green space can mitigate water, noise, and air pollution while simultaneously mitigating urban heat effects. Green space reduces urban heat by providing shading and through a process called evapotranspiration, which is the metabolic absorption of air pollutants (Schwab, 2009). A vegetative belt, or a green buffer, can also mitigate noise, alone or as a complement to nonnatural solutions (Van Renterghem et al., 2015). Water quality benefits stem from natural stormwater filtration and capture, which cleans and reduces the amount of water that is handled by the municipal drainage system (CNT, 2020).

Social, Historic, and Cultural Preservation

Great trails are more than infrastructure, they are places and experiences that bring communities together and offer important cultural and social benefits. Trails can promote and enhance social cohesion, contribute to a sense of place and community identity, and offer a record of heritage through historic preservation. Extending across a broad cross section of communities, trails can serve to collectively celebrate the cultural histories and uniqueness of a region. Interactive signage and online guidance can tie trail features to the surrounding area and promote shared understanding and learning by visitors and locals alike. Placemaking features that integrate art, interaction, community identity, and natural beauty along the trail itself can be incorporated into the permanent design or installed temporarily to add variety to the trail experience or activated with programming.

Access to green space is shown to reduce crime and fear in urban areas. Enhanced social cohesion, improved mental health, civic pride, better quality of life and biophilic stress reduction factors are among the contributors to violence reduction in urban settings (Branas et al., 2011; Shepley et al., 2019). Elements like art installations, local businesses, neighborhood parks, and natural areas make a trail and its surrounding community



Source: Rails to Trails Conservancy, Anthony Le

Trail of Tears

The Trail of Tears is an example of a <u>National</u> <u>Historic Trail</u>, which are established by an act of Congress. Honoring the survival of the Cherokee, who were forcibly removed from their homelands in the late 1830s, the iconic trail tells the story of suffering and resilience. The trail retraces the Cherokee peoples' journey over 5,043 miles and nine States and offers outdoor exhibits along the corridor. The trail helps to preserve the culture, history and significance of the Trails of Tears in American history and is a window into the story of native land and the relationships between Indigenous peoples to colonial actors.

distinctive. This type of placemaking is often a collaborative, ongoing community effort to create moments that make a trail special and useful. Some communities have found that supporting arts and culture through "creative placemaking" has shown promise in resisting displacement and exclusion (Komarek-Meyer, 2019).

Building Support Through Partnerships

Community coalition groups can be key drivers of trail development. Coalitions bring together the public, private, and nonprofit sector to support a project. Due to the unique set of intersecting benefits that trails offer, partnerships around trail building are often formed by cross-disciplinary groups. Recreational clubs, conservation organizations, tourism bureaus, land trusts, active transportation practitioners, health alliances, volunteer and nonprofit organizations, and many others can achieve common goals in supporting a trail project.

Often, trail projects span several jurisdictions or will impact several different interest groups. A strong coalition can also take advantage of the diversity of its members to tackle various components that move trail projects forward. Broad coalitions can be useful to build support for more politically contentious projects. Inclusive coalitions involve groups representing people living with disabilities, older adults, those whose voices are often not heard, and whose communities have been impacted by ongoing disinvestment. Neighborhood services and housing authorities should also be involved to ensure environmental justice is considered during the trail planning process (Hoover & Lim, 2021).

Public and government agencies are critical to trail building partnerships. Public agencies who may have a hand in trail development can include transportation, land use, and economic development planning, parks and recreation departments, sustainability offices, environmental agencies, stormwater and runoff management, health departments, and others. Agencies have plans, policies, and institutional practices that can influence trail alignments and design features. Collaboration and cooperation is often required across levels of government, especially when a trail may cross jurisdictional boundaries. Utility owners or other government bodies may hold an easement or right-of-way in the land and are already embedded in various processes around the locations in question.

Creating and Maintaining Partnerships

Partnerships around trails should reflect the wideranging desires and needs of the people and groups who will use the trail. Engaging with existing groups who are working towards similar goals can help to broaden support and extend the reach of the partnership. Working with those whose goals are different but who care about the area can in some cases strengthen and unite concurrent efforts to improve a community (Noll, 2021).

Robust partnerships require long-term commitment and dedication to accepting complexity and uncertainty. Ongoing working relationships require mutual understanding of the organizational culture, roles, and responsibilities of coalition members and public agency staffers. The coalition should be able to learn from and interact with a wide variety of stakeholders. Upholding local expertise as equally important to practitioners' "expert" knowledge can lead to deeper, more sustainable partnerships. (Hoover & Lim, 2021).

Past observed trail development processes reveal a complex interplay between people in government positions and local groups. Many trail projects rely on motivated community groups for leadership, follow-up, and long-term coordination. Coalitions who understand the landscape of existing plans and policies and who can identify opportunities to build and grow interest have higher chances of success. Even well-formed coalitions face challenges, such as adhering to timelines, unifying around strategies, communicating between disciplines, and creating a shared understanding of priorities (Eyler et al. 2008). Strong coalitions provide the ability to leverage multidisciplinary technical assistance and community knowledge as the project moves towards implementation, and the same groups can be active in managing and promoting the completed trail (Walker et al., 2011).

A formal structure is also important for maintaining partnerships. A coalition's structure may be determined by the nature of the member

Old Fort Trails Project

The Old Fort Trails project in McDowell County, North Carolina, is a community-driven project focused on connectivity, accessibility, and sustainability. The Pisgah National Forest's Grandfather Ranger District is partnering with the G5 Trail Collective, a local nonprofit supporting backcountry trails and People on the Move For Old Fort, a Black-led community collaborative that engages residents in community-building efforts to provide diverse trail experiences for diverse users. The 2021 proposal for 42 miles of new sustainably constructed trails (including two new trailhead parking areas and one mile of relocated trail) reflects years of planning and months of public participation and ground-truthing trail locations. organizations. Memoranda of Understanding are commonly put in place between public agencies, volunteer groups, or other nonprofit groups while public-private partnerships may require a more formal contractual process. Easement or public access agreements may be necessary for landowners or other right-of-way holders.

Building Support

While the overall benefits of trails are myriad, it is important to demonstrate a community-specific need or benefit. Using a combination of existing data, such as health, travel, or socioeconomic data, or infrastructure inventories, or collecting new data through interviews, surveys, audits, or manual counts or observation, a trail advocate can paint a tangible picture of current conditions that can be used to rally local support.

Ability to successfully navigate the political and public perceptions around greenway planning can determine the fate of a trail (Eyler et al., 2008). Producing a simple and appealing narrative establishing the need for the trail and the many benefits to the community at the outset will help keep the story of the trail focused and tailored to the community. Drafting a vision statement and a set of goals for the trail partnership will help with both internal and external understanding. Tying the goals of the trail coalition to goals in community planning documents adds salience for the public. Advance research into the various stakeholders who may be impacted or who may have strong feelings about a change in the public space will help prevent political roadblocks (Flink et al., 2001).

Strategies for working with those who oppose trails include seeking out opportunities for positive steps forward by crafting a clear mission and vision for the trail, identifying allies near the trail, facilitating means of listening, learning and building consensus, and working to communicate directly with groups or individuals who might be unsure or on the fence (Rails-to-Trails Conservancy, n.d.). Walking tours of a potential trail corridor allows for personal connections and an occasion to actively listen and learn from those who express concerns about a new trail (Flink et al., 2001).



Source: PBIC Image Library, Julia Diana

Considerations for Trail Planning

Partnerships that build support for trails are important aspects of trail planning that often begin before the formal planning stage and continue through the implementation phase and beyond. It is often the case that as the trail development process advances, a champion emerges to help lead the effort. This person could be a local resident, agency staff, or an elected official that embraces the vision and motivates others to get involved. As a trail develops from an idea into reality, the decisions made by project leaders and stakeholders will shape the trail figuratively and literally—well before the final engineering design. This section explores some key considerations for trail planners, engineers, advocacy groups, developers, and others during the planning stage of trail projects.

Equity Considerations

New trail development has been accompanied by deep concern around displacement and gentrification, and alongside this, increased marginalization of communities of color within their own neighborhoods. Where there has been ongoing disinvestment or deindustrialization, high profile, large scale regional trails have been shown to affect property value to a greater degree than smaller scale developments. Trails such as the Atlanta, Georgia, BeltLine and the 606 in Chicago, Illinois, have drawn attention to the fact that protection and preservation of existing communities must take place in the early stages of planning for major trails (Crompton & Nicholls, 2019; Harris et al., 2020; Immergluck, 2009). There are many strategies for resisting the negative effects of displacement, though none are perfectly applicable in every situation; different communities will require and desire different approaches. Multidisciplinary strategies include community land trusts, public land disposition, business tax incentives, inclusionary zoning, affordable housing, rent control, home loan and improvement programs, owner-occupied tax

relief, business tax incentives, and job training and creation, including green jobs programs and summer youth employment.

Social inclusion on trails can be a challenge when a new trail is being developed. Trails are public spaces that do not have the same meaning for everyone. Many studies have shown that racialized individuals represent significantly smaller proportions of trail users than White individuals, and there are often issues of cultural and social exclusion that can surround the conceptualization, development, and implementation of new trails. Future trail building can work to alleviate this by co-creating trail space with those who have been traditionally left of out decision-making (Wolch, Byrne, & Newell, 2014). Community ties

Joe Louis Greenway

A group of researchers in Detroit, Michigan, looked the development of the Joe Louis Greenway from the perspective of environmental justice. The planned greenway alignment traverses many neighborhoods in Detroit that have been adversely impacted through policies and practices such as redlining, urban renewal, freeway building, and continued disinvestment. Some of the land being redeveloped is considered "abandoned" urban land, sometimes known as "brownfields." To model a pathway to truly inclusive green revitalization, and to avoid further harms from gentrification, the researchers offered a conceptual framework for green reparations. The central goal of green reparations projects would be to achieve social equity, and to distribute the benefits of green development to areas and populations who have been impacted by systemic and structural racism, disinvestment, and environmental injustice. This form of "just greening" would be a process of working to restore and heal trauma, acknowledge and incorporate history, and bring the benefits of green urban spaces to fruition in partnership with communities (Draus et al., 2020).

are strengthened by meeting the local social and cultural community needs (Vanessa Garrison, GirlTrek - TrailNation Summit - YouTube, n.d.).

Engagement

Equity considerations should also guide the engagement process. Building trust, centering local knowledge, and creating structures of longterm co-governance are essential to inclusive trail planning, particularly in communities that have experienced histories of racialization and disinvestment. Grassroots community organizations should not only be at the table but should share power in decision making from the beginning (Copic et al., 2020; Hoover & Lim, 2021).

People living with disabilities also need to be engaged early since decisions about trail design, surfaces, and amenities can all contribute to accessibility for people who use mobility assistive devices. Travel Oregon partnered with several nonprofits to create an accessible recreation travel guide, which features in-depth reviews of accessible Oregon parks and trails from the perspectives of wheelchair users. The reviewers notice and highlight many small details that can affect the trail experience for people with disabilities, including bathroom facilities and parking areas (Rush & Robison, 2020). For some communities, public advisory boards have provided a means to obtain ongoing input at various stages in planning and/or implementing projects. Local governments must consider how to include diverse voices in advisory boards, for example by offering stipends, childcare, and offering call-in and online meeting options.

Multimodal Networks

Most transportation networks and land uses in the U.S. are designed for people who use cars. Those who walk or bike often face challenges accessing employment, healthcare, education, and shopping due to incomplete or inadequate networks. Trails can be key links in multimodal networks, providing convenient connections to these destinations via low-stress routes separated from vehicular traffic. The Pedestrian and Bicycle Information Center's (PBIC) <u>Connected Multimodal Networks</u> webpage has many resources for the development of multimodal networks.

In recent years, trail planning practices have shifted away from building standalone trails and towards using trails as strategic links to achieve regional multimodal or trail networks. This shift reflects a growing understanding that trails can be much more than recreational facilities. They can help address regional growth issues and

Capital Trails Coalition's Statement on Equitable Trail Development

The statement below was prepared and published by the Capital Trails Coalition, which works on trail development in the Washington, D.C., region.

The Capital Trails Coalition recognizes long-standing and current societal inequities that have their roots in generations of unjust structural barriers, policies, practices, attitudes, language, and cultural messages have disproportionately impacted many minority groups.

Therefore, the Coalition will promote an equitable trails network by analyzing the unique challenges and circumstances impacting specific populations' mobility, safety, and connectivity needs.

The Coalition will use this information to offer and advocate for solutions so that the trail network more effectively serves all residents, including current and potential trail users.

The Coalition will also use this lens proactively to influence its own structure and decision-making framework.

(Source: Capital Trails Coalition)

meet the needs of residents who are increasingly voicing support for more walkable and sustainable communities and more transportation options.

Multimodal networks are not limited to cities and metropolitan areas. While barriers related to rural multimodal transportation depend on the specific area, common challenges in rural areas include social isolation of nondrivers, aging populations, high transportation costs, poverty, high rates of diseases related to physical inactivity, and high traffic fatality rates. At the same time, rural areas are experiencing greater demand for transportation alternatives to cars and desire for economic development and opportunity (Litman, 2018). Altogether, these trends suggest that trails can be desirable and beneficial components of the transportation network in rural areas when combined with other supportive modes, policies, and infrastructure.

Route Selection Considerations

Choosing the right route for a trail is a balancing act between practical considerations and community aspirations to make sure it can not only be funded and implemented in a reasonable time, but also that it will be well used by many community members and visitors. The decision involves tradeoffs between access to destinations, user safety and comfort, available right-ofway, topography and physical challenges, and constructability and likely expense. During this network development process, communities often identify local connectors as practical ways to overcome barriers to a fully linked system. These short connection routes (i.e., path accessing a gated community or cul-de-sac, bridge over a railroad track, highway underpass) have the potential to open up many miles of a trail network that have been cut-off due to a physical barrier.

Policy Tools

Federal, State, and local policies fundamentally influence trail projects. At the Federal level, requirements for Americans with Disabilities Act and regulations around floodplain locations can determine various characteristics of a trail. State level land acquisition policies can enable trail expansion, and water quality laws impose constraints on trails located near waterways. Local government policies can also have broad impacts on trail building. Jurisdictions seeking to create a supportive policy environment for trails can start at the local level (Eyler et al., 2008).

Circuit Trails Network as a Regional Connector

The <u>Circuit Trails</u> is an <u>innovative, regional</u> <u>urban trail</u> network that is connecting people to jobs, communities, and parks in the ninecounty Greater Philadelphia-Camden, New Jersey, region. Led by a coalition of dozens of nonprofit organizations, foundations and agencies, the Circuit Trails will encompass 800 miles of trails on both sides of the Delaware River by the time of the project's completion in 2040, and more than 50 percent of the region's population—over 3.1 million people—will live within a mile of the trail network.

Regulatory Strategies

Jurisdictions can control the use and development of land through legislative powers. Master plans with trail development can include provisions for trails and open space (Eyler et al., 2008). Regulatory methods help shape the use of land without transferring or selling the land. The following types of development ordinances can meet the challenges of urban and suburban growth, as well as conserve and protect trails resources:

- Growth management measures
- Performance zoning
- Incentive zoning
- Conservation zoning
- Overlay zoning
- Negotiated dedications
- Reservation of land
- · Planned unit development

- Cluster development
- · Developer credit for trail construction
- · Cultural and historical preservation
- · Green and open space provisions
- Development requirements

Development Process

Many local governments use ordinances to require new developments to build or pay for active transportation infrastructure including trails as part of the approval process. It is common for municipal officials to place conditions on the approval of subdivision and land development applications. Through negotiation, a municipality can request the installation of bicycle and pedestrian facilities. Jurisdictions can integrate such policy requirements and other planning elements into its comprehensive plan and/or other adopted plans such as a pedestrian and bicycle and/or trails master plan that will identify the need for these facilities so that developers are aware that the jurisdiction will likely require these facilities when land development applications are made.

Trail-Oriented Development

Like the concept of transit-oriented development, trail-oriented development takes advantage of and leverages infrastructure that supports active ways of getting around in urban or suburban areas. In much the same way that transitoriented developments aim to build places where

Trails Ordinance in Prince George's County, Maryland

The Prince George's County, Maryland, Code of Ordinances (Section 24-123(A)(6)) states:

Land for bike trails and pedestrian circulation systems shall be shown on the preliminary plan and, where dedicated or reserved, shown on the final plat when the trails are indicated on a master plan, the County Trails Plan, or where the property abuts an existing or dedicated trail, unless the Board finds that previously proposed trails are no longer warranted.

people can live, shop, and travel from a string of centralized community centers, trail-oriented development aims to provide a network of local business and housing choices within a web of safe and enticing trails. The Urban Land Institute identifies this trend as the latest phase in the evolution of urban development from car-centric to people-friendly design. Their 2016 report highlights the Midtown Greenway and other excellent examples of cities using urban trails or greenways as tools for revitalization. The common thread among their case studies and cited research is a focus on trailside zoning. Like any development project that causes an influx of investment in an area, trail-oriented development must be done with the overarching goals of inclusion and prevention of displacement of marginalized communities.

Planning Timelines and Funding Sources

A common challenge is the lengthy process needed to move a trail from idea to reality. This prolonged time horizon can make maintaining interest and momentum difficult. One way to ensure

Midtown Greenway

The first phase of the Greenway in Minneapolis, Minnesota, was opened in 2000, converting a rail line trench into a new neighborhood amenity. The depressed former rail line, however, was not well-connected to communities around the trail. During the next several years, members of the Midtown Greenway Coalition worked to create zoning and land use plans designed to provide enhanced access to the trail. While there are many factors spurring redevelopment along the corridor, the new trail amenity and building design that fronted and activated the trail were key factors in helping create new nodes of positive development along the corridor

(Source: Active Transportation and Real Estate, The Next Frontier (Urban Land Institute, 2016))

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trail implementation is to seek out near-term opportunities while also focusing on long-term goals. Demonstration projects that pilot a design can get something on the ground quickly to prove a concept, gather feedback for improvements, and help catalyze further trail development. At the same time, advocates should familiarize themselves with long-range and comprehensive planning timelines in their areas.

The planning timeline and funding opportunities are often considered concurrently since many Federal and State funding sources require listing the project in an official planning document, such as a bicycle and pedestrian master plan or a long-range comprehensive plan. The funding application process often involves generating detailed cost estimates, providing information from an array of stakeholders and government bodies, and conducting mandated impact studies (sometimes years in advance). Some funding applications may also require a preliminary engineering design or concept.

Trail developers need to fund project development phases such as traffic or environmental studies, design, engineering, right-of-way acquisition or easements, site preparation such as grading, drainage, construction, and ongoing maintenance. Common funding sources include the Transportation Alternatives Set-Aside, **Recreational Trails Program**, discretionary grants (RAISE is a recent iteration), State active transportation funding, or local active transportation funding. Other funding mechanisms include tax increment financing, a local tax bond like an impact fee or a voter approved bond measure, or private foundation donations (Eyler et al., 2008; Flink et al., 2001). See also Federal Highway Administration's (FHWA) Active **Transportation Funding and Finance Toolkit.**

FHWA maintains a spreadsheet of USDOT Pedestrian and Bicycle Funding Opportunities that can be used for bicycle and pedestrian projects, including trails and trail amenities.

Designing for Climate Resilience

Planning and design considerations can help ensure that trails play a role in climate resilience, adaptation, and mitigation, in addition to their contribution to carbon emissions reduction strategies by potentially shifting more trips to walking, biking, and e-assisted devices. Trail corridors present opportunities for green and blue infrastructure intended to help manage water through storage and infiltration (as described in the Benefits section) and opportunities for enhanced emergency response and preparedness. Key considerations for building resilient trails include:

- Sustainable siting, construction, and maintenance: Trails must be sited and constructed to accommodate flooding events and reduce costly damage. Materials, surface type, construction and landscaping techniques, and drainage are important considerations for sustainable and resilient trail infrastructure.
- Contextual design considerations: Each trail type and its location have unique considerations in terms of the resiliency and emergency response functions they may provide as well as the design considerations. Trails must be universally accessible to accommodate all people and provide lifeline routes for safety, security, and emergency management as well as transportation. Connections and improvements to trails should be designed to accommodate wheel loads associated with emergency vehicles, provide efficient access, integrate areas for staging equipment, and include systems to aid navigation and communication.
- Green and blue infrastructure integration strategies: Green infrastructure can restore, connect, and protect natural areas such as wetlands, streams, and floodplains. The nexus between the trail network and surrounding neighborhoods can also provide an opportunity to "bridge" the natural and built environment by extending landscaped areas into surrounding streets, parks, and open space to



Source: PBIC Image Library, Dan Burden

capture stormwater runoff prior to entering waterways.

 Trails as evacuation routes: In some cases, trails can serve as key components of critical resiliency systems by providing evacuation routes and accommodating emergency response vehicles and response operations.

Trail Operations, Evaluation, and Programming

Ongoing trail management should be considered in the early stages on planning. It is crucial to assess the maintenance and operational needs and determine which parties will be responsible for these tasks. The many shared management responsibilities around the trail include routine and remedial maintenance, safety, trail user management, trail evaluation and measurement, programming and promotion, and ongoing stewardship. Public events and uses of the trail space, such as volunteer work crews or beautification teams require coordination and administration. Maintenance tasks may include snow and ice removal, vegetation management, trash removal, and facilities upkeep, while operational considerations may include determining the hours of operation, rules for trail users, and procedures for special events.

Trail Users

As emerging micromobility modes such as e-scooters and e-bikes gain popularity, there has been much discussion about whether these modes can safely and comfortably share the trail with people walking and those using traditional bicycles. Increasingly, State and local governments are passing regulation to help clarify and classify emerging micromobility devices and where they can operate. A 2021 National Conference of State Legislatures report found that 43 States and D.C. have a legal definition of an e-bike and at least four States specifically allow e-bikes on trails with certain restrictions, while several other States treat e-bikes equal to traditional bicycles and therefore allow or prohibit e-bikes wherever regular bicycles are allowed or prohibited. The Rails-to-Trails Conservancy created a resource guide detailing challenges and opportunities associated with micromobility on trails.

Precedents exist for accommodating unique forms of transportation on trails. In some rural areas with cold climates, snow-covered trails become routes for skiers, snowmobiles, and dogsleds during the winter months. Communities planning trails should assess their transportation and recreation needs and determine how their trails can accommodate existing uses and complement multimodal networks.

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Trail Evaluation

Managing a trail also requires an understanding of who is using the trail and when, and what is really happening in a dynamic trail environment. Evaluation should include both quantitative and qualitative methods for gathering data about volumes, habits, and needs that can be leveraged in productive ways for the trail system.

A counting system should be comprehensive with a counting program that addresses the physical trail counters and continuously maintains count records. It is important to invest in the trail count infrastructure (i.e., Eco-Counters), data management systems, and staff training. With a commitment to gathering accurate data, trail managers can use the data to monitor regular trail use, evaluate changes to the trail, identify and schedule maintenance needs, make adjustments to signals controlling trail crossings, and plan future trails (Nordback et al., 2018). Mechanisms for collecting feedback directly from trails users to enhance understanding of how the trail is being used and what issues need to be addressed should complement the trail count program. Surveys can reveal issues around perceptions of safety, trail surface quality, and interactions between trail users. Surveys can also help determine trip purposes and route choices, and gather demographic information that is not captured by counts (Shafer et al., 1999). User surveys can also provide feedback on how the trail is valued by users (Keith et al., 2018).

Direct monitoring of trails is also important. Observational data can enhance understanding of how users are interacting with each other and the trail environment. Crash surveillance on trails can be challenging, as bicyclist and pedestrian crashes outside of the motor vehicle environment are often not captured in police reported crash databases. Site observations can identify problems and supplement other forms of data such as hospital records or crowdsourced incident data to create a better picture of trail safety (Jestico et al., 2017).

Bicycle and Pedestrian Count Programs

There are two basic types of counts: continuous counts and short-duration counts (SDCs). At continuous count locations, data is collected 24 hours per day and the counters are intended to remain in place indefinitely. SDCs occur over a limited period, ranging from a few hours to several weeks. Continuous counts and SDCs are both necessary to develop a complete picture of nonmotorized activity. Researchers and practitioners are starting to recognize and explore the potential of emerging data sources collectively referred to as "Big Data." This type of data is typically crowdsourced or uses information generated from GPS-tracking devices---such as smart phones, watches, and fitness trackers-to generate trends and patterns. Technical capacity to process this type of data is also often a concern for many public agencies, as the data management can be cumbersome and require some advanced coding skills. The PBIC Info Brief Bicycle and Pedestrian Count Programs: Summary of Practice and Key Resources provides more information about developing and expanding nonmotorized count programs.

Promotion through Communication and Programming

Ongoing communication and promotion can help the public to feel welcome and informed about what is going on around the trail; residents should feel a sense of connection to the trail and continue to value its role in the community. In many cases, a new trail is a small part of a larger trail system and getting buy-in for future segments is important.

Making the most of a new or existing trail means telling its story through cultural happenings, art, history, and nature focused lenses. This requires communicating with the public directly or through the media; programming on-going and special events on the trail; liaising with artists to bring their work to area; and with sign-makers to produce signage and wayfinding.

Communication and engagement should be handled with cultural competency, context sensitivity, and responsiveness to the social and cultural environments surrounding the trail. Vanessa Garrison of Girl Trek offers that "a network of trails brings a network of people" and discusses how understanding the values and desires of a diverse population is the pathway to authentic inclusion on trails (Vanessa Garrison, GirlTrek - TrailNation Summit - YouTube, n.d.).

Designing Trails

There are many existing references and resources that can help designers create safe, comfortable trails. Accessibility is an important part of trail development because it is key to ensuring that trails are available to all groups, including youth, older adults, and people with disabilities. Because trails can provide both transportation and recreation, designers need to consider which accessibility guidelines apply. Roadway and driveway crossings are key locations in need of attention during the design phase. In some locations, trails and shared use paths may connect to on-street bicycle and pedestrian facilities. Guidance on multimodal networks can help planners consider how trails play a role in regional network connectivity.

Select national level resources are listed here, and <u>PBIC's Design Resource Index</u> identifies the specific location of trail-related information in national design manuals and guidance documents from FHWA, American Association of State Highway and Transportation Officials (AASHTO), Institute of Transportation Engineers (ITE), Congress for the New Urbanism (CNU), National Association of City Transportation Officials (NACTO), and the US Access Board.

State and local design guidelines are also critical to consult for local design specifications and regulations, especially for trails in environmentally sensitive contexts such as riparian buffers, or within State parks, for example. Professional associations such as the Association of Pedestrian and Bicycle Professionals (APBP) and ITE offer a sounding board and local experiences for questions about trail crossings, lighting, tradeoffs for different trail surfaces, edge and centerline markings, transitions between trails and other bicycle facilities, accessible design, designing around or along bridges and underpasses, or long-term management, maintenance, or other context specific issues that may arise in the design phase.

General Trail Guidance

- <u>Accessibility Guidebook for Outdoor</u> <u>Recreation and Trails</u>
- <u>New Mobility Trends in Shared-Use Path</u>
 <u>Design and Management</u>
- <u>Trail Planning, Design and Development</u> <u>Guidelines</u>
- <u>Manuals and Guides for Trail Design,</u> <u>Construction, Maintenance, and Operation,</u> <u>and for Signs</u>
- <u>PBIC Topic Page: Trails and Shared Use</u> <u>Paths</u>
- Transit and Trail Connections
- <u>Rails-with-Trails Best Practices and</u>
 <u>Lessons Learned</u>
- <u>Evaluation of Safety, Design, and Operation</u> of Shared-Use Paths
- <u>American Trails Resource Library</u>
- East Coast Greenway Design Guide
- FHWA Pedestrian and Bicycle University Course: Module 13: Trails

Multimodal Network Guidance

- <u>Guidebook for Measuring Multimodal</u> <u>Network Connectivity</u>
- Small Town and Rural Multimodal Networks
- <u>Achieving Multimodal Networks: Applying</u> <u>Design Flexibility and Reducing Conflicts</u>



National Level Road Design Guides

- Road Design Guide
- · Urban Street Design Guide
- Transit Street Design Guide
- Traffic Control Devices Handbook
- Manual on Uniform Traffic Control Devices

Accessibility Guidelines

- Draft Guidelines: Public Rights-of-Way Accessibility Guidelines and Shared Use Path Guidelines
- Standards for Outdoor Developed Areas
- <u>Accessible Shared Streets: Notable Practices</u> and Considerations for Accommodating Pedestrians

Bicycle and Pedestrian Design Guidance

- <u>Guide for the Development of Bicycle</u>
 <u>Facilities</u>
- <u>Guide for the Planning, Design, and</u> <u>Operation of Pedestrian Facilities</u>
- <u>Separated Bike Lane Planning and Design</u> <u>Guide</u>
- <u>Urban Bikeway Guide</u>

Additional Resources

Economic resources

The Rails to Trails Conservancy's (RTC) <u>Active</u> <u>Transportation Transforms America</u> makes the case for trail return on investment based on benefits from increased biking and walking, improved health, reduced greenhouse gas emission and general economic revitalization, and provides methodologies for calculating and estimating the economic outcomes in these domains.

Examples of SROI evaluations come from the United Kingdom and Australia. A model assessing the combined monetary value of property values, health and wellbeing, flood mitigation, climate change, "quality of place," employment, and tourism found between a two- and almost six-fold benefit from a trail in the United Kingdom (Hunter et al. 2020). A similar <u>SROI evaluation of open</u> <u>green space</u> in a suburb of Sydney, Australia showed \$10 of value for every \$1 invested in parks and sports facilities. (City of Paramatta, 2020).

The **Trail Towns Program** shares lessons learned from successful trail town revitalization projects.

Additional resources can be found through <u>American Trails</u> and the <u>Rails-to-Trails</u> <u>Conservancy</u>. <u>Headwaters Economics</u> is an independent research firm that focuses on land management, outdoor recreation and economic development.

Victoria Transport Policy Institute is a source of a wide variety of free resources with an emphasis on innovative solutions.

Equity resources

The Pennsylvania Environmental Council has an Inclusionary Trail Planning Toolkit, which includes multiple case studies and a several resources for participatory public engagement during the development of new trails and green space.

RTC's **Equitable and Inclusive Trails** provides an overview of creating more equitable trails.

Partnership resources

The Oregon Trails Coalition's <u>Ready, Set, Plan!?</u> guide provides a model of partnership building that underscores the importance of broad, diverse coalitions built on trust, collaboration, listening and understanding (Noll, 2021).

American Trails' <u>Factors for maintaining ongoing</u> <u>partnerships around parks and trails</u> echoes themes of understanding, trust, and inclusion as essential for effective coalitions (21 Partnership Success Factors for Parks and Trails - American Trails, n.d.).

Virginia Department of Transportation's <u>Community Trail Development Guide</u> begins by describing the work of connecting community interest to local and State agencies. The guide includes descriptions of the various roles and capacities that have contributed to existing trails in Virginia (Virginia Department of Transportation, 2016).

Outdoor Towns offers several steps for organizing and partnering in their **Towns and Trails Toolkit**.

Interagency agreements

RTC's <u>trail building management</u> page offers an overview of approaches to structuring agreements across jurisdictions or agencies, such as MOUs or contracts with easement rights holders.

WeConservePA offers a wide-ranging set of example model policies, documents and agreements oriented towards conservation efforts that cover topics such as land use ordinances, public access and easement agreements.

Evaluation resources

Evaluation of Safety, Design and Operation of Shared Use Paths

RTC has a set of <u>resources</u> for establishing and running a count program.

Marketing resources

Trust for Public Lands' article <u>Secrets of the</u> <u>Private Sector: How parks and recreation</u> <u>agencies can flex their marketing muscles</u>. The RTC report <u>Urban Pathways to Healthy</u> <u>Neighborhoods</u> details strategies for encouraging trail use.

Funding resources

The Safe Routes Partnership webinar, **Funding your Active Transportation Project**, identifies funding needs and sources.

Trail management resources

American Trails presents an **Introduction to Trail** <u>Management</u> webinar that covers managing both visitors and maintenance.

RTC's <u>Maintenance Practices and Costs of Rail-</u> <u>Trails</u> specifically offers an overview of rail trails in particular, but includes information relevant for other trail types.



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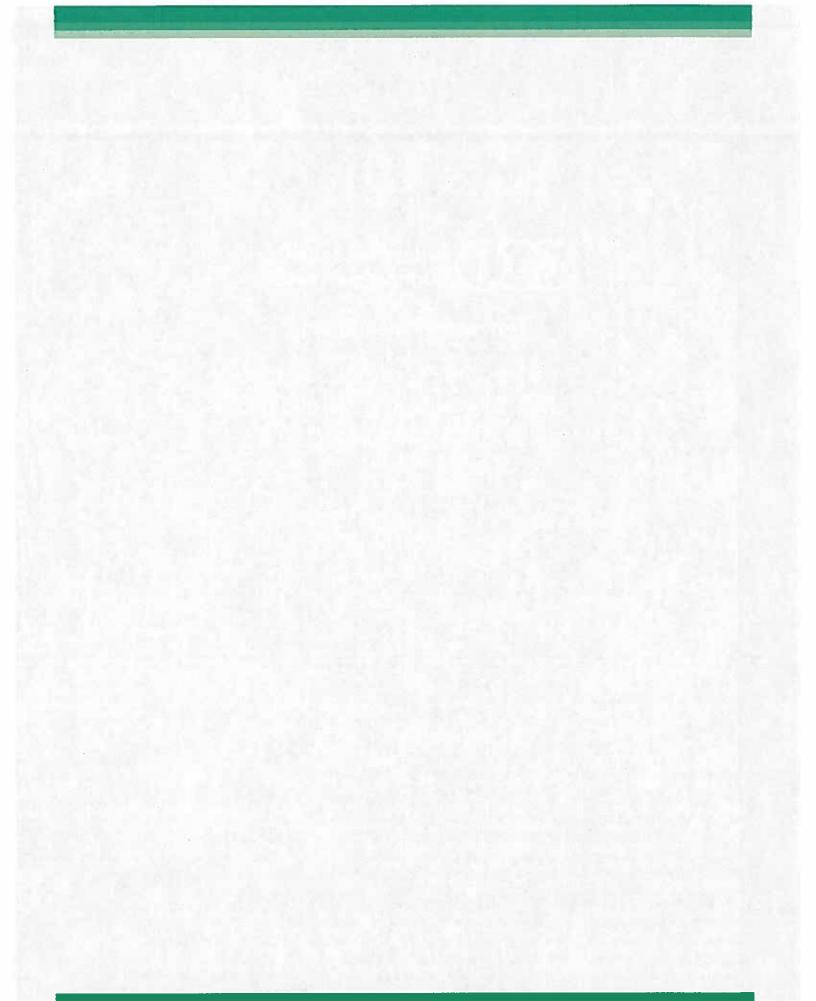
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