



The Dahlgren Railroad Heritage Trail:
An Assessment of Trail Benefits for Users and Neighboring Residents

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Written for the Friends of the Dahlgren Railroad Heritage Trail

Brief History of Rails-to-Trails

The rails-to-trails movement began in the mid 1960s, as the railroad system in America was decreasing in popularity. The rails were ripped out and pedestrians started informally walking, biking, and cross-country skiing on the unpaved railbeds, enjoying the scenery and history along the path. With environmental and conservation concerns growing in popularity over the following decades, rails-to-trails organizations gained momentum and have since completed almost 13,600 miles of trails across the nation.

The DRHT Intention

Originally extending from Cool Spring Station near Fredericksburg to Dahlgren, the Dahlgren Branch is a 16-mile path in King George County running east toward Dahlgren. The Dahlgren Branch, built in 1942 to ship military supplies to Dahlgren's Naval Base, was eventually abandoned in 1957, and remained inactive until 1963. In 1995, Joe Williams of King George began negotiations to purchase the property, and eventually acquired the property in 1997.

The Friends of the Dahlgren Railroad Heritage Trail (DRHT) have made significant progress since beginning work in the spring of 2006. They aim to preserve the trail for future generations, promoting history and environment in one of the most beautiful areas of the Northern Neck of Virginia. The Friends of the DRHT are determined to provide a handicapped-accessible trail for surrounding communities, a venue for safe-routes-to-school connecting neighborhoods, and providing a healthy alternative to congested roadways.

Trail Benefits

A completed trail is managed and maintained, unlike overgrown, littered, unmanaged abandoned railways. As a result, families, students, clubs, wildlife, and the community as a whole benefit from improvements in mobility, environment, health, economy, education, and family and community relations.

“Active transportation” along the trails, defined as biking and walking for everyday transportation, work in reducing traffic congestion and thereby increasing mobility. A reduction in traffic volume reduces air and climate pollution, helping in the fight against the diminishing ozone in the twenty-first century. Offering opportunities for convenient exercise, the trails improve community health by addressing sedentary lifestyles and fighting the increasing obesity epidemic. Trails, and the accompanying tourism, contribute to local economies and increase property values. Trails effectively help with promotion and conservation of greenspaces, preserving natural landscapes, plants, and animal species. Individuals are offered first-hand experiences to study wetlands, habitats, ecosystems, plants, and natural wildlife, increasing their knowledge and pride in their community. Finally, trails add to family and community relations, strengthening social ties and increasing quality of life.

Opposition to the DRHT

There seem to be three primary areas of concern regarding trails: 1) crime will increase, 2) property values will decrease, and 3) liability and lawsuits will be problematic. The next three sections address these three top concerns.

Trail Crime

Addressing similar concerns in 1998, the Rails-to-Trails Conservancy (RTC) conducted a survey on crime levels on and along trails. The survey was completed by all known rail-trail managers in the United States for urban, suburban, and rural trails. Questioning how many crimes were committed against persons or property on the trails, the RTC found, contrary to public belief, that crime actually decreases where abandoned railways have been converted to trails. Table 1 compares rates of major crimes (defined as mugging, assault, forcible rape, and murder) on rail-trails to that of U.S. Crime Rates. Rates are per 100,000 population for national crime rates, compiled from FBI Uniform Crime Reports, and per 100,000 trail users.

Table 1
Comparisons of Incidence Rate of Major Crimes
on Rail-Trails to U.S. Crime Rates¹

Crime	Urban		Suburban		Rural	
	1995 National	Rail-Trails	1995 National	Rail-Trails	1995 National	Rail-Trails
Mugging	335	0.53 (1995) 0.30 (1996)	102	0.00 (1995) 0.01 (1996)	19	0.00 (1995) 0.01 (1996)
Assault	531	0.58 (1995) 0.34 (1996)	293	0.02 (1995) 0.01 (1996)	203	0.01 (1995) 0.01 (1996)
Forcible Rape	43	0.04 (1995) 0.00 (1996)	29	0.00 (1995) 0.01 (1996)	26	0.01 (1995) 0.01 (1996)
Murder	11	0.04 (1995) 0.01 (1996)	4	0.01 (1995) 0.01 (1996)	5	0.01 (1995) 0.01 (1996)

These results show that the occurrence of major crimes is but a small fraction of the national (1995) average of major crimes in corresponding geographies. Table 2 displays rates of minor crimes (defined as burglary, trespassing, graffiti, littering, sign damage, and motorized use) throughout urban, suburban, and rural rail-trails, per 100,000 trail users.

¹ Morris, Hugh and Tammy Tracy, "Rail-Trails and Safe Communities," *Rails-to-Trails Conservancy*, January 1998, <http://www.railstotrails.org/resources/documents/resource_docs/tgc_safecomm.pdf> (18 January 2007).

Table 2
Rates of Minor Crimes on Rail-trails, 1995²

Crime	Urban	Suburban	Rural
Burglary	0.00	0.01	0.01
Trespassing	5.00	3.00	4.00
Graffiti	26.00	17.00	12.00
Littering	24.00	24.00	25.00
Sign Damage	22.00	22.00	23.00
Motorized Use	18.00	14.00	23.00

Table 2 excludes national minor crime rates as most minor crimes are difficult to measure and therefore are not reported across the nation. It is not possible for a place to exist completely free of crime. Rail-trails, however, have been shown to be safe places, experiencing considerably less crime than their surrounding communities, highways, parking lots, and other public and private areas.

“The trail does not encourage crime, and in fact, probably deters crime since there are many people, tourists and local citizens using the trail for many activities at various hours of the day.”

- Pat Conlin, Sheriff

Green County, WI

Property Values Adjoining Trails

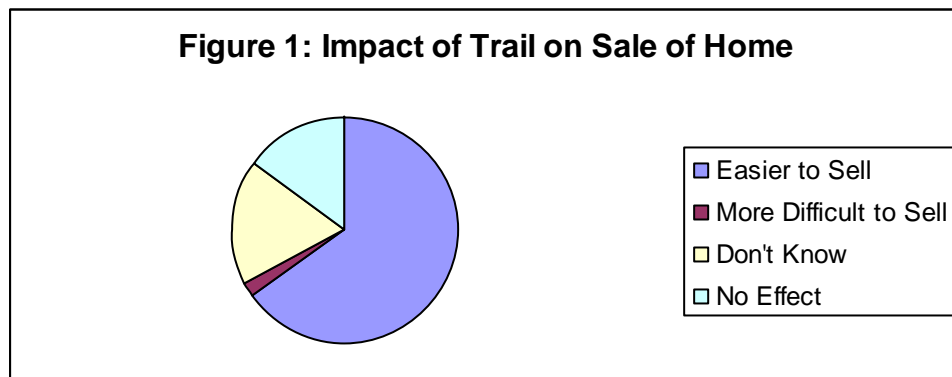
The second top concern regarding a rails-to-trails project is that property values will decrease in the surrounding community. However, according to the RTC, trails and green public areas increase the natural beauty of communities and boost property values. The Omaha Recreational Trails in Omaha, Nebraska, and the Northern Central Rail Trail in northern

² Morris, Hugh and Tammy Tracy, “Rail-Trails and Safe Communities,” *Rails-to-Trails Conservancy*, January 1998, <http://www.railstotrails.org/resources/documents/resource_docs/tgc_safecomm.pdf> (18 January 2007).

Maryland, provide two examples where property values primarily increased with an addition of a public trail.

I. Omaha Recreational Trails

In 2000, Dr. Greer of the University of Nebraska at Omaha, with help from the National Park Service, conducted a study on Omaha Recreational Trails and Their Effect on Property Values and Public Safety. He concluded that trails are in fact beneficial to property values in the community. Displayed in Figure 1, 81% of surveyed residents thought the presence of their nearby completed trail would have a positive effect or no effect on the difficulty of selling their homes³.



Along the 67 miles of urban and suburban trail, households overwhelmingly believe the presence of the trail will make their house easier to sell.

³ Greer, Donald L, "Omaha Recreational Trails: Their Effect on Property Values and Public Safety," *American Trails*, June 2000, <<http://www.americantrails.org/resources/adjacent/docs/omahastudy.pdf>> (1 February 2007).

II. Northern Central Rail Trail

In 1994, PKF Consulting compiled an analysis of the economic impacts of the Northern Central Rail Trail, in northern Maryland. The trail lies in a largely rural area, surrounded by active farms and low density, large lot residences.

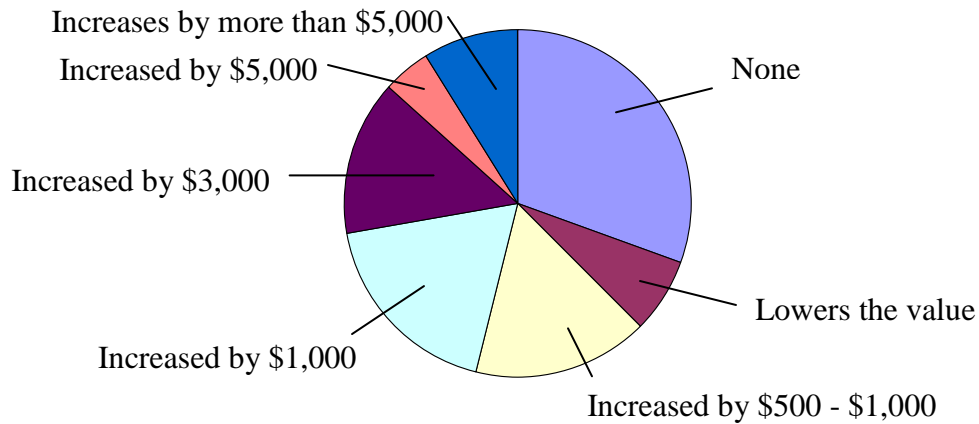
Nearly all surrounding residents surveyed agreed that the trail increases the attractiveness of most properties within walking distance of the trail. According to developers and brokers, the greatest externality of the trail is using it as a selling point to help nearby owners sell their property faster. PKF Consulting surveyed a number of surrounding residents on anticipated property values and found the information in Table 3 and again displayed in Figure 2 (by percentage).

Table 3
Anticipated Value of Properties
Within Walking Distance to the Trail⁴

Anticipated value of properties within walking distance to the Trail	(percent)	(counts)
None	30.46	166
Lowers the value	6.97	38
Increased by \$500 - \$1,000	16.51	90
Increased by \$1,000	18.17	99
Increased by \$3,000	14.68	80
Increased by \$5,000	4.40	24
More than \$5,000	8.81	48

⁴ “Analysis of Economic Impacts of the Northern Central Rail Trail,” *National Transportation Library*, June 1994, <<http://ntl.bts.gov/DOCS/430.html>> (21 March 2007).

Figure 2
Anticipated Value of Properties Within
Walking Distance to the Trail



Sixty-two percent of residents surveyed believe neighboring trails will increase the value of their property and 30% believe it will leave the value unchanged. Only 6.97% believe a trail will lower the value of their property.

Liability and Lawsuits Involving Trails

A third primary concern accompanying a rails-to-trails project is the fear of liability and lawsuits. Adjacent landowners are often afraid of a potential lawsuit of a trail user wandering from the trail, hurting themselves on a landowner’s property, and suing⁵. There also exists the assumption that insurance options to cover potential liability issues are expensive and not affordable for the community. However, these concerns have been proven invalid. Most trails are owned or operated by a public institution such as a parks or state department (as DRHT plans to be eventually), with insurance costs included in the overall insurance policy for the city,

⁵ National law states that in such a case, the landowner would be held liable.

county, or state. Wary landowners can reduce their potential threat of lawsuits by clearly posting signs or fencing on and around their property.

The Rails-to-Trails Conservancy, in cooperation with the National Park Service, compiled a study on Rail-Trails and Liability. In surveying a number of trail managers across the country, the Rails-to-Trails Conservancy determined that trails have not posed significant liability problems. This is most likely due to the success individual trail managers have experienced with taking appropriate action to minimize liability on their trail.

A primary concern along the Cowboy Trail through Nebraska farmland has been the threat of interacting with livestock on surrounding farmland. Landowners feel relief through various legal mechanisms that would offer protection against a trail user posing legal action after injuring themselves on a landowner's adjacent property. Trespassing laws, clearly marked signs of boundaries and trail rules, the state's recreational use statute, and the ability for landowners to acquire fence building materials from the state, have appeased landowners' concerns of liability and lawsuits. The Cowboy Trail is happy to report that in three years of operation, they have not had a single lawsuit brought against them.

The Baltimore and Annapolis Trail Park, through suburban Maryland, has been in operation for 17 years. In an attempt to diminish lawsuits, managers of the park have implemented a meticulous system of patrolling the park to ensure safety of trail users. Park employees make their rounds throughout the park twice a day, documenting their findings. If a hazard is found, they correct it on the spot or provide warnings to trail users until it can be rectified. In three instances since its opening, the Park has been sued due to injuries on the trail. Every lawsuit, however, has been dropped when the meticulous methods of patrolling the park to ensure user safety were discovered.

“Virtually all rail-trail managers dismiss liability as a problem.”

- Rails-to-Trails Conservancy

Rails-to-Trails Projects Across the Country Benefit Surrounding Communities

I. The Virginia Creeper Trail

A very similar trail to the DRHT is the Virginia Creeper Trail (VCT) in southwestern Virginia. Thirty-four miles long, stretching from Abingdon to Whitetop Station, the recreational trail succeeded the Norfolk & Western railroad after its abandonment in 1977. The Virginia Department of Conservation completed a study in 2004 to quantitatively measure and evaluate a number of issues related to recreational trail use, including personal benefits to users, economic benefits to users, and economic impacts to the local communities. Through interviewing trail visitors, the Virginia Department of Conservation compiled the results shown in Table 4 for personal benefits from using the Virginia Creeper Trail.

Table 4
Personal Benefits from Using the Virginia Creeper Trail⁶

	High (4)	Med (3)	Low (2)	None (1)	Mean	Rank
Health/fitness	83.28%	14.70%	1.86%	0.17%	3.81%	1
Opportunity to appreciate nature	82.77%	14.02%	2.70%	0.51%	3.79%	2
Sense of community	49.91%	34.14%	10.40%	5.55%	3.28%	3
Other	66.67%	9.63%	2.22%	21.48%	3.21%	4
Pet/animal friendly	31.54%	7.97%	12.48%	48.01%	2.23%	5

⁶ “The Virginia Creeper Trail: An Assessment of User Demographics, Preferences, and Economics.” *The Virginia Department of Conservation*. 2004. <<http://www.srs.fs.usda.gov/trends/VCT.pdf>> (13 March 2007).

Health and fitness represent the most significant benefit to a user, followed by an opportunity to view nature. More than 95% polled revealed their preferences for these two benefits as high or medium.

In measuring economic impacts, the report examines effects of visitor expenditure on the regional economy, displayed in increases in output, income, and jobs. Table 5 shows these results and changes in the economy, experienced by Washington County and Grayson County.

Table 5
Estimated Total Economic Impacts of Virginia Creeper Rail-Trail Use
in Washington County and Grayson County, VA, 2003 Dollars⁷

Economic Impact Indicator	Total Economic Impact
Output	\$1,597,627
Employment	27.4
Total Value Added	\$921,362
Labor Income	\$610,372
Other Property Type Income	\$126,098
Indirect Business Taxes	\$104,153

Total output from VCT use is estimated at \$1.59 million, supporting about 27.4 new full time jobs every year. VCT use adds a total value of about \$921,362 to the regional economy annually.

II. The Washington and Old Dominion Trail

The Washington and Old Dominion Trail (W&OD) stretches 45 miles from Arlington to Purcellville, VA. In 2004, the Virginia Department of Conservation compiled a report,

⁷ “The Virginia Creeper Trail: An Assessment of User Demographics, Preferences, and Economics.” *The Virginia Department of Conservation*. 2004. <<http://www.srs.fs.usda.gov/trends/VCT.pdf>> (13 March 2007).

evaluating economic impacts for trail users and the surrounding region. They found similar results to that of the Virginia Creeper Trail, of various benefits to trail users. Table 6 shows personal benefits acquired from using the W&OD Trail.

Table 6
Personal Benefits from Using the Washington and Old Dominion Trail⁸

	High (4)	Med (3)	Low (2)	None (1)	Mean	Rank
Health/fitness	92.54	7.01	0.30	0.15	3.91	1
Safety	73.34	25.09	1.34	0.22	3.71	2
Opportunity to appreciate nature	60.22	34.70	4.70	0.30	3.55	3
Sense of community	47.14	32.22	12.49	8.15	3.18	4
Training	54.19	20.42	7.61	17.78	3.05	5
Commute alternative	25.86	14.94	20.20	39.00	2.27	6
Pet/animal friendly	22.71	12.98	12.33	51.99	2.06	7

Ninety-two percent of users reported health to be the most significant benefit of using the trail, followed by 73.34% of users considering safety along the trail to be important.

In measuring economic impacts, the report examines effects of visitor expenditure on the regional economy, displayed in increases in output, income, and jobs. Table 7 shows these results and changes in the economy experienced in Arlington, Fairfax, and Loudoun Counties, VA, 2003 dollars.

⁸ “The Washington & Old Dominion Trail: An Assessment of User Demographics, Preferences, and Economics,” *American Trails*, 9 December 2004, <<http://www.americantrails.org/resources/adjacent/docs/WODstudy04.pdf>> (14 March 2007).

Table 7
Estimated Total Economic Impacts of Washington and Old Dominion Trail Use in
Arlington, Fairfax, and Loudoun Counties, VA, 2003 dollars⁹

Economic Impact Indicator	Total Economic Impact
Output	\$1,800,000
Employment	34
Total Value Added	\$1,005,000
Personal Income	\$642,000

Total output from W&OD trail use is estimated at \$1.8 million, supporting about 34 new full time jobs every year. W&OD trips add more than a total of \$1 million to the regional economy annually, adding about \$642,000 of personal income in the Northern Virginia economy.

Conclusions

The Friends of the Dahlgren Railroad Heritage Trail have made significant progress since their start in the spring of 2006. They have spent the last year intensely working on the trail in an attempt to provide the public with a safe and welcome trail, with natural beauty and countless benefits. Despite their hard work, however, the Friends have experienced great resistance from trail opponents, largely proven invalid when examined with quantitative data. Contrary to opposition, it has been repeatedly shown that public trails provide a multitude of benefits, including but not limited to improvements in mobility, the environment, health, the economy, education, and family and community relations. This report has attempted to help the trail gain popularity among the public by examining and ultimately dismissing popular negative opinions relating to crime, property values, and liability issues. The Friends of the DRHT hope to have

⁹ “The Washington & Old Dominion Trail: An Assessment of User Demographics, Preferences, and Economics,” *American Trails*, 9 December 2004, <<http://www.americantrails.org/resources/adjacent/docs/WODstudy04.pdf>> (14 March 2007).

the trail completed as soon as possible; at which time, it will be turned over to the Virginia Parks Services for future preservation. It is also planned to eventually connect with a National system of trails, such as the East Coast Greenway and the Potomac Heritage National Scenic Trail. At its completion, a mountain of benefits lay ahead for the users and surrounding residents of the trail.

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