

EXECUTIVE SUMMARY

The Black Diamond Trail is a 15-mile, off-road pedestrian and bicycle dedicated trail facility proposed for Tompkins County, New York. The trail will provide residents and visitors with an alternate way to travel to several destinations in the county including the four major State Parks and many other popular community destinations in the City of Ithaca and the Towns of Ithaca and Ulysses. The trail's setting includes stream bottomlands, the urban setting of the City of Ithaca and pastoral rural lands.

The following sections provide a concise summary of the master plan document developed to guide construction and operation of the Black Diamond Trail. Sections include information on guiding principles, environmental setting, trail facility alternatives, environmental impacts and the preferred development plan.

INTRODUCTION

Increasing gasoline prices, long-term health concerns associated with obesity and diabetes, and concerns about the quality-of-life values in communities have local, state and federal government and private business leaders looking to innovative ways to tackle these issues. Among the many alternatives to respond to the issues, communities across the country are developing networks of pedestrian and bicycle dedicated facilities that provide residents and visitors with enjoyable alternative ways to move through and between their communities to multiple trip destinations.

Within Tompkins County, New York, initiatives to move toward a trail network that would lessen the dependence on the private automobile and provide a resource to improve the health and quality of life of area residents have been discussed and worked on for two to three decades. The Black Diamond Trail is one such project. Conceived in the early 1970s, a project to build a multi-use recreational trail linking a complex of four state parks and city-owned recreation and cultural resources earned support by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), the City of Ithaca, the Towns of Ithaca and Ulysses and

Tompkins County throughout the later twentieth century. But, for thirty years the project languished, lacking sustained funding to support planning, acquisition and construction of the trail.

In the early 1990s, following a shift in the national consciousness toward transportation and health issues, the federal government authorized the Federal Highway Administration to make transportation funds available to improve and provide pedestrian and bicycle dedicated infrastructure in the nation's transportation system. With the infusion of federal funding assistance, communities took a whole new look at some of the former recreational-based trail systems they had been planning over the years and recognized the opportunities these same projects afforded to provide and encourage residents and visitors to select alternate ways to reach multiple trip-generating destinations in their communities while enjoying the outdoors and getting needed exercise.

With a renewed sense of purpose for the project, OPRHP, along with partners from Tompkins County, the City of Ithaca, and the Towns of Ithaca and Ulysses, is ready to commit resources to move the Black Diamond Trail project forward and make the trail a reality.

GUIDING PRINCIPLES

Since the project's conception, the overriding objective for the Black Diamond Trail is to develop an off-road, multi-use, multi-purpose trail facility connecting the four major State Park facilities in Tompkins County to neighborhoods and communities and other major trip destinations. The design and operation of the trail is intended to encourage people with all levels of ability and skill to travel to or visit the many popular destinations in Tompkins County by bicycle or foot, particularly being able to access all four major State Park facilities in the county.

Federal, state and local governments, not-for-profits and private entities are including multi-use, multi-purpose trail facility planning into their regional and community planning and development projects, goals and objectives, action strategies and visions. Funding from a variety of programs is also being committed to build and promote use of pedestrian and bicycle dedicated facilities.

Guiding the development of the Black Diamond Trail, first and foremost, is OPRHP's mission to provide safe and enjoyable recreational and interpretive opportunities for the state's residents and visitors and to be a responsible steward of the valuable natural, historic and cultural resources that make up the state park and historic site system.

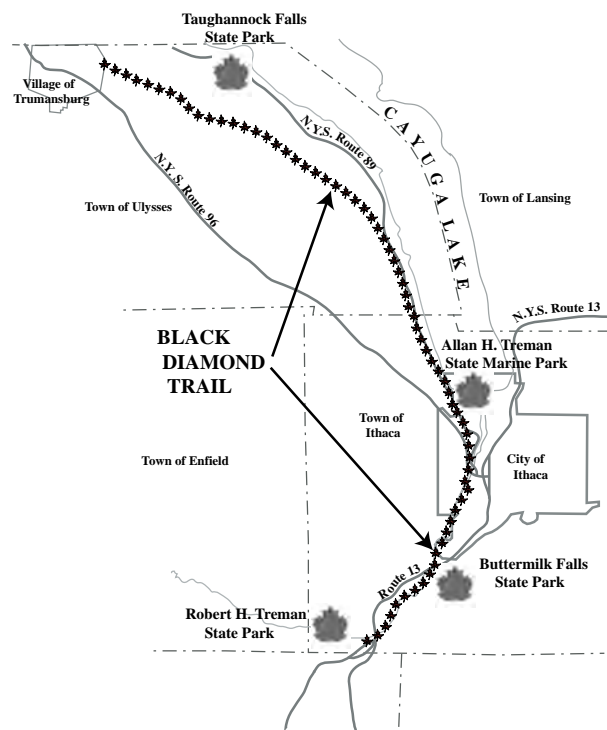
In addition to OPRHP's mission, a number of state and local planning initiatives were consulted to develop goals and supporting objectives for the Black Diamond Trail. These will help to guide the project through the planning, development and operation steps. The following are the goals for the trail:

- ◆ Increase opportunities for trail-based recreation and multi-modal transportation options in the Finger Lakes Region in general, and Tompkins County in particular.

- ◆ Protect, enhance and interpret the scenic, natural and cultural resources of the trail corridor.
- ◆ Develop the trail in a manner that promotes a safe, high-quality, diversified recreational experience and alternate transportation choice.
- ◆ Minimize and/or mitigate, as practical, impacts on adjacent landowners.

ENVIRONMENTAL SETTING

The Black Diamond Trail will be located in the Town of Ithaca, City of Ithaca and Town of Ulysses in Tompkins County within the Finger Lakes State Parks Region of New York State. The trail is projected to be 15 miles in length, encompassed by 226 acres of public land, connecting the four major state parks in Tompkins County – Robert H. Treman State Park, Buttermilk Falls State Park, Allan H. Treman State Marine Park and Taughannock Falls State Park as well as the population centers of Ithaca and Trumansburg.



Proposed Route of the Black Diamond Trail

The setting of the trail includes three different landscapes. The trail segment connecting Robert H. Treman to Buttermilk Falls will pass through the Cayuga Inlet stream valley. The trail segment connecting Buttermilk Falls and Allan H. Treman State Marine Park will follow a former railroad corridor and the banks of the Cayuga Inlet Flood Control Channel through the City of Ithaca. The trail skirts retail, industrial park and park areas. The longest segment of the trail, connecting Allan H. Treman to Taughannock Falls, is the rail-to-trail component of the project. This segment of the trail will follow the route of the former Lehigh Valley Railroad line, where the sleek locomotive the “Black Diamond” hauled people and freight between downstate and upstate New York, through pastoral farmland and rural residential surroundings.

The distinctive landscape of the glacially-carved Cayuga Lake valley provides a variety of natural and cultural settings for the Black Diamond Trail. The trail connecting Robert H. Treman to Buttermilk Falls will meander down the Cayuga Inlet valley, paralleling the stream as it winds its way north to Cayuga Lake. The bottomlands are lush with regenerating floodplain forest vegetation and wildlife, dotted with small pockets of wetlands. Much of the area had been farmed in the early nineteenth and twentieth centuries and likely provided sustenance for Native American peoples who settled the area prior to European immigration settlement.



Cayuga Inlet Creek between Robert H. Treman and Buttermilk Falls State Parks

From Buttermilk Falls to Allan H. Treman the trail starts out paralleling the Cayuga Inlet stream in a floodplain forest setting before crossing the stream on abandoned railroad corridor and entering into the urbanized area of Ithaca. Within the city, the trail will parallel the Cayuga Inlet Flood Control Channel, passing west of the developing Southwest Area with its new retail complex and future residential neighborhood and the Cherry Street Industrial Park. After crossing the flood control channel, the trail will enter the City of Ithaca’s Cass Park, which includes ball fields, swimming pool and enclosed court sports and ice rink facility. The City of Ithaca’s Cayuga Waterfront Trail will provide the link to Allan H. Treman State Marine Park.



Cayuga Inlet Flood Control Channel through the west side of the City of Ithaca

Leaving the park setting, the trail segment connecting Allan H. Treman/Cass Park to Taughannock Falls will follow the old Lehigh Valley Railroad line that formerly connected the cities of Ithaca and Geneva, which is located at the north end of Seneca Lake. The landscape along the old rail line varies starting with a towering canopy of maple, hemlock, oak and hickory trees, then transitioning to open agricultural fields, abandoned agricultural lands in reversion and rural residential land uses.



Abandoned railroad corridor between Allan H. Treman and Taughannock Falls State Parks

Water resources within the trail's landscape range in size and scale, including the 40-mile-long Cayuga Lake, the meandering Cayuga Inlet, pocket wetlands and vernal pools less than an acre in size, hillside streams and the 300-foot-high Taughannock Creek gorge.

In addition to providing a connection to the four major state park facilities in Tompkins County, with their campgrounds, swim areas, picnic grounds and hiking trails; the Black Diamond Trail will also provide an off-road trail alternative to access neighborhoods and parks in the City of Ithaca, the residences and businesses in the Town of Ithaca, the Cayuga Nature Center in the Town of Ulysses and residences and businesses in the Town of Ulysses.

The trail will take advantage of the abandoned rail line with its remnant features, recycling them for their use to support the trail construction, and investments made by local municipalities that built infrastructure to support an off-road trail network.

ANALYSIS AND ALTERNATIVES

As a long-standing project, investments of state and local funds have occurred through the years that laid the groundwork for the Black Diamond Trail as it is proposed in this plan. As a result, the scope of alternatives is narrowed from what they might be if the project were just getting underway today. The objective to link the major state park facilities in Tompkins County focuses the physical location

of the trail to a defined area within the county, also limiting the alternatives. With the trail corridor defined, a focused look at the natural and cultural resources within the area provides the information about what resources could be impacted by the trail development.

Analysis of Resources

Within this focused project area, alternatives must be proposed that consider the natural and cultural resources sensitive to change. Resources are also considered with respect to how they will enhance the experience of the trail user.

On the natural resources side, two rare plants (Kentucky coffee tree (*Gymnocladus dioica*) and green dragon (*Arisaema dracontium*)) and two rare animal species (tawny emperor butterfly (*Asterocampa clyton*) and bog turtle (*Clemmys muhlenbergii*)) were reported to be living within the trail study area. A field survey for the plant species identified the exact locations of the populations.

Field reports compiled by the Natural Heritage Program were consulted to identify the latest sighting of the butterfly and turtle species noted of concern. The tawny emperor butterfly was last reported seen in and near the trail study area as recently as 1993. It is expected to still be present in the area. The bog turtle has not been seen since 1940 and is not expected to be found in the trail study area due to the dramatic change that has occurred to its preferred habitat.

Portions of the trail corridor will pass through locally unique ecological communities, including floodplain forest and wetlands. In the 1880s, both of these habitat types covered significantly larger acreages in the bottomlands of the Cayuga Inlet valley south of the present-day City of Ithaca. These were destroyed to make way for agricultural use and the expanding urban population of Ithaca. The remnants are important to the biodiversity of the area. Public acquisition of the remnant areas, along with additional acreage adjoining them, provides an opportunity to protect and expand the total acreage of these locally unique habitats.

Development of the Black Diamond Trail will consider the impacts on all of the natural resources identified above and construction and operation impacts will be avoided or mitigated to the greatest extent practical by using construction techniques and materials that suit the landscape and by instituting operation and maintenance practices that protect the resources.

Cultural resources including archaeological, historical and present-day resources (e.g. recreation, scenic) are located within the trail study area. Additional field work involving ground testing will be required before trail construction that links Robert H. Treman State Park to Buttermilk Falls State Park may proceed due to the high sensitivity/potential for pre-historic occupation of the area. Other cultural resources will contribute to the educational/interpretive opportunities that will make the trail more interesting for users.

Re-use of the former Lehigh Valley Railroad corridor between Allan H. Treman State Marine Park and Taughannock Falls State Park will alter the surroundings of the rural residential properties along the old rail line. After 40 years of little to no use, the property will once again become a traveled way. Where houses sit relatively close to the trail corridor, adjacent neighbors expressed concern about losing their privacy and having trail users trespass on their property seeking assistance or directions. The concerns of the trail's neighbors are important to address and several options are available for working with the owners.

Alternatives

Features provided by the Black Diamond Trail will focus on trail-based recreation and transportation opportunities. As noted previously, decisions followed by actions committing resources and funding to trail infrastructure have narrowed the location of the Black Diamond Trail to a specified corridor, thereby limiting alternatives for the trail's location. Alternatives for who will be accommodated on the trail, how it will be used and what support amenities should be provided are open to the full spectrum of options to explore.

The table on the following page, provides a list of the options considered for the Black Diamond Trail and the proposed preferred option for each of the three trail segments.

THE MASTER PLAN

Figures MP-1 to MP-6, on the pages ES-xi to ES-xvi, illustrate the master plan for the Black Diamond Trail. The trail follows construction and operation recommendations provided by the American Association of State Highway and Transportation Officials (AASHTO), Architectural & Transportation Barriers Compliance Board (Americans with Disabilities Act oversight group), New York State Department of Transportation and the Rails-to-Trails Conservancy.

Standard construction treatments for trail amenities are developed to address surface construction for asphalt and compacted limestone dust surfaces, vertical and horizontal safety clearances, trail/road intersection treatments including gates, bollards and traffic warning signage, privacy separation treatments between trail and residential areas, and orientation and interpretive signage.

Robert H. Treman State Park to Buttermilk Falls State Park

This trail segment will follow the course of the Cayuga Inlet as it winds its way north to Cayuga Lake. The trail will pass through abandoned agricultural lands and floodplain forest. The compacted limestone dust trail surface was selected for this trail segment to maintain the aesthetic associated with abandoned farm roads located in the area and to fit the landscape of floodplain vegetation and future stream flood events.

This segment provides a wealth of interpretive opportunities to share information about watersheds, wetlands and stream dynamics and is a premier spot for birding.

Trail Development Alternatives

Alternatives	Segment 1 Robert H. Treman to Buttermilk Falls	Segment 2 Buttermilk Falls to Allan H. Treman	Segment 3 Allan H. Treman to Taughannock Falls
Classification			
Parks and Land Resources - Recreation Park			
Linear Systems - Recreationway	X	X	X
Trail Location			
Within or adjacent to highway/road rights of way			
Separate from highway/road rights of way	X	X	X
Treadway Surface Treatment			
Compacted stone and stonedust	X		X
Asphalt	X	X	
Concrete			
Boardwalk or fabricated surfaces			
Recreational and Travel Mode Options			
Walking, jogging	X	X	X
Bicycling	X	X	X
In-line skating, in-line skiing, skateboarding		X	
Horseback riding			X
Cross-country skiing, snowshoeing	X	X	X
Snowmobiles - limited			X
Treadway Width			
Single-purpose trails - 6 feet to 14 feet wide			
Multiple-purpose trails - 10 feet to 14 feet wide	X	X	X
Support Amenities			
Bathrooms	X	X	X
Benches	X	X	X
Picnic tables	X	X	X
Signs - Interpretive	X	X	X
Signs - Orientation	X	X	X
Bicycle racks or lockers	X	X	X
Safety gates and bollards	X	X	X
Fencing and gates	X	X	X
Vehicle parking	X	X	X
Access			
Primary	X	X	X
Secondary	X	X	X
Spur Trails			
Within state parks	X	X	X
To adjacent destinations (services, neighborhoods)	X	X	X

Buttermilk Falls State Park to Allan H. Treman State Marine Park

The majority of this trail segment will pass through the urbanized west side of the City of Ithaca, following the Cayuga Inlet and Cayuga Inlet Flood Control Channel. This trail segment is expected to receive high use and as such an asphalt surface is recommended for the entire length. The trail intersects with the City of Ithaca's Cayuga Waterfront Trail in Cass Park, a city park. The Cayuga Waterfront Trail provides the Black Diamond Trail user with the link to Allan H. Treman State Marine Park.

The trail will provide City residents in the West Hill and West End neighborhoods with an alternate transportation option to reach the developing Southwest retail area.

Allan H. Treman State Marine Park to Taughannock Falls State Park

This approximately 8.5-mile trail segment is the rail-to-trail component of the Black Diamond Trail. From Ithaca, the trail follows the abandoned line of the Lehigh Valley Railroad that served the area from 1889 to 1959. The trail will be surfaced with compacted limestone dust in keeping with the aesthetics of the railroad corridor and the rural setting that the trail passes through on its way to Taughannock Falls State Park.

The trail will provide an alternate transportation link to the City of Ithaca for many rural residents and provides urban residents with an alternative to reach the Cayuga Nature Center and Taughannock Falls State Park, along with other area businesses in the Town of Ulysses.

Operations, Management and Maintenance

The Black Diamond Trail is a project that began its journey back in the early 1970s. Along the way, partnerships developed between OPRHP and local municipalities to move the trail project to construction. The partnership between OPRHP, the City of Ithaca and the Town of Ithaca was

spelled out in a tripartite agreement signed in 1983. The partnership means that the development and operation of the Black Diamond Trail will need to be coordinated with the local municipalities. Though not included in the 1983 agreement, the Town of Ulysses will likely also become a partner in the project.

Operation of the trail will be governed by both the statutory rules and regulations of OPRHP and operating rules specific to the trail facility as an alternative transportation facility and a recreational trail. This dual function is unique to the facility, differing from the existing trail systems in each of the state park facilities in Tompkins County that solely serve as recreational trail opportunities for hiking.

Trail maintenance will be accomplished by the trail partners along with the support of volunteers. Service groups will be encouraged to assist in maintaining the trail infrastructure. OPRHP will also encourage interested residents to form a not-for-profit "Friends" group to help support and promote the trail.

Relationship to Other Programs

The construction and operation of the Black Diamond Trail will require coordinating and cooperating with other agencies and entities to ensure that the trail contributes positively to the residents and visitors of Tompkins County. Included in the partnership are: New York State Electric and Gas Corporation, City of Ithaca, Town of Ithaca, Town of Ulysses, Ithaca/Tompkins County Transportation Council, New York State Department of Transportation, New York State Department of Environmental Conservation, Cayuga Nature Center, Cayuga Lake Scenic Byway, Inc., and the Erie Canal National Heritage Corridor.

Within Tompkins County, regional and local initiatives that support the development of the Black Diamond Trail include the Cayuga Lake Scenic Byway, Tompkins County Local Waterfront Redevelopment Plan, Ithaca-Tompkins County Transportation Council Long Range Transportation

Plan, Town of Ithaca Park, Recreation and Open Space Plan, City of Ithaca Cayuga Waterfront Trail, City of Ithaca Southwest Natural Area Master Plan, Town of Ulysses Comprehensive Plan, the Village of Trumansburg Comprehensive Plan, Tompkins County Comprehensive Plan along with other planning initiatives in process.

Implementation

The Black Diamond Trail consists of three segments. While each segment can exist independently, together they provide a network of trails that connect a significant number of trip destinations in Tompkins County. OPRHP will progress construction of the 15-mile, multi-use, multi-purpose trail in phases. The intended order of the phased construction is as follows.

Phase One: Allan H. Treman State Marine Park/
Cass Park to Taughannock Falls State Park

Phase Two: Buttermilk Falls State Park to Allan H.
Treman State Marine Park/Cass Park

Phase Three: Robert H. Treman State Park to
Buttermilk Falls State Park

Phase One of the project is estimated to cost in the range of \$3.9 million; Phase Two is estimated to cost \$7.8 million; and Phase Three is estimated to cost \$2.6 million. These are rough estimates intended to provide a general scale of the cost of the project. Actual construction costs will be refined as construction activities progress for each trail segment.

The Master Plan identifies a number of state, federal, local government funding sources that are potentially available to support the project. However, formal funding commitments will need to be secured before construction of the first phase can begin.

Trail construction will progress as funding is available. OPRHP's current plan is to break ground on Phase One — Allan H. Treman to Taughannock Falls — in 2009. If the necessary funding commitments are secured in a timely manner, Phase

One is projected to require 5 to 7 years to complete. The timeline to complete construction of Phases Two and Three will depend on a number of factors, including the availability of funding and acquisition of the remaining parcels needed for the trail.

A further breakdown of each phase to progress construction may be explored if funding ceilings limit completing an entire phase. A shorter segment may be considered only if it results in completing a section of trail that links trip destinations.

ENVIRONMENTAL IMPACTS

Development and operation of the Black Diamond Trail will result in short- and long-term changes to the physical and cultural environment of the area proposed to host the trail. Both positive and adverse impacts are expected with implementing the trail master plan. The adverse impacts that will occur are expected to be low to moderate and will be mitigated by following best-practices for construction and operation.

Alternatives and Mitigation

The impetus behind pursuing the Black Diamond Trail project over the past 30 years has been to develop an off-road bicycle and pedestrian dedicated trail facility for residents and visitors of Tompkins County, New York with a focus on connecting the four major State Park facilities in the county to neighborhoods and communities and other major trip destinations. The specific nature of this trail proposal narrows the number of alternatives explored through the trail planning process, resulting in two primary options – Status Quo and Preferred Master Plan.

The Status Quo option consists of the current situation, which is no off-road, bicycle and pedestrian dedicated facility. While no new additional environmental impacts would result from this alternative, the issues that trail development will address would still remain. The primary issues include a need to: develop a multi-modal transportation system, increase opportunities for people to pursue recreational trail activities that will allow them to improve their physical and mental

health, reduce air pollution from motorized vehicle emissions, and improve the overall quality of life of residents in the Tompkins County area.

In addition, approximately 226 acres of private land, containing locally significant ecological communities that are needed for this project, will not be permanently protected by New York State ownership.

The Preferred Master Plan option for the trail, as illustrated on Figures MP-1 to MP-6, on pages ES -xi to ES - xvi, is a combination of design elements recommended by the American Association of State Highway and Transportation Officials (AASHTO), Architectural & Transportation Barriers Compliance Board, New York State Department of Transportation and Rails-to-Trails Conservancy for multi-use, multi-purpose trail facilities.

Environmental impacts and mitigation as part of the proposed trail development includes the following.

The Natural Landscape

Flora and Fauna

The permanent conversion of ground cover from vegetation to trail surfacing that includes compacted limestone dust and asphalt is the most evident adverse impact of the trail development. Over the course of the 15 miles of trail area, approximately 16.3 acres of vegetation will be removed and converted to trail surface. Of the 16.3 acres, only 3.9 acres will be converted to an impervious asphalt surface.

The segment of trail between Robert H. Treman State Park and Buttermilk Falls State Park, which passes through the Cayuga Inlet corridor, is likely to be the most sensitive to the change. Careful on-site planning and siting of the trail in consultation with a botanist and DEC wetlands staff will mitigate the low to moderate impacts expected to occur. For the remaining two segments of the trail, the natural landscape includes abandoned railroad corridor and flood control channel areas that either consist of second-growth herbaceous or shrub species or cultivated grass.

In all three segment areas, invasive plant species are present. As a result of OPRHP's proposed acquisition and trail development of the properties, a positive impact will be the development and implementation of management plans that will reduce or eliminate invasive plants and improve the biodiversity of the existing ecological communities.

The removal of vegetation and the increase in human presence is expected to affect the avian category of wildlife most, particularly along the trail segment between Robert H. Treman and Buttermilk Falls in the Cayuga Inlet. This area has seen the least human presence since the mid-1900s, as agricultural lands have been abandoned. Re-introducing human activities into the area could impact bird species that are not accustomed to disturbances. To mitigate this impact, it is intended to acquire enough acreage that will allow siting the trail far enough away from the Cayuga Inlet and thickets of vegetation to protect bird habitat. In addition, new plantings will be considered that enhance the habitats for floodplain forest bird species.

Water Resources

Impacts to the water resources within the corridor are expected to be minor. The conversion of vegetation ground cover to trail surface can be expected to result in a small increase in stormwater runoff. To mitigate the potential impact, OPRHP has selected surface treatments that have lower runoff rates and will install vegetation swales that slow the rate of flow and act as a water filter.

The Cultural Landscape

Archaeological Resources

Impacts to archaeological resources over the course of the 15-mile trail corridor are expected to be low. Generally, no adverse impacts are expected and positive impacts associated with interpreting the history of the area will result from the trail development. Remnant railroad infrastructure will be incorporated into the trail design where feasible, thus allowing for railroad history interpretation.

The extent of the impacts on pre-historic resources within the trail corridor between Robert H. Treman

and Buttermilk Falls are the least known and will be further explored before any construction proceeds in the area.

Agricultural and Community Resources

While many positive impacts are expected to occur with the development of the trail, as identified earlier in this section, the active use of the trail corridor for transportation and recreation will result in adverse changes to the environment for people living along the trail, including residential and agricultural properties. The area that could experience the most change is along the trail segment linking Allan H. Treman State Marine Park to Taughannock Falls State Park. This trail segment will take advantage of the old Lehigh Valley Railroad corridor, which operated up to the late 1950s. Since that time, the corridor has seen little to no use other than that of adjacent property owners. The conversion back to an actively travelled corridor will mean that adjacent property owners will experience more people moving past their properties.

To mitigate the change, OPRHP will incorporate fencing, vegetation screens, property boundary postings and orientation and interpretive signage into the physical trail development. Through the operations plan, security staff will be assigned

to monitor activities on the trail. Also, OPRHP will encourage the establishment of a “Friends of the Black Diamond Trail” group involving local residents and service groups that can assist OPRHP in operating and maintaining the trail. All of these elements have proven to reduce impacts on adjacent properties.

Tax Base

Acquisition of property by New York State results in property being permanently removed from the local tax rolls. Communities rely on revenue from property taxes for social programs, physical infrastructure and public school systems. The acquisition of properties for the Black Diamond Trail have occurred in stages over time and as such have been absorbed by Tompkins County and the towns with low impact.

The municipalities that will host the Black Diamond Trail are supportive of the project for the benefits that are expected associated with transportation and health. Also, the trail is expected to contribute to the tourism appeal of the area, which could result in higher sales tax receipts that will help offset the reduction in property taxes.