



Feasibility Study
for the
Tollgate Landing Trail Gap
of the
Pennsylvania Highlands Trail Network
Bucks County, Pennsylvania
June 2019

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Executive Summary

The proposed trail in the Tollgate Landing subdivision is a crucial section of the Pennsylvania Highlands Trail Network (PHTN). The PHTN is a 300-mile long network of connected trails stretch from Riegelsville, Bucks County to the Maryland border at South Mountain in Franklin County. The Department of Conservation and Natural Resources (DCNR) recognizes the PHTN as a State-wide Major Greenway. When developed, the Tollgate Landing trail project would link to existing trails in Richland Township, and create 3 miles of multi-use trail between Richland Township and Quakertown Borough. When other small gaps are developed in Milford Township, the connected trails will total 5 miles.



Study Goals

The goal of this study is to determine the feasibility of developing a trail through the privately owned open space of the Tollgate Landing subdivision. By researching and assembling an inventory of relevant history and geography of the area including previous planning studies, topography, land uses, ownership patterns, utility rights-of-way, and existing trail networks, a thorough overview of the study area has been developed. Public and stakeholder participation was gathered through a series of open houses and meetings with the Tollgate Landing Homeowners Association (HOA). This study integrates these factors and assesses trail alignment alternatives on the basis of feasibility, potential quality of trail users' experience, cost and practicality.

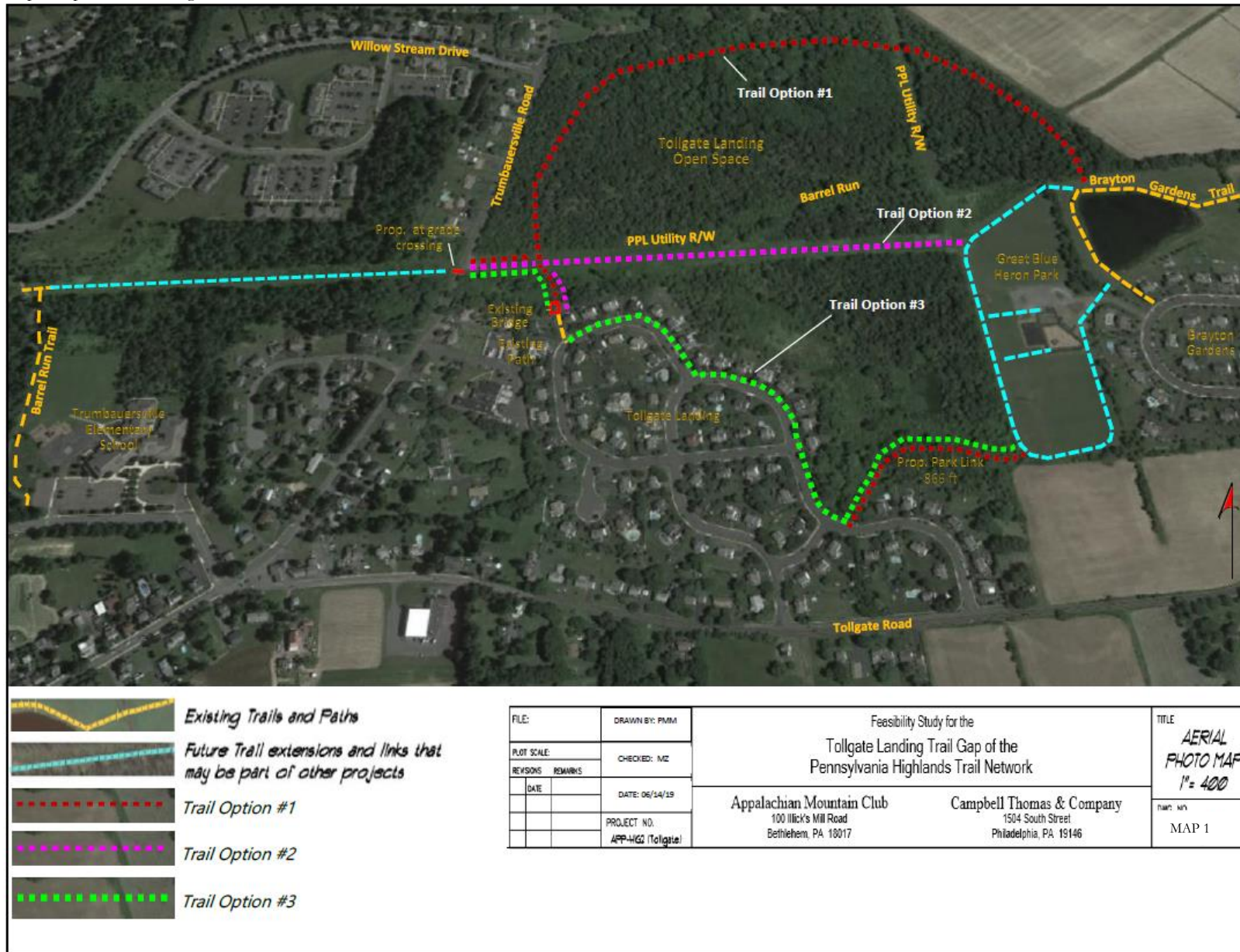
Trail Alignment Options

This study provides three options for development of a trail that is a combination of asphalt, crushed stone and/or boardwalk construction (see Map 1 on the following page). Due to conditions along the proposed alignments, wetlands trail construction methods will be considered for much of its length. The Option 1 alignment allows for a significant buffer from most of the Tollgate Landing residences, and provides connectivity to existing and proposed trails to the east and west of Tollgate Landing. This proposed alignment includes construction of a bridge over the Barrel Run Creek and repair of an existing bridge. The design provides for a connector spur trail to the Willow Stream neighborhood in the northwest corner of the open space, and for a connector spur trail to Great Blue Heron Park in the southeastern portion of the open space. The opinion of probable cost for the Option 1 trail alignment is between \$1,793,453 and \$2,455,290. The detailed opinion of probable cost is included on page 23. These figures include the development of design and engineering plans and specifications, and a 10% construction contingency. A range is provided because the exact construction materials will be determined during the engineering phase of the project.

The Option 2 alignment shown on Map 1 is the most direct alignment through the HOA land but is not preferred by some homeowners due to the adjacency of the proposed trail. However, the direct alignment would lower construction and maintenance costs. The opinion of probable cost for the Option 1 trail alignment is between \$1,133,238 and \$1,538,379.

The Option 3 alignment on Map 1 is a combination of new trail and an on-road/sidewalk route through the Tollgate Landing neighborhood. New trail is proposed to be developed connecting Great Blue Heron Park to the north side of Richland Terrace across from Fawn Lane. Heading west, the trail is proposed as on-road for bikes along Richland Terrace and Marshall Drive and on-sidewalk for pedestrians. The existing trail on Marshall Drive, would be expanded and new trail would be constructed to Trumbauersville Road. The opinion of probable costs for Option 3 is between \$477,793 and \$659,238. An Implementation Matrix is included on page 30.

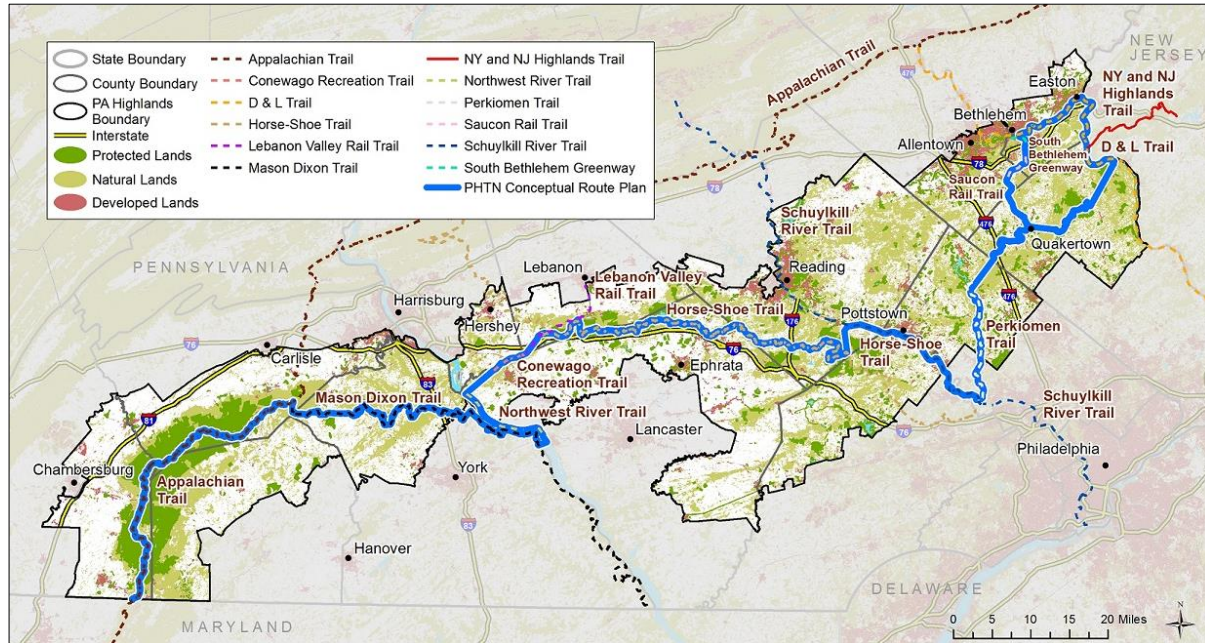
Map 1: Optional Trail Alignments 1, 2 and 3



Introduction to the PHTN and Context

The Appalachian Mountain Club (AMC) is working with partner organizations and local, state and county governments to develop the Pennsylvania Highlands Trail Network (PHTN) within the 1.9 million-acre, 13 county Pennsylvania Highlands region.

Figure 1: Pennsylvania Highlands Trail Network



The plan to develop a trail through the Mid-Atlantic Highlands region began to take shape in the early 1990s when the New York-New Jersey Trails Conference began a multi-year effort to establish the NY/NJ Highlands Trail, covering over 160 miles from the Hudson River near Storm King Mountain to the Delaware River at Reigelsville, PA.

The Pennsylvania Highlands Trail Network

In 2006, AMC initiated discussions about extending the Highlands Trail into Pennsylvania when it convened two meetings that included county planners, state park managers, land conservancies and recreational groups. These discussions helped gauge the potential and level of interest for a PA Highlands Trail Network (PHTN).

An outcome of the roundtable meetings was the formation of a region-wide PHTN Steering Committee, which was created in 2007 with participants representing land trusts, state parks, trail organizations and county planning commissions from across the Pennsylvania Highlands region.

The Steering Committee participants helped form the vision and mission statements for the PHTN:

Vision: An interconnected trail network linking people to where they live in the Pennsylvania Highlands by providing recreational opportunities and protection of natural, scenic, and historical resources.

Mission Statement: To create a trail network that promotes and protects the Pennsylvania Highlands and provides communities with a physical connection to the outdoors through close-to-home recreation.

The PHTN study area comprises over 3,000 square miles. To better facilitate the process of locating the trail through such a wide area, the study area in Pennsylvania is divided into six segments:

1. Riegelsville – Quakertown Region Trails

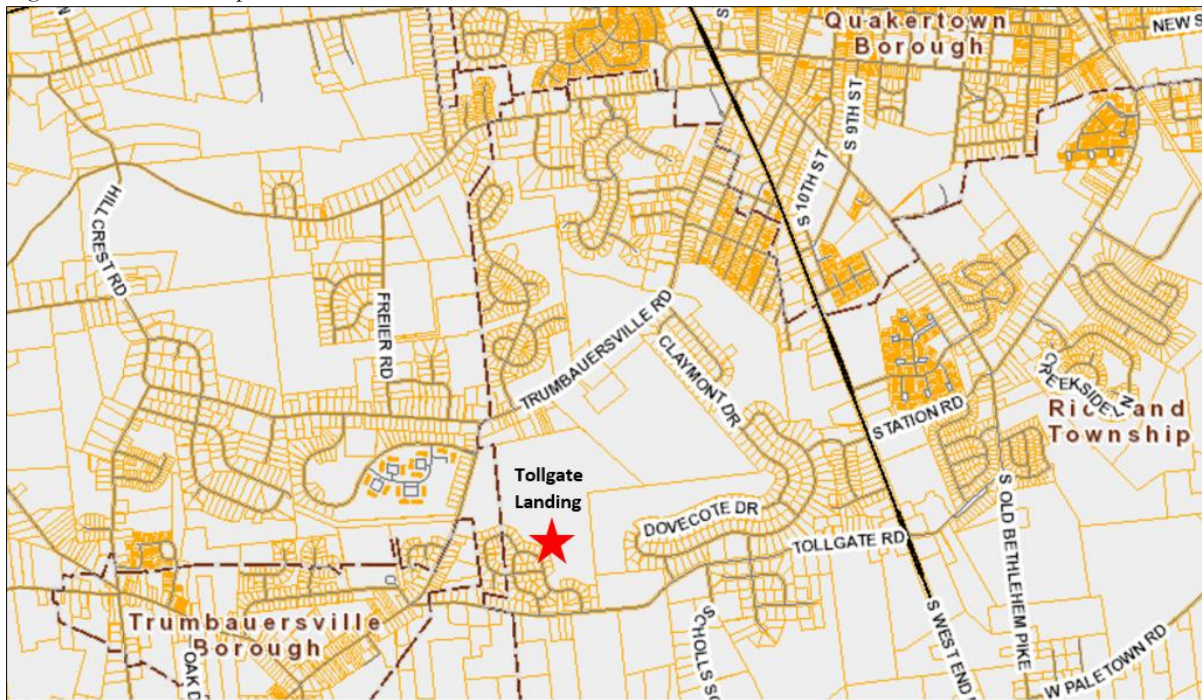
2. Unami Hills – Perkiomen Trail
3. Perkiomen Trail – Horse-Shoe Trail
4. Horse-Shoe Trail – Lebanon Valley – Conewago Trail
5. Conewago Trail – Mason Dixon Trail
6. Mason Dixon Trail - Appalachian Trail

Most of these segments contain trail gaps, where sections are either on-road or not planned. The Section 1 trail gap in the Tollgate Landing Trail subdivision is the subject of this Feasibility Study.

Tollgate Landing Trail Gap

The Tollgate Landing Trail Gap was briefly described in the 2013 “Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region.” The Tollgate Landing Trail Gap is part of a gap between the Brayton Garden Trail in Richland Township and the Barrel Run Trail in Milford Township. The study recommended using the existing utility right-of-way for the trail alignment.

Figure 2: Location Map



Study Purpose and Goals

This study investigates more detailed options for trail development through the Tollgate Landing Homeowner’s Association (HOA) open space, located in Richland and Milford Townships. The study will also determine legal feasibility, including how right-of-way will be acquired from the HOA. The study will also examine alignment options given certain site constraints. A major goal for the Tollgate Landing trail is to connect to the existing Brayton Garden Trail to the east and the Barrel Run Trail to the west in Milford Township. The study boundaries are the property boundaries of the HOA open space.

After completion of the Feasibility Study the HOA will decide upon moving forward with trail design and development. The HOA supports moving forward with a 2018 grant application to fund design and engineering, and funding for construction will be pursued in 2019.

Public Participation

Public participation has been extensive and on-going for the Tollgate Landing Trail Gap project. Methods of accessing public participation are described below and include efforts for the 2013 Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region and the 2018 feasibility study.

Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region

The Tollgate Landing trail gap has been part of PHTN Steering Committee discussions dating back to 2013, during the preparation of the “Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region.” PHTN Steering Committee meetings are held 6 per year on alternating months. During the preparation of the 2013 Feasibility Study, four (4) public meetings were held and included participation by local residents, business owners, and elected officials. Meetings were held on the following dates:

- March 26, 2013 – Upper Bucks Chamber of Commerce, Quakertown
- April 29, 2013 – Richland Township municipal building
- June 25, 2013 – Milford Township municipal building
- September 30, 2013 – Richland Township municipal building
- November 14, 2013 – Final study presentation

In addition to the four public meetings, the public was invited to submit their ideas and concerns at workshops held on April 29, 2013 (Richland Township municipal building) and June 25, 2013 (Milford Township municipal building).



Feasibility Study for the Tollgate Landing Trail Gap of the PHTN

Because the Tollgate Landing HOA open space is privately owned, AMC needed to determine if the HOA would be open to the preparation of a Feasibility Study specifically focused on the Tollgate gap. To ascertain this, two meetings were held with the HOA. The first was held at the Richland Township municipal building on October 16, 2017. The second meeting was held at the Bucks County Library in Quakertown on December 6, 2017. At the second HOA meeting, the HOA Board decided that preparation of the Feasibility Study could proceed to an HOA member vote. A majority of HOA members voted to proceed with preparation of the Feasibility Study.

In addition to meetings with the HOA, this project was discussed at the PHTN Steering Committee meetings held every other month on the fourth or fifth Monday of the month. PHTN Steering Committee meetings that included specific discussion of the Tollgate Landing Trail Gap Feasibility Study were:

- | | |
|----------------------|----------------------|
| • July 31, 2017 | • July 31, 2018 |
| • September 25, 2017 | • September 24, 2018 |
| • November 27, 2017 | • November 19, 2018 |
| • January 29, 2018 | • January 28, 2019 |
| • March 26, 2018 | • March 25, 2019 |
| • May 21, 2018 | |

Key Person Interviews

Municipal officials and representatives, including land owners from the HOA were contacted to complete the interview questionnaire. The results of these interviews are contained in the Appendix to this report.

Public Participation Summary

Project public participation has included Steering Committee, public meetings and open houses spanning several years. The first set of meetings was for the preparation of the “Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region” in 2013, in which the Tollgate Landing Gap was a project that was given much attention. For the current study, public participation efforts included Steering Committee meetings, public meetings, and HOA meetings where robust conversations took place with Township residents and public officials.

Physical Inventory and Assessment

This section will describe the natural and manmade features that will impact the feasibility of trail development in the Tollgate Landing HOA open space.

Satellite Imagery and Mapping

The most recent available satellite imagery shows the land cover of the 86 acres of the Tollgate Landing open space and other features close to the study area. The open space area is outlined in red on Figure 3.

Figure 3: Satellite Imagery of Tollgate Landing Open Space



The imagery shows dense vegetation, water bodies including the Barrel Run Creek, and two power line clear cuts within the open space area. Adjacent to the open space are residential and commercial areas, roads, and

Great Blue Heron Park. The north property boundary is adjacent to residential and commercial parcels. The west boundary of the open space is Trumbauersville Road. The east boundary is adjacent to township park land and agricultural parcels. The south open space boundary is adjacent to the residences of Tollgate Landing. Satellite imagery and the original land development plans are provided in this section.

Physiographic Features

Site physiographic features, including site dimensions, topography, soils, land use, drainage and political boundaries are discussed below.

Topography

Topographic relief on the open space site is somewhat level, with the low point of the site being the Barrel Run Creek, at 486 feet above sea level. The Barrel Run flows through the site from east to west, roughly bisecting the open space. The highest point of the open space area is in the southwest corner at 516 feet above sea level. Most of the open space area is densely wooded, except for two PPL easement areas that are clear cut.

Soils

Site soils in the open space area are provided in Figure 4 below and Figure 5 on the following page. Table 1 on the following page provides information on soils types in the open space. Two hydric soils, Bowmansville and Croton silt-loams, are present on the site, located near the Barrel Run Creek.

Figure 4: Site Soils from Land Development Plan



Figure 5: Site Soils, Bucks County PA GIS

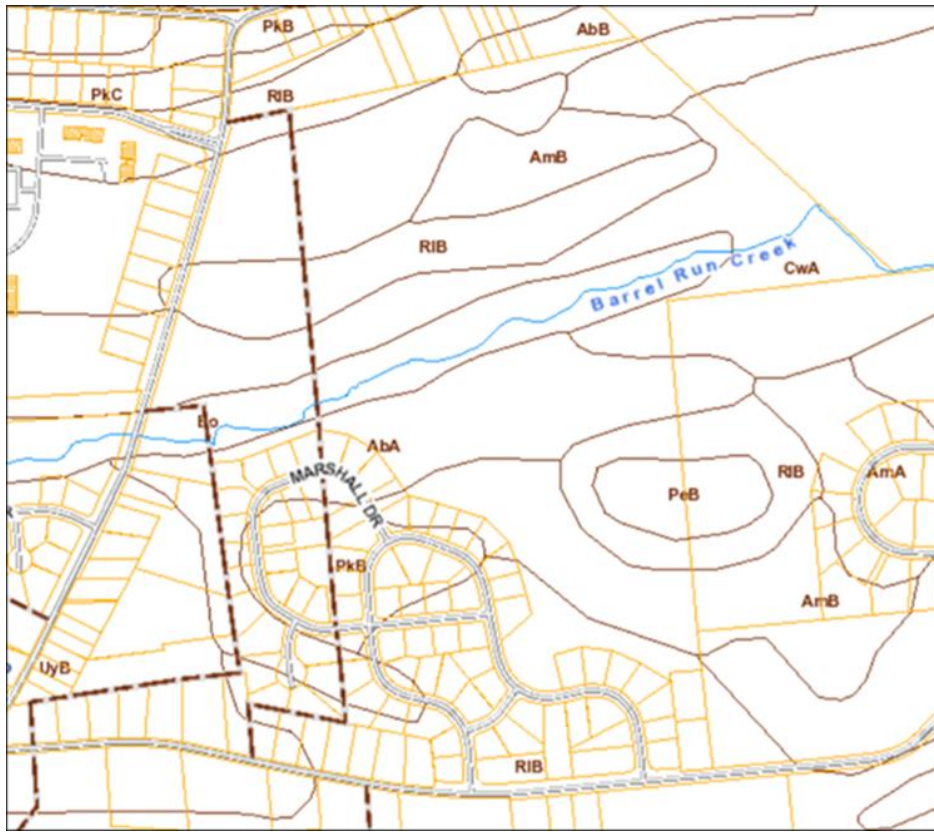


Table 1: Site Soils

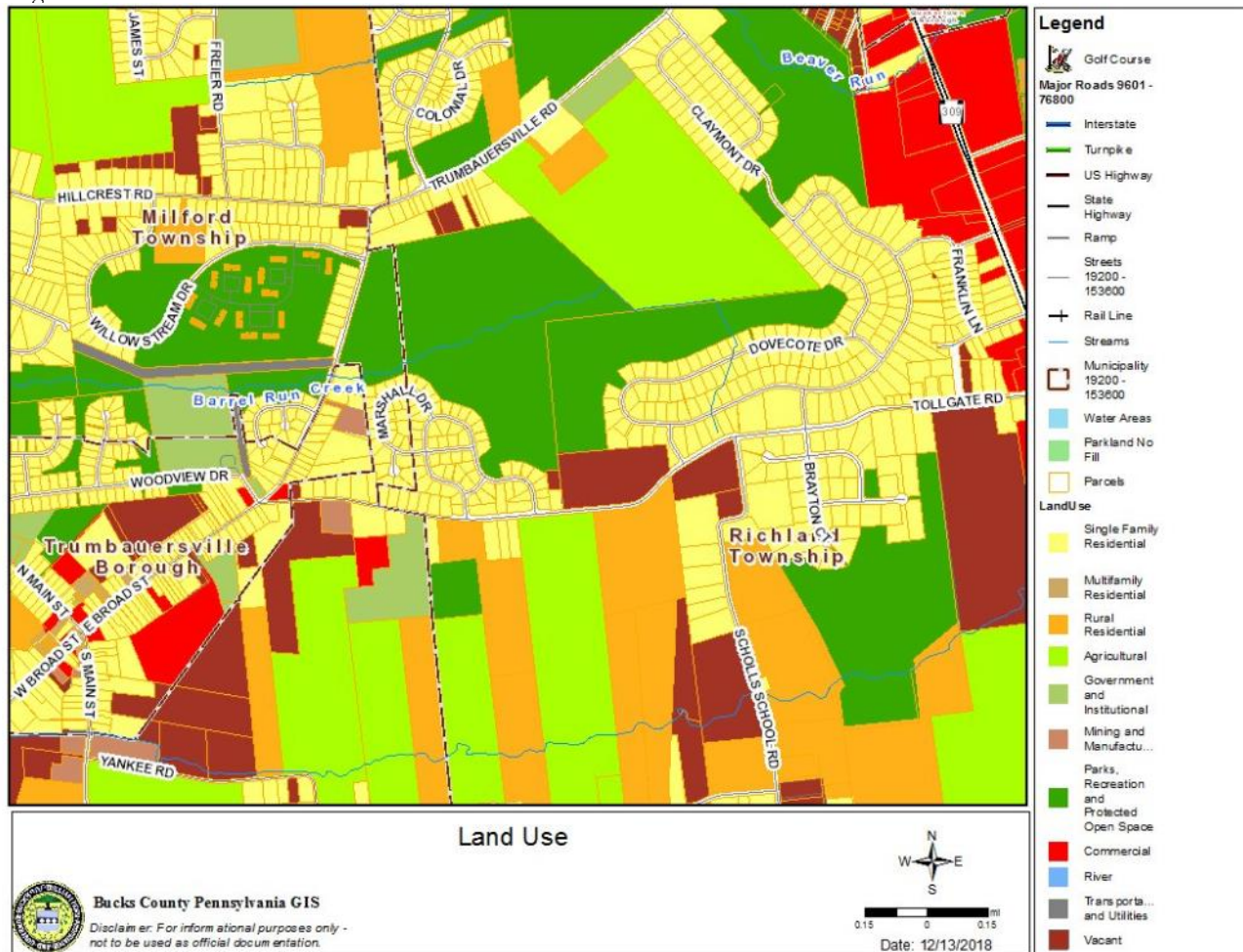
Map Unit Symbol	Map Unit Name	Acres	Hydric
AbA	Abbottstown silt loam, 0 to 3 percent slopes	13.1	No
AbB	Abbottstown silt loam, 3 to 8 percent slopes	2.1	No
AmA	Amwell silt loam, 0 to 3 percent slopes	12.2	No
AmB	Amwell silt loam, 3 to 8 percent slopes	13.8	No
Bo	Bowmansville-Knauers silt loams	10.4	Yes
CwA	Croton silt loam, occasionally ponded, 0 to 3 percent slopes	17.1	Yes
PeB	Penn channery silt loam, 3 to 8 percent slopes	2.4	No
RIB	Reaville channery silt loam, 3 to 8 percent slopes	19.7	No

Source: USDA Natural Resource Conservation Service, Webs Soil Survey.
<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

Land Use

Figure 6 shows land use in the area of the Tollgate Landing subdivision. Existing land use is primarily single family residential in this area of Richland Township. The Tollgate Landing open space area is shown as protected open space. The Tollgate Landing open space area is undeveloped and land cover is primarily wooded. Nearby land uses include single family attached, agricultural and commercial. A recreational use, Great Blue Heron Park, which serves as a PHTN trailhead, is immediately adjacent to the park to the east. The Route 309 commercial corridor is to the east of Tollgate Landing.

Figure 6: Land Use

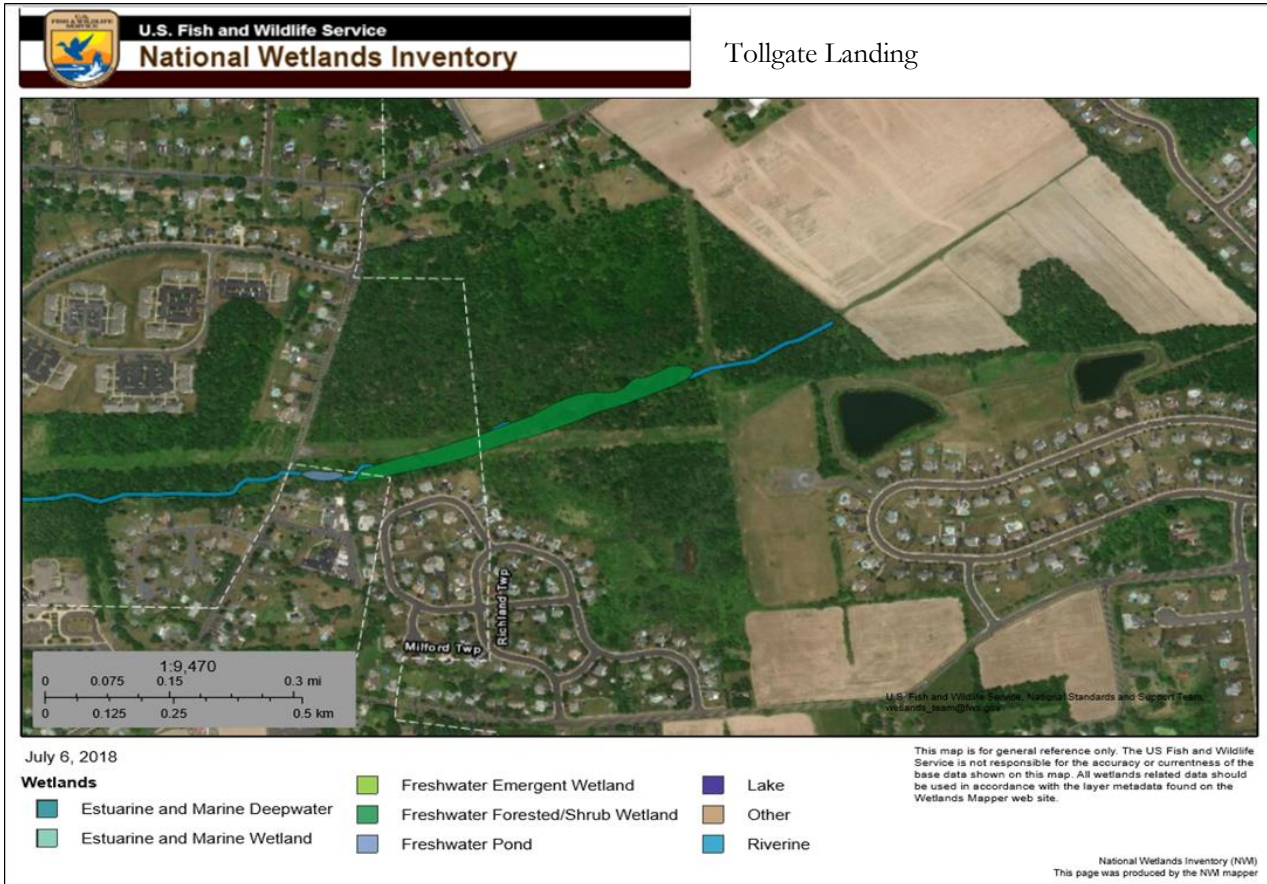


Natural Features

Hydrology

The project study area is within the watershed of the Perkiomen Creek. The Barrel Run Creek runs through the site from east to west, eventually flowing into the Unami Creek outside of the project area. The existing 100-year floodplain and extensive wetlands in the area must be a consideration during design and engineering. A National Wetlands Inventory (NWI) map of wetlands on the site is shown in Figure 7 on the following page. More extensive wetlands are shown on the development plans for the Tollgate Landing subdivision (Figure 8 on the page 11). The channels of the Barrel Run and the extensive wetlands on this site will factor significantly in the design of the trail in this site.

Figure 7: National Wetlands Inventory



Existing Vegetation

The Tollgate Landing open space is characterized by its dense vegetation. This vegetation is a mix of deciduous and evergreen trees and shrubs. The trees and shrubs provide cover for local wildlife, including songbirds, hawks, deer, rabbits, and fox. The vegetation is clear cut in two places to accommodate two PPL rights-of-way.

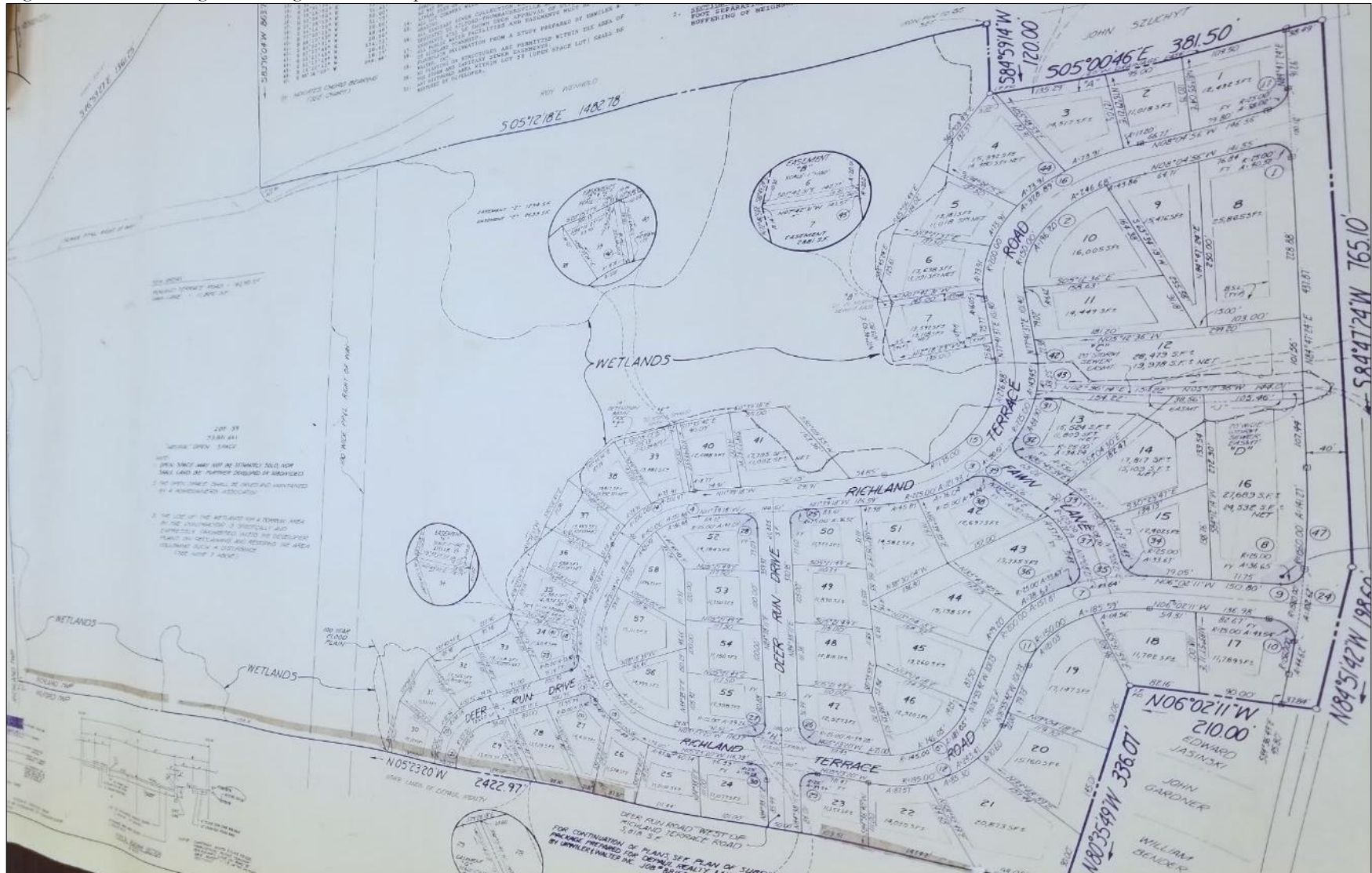
Pennsylvania Natural Diversity Inventory Results

The Pennsylvania Natural Diversity Inventory (PNDI) results are included in the Appendix to this report.

Cultural Features

No cultural, historic or archeological features are known to exist within the Tollgate Landing HOA open space area.

Figure 8: Wetlands-Tollgate Landing Land Development Plans



Structures within the Corridor

Stormwater management structures that serve the Tollgate Landing HOA are located in the southern portion of the open space area (Figure 9 below). These facilities include a detention basin, spillway and outlet pipe, and are located south of the 100-foot-wide PPL right-of-way. One wooden footbridge is bridge is located within open space, which could be repaired to serve the proposed trail.

Figure 9: Stormwater Management Facilities, Tollgate Landing Land Development Plans

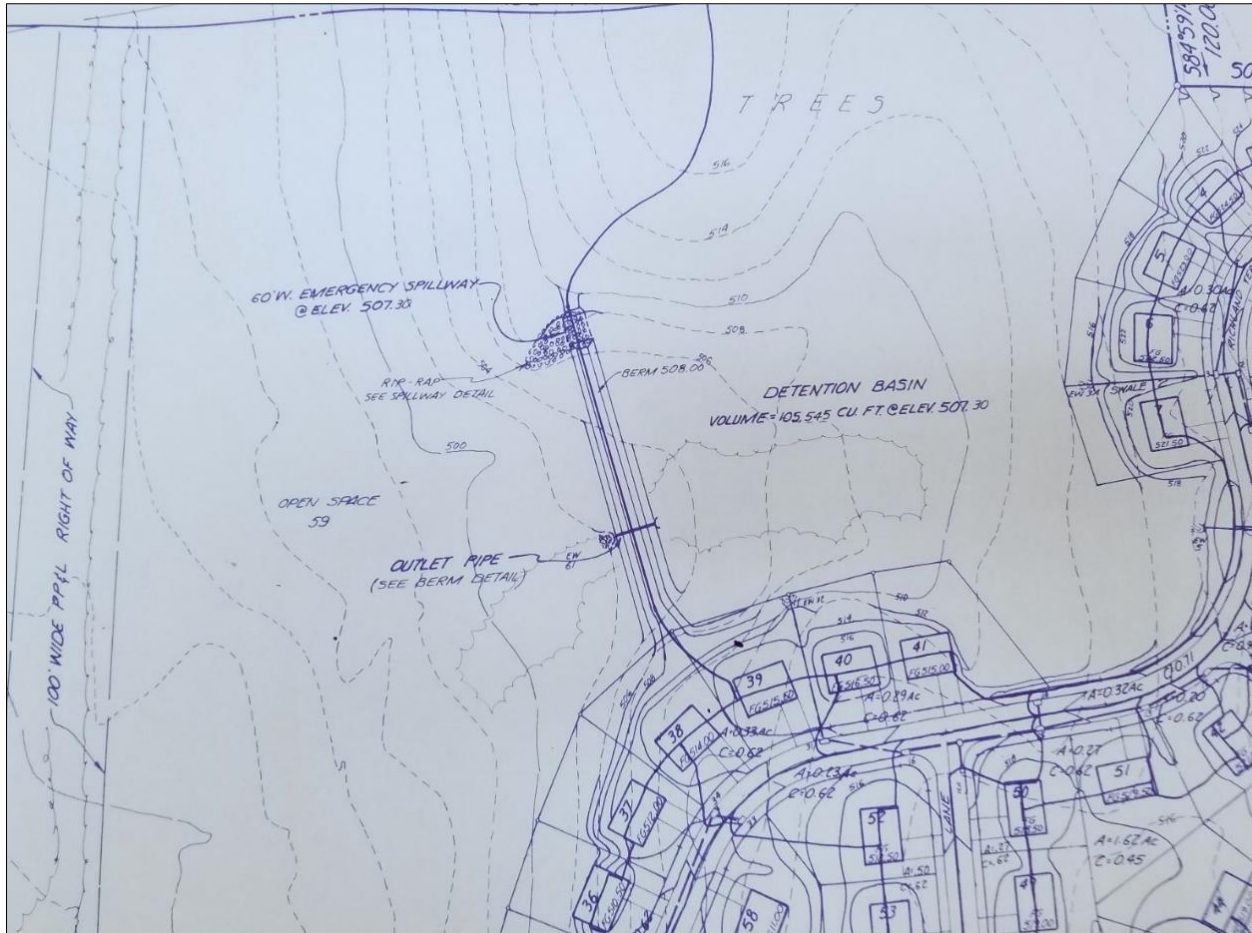


Figure 10: PPL Rights-of-Way

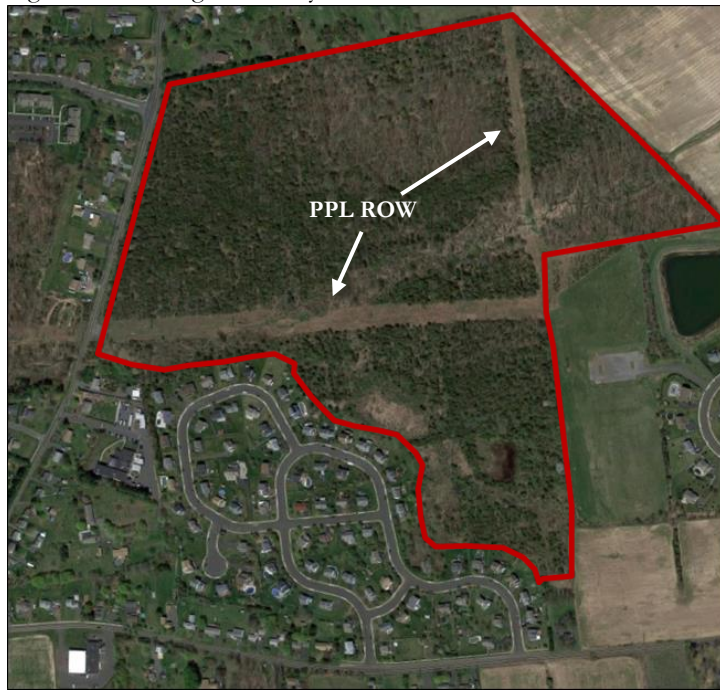
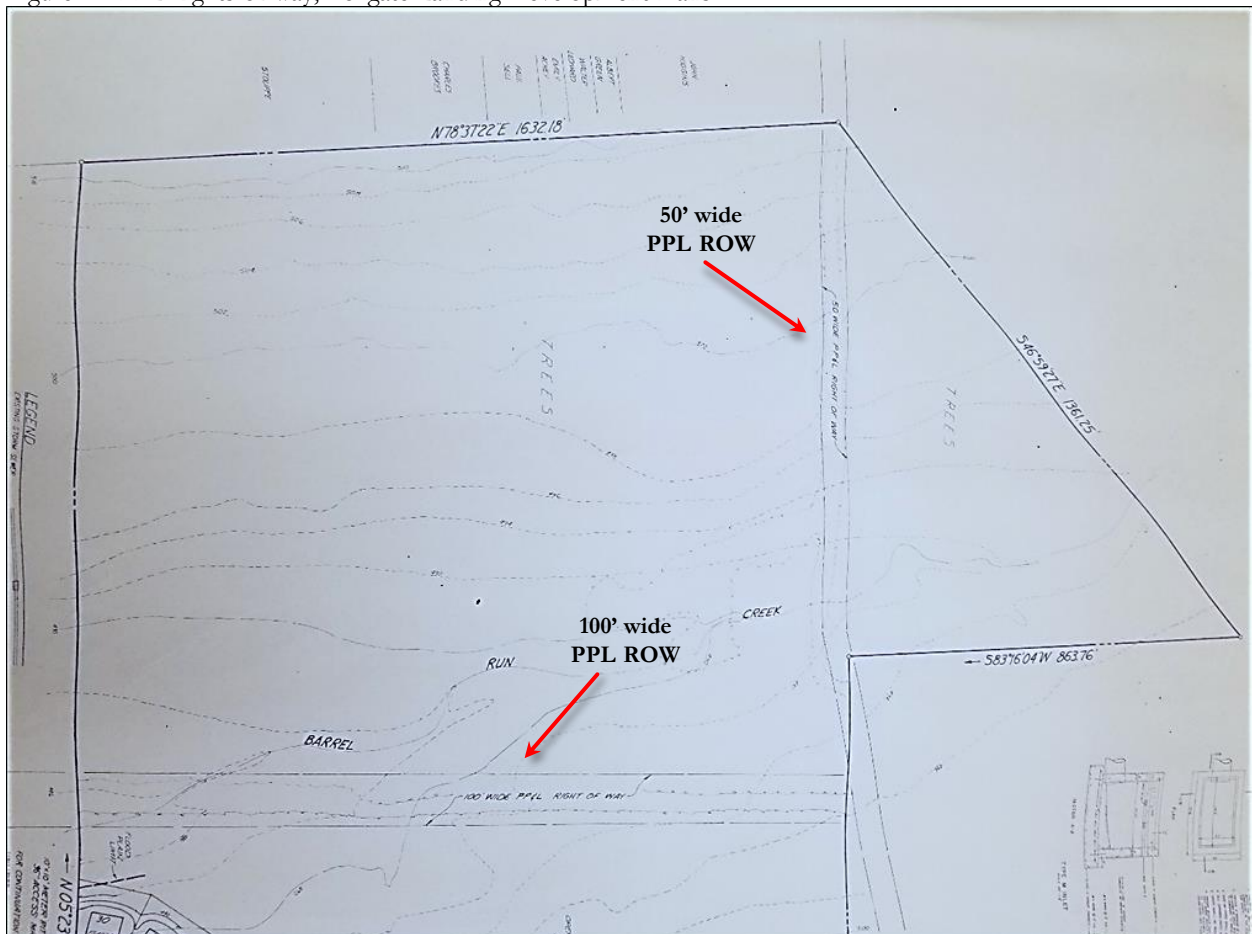


Figure 11: PPL Rights-of-way, Tollgate Landing Development Plans



Intersections and Access Points

No road crossings are located within the Tollgate Landing HOA open space area. The trail to be developed within the Tollgate Landing open space area will cross Trumbauersville Road to the west to connect to the existing Barrel Run Trail. No rail lines, access easements or driveways are located within the open space.

Pedestrian and vehicular access is available immediately adjacent to the east side of the open space area, at the newly developed Great Blue Heron Park, which serves as a trailhead for the existing Brayton Garden Trail. Both the Brayton Garden Trail and Great Blue Heron Park are nearby, well used recreational assets. Trumbauersville Elementary School and the Barrel Run Trail are also located close to the west side of the Tollgate Landing open space area, across Trumbauersville Road.



Environmental Hazards

No information or studies regarding Recognized Environmental Contaminants appear to be available for the Tollgate Landing HOA open space area. As a precaution and in the interest of public safety it's recommended that a Phase I Environmental Assessment be performed as part of the design and engineering work for the trail alignment option(s) chosen for further development.

Needs, Wants and Desires

This section describes information gathered through the public participation process, information about the site's physical characteristics, and previous and current planning efforts to determine the trail's vision and uses.

Local, County, Regional and Statewide Planning Efforts

Planning documents that include discussion of local and regional trail planning projects are discussed below.

State Plans

Department of Conservation and Natural Resources' PA Outdoor Recreation Plan

The Pennsylvania Highlands Greenway is shown as trail number 3 on the Major Greenway Corridors Map included in the [Pennsylvania Land and Water Trail Network Strategic Plan, 2014-2019](#), (page 9), which is Appendix H to the Pennsylvania Outdoor Recreation Plan, 2014-2019. The trail proposed for development within the Tollgate Landing HOA open space is part of the Pennsylvania Highlands Trail Network.

County Plans

Bucks County Comprehensive Plan (2011)

The PHTN is mentioned throughout the County's Comprehensive Planning document. The County recognizes the efforts of the Appalachian Mountain Club (AMC) and individual municipalities in working to implement the PHTN project. The County states in its plan that it will continue to support the PHTN project.

Bucks County Bicycle Master Plan (2012)

The PHTN project is also mentioned as an important regional trail effort in the Bucks County Bicycle Master Plan.

Regional Plans

Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region

For over a decade, AMC has coordinated efforts between counties, municipalities and conservation organizations to implement the conservation of land in the Pennsylvania Highlands and to develop the PHTN. This effort included the preparation of the [Feasibility Study for the Pennsylvania Highlands Trail Network in the Quakertown Region](#). This plan included conceptual planning and an opinion of probable cost to connect the Brayton Garden Trail to the Barrel Run Trail (including the Tollgate Landing trail gap).

Local Plans

Richland Township Open Space and Trails Map

In 2018, Richland Township undated its open space and trails map. The map includes the PHTN throughout Richland Township and includes a conceptual alignment through the Tollgate Landing subdivision (see Figure 12 on the following page).

Milford Township Comprehensive Park and Recreation Plan (2003)

Milford Township's Park and Recreation Plan dates to 2003 and does not specifically mention the PHTN. However, the Greenway Concept Map (page 24) shows a trail on the Milford Township portion of the Tollgate Landing HOA open space.

Public Participation

Comments from HOA residents have been gathered from several open houses and HOA meetings. Residents comments range from fully supporting the proposed trail project to nonsupport. Residents in support of the trail desire the connectivity to other trails, the newly developed township park, and the ability to use a trail without having to drive to it. Residents who expressed opposition to the trail voiced concerns regarding safety, unauthorized use of the open space, trash, cost of maintenance, liability, and disturbance of the wetlands.

Character of the Project Area

The Tollgate Landing subdivision is situated mostly in Richland Township, with a small portion on the west side of the development located in Milford Township. The surrounding area is characterized by a mix of single family residential dwellings on one-third to one-half acre lots and a few large parcels in agricultural uses. One mile east of Tollgate Landing is the Route 309 commercial district. Roughly one-quarter mile to the west of Tollgate Landing is Trumbauersville Elementary School in the Borough of Trumbauersville. Trumbauersville Borough is adjacent to the Tollgate Landing subdivision to the west.

Planned Use of the Trail

Similar to the existing nearby Brayton Garden and Barrel Run Trails, the proposed trail in the Tollgate Landing open space would be a multi-use trail, open to pedestrians and bicyclists, and in the winter months, cross-country skiing and snow-shoeing. Motorcycling, four-wheel driving, and all terrain off-road vehicles would not be appropriate for this trail. Due to the seasonally wet and wetlands conditions on the site, wetlands trail construction methods will be considered for much of the trail reach depending on conditions along the alignment. These include stabilized crushed stone surfaces and various boardwalk construction methods. The extent of the various methods employed will be determined in the design and engineering phase. The wetlands and large open space area make this proposed trail an excellent area for interpretive signage and for outdoor environmental education opportunities for nearby Trumbauersville

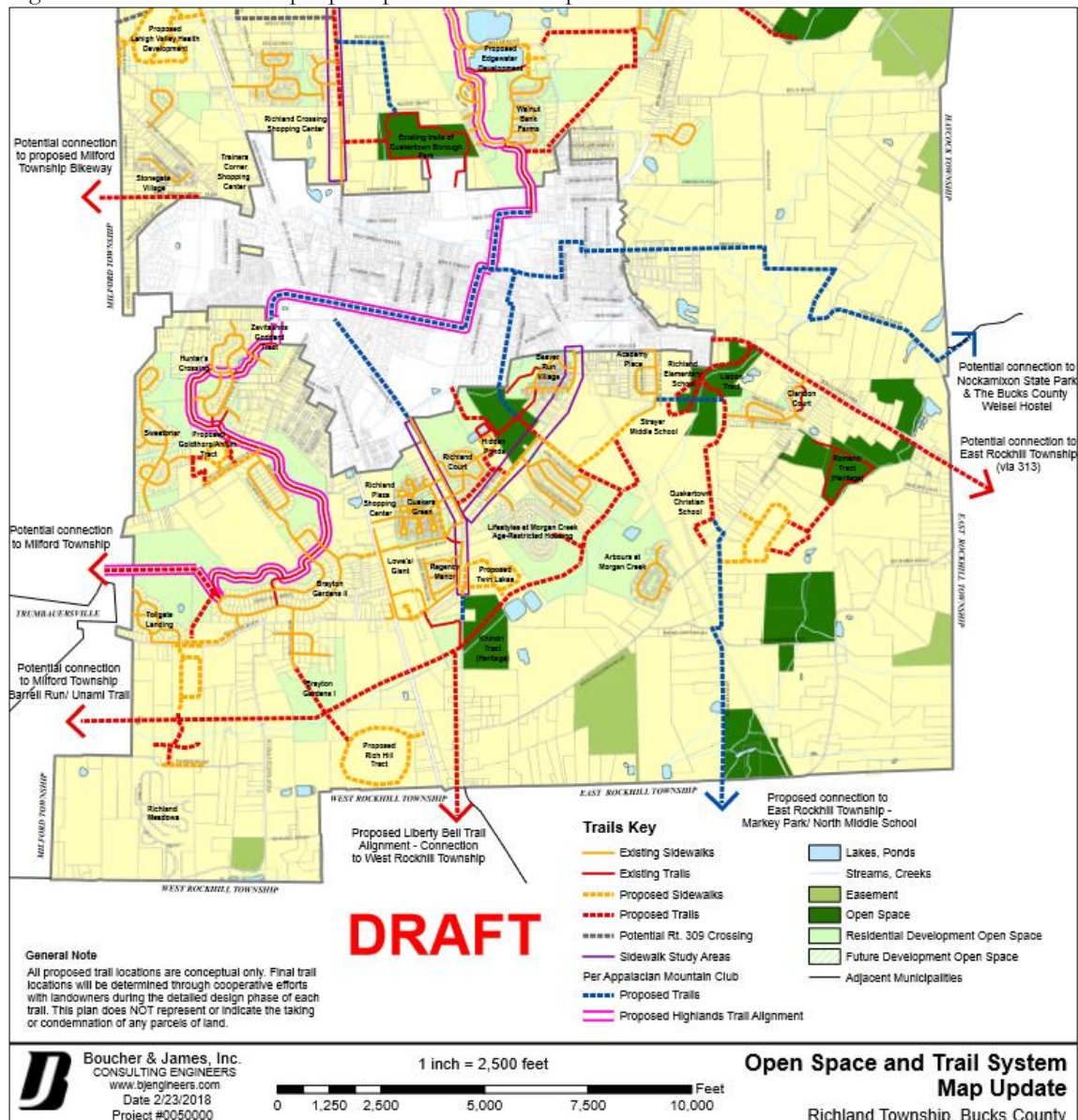


Elementary School. Existing trails and recreation facilities located in the area are described below and shown in Figure 12 below, and on Figure 13 on page 17.

Richland Township Trails

Richland Township has several miles of existing paved, 12-foot wide multi-use trail in close proximity to the Tollgate Landing open space area. Just south of Quakertown Borough, Hunter's Crossing Trail runs south through the Hunter's Crossing subdivision and totals one mile in length. It terminates on the west side of Trumbauersville Road. To the north, Hunter's Crossing trail will connect to the PHTN route through Quakertown Borough. Beginning on the east side of Trumbauersville Road and heading southwest, Brayton Garden Trail is 1.3 miles in length. It ends on the north side of Dovecote Drive, adjacent to Great Blue Heron Township Park. This park, constructed in 2018, contains playing fields, play equipment, and a picnic pavilion and is immediately adjacent to the Tollgate Landing open space. It is anticipated that Brayton Garden Trail will connect to the trail developed in the Tollgate Landing open space. Great Blue Heron Park serves as a trailhead with parking area for the Brayton Garden Trail/PHTN.

Figure 12: Richland Township Open Space and Trails Map

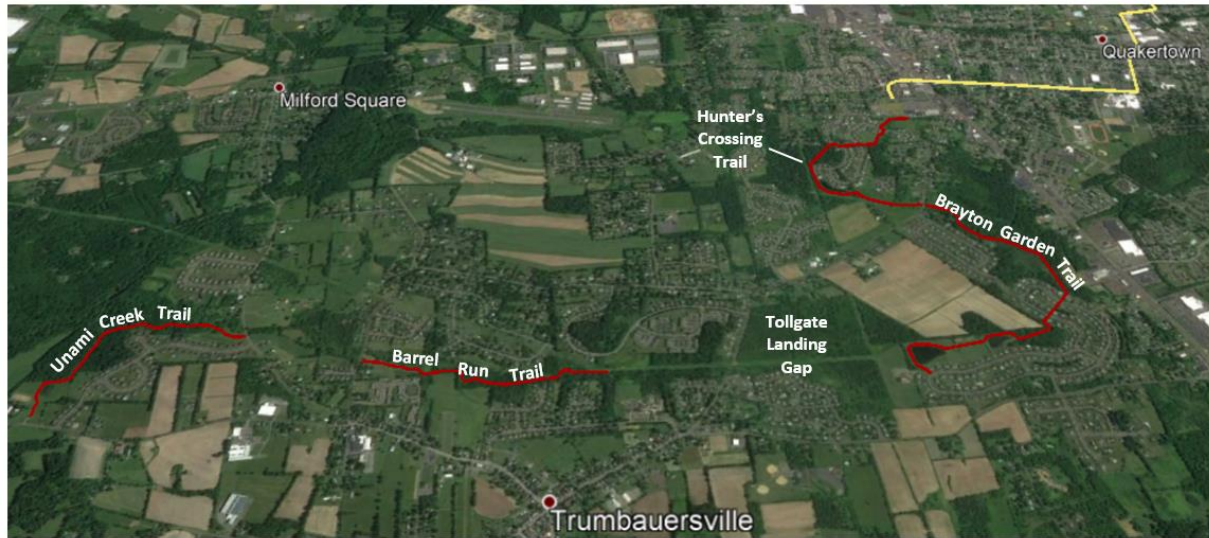


Milford Township Trails

Approximately one-third of a mile west of the Tollgate Landing subdivision is the beginning of Barrel Run Trail. This public, paved multi-use trail is $\frac{3}{4}$ of a mile in length, and runs west to its terminus at Creamery Road. The trail directly connects to Trumbauersville Elementary School. One-third of a mile west of the Barrel Run Trail is the Unami Creek Trail. From Allentown Road, the Unami Creek Trail, a public, paved multi-use trail runs for 0.8 miles to its terminus at the Kumry Road Trailhead. It is envisioned that the Hunter's Crossing, Brayton Garden, Tollgate, Barrel Run and Unami Creek Trails will connect to form roughly 5 miles of multi-use trails within the two townships. Milford Township envisions extending the Unami Creek Trail southwest to the Montgomery County border.

No formal programs are offered along the trail system and no fees are charged for trail use. Trail usage has not been formally quantified by either township.

Figure 13: Similar Trail Facilities



Population and Demographic Information

Table 2 provides population data for the municipalities of Milford and Richland Townships, the Borough of Trumbauersville, the 4 municipality region, and Bucks County. The 2010 U.S. Census yielded a total population for the four municipalities of 32,907. Richland Township's population comprises over half of the study area region. Since the PHTN is a regional trail network, trail use will likely increase when the gaps between the local trails in the area are connected, and the Upper Bucks Rail Trail is developed and meets the Saucon Rail Trail to the north.

Table 2: Population

Municipality	Population	% of Region	% of County
Trumbauersville	974	3.0%	0.2%
Milford Township	9,902	30.1%	1.6%
Richland Township	13,052	39.7%	2.1%
Quakertown	8,979	27.3%	1.4%
<i>Region Total</i>	32,907		
<i>Bucks County Total</i>	625,249		
<i>Source: Pennsylvania State Data Center, 2010 US Census</i>			

Table 3 provides a demographic profile for the study area municipalities. The number of households for the three study area municipalities totals 8,730. Trumbauersville has the highest median household income was and Richland Township had the lowest. Table 4 provides information on race and Hispanic and Latino ethnicity in the study area municipalities.

Table 3: Demographic Information

Municipality	Population Estimate (2014)	Median Household Income	Households	Average Household Size
Trumbauersville	962	\$72,700	361	2.70
Milford Township	9,970	\$85,405	3,539	2.75
Richland Township	13,100	\$63,876	4,830	2.70
<i>Region Total/Average</i>	24,032	\$73,994	8,730	2.72
<i>Bucks County Total</i>	626,685	\$79,559	234,839	3.11
<i>Sources: P.A. State Data Center and 2012-2016 American Community Survey 5-Year Estimates</i>				

Table 4: Race and Hispanic or Latino Ethnicity

Municipality	White	Black or African American	Native American	Asian	Native Hawaiian & Pacific Islander	Some Other Race	Hispanic or Latino
Trumbauersville	97.3%	0.7%	0.5%	1.1%	0.1%	0.9%	3.1%
Milford Township	96.5%	2.1%	0.4%	1.8%	0.1%	0.6%	1.8%
Richland Township	93.8%	1.9%	0.8%	3.5%	0.0%	1.9%	3.8%
<i>Region Average</i>	95.9%	1.6%	0.6%	2.1%	0.1%	1.1%	2.9%
<i>Bucks County Total</i>	90.6%	4.3%	0.6%	4.4%	0.1%	1.9%	4.3%
<i>Sources: P.A. State Data Center, 2010 US Census</i>							

Table 4 indicates that the majority of Township and Borough residents are white, with the average of the three municipalities at 95.9%. The next largest racial category in 2010 was Asian, with the regional average at 2.1%. Black or African Americans accounted for 1.6% of the study area region population and those of Hispanic or Latino ethnicity was 2.9% of the population. It is expected that the racial and ethnic makeup and income levels of potential users of the proposed trail will reflect the regional composition included in Tables 2 and 3.

Demand Analysis

Initial trail usage levels will be consistent with current usage levels of the Barrel Run, Brayton Garden and Unami Creek Trails. Residents of Tollgate Landing use these existing trails, and it is anticipated that residents of Tollgate Landing, Brayton Garden, Hunters Crossing and Willow Stream would be the primary initial users of the trail in the Tollgate Landing open space.

When the trail in Tollgate Landing is connected to the Barrel Run Trail to the west, and the gap between the Barrel Run Trail and the Unami Creek Trail is developed, residents of the



communities adjacent to these trails will likely begin to use the trail as well. This includes the Parkside Estates neighborhood and residents of Trumbauersville. As word spreads about the availability of this trail, more township residents may use the trail. Parking is available at Great Blue Heron Park, and when connected at the Unami Creek Trail trailhead on Kumry Road.

Future Connections to Quakertown Borough and Northern Richland Township

The trail developed in Tollgate Landing will become part of the PHTN. The Upper Bucks Rail Trail, a 3.0-mile multi-use trail planned for development in 2019 will provide a connection to Quakertown Borough and to the Saucon Rail Trail in Lehigh County. To reach the trails in southern Richland Township, pedestrians and bicyclists must navigate the PHTN through Quakertown Borough, with pedestrians using the sidewalks and bicyclists sharing the roads with motor vehicles. Intersection improvements to the PHTN crossing at Park Avenue and Route 309 in the Borough are needed and will facilitate pedestrian and bicyclist traffic crossing this busy intersection. When these improvements are made, trail use may also increase.

Seasonal Demand

Trail use will be heaviest in the spring, summer and fall, with summer being the peak season for trail use. Late fall, winter, and early spring will have the lowest numbers of trail users, which is typical of trails in southeast Pennsylvania.

Impact of Potential Trail Users

The trail in the Tollgate Landing HOA open space will connect to existing trails, and it is recommended that where practicable, the trail should be constructed to the same design parameters as the Brayton Garden and Barrel Run Trails. However, the Tollgate Landing HOA contains extensive areas of wetlands, and these sensitive natural areas must be protected. Depending on the final alignment, this may necessitate the use of elevated boardwalk type trails in portions of the open space area. It is recommended that these boardwalks be of a sufficient width to accommodate two bicycles passing each other.

Impact of the Trail on Adjacent Land Uses

Of primary concern to some residents of Tollgate Landing is the impact of the trail on their private open space. To mitigate this impact, the trail will be signed to let trail users know that although the trail is open for public use, the open space beyond the trail is privately owned. The use of No Trespassing/Private Property, Stay on Trail, and No Motor Vehicle signs along the trail should reduce impacts from trail users and from those who already enter the site without permission. Gates, bollards and fencing can also be installed to deter those who may attempt to use the trail or open space area for ATV/off-road vehicle use.



Development of the trail in Tollgate Landing is envisioned to have a positive impact on nearby Trumbauersville Elementary School, by providing greater connectivity to the school from neighborhoods along the trail. Extending the trail to the school will require crossing Trumbauersville Road and developing the trail in either Milford Township open space or working with PPL to develop the trail within its land.

Legal Feasibility

The Tollgate Landing open space area totals 86.4 acres and is privately owned by the Tollgate Landing HOA. 12.6 acres of the open space on the west side of the tract is located in Milford Township. The rest of the open space area, totaling 73.8 acres, is within Richland Township. Both municipalities will need to pursue

acquisition of an easement from the HOA to allow for trail development, ongoing maintenance, and public use. The HOA has not expressed formal interest in selling the open space or an easement to the Townships.

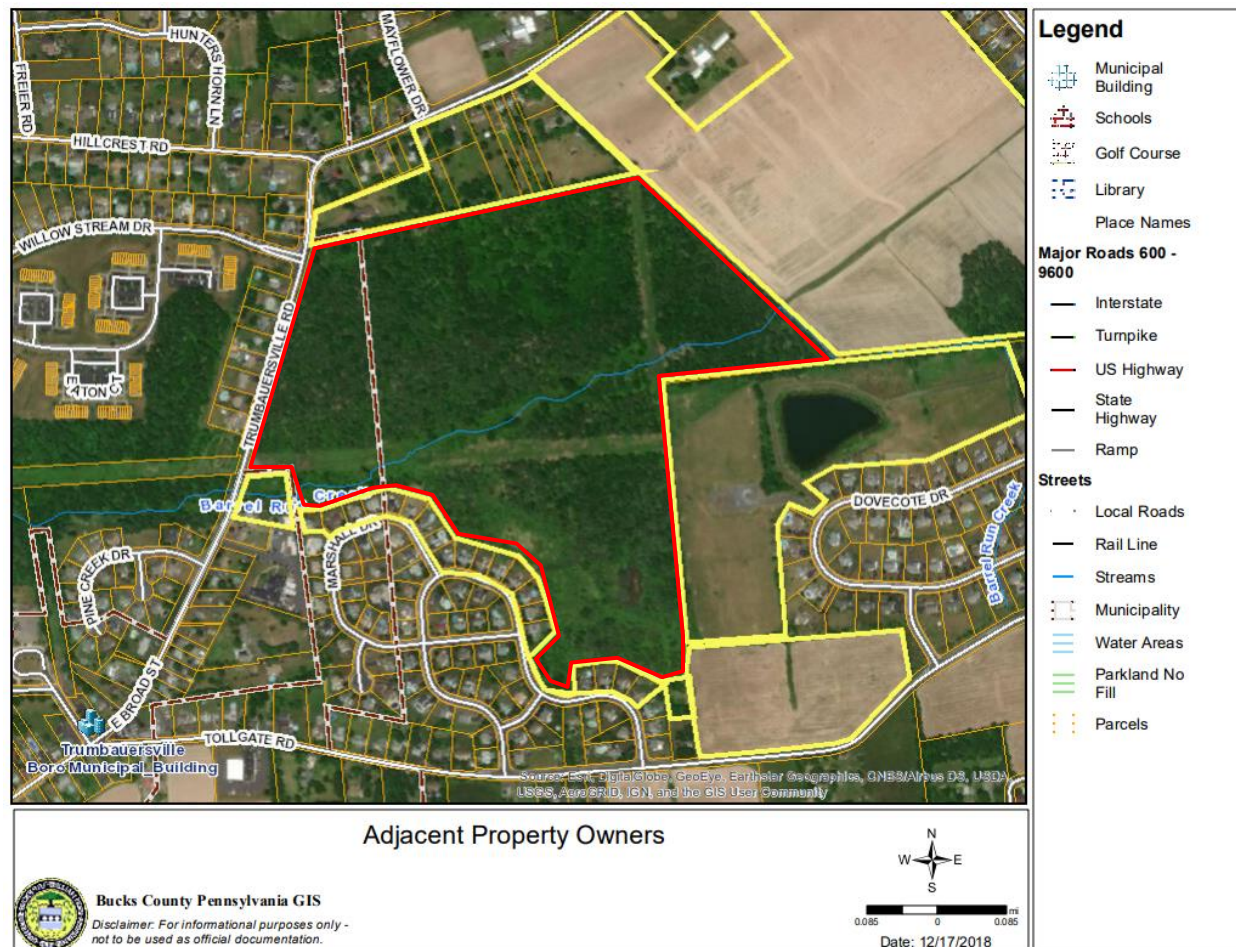
Existing Easements and Rights of Way

A right-of-way for a Pennsylvania Power and Light (PPL) electric line runs east-west and north-south through the site. The total distance of the PPL rights-of-way are roughly 3,408 feet. The length of the right-of-way that runs east-west is roughly 2,070 feet runs and is 100 feet wide. The length of the right-of-way that runs north-south is 1,329 feet and is 50 feet wide. Depending on the final alignment of the trail, both townships will need to negotiate with PPL to cross the right-of-way areas.

Adjacent Property Owners

Twenty-three (23) properties within the Tollgate Landing subdivision are immediately adjacent to the HOA open space area. Depending on the trail alignment, some of these properties may be near the trail. As mentioned previously in this report, one of the most significant factors that will influence how the trail is aligned and constructed is the location of wetlands within the open space. Figure 14 shows the HOA land outlined in red, and potential adjacent property owners in yellow.

Figure 14: Adjacent Property Owners



Trail Concept Plans

The trail concept plans include three options for alignment through the Tollgate Landing HOA open space, and are discussed below.

Trail Concept #1

This optional trail alignment is shown as a solid yellow line on Map 1 on page 23. This alignment has the trail beginning, from the east, at the connection with the existing Brayton Gardens Trail and heading northwest roughly following the HOA property boundary. This concept was developed due to the HOA's desire to locate the trail away from the residences. A bridge is needed approximately 400 feet north of the connection with Brayton Garden Trail. The trail crosses a PPL right-of-way and heads west following, but offset from, the northern property boundary. At the northwest corner of the open space property, a spur trail is shown that will provide a connection to the homes on the west side of Trumbauersville Road using an at-grade crossing. The main trail continues south paralleling the western property line until it reaches the PPL right-of-way where the trail turns west and heads toward Trumbauersville Road and off the HOA land. An at-grade crossing of Trumbauersville Road will accommodate the trail. Within the open space, a spur trail connects south to the existing trail that leads south to Marshall Drive. Additionally, the proposed "park link" to Great Blue Heron Park is proposed from Richland Terrace Drive.

The main trail measures roughly 3,700 feet (0.7 miles). The spur trail running to Trumbauersville Road measures roughly 261 feet. The proposed "park link" between Richland Terrace Drive and Great Blue Heron Park measures 866 feet. This park link will connect to a proposed trail within the park.

Trail Concept #2

Trail Concept #2 is shown on Map 2 on page 23 as a dashed orange line. It follows the east-west PPL right-of-way for a distance of 2,100 feet. It is the most direct route for the trail. However, some HOA members do not want the trail close to their homes. However, the length of this more direct route may be less expensive than concept #1.

Trail Concept #3

A third option for trail alignment is shown on Map 3 on page 25. From the west, roughly 515 feet of new trail would be built within the Tollgate HOA open space from Trumbauersville Road, turning south to connect to the existing trail that ends at Marshall Drive. The trail would then follow Marshall Drive (on road for bikes, on sidewalk for pedestrians) for roughly 675 feet until the intersection with Richland Terrace. The trail would turn east and follow Richland Terrace on road for 885 feet until it would reach the proposed "park link" trail that will connect to Great Blue Heron Park and the Brayton Garden Trail. The option calls for the development of approximately 1,560 linear feet of trail, likely consisting of a mix of boardwalk and asphalt. The on-road section would require signage and Highlands Trail markers directing trail users through the neighborhood. This section does not provide a connection to the Willow Stream neighborhood.

Preliminary Design

A preliminary design will be prepared for the preferred trail alignment when an easement or right-of-way has been obtained from the HOA for the trail corridor.

Trail Management, Operation, Maintenance and Fiscal Feasibility

Parties responsible for trail management, maintenance and operation are discussed in this section. Construction costs estimates, the capital improvement program and funding sources are also discussed.

Opinions of Probable Cost

Opinions of probable cost for Options 1, 2 and 3 are included in Table 5 on page 24, Table 6 on page 26 and Table 7 on page 27. The Option 1 cost estimate provides a range depending on the final design parameters, including width and materials used (boardwalk, crushed stone, or asphalt). The estimate provides costs for construction of the PHTN in Tollgate Landing, and connections to Willow Stream and Great Blue Heron Park. The estimate includes costs for one bridge, repair of an existing bridge, the park connector and for signage and for the at-grade road crossing at Trumbauersville Road. The estimated range for construction of this conceptual design is from \$1.4 million and \$2.0 million. A final cost estimate will be prepared during the design and engineering phase.

The Option 2 estimate provides a range for the design through the PPL right-of-way. This option eliminates the connection to the Willow Stream development, but includes the park connector trail. The range is between \$1.1 million and \$1.5 million for trail development.

The Option 3 estimate also provides a cost range depending on the final design. This option includes the park link to Great Blue Heron Park, an on-road section through the Tollgate Landing neighborhood and a trail new trail section linking the existing trail off Marshall Drive to Trumbauersville Road. This option also includes the pedestrian crossing and signage for Trumbauersville Road and for signage along Marshall Drive and Richland Terrace. The estimated range for construction of this conceptual design is \$477,793 to \$659,238.

Regardless of the design option, the trail in the Tollgate Landing subdivision is intended to be built in a single phase, depending on the availability of grant funding to support project costs.

Map 2: Trail Concept Plan, Options 1 and 2

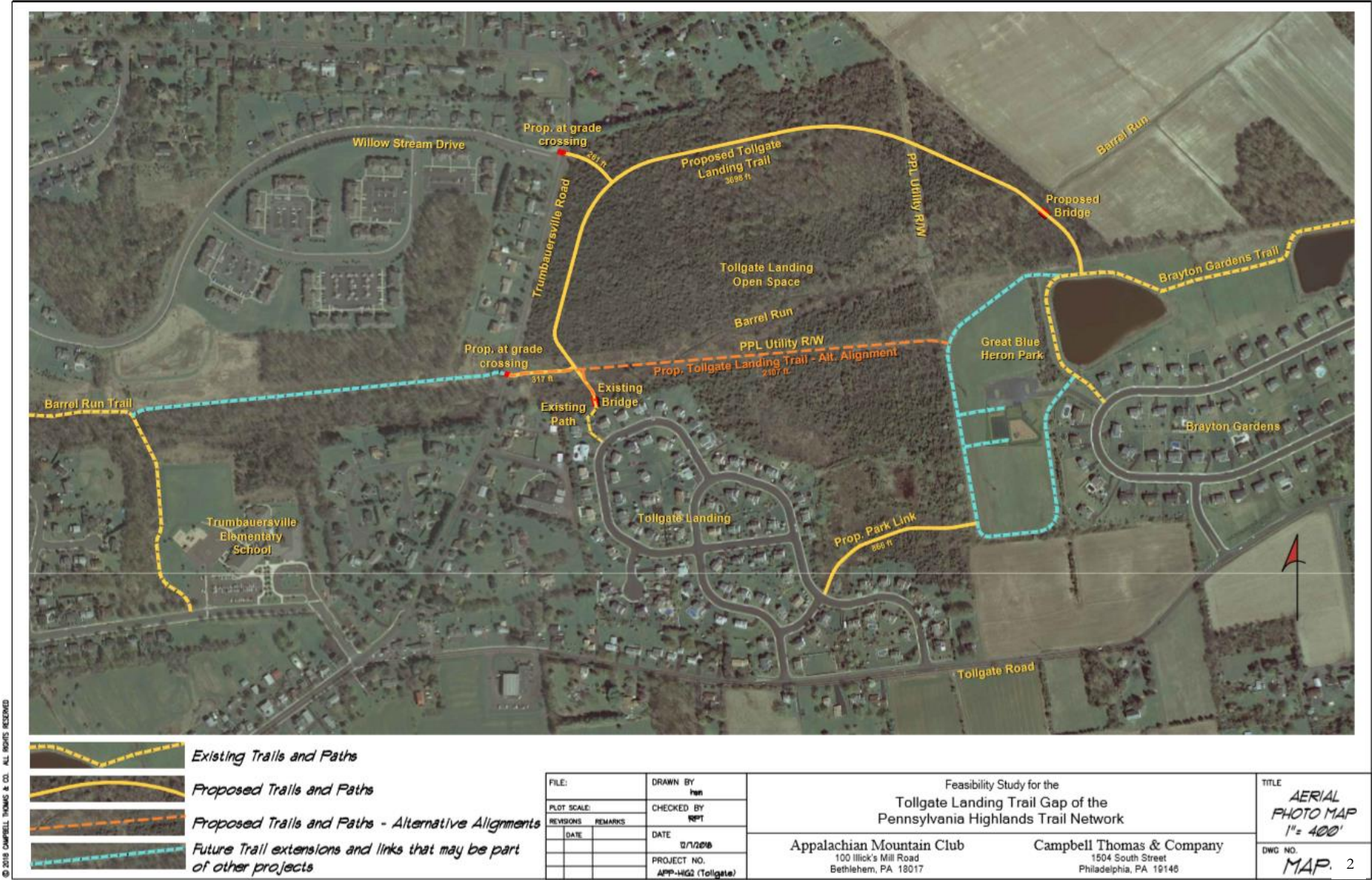


Table 5: Opinion of Probable Cost, Option 1

Opinion of Probable Cost - Tollgate Landing Trail Gap PA Highlands Trail - Schematic Design Level										
			Comments	APPROX. QUANTITY	UNIT	UNIT COST LOW	to	UNIT COST HIGH	SUBTOTAL LOW	SUBTOTAL HIGH
1	Proposed Tollgate Landing Trail									
	a	10 to 12 feet wide stablilzed crushed stone trail or boardwalk		3698	L.F.	\$200		\$250	\$ 739,600	\$ 924,500
	b	10 to 12 feet wide stablilzed cr. stone trail or paved trail to Trumbauerville Rd.		317	L.F.	\$150		\$200	\$ 47,550	\$ 63,400
	c	10 to 12 feet wide stablilzed cr. stone trail or paved trail to Willow Stream Dr.		261	L.F.	\$150		\$200	\$ 39,150	\$ 52,200
	d	Proposed Bridge over Barrel Run Creek	20 to 30 feet	1	L.S. ALLOW	\$100,000		\$150,000	\$ 100,000	\$ 150,000
	e	Repairs to existing bridge over Barrel Run Creek	replace NIC	1	L.S. ALLOW	\$10,000		\$20,000	\$ 10,000	\$ 20,000
	f	Earthwork/Drainage/Stormwater Management		1	L.S. ALLOW	20%		25%	\$ 165,260	\$ 260,025
	g	Tree removal and trimming (Allowance based on cost of trail construction)		1	L.S. ALLOW	15%		20%	\$ 116,813	\$ 195,340
	h	Related directional/safety signage		1	L.S. ALLOW	\$10,000		\$15,000	\$ 10,000	\$ 15,000
2	Street Crossings									
	a	Install Continental Crosswalk - Theromoplastic (10 feet wide)	2@30 to 40 ft	70	L.F.	\$100		\$125	\$ 7,000	\$ 8,750
	b	Related post mounted warning signage (up to @ +/- 12 S.F. each)		8	EA.	\$450		\$550	\$ 3,600	\$ 4,400
	c	Related pavement marking warnings		8	EA.	\$300		\$350	\$ 2,400	\$ 2,800
3	Tollgate Landing Park Link									
	a	10 to 12 feet wide stablilzed crushed stone trail or boardwalk		866	L.F.	\$200		\$250	\$ 173,200	\$ 216,500
	b	Earthwork/Drainage/Stormwater Management		1	L.S. ALLOW	20%		30%	\$ 34,640	\$ 64,950
	c	Tree removal and trimming (Allowance based on cost of trail construction)		1	L.S. ALLOW	15%		20%	\$ 25,980	\$ 43,300
	d	Related directional/safety signage		1	L.S. ALLOW	\$2,000		\$3,000	\$ 2,000	\$ 3,000
4	Maintenance of Traffic during constuction			1	ALLOW.	\$5,000		\$5,000	\$ 5,000	\$ 5,000
					CONSTRUCTION SUBTOTAL				\$ 1,482,193	\$ 2,029,165
					CONSTRUCTION CONTINGENCY - 10%				\$ 148,219	\$ 202,917
OPINION OF PROBABLE COST OF CONSTRUCTION									\$ 1,630,412	\$ 2,232,082
					COST PER MILE OF TRAIL				\$ 1,674,168	\$ 2,291,986
6	Preparation of plans, specifications and estimate package			1	ALLOW.	\$163,041		\$223,208	\$ 163,041	\$ 223,208
OPINION OF PROBABLE COST OF IMPLEMENTATION (TOTAL)									\$ 1,793,453	\$ 2,455,290

Map 3: Trail Concept Plan, Option 3

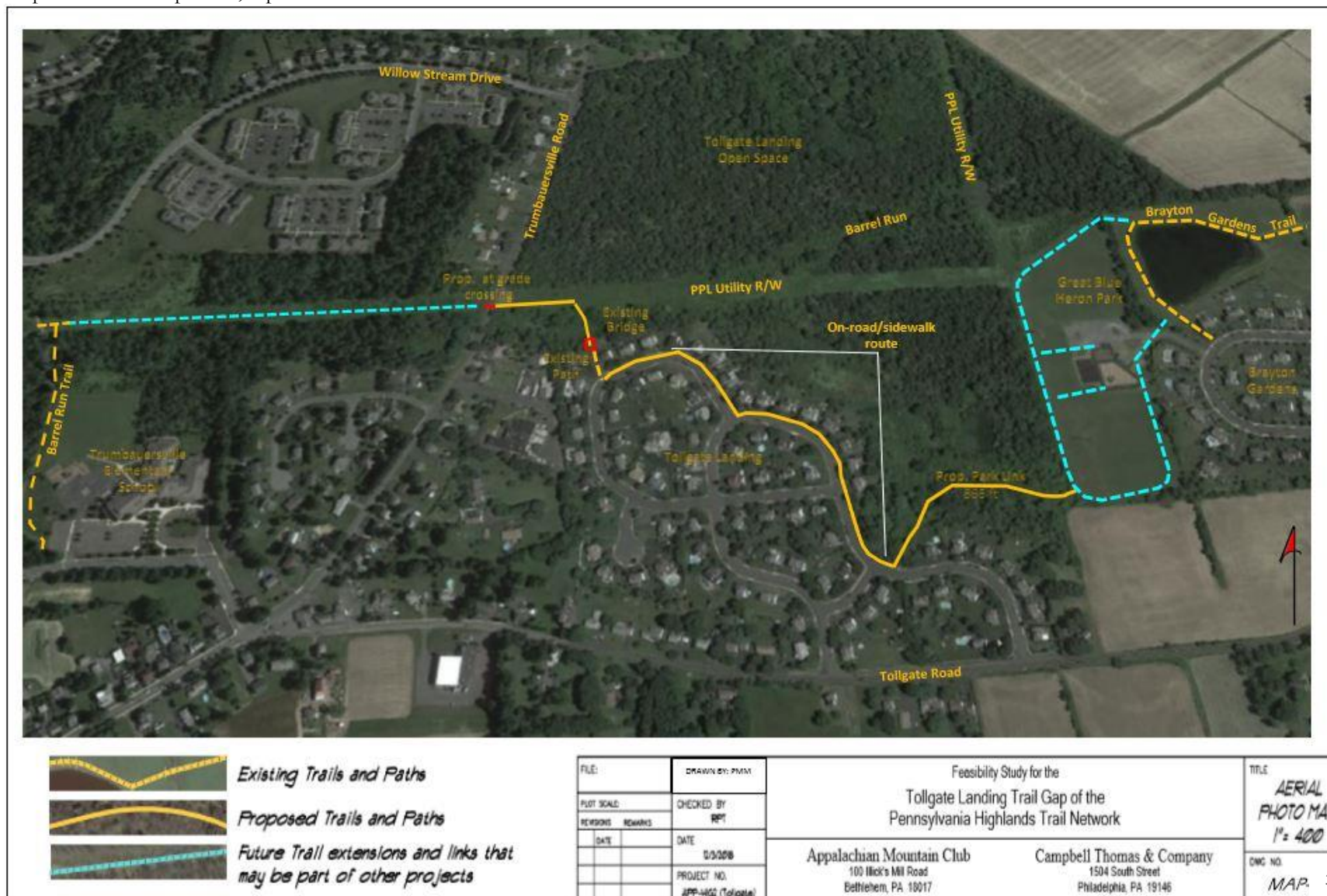


Table 6: Opinion of Probable Cost, Option 2

Opinion of Probable Cost - Tollgate Landing Trail Gap PA Highlands Trail - Schematic Design Level										
			Comments	APPROX. QUANTITY	UNIT	UNIT COST LOW	to	UNIT COST HIGH	SUBTOTAL LOW	SUBTOTAL HIGH
1	Proposed Tollgate Landing Trail									
	a	10 to 12 feet wide stablilzed crushed stone trail or boardwalk		2107	L.F.	\$200		\$250	\$ 421,400	\$ 526,750
	b	10 to 12 feet wide stablilzed cr. stone trail or paved trail to Trumbauerville Rd.		317	L.F.	\$150		\$200	\$ 47,550	\$ 63,400
	c	Proposed Bridge over Barrel Run Creek	20 to 30 feet	1	L.S. ALLOW	\$100,000		\$150,000	\$ 100,000	\$ 150,000
	d	Repairs to existing bridge over Barrel Run Creek	replace NIC	1	L.S. ALLOW	\$10,000		\$20,000	\$ 10,000	\$ 20,000
	e	Earthwork/Drainage/Stormwater Management		1	L.S. ALLOW	20%		25%	\$ 93,790	\$ 147,538
	f	Related directional/safety signage		1	L.S. ALLOW	\$10,000		\$15,000	\$ 10,000	\$ 15,000
2	Street Crossings									
	a	Install Continental Crosswalk - Theromoplastic (10 feet wide)	2@30 to 40 ft	70	L.F.	\$100		\$125	\$ 7,000	\$ 8,750
	b	Related post mounted warning signage (up to @ +/- 12 S.F. each)		8	EA.	\$450		\$550	\$ 3,600	\$ 4,400
	c	Related pavement marking warnings		8	EA.	\$300		\$350	\$ 2,400	\$ 2,800
3	Tollgate Landing Park Link									
	a	10 to 12 feet wide stablilzed crushed stone trail or boardwalk		866	L.F.	\$200		\$250	\$ 173,200	\$ 216,500
	b	Earthwork/Drainage/Stormwater Management		1	L.S. ALLOW	20%		30%	\$ 34,640	\$ 64,950
	c	Tree removal and trimming (Allowance based on cost of trail construction)		1	L.S. ALLOW	15%		20%	\$ 25,980	\$ 43,300
	d	Related directional/safety signage		1	L.S. ALLOW	\$2,000		\$3,000	\$ 2,000	\$ 3,000
4	Maintenance of Traffic during constuction			1	ALLOW.	\$5,000		\$5,000	\$ 5,000	\$ 5,000
					CONSTRUCTION SUBTOTAL				\$ 936,560	\$ 1,271,388
					CONSTRUCTION CONTINGENCY - 10%				\$ 93,656	\$ 127,139
OPINION OF PROBABLE COST OF CONSTRUCTION									\$ 1,030,216	\$ 1,398,526
					COST PER MILE OF TRAIL				\$ 1,653,356	\$ 2,244,443
6	Preparation of plans, specifications and estimate package			1	ALLOW.	\$103,022		\$139,853	\$ 103,022	\$ 139,853
OPINION OF PROBABLE COST OF IMPLEMENTATION (TOTAL)									\$ 1,133,238	\$ 1,538,379

Table 7: Opinion of Probable Cost, Option 3

Opinion of Probable Cost - Tollgate Landing Trail Gap PA Highlands Trail - Schematic Design Level										
			Comments	APPROX. QUANTITY	UNIT	UNIT COST LOW	to	UNIT COST HIGH	SUBTOTAL LOW	SUBTOTAL HIGH
1	Street Crossings									
	a	Install Continental Crosswalk - Theromoplastic (10 feet wide)	2@30 to 40 ft	70	L.F.	\$100		\$125	\$ 7,000	\$ 8,750
	b	Related post mounted warning signage (up to @ +/- 12 S.F. each)		8	EA.	\$450		\$550	\$ 3,600	\$ 4,400
	c	Related pavement marking warnings		8	EA.	\$300		\$350	\$ 2,400	\$ 2,800
2	Tollgate Landing Park Link									
	a	10 to 12 feet wide stablilzed crushed stone trail or boardwalk		866	L.F.	\$200		\$250	\$ 173,200	\$ 216,500
	b	Earthwork/Drainage/Stormwater Management		1	L.S. ALLOW	20%		30%	\$ 34,640	\$ 64,950
	c	Tree removal and trimming (Allowance based on cost of trail construction)		1	L.S. ALLOW	15%		20%	\$ 25,980	\$ 43,300
	d	Related directional/safety signage		1	L.S. ALLOW	\$2,000		\$3,000	\$ 2,000	\$ 3,000
3	Trail from Trumbauersville Road to Existing Trail at Marshall Drive									
	a	10 to 12 feet wide stablilzed crushed stone trail or boardwalk		515	L.F.	\$200		\$250	\$ 103,000	\$ 128,750
	b	Earthwork/Drainage/Stormwater Management		1	L.S. ALLOW	20%		30%	\$ 20,600	\$ 38,625
	c	Tree removal and trimming (Allowance based on cost of trail construction)		1	L.S. ALLOW	15%		20%	\$ 15,450	\$ 25,750
	d	Related directional/safety signage		1	L.S. ALLOW	\$2,000		\$3,000	\$ 2,000	\$ 3,000
4	Maintenance of Traffic during constuction			1	ALLOW.	\$5,000		\$5,000	\$ 5,000	\$ 5,000
					CONSTRUCTION SUBTOTAL				\$ 394,870	\$ 544,825
					CONSTRUCTION CONTINGENCY - 10%				\$ 39,487	\$ 54,483
OPINION OF PROBABLE COST OF CONSTRUCTION									\$ 434,357	\$ 599,308
5	Preparation of plans, specifications and estimate package			1	ALLOW.	\$43,436		\$59,931	\$ 43,436	\$ 59,931
OPINION OF PROBABLE COST OF IMPLEMENTATION (TOTAL)									\$ 477,793	\$ 659,238

Operation and Maintenance

Estimated costs for trail operation and maintenance are provided below in Table 8. Some costs will vary depending on final trail alignment and construction materials. The HOA will need enter into agreements with both Milford Township and Richland Township regarding maintenance. Trail maintenance costs are a major concern for HOA members.

Table 8: Estimate of Operation and Maintenance Costs

Opinion of Probable Cost, Operation, Management & Maintenance - Tollgate Landing Trail Gap PA Highlands Trail - Schematic Design Level					
				Low	High
	Annual estimated base unit cost range per mile of trail			\$ 1,500	to \$ 2,200
		Frequency	% of Cost	Low	High
1	General Operation & Management		15.0%	\$ 225	\$ 330
2	Trail Surface Maintenance & Repair	As Needed	10.0%	\$ 150	\$ 220
3	Surface Clearing of Snow	As Needed	11.0%	\$ 165	\$ 242
4	Mowing	Monthly	5.0%	\$ 75	\$ 110
5	Vegetation Management	As Needed	10.0%	\$ 150	\$ 220
6	Trash/Debris Removal	Weekly	11.5%	\$ 173	\$ 253
7	Clearing of Drainage Channels/Culverts	Quarterly	6.0%	\$ 90	\$ 132
8	Litter Cleanup/ Trashcans	Weekly	3.0%	\$ 45	\$ 66
9	Repair/Maintenance of Signs	As Needed	6.0%	\$ 90	\$ 132
10	Recovery from Vandalism/Dumping	As Needed	5.5%	\$ 83	\$ 121
11	Misc. Maintenance	As Needed	9.0%	\$ 135	\$ 198
12	Whole Tree Removal	As Needed	5.5%	\$ 83	\$ 121
13	Application of Herbicide/Pesticide	Yearly	2.5%	\$ 38	\$ 55
	Annual Total		100.0%	\$ 1,500	\$ 2,200
		Length in L.F.	Miles	Low	High
	Proposed Tollgate Landing Trail & Links	4276	0.81	\$ 1,215	to \$ 1,782
	Proposed Tollgate Landing Trail - Alternate	2107	0.40	\$ 599	to \$ 878
It should be noted that the costs for Operation, Management and Maintenance for these relatively short trail reaches are based on their operation being incorporated into a larger local or regional trail network or park system where similar maintenance operations or programs are already in place. Operated as individual entities the costs would likely be much higher. Typical trail maintenance costs that are not included in this estimate are Surface Maintenance of Parking Areas, Trailhead Parking/ Snow Removal, Maintenance of Toilets at Trailheads, Maintenance of Toilets Along Trail, and Surveillance/Security. These facilities are generally part of existing facilities the propose trail reaches link with.					

Funding Sources

Potential sources of project funding, including grant and reimbursement programs and in-kind services are set forth in Table 9 on the following page.

Six agencies, including DCNR, DVRPC, DCED, PennDOT, the Bucks County Foundation and Visit Bucks County provide funding opportunities for trail development. Certain programs, including DCNR, provide funding rounds every year. Other programs may alternate years when funding is available. Links to these programs' webpages are provided below. Additionally, the County of Bucks may have funding available to match grant funding.

DCNR Trail Grants: <https://www.dcnr.pa.gov/Communities/Grants/TrailGrants/Pages/default.aspx>

DVRPC Regional Trails Program: <https://www.dvrpc.org/trails/RegionalTrailsProgram/>

DCED Greenways, Trails and Recreation: <https://dced.pa.gov/programs/greenways-trails-and-recreation-program-gtrp/>

DCED Multi-modal Transportation Fund: <https://dced.pa.gov/programs/multimodal-transportation-fund/>

PennDOT Transportation Alternatives Set Aside:

<https://www.penndot.gov/ProjectAndPrograms/Planning/Pages/Transportation%20Alternatives%20Set-Aside%20-%20Surface%20Trans.%20Block%20Grant%20Program.aspx>

Bucks County Foundation: <http://www.buckscountyfoundation.org/grant-application-guidelines/>

Visit Bucks County Grant Program: <http://www.visitbuckscounty.com/tourism-office/grant-program/>

Table 9: Funding and In-Kind Services Options

Grant & Reimbursement Programs				
No.	Agency	Program/Fund	Eligible Activities	Match
1	DCNR	Keystone Recreation & Park	Construction, Planning, Acquisition	50%
		Environmental Stewardship	Construction, Planning, Acquisition	50%
		PA Recreation Trails Program	Construction, Planning, Acquisition	20%
2	PennDOT	Transportation Alt. Set-Aside	Pedestrian & bike facilities, trails	
3	DCED	Greenways, Trails & Recreation	Trail development & improvements	15%
		Multimodal Transportation	Development of trans. assets, ped safety	30%
4	DVRPC	Regional Trails Program	Planning, design and construction	
		Trans. & Comm. Dev. Initiative	Bike and pedestrian projects	
		CMAQ; Safe Routes to School	Bike and pedestrian projects	
5	Bucks Co Foundation	General Grant Program	Not specified	
6	Visit Bucks Co	Tourism: Capital Projects	Not specified	
In-Kind and Volunteer Services				
	Organization/Group		Activities	
7	AMC	Highlands Trail Stewards	Sign installation and maintenance	
8	HOA	Tollgate HOA Trail Volunteers	Brush clearing, trash pickup	

Implementation Matrix

A project implementation schedule is set forth in Table 10 below. AMC, its consultant Campbell Thomas & Company, and Milford and Richland Townships will continue to work with the Tollgate Landing HOA to move forward with the project and secure a trail corridor right-of-way within the open space. A memorandum of understanding will be needed for development and trail maintenance. Once the right-of-way and maintenance agreement are secured, AMC and the two townships can move forward with design, engineering and construction. If the 2019 DVRPC application for design and engineering is successful, the design phase could be completed by the end of 2020. Trail construction grants can be submitted in 2020, and construction could potentially begin in 2021.

Table 10: Implementation Matrix

No.	Action Item	Responsible Party(ies)	Time Frame	Costs	Funding Source	Notes
1	Work with HOA to receive approval and MOU to proceed with trail construction	AMC, HOA, Milford & Richland Townships	Begin 3rd quarter 2019	NA	NA	Complete by end of 2019
2	Apply for design and engineering funds	AMC, Townships	Last quarter 2019	depends on trail option selected	DVRPC	Award by summer 2020
3	Apply for construction grant funding	AMC, Milford & Richland Townships	Apply 2nd quarter 2020 & 4th quarter 2020	depends on trail option selected [1]	DCNR, DCED, County, PennDOT	Award times vary; will be in 2021
4	Prepare design and engineering plans and bid documents	Consultant	Approx. 6-month schedule	depends on trail option selected	DVRPC	Begin in 2nd quarter 2020
5	Bid trail construction project	Consultant	3 months, begin 3rd quarter 2021	depends on trail option selected	DCNR, DCED, County, PennDOT	Award bid end of 3rd quarter 2021
6	Begin trail construction	Contractor & Townships	6 months, begin 4th quarter 2021	depends on trail option selected	DCNR, DCED, County, PennDOT	Complete by spring 2022
<i>DVRPC: Delaware Valley Regional Planning Commission</i>						
<i>DCNR: Department of Conservation and Natural Resources</i>						
<i>DCED: Department of Economic and Community Development</i>						
[1] See opinions of probable costs.						

Appendix A: Results of Key Person Interviews

Gregg Pambianco

Richland Township Parks and Recreation Board

1. **In terms of recreation, what age groups appear to be least served and the best served in your area? (kids, teens, young adults, middle-aged, seniors).**

Least Served - Young Adults / Middle Aged. As we ramp up our efforts to build trails, this may change. Currently Adults are served less by not haven't longer-route trails for activities like cycling.

Best Served - Kids / Teens. Most of our activity surrounding recreation mostly benefits the community's children. When we build parks, they are catered to children & teenagers.

2. **Are there any additions or changes in recreation services or facilities that you feel could improve recreation opportunities in your community?**

Trail connections to and from places of interest.

3. **Are there any additions or changes that you feel could improve trail facilities in your area?**

Trail connections to and from places of interest.

4. **What key issues are facing the provision of recreation opportunities in your community?**

Funding, and getting buy-in from neighbors.

5. **What economic benefit(s) do you feel this new trail will create?**

Small business opportunities will be created when a small section of trail is completed to connect larger portions of trails. The trailhead in Slatington, PA has food trucks as well as bicycle rentals available for trail access. This has become a popular hub and meeting place for groups.

Karen Bedics

Vice-Chair, Springfield Township Board of Supervisors

1. **In terms of recreation, what age groups appear to be least served and the best served in your area? (kids, teens, young adults, middle-aged, seniors).**

Least served are young adults and seniors. Best served are middle aged.

2. **Are there any additions or changes in recreation services or facilities that you feel could improve recreation opportunities in your community?**

Bike trails, bike lanes, walking trails

3. **Are there any additions or changes that you feel could improve trail facilities in your area?**

Parking and connections

4. **What key issues are facing the provision of recreation opportunities in your community?**

Floodplains, wetlands, high traffic volumes, highway crossings and truck traffic.

5. **What economic benefit(s) do you feel this new trail will create?**

More visitors, increased store traffic, recognition for the Township.