



UPPER BRODHEAD - PARADISE

TRAIL FEASIBILITY STUDY

A report to the William Penn Foundation

AUGUST 2019



FINAL DRAFT

UPPER BRODHEAD - PARADISE TRAIL FEASIBILITY STUDY

A REPORT TO THE WILLIAM PENN FOUNDATION

Philadelphia, Pennsylvania

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ACKNOWLEDGEMENTS

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CHAPTER 1 - EXECUTIVE SUMMARY & INTRODUCTION

1.1 Purpose

The project intends to study the feasibility of developing a trail in Monroe County which would extend an interconnected trail system along the lower Brodhead through the upper Brodhead and across the county. Ultimately, this extension could provide an important link in the Expanded Regional Trail Network as envisioned by William Penn Foundation. This study addresses one segment of a significant gap and linkage for this expanded regional trail system up to the Pocono Plateau through remarkable natural areas. Eventually, two major waterways – Brodhead Creek and the Lehigh River – could connect to the Delaware River and to each other, thus improving connections to regional environmental and public access centers.

Given the above stated larger context, the specific objective of this study was to explore potential connections from Brodhead Creek Heritage Center at ForEvergreen Nature Preserve in Stroud Township to the Cresco Station Museum in Cresco, Barrett Township. This linkage corridor is principally defined by the “Brodheads,” i.e., the Brodhead and Paradise creeks and their tributaries which also correspond to an existing railroad corridor. A prior study examined the utilization of an abandoned railroad right-of-way in this corridor for a multi-use trail; however, subsequent implementation efforts were rebuffed largely due to its adjacency to an active rail line and current railroad owner policy. Consequently, it was decided to examine alternative possibilities by expanding the study area to achieve a trail linkage through this corridor by other means and to examine what alignment(s) might work to make a trail connection through the corridor between the two identified end points using lands already in public ownership and considering private lands that may provide opportunities for key linkages.

1.2 Study area

The study area was initially defined by nine (9) one-mile segments traversing south to north along a corridor corresponding to the existing rail line from Brodhead Creek Heritage Center (BCHC) at ForEvergreen Nature Preserve, Stroud Township, in the south to the Cresco Station Museum in Cresco, Barrett Township, to the north. These segments were essentially consistent with the Railroad VAL¹ maps. An elevation change of approximately 600 feet is realized over the extent of this corridor. After the study was

¹ Under the Valuation Act of 1913, the Interstate Commerce Commission (ICC) used these maps to help evaluate railroad corporate property. This valuation was used as a basis for fixing rates that would yield a reasonable profit to the railroads. Railroad companies prepared these maps and forwarded them to the ICC. The ICC reviewed, annotated and maintained the maps as valuation records. The series was produced between 1915-1920. Maps for this corridor were produced at a scale of 1”=100’ for one-mile sections.

initiated, feedback from initial public involvement initiatives and physical and political constraints made it apparent that even the expanded corridor was too limiting. A new study corridor was therefore identified to accommodate the overall objectives of the study and grasp more of the potential opportunities in providing the sought-after linked trail system (*See MAP 1 – STUDY CORRIDOR*). Note that a good portion of the corridor is in public ownership, with the remainder in private or quasi-private ownership, such as hunting and fishing clubs.

The origination/destination in the southern portion of the study corridor is ForEvergreen Nature Preserve and Brodhead Creek Heritage Center. This municipal open space land is positioned to serve as an important interpretive site for both the ecological and cultural assets of the region and as a transition from the more active recreational sites with which it ties to the south. The northern origination/destination for this study is the Cresco Station Museum, which is in the resort village of Cresco, adjacent to adjoining resort villages of Mountainhome and Canadensis.

1.3 Planning process

The Upper Brodhead-Paradise Trail Feasibility Study was prepared by the Brodhead Watershed Association in collaboration with consultant Gary David Bloss, RLA, PP, Pocono Heritage Land Trust, and Monroe County Planning Commission, and guided by a Study Committee convened for this purpose. Several aspects of trail feasibility were assessed, including the regional context, physical suitability, legal issues, potential usage and operations, potential partners, potential costs and funding options. However, due to uniquely intricate juxtaposition of factors within even the expanded corridor, a preferred alignment was not readily revealed. Therefore, the challenges and opportunities for alternative alignments were examined and discussed in a more general manner to guide conservation, acquisition, and development efforts which can ultimately enable the realization of the sought-after connected trail system within this corridor as opportunities arise. In other words, we maximized the opportunities to realize the possibilities for obtaining linkages over a longer term while providing guidance to implement and develop key sections of trail in the shorter term.

1.4 Public participation

The public involvement process included four (4) study committee meetings, two (2) focus group meetings, twenty (20) key person interviews, and two (2) public meetings. These efforts are detailed in Chapter 5.

1.5 Findings

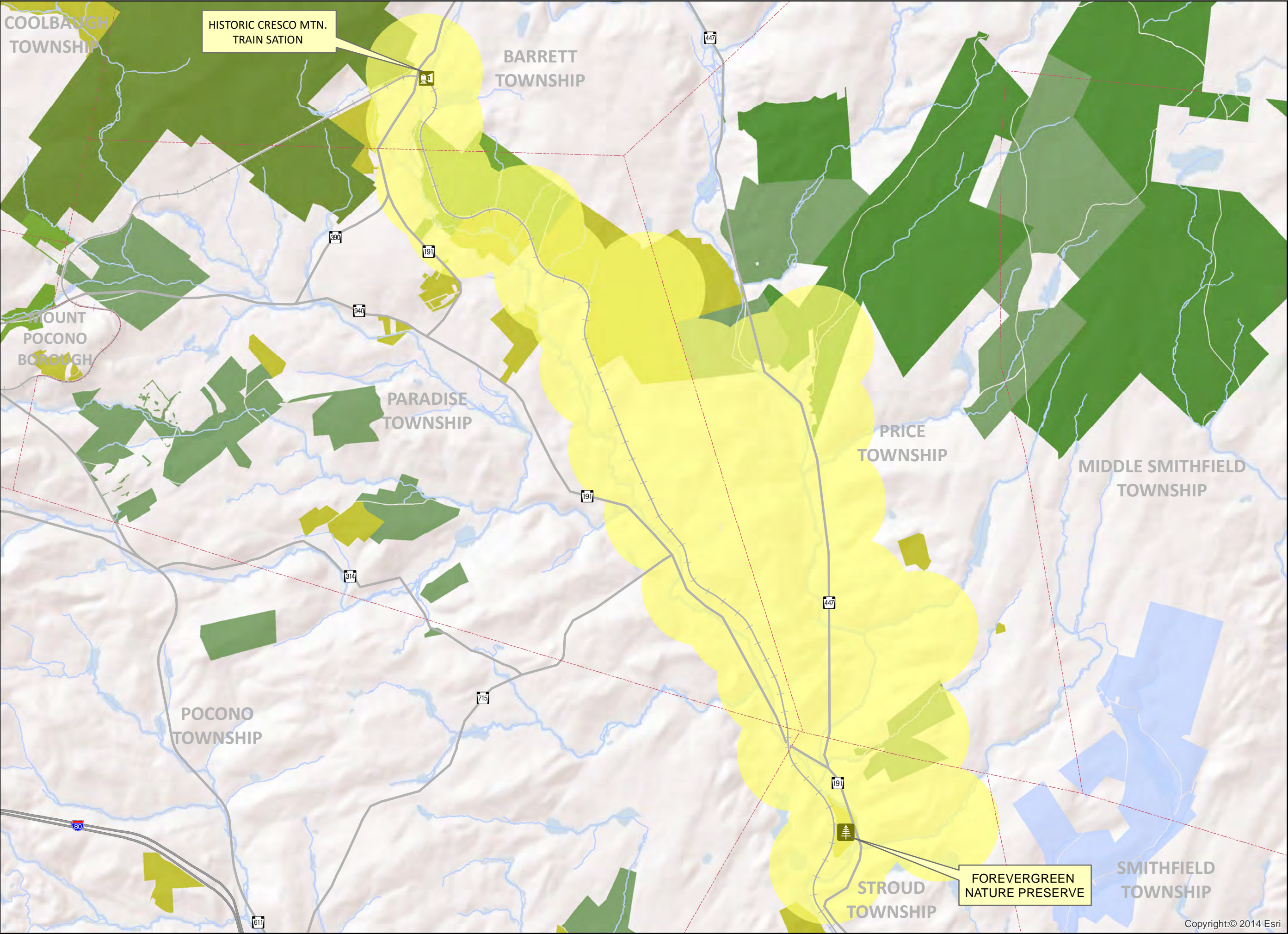
The study determined that a single type of ‘multi-use through-trail’ –such as that which could have been provided by use of the abandoned rail corridor – was not suitable in the expanded study corridor. Rather, the trail through the study corridor is primarily

suitable for hiking footpaths or wilderness-style trails, given the ecological sensitivity and existing recreational usage. However, some segments might be developed to accommodate bicycles and to accommodate users with disabilities (ADA). Segments accommodating equestrian trails and facilities may also be considered, especially given the local interest in the provision of the same. Appropriate trailhead designs would be required to accommodate this use.

The proposed connecting trail network utilizes segments across public lands with existing or developing trails. Motorized uses were specifically deemed unsuitable. Conditions required to achieve the connections and linkages chiefly involve acquisition of public access through trail access easements or fee simple purchases. This effort has been spearheaded to date by Pocono Heritage Land Trust (PHLT) in partnership with municipalities and other conservation organizations. Multiple phases will be required to complete this project.

While the challenges outlined in the described alternatives are in some cases significant, they are not automatically insurmountable. Therefore, a connected trail alignment is possible if multiple partners can work together, and dialogue with landowners is respected and handled appropriately. What is needed most is advocacy by a capable trail builder and steward – whether nonprofit or governmental or a combination of both – to champion the project and to ultimately shepherd agreements to maintain and sustain the envisioned connected through-trail system.

It is worth noting that while initial efforts to utilize the abandoned track were unsuccessful, obstacles to its development may recede with time. It still provides the best opportunity to realize a multi-use trail in this corridor.



COOLBAUGH
TOWNSHIP

HISTORIC CRESCO MTN.
TRAIN SATION

BARRETT
TOWNSHIP

MOUNT
POCONO
BOROUGH

PARADISE
TOWNSHIP

PRICE
TOWNSHIP

MIDDLE SMITHFIELD
TOWNSHIP

POCONO
TOWNSHIP

STROUD
TOWNSHIP

FOREVERGREEN
NATURE PRESERVE

SMITHFIELD
TOWNSHIP

Upper Brodhead- Paradise Trail Feasibility

STUDY CORRIDOR



0 0.5 1
Miles

1:48,000

- Municipal Boundaries
- Arterial Roads
- Active Rail
- Study Cooridor
- Municipal Open Space
- Nature Preserve
- State Forests
- State Game Lands
- Private Conservation
- Water Authority Lands

CHAPTER 2 – INVENTORY/DATA COLLECTION & ANALYSIS

2.1 Related studies

Specific studies especially pertinent to this study area include the following:

- *The “Expanded” Regional Trail Scan (2013)*

This report to the William Penn Foundation by Andrew L. Strauss, AICP/PP, Strauss and Associates/Planners served as an addendum to the (Philadelphia) Circuit study (2010). Its purpose was to identify and evaluate multi-use trails and hiking footpaths that serve a supra-regional function outside Circuit boundaries. Every trail included in this study meets two or more regional significance factors, including: linear distance; connectivity to other trails; proximity to population and environmental centers; density of public use and demand; and advocacy by a capable trail builder and steward, whether nonprofit or governmental. The study stated, “One cannot over-emphasize the value of the early canal and railroad systems as a foundational base for organizing and connecting an expanded regional trail system.” With regard to Pocono Area Trail Extensions, Strauss notes that they arguably fall beneath the radar as many segments are short in linear run or lack present connectivity, however, it would not take much work to advance the network within the Pocono region as a considerable amount of planning and trail assemblage has been quietly accomplished by a cadre of advocates working through Pocono Heritage Land Trust along with some of the progressive open space and recreational commissions within Monroe County. Strauss concludes, “It is certain that the Pocono region – notably the Stroudsburg-Water Gap-Interstate 80 corridor – has the population density, water quality problems, centers and trail connection opportunities to merit further advocacy. ... We firmly believe the Lower Brodhead and McMichael Creeks offer trail extension and watershed investment opportunities that merit reconsideration.”

- *Upper Brodhead & Paradise Creeks Greenway Plan (2010)*

This plan, prepared by McLane Associates Landscape Architects, provided a complete analysis of the entire watershed area for the two creeks and provides the larger context for the specific study corridor examined herein. It also recommended that a multi-use trail be established on the unused track of the two-track rail line owned and operated by the Pennsylvania Northeast Regional Railroad Authority (PNRRA), but follow-up implementation efforts with PNRRA to utilize the unused track for that proposed use proved unsuccessful. Therefore, this current effort avoids the use of the track but still parallels the rail corridor and seeks to discover a new route, which would expand on the network of trails south of ForEvergreen Preserve and Brodhead Creek Heritage Center, north to the Cresco Station Museum in Barrett Township. Ultimately, an additional study could then examine the feasibility of a connection from Barrett Township to Pocono Pines and ongoing efforts for trail development currently being pursued by the Pennsylvania Environmental Council (PEC).

- *Trail GAP Analysis (in process)*

The Trail Gap Analysis project is being conducted by Stroud Region Open Space & Recreation Commission (SROSRC). Executive Director Sherry Acevedo provided an overview and update for this project prior to Focus Group Meeting #2. The “ForEvergreen Connector Trail” would link Pinebrook Park to ForEvergreen Nature Preserve and Brodhead Creek Heritage Center (BCHC) along Brodhead Creek. This would tie BCHC to a more multipurpose active trail system to the south along Brodhead Creek.

The Stroud Region Trail Gap Analysis is exploring the options to connect Pinebrook Park to ForEvergreen Nature Preserve. There is the potential for a rail trail connection and also an alternative route by obtaining easements over public and private property. The Stone Crusher Property is a large tract of land owned by Stroud Township between the two parks with existing and potential trails that can potentially be incorporated in this connection.

- *Feasibility Study for the WB&E Northern Section (initiating)*

The Pennsylvania Environmental Council (PEC) is initiating a study to examine the northern and western half of the WB&E abandoned railroad corridor. This 22-mile stretch leaves the Wyoming Valley in Luzerne County and terminates near Pocono Pines (Lake Naomi area) in Tobyhanna Township, Monroe County. The corridor is largely intact for this section where it leaves the Wyoming Valley then climbs through state forests and state gamelands to a connection near PA Route 940, where it would tie into a 2-mile, on-road Pocono Bike & Hike Trail being advanced by Tobyhanna Township with PADOT funding (*see: Appendix B*). Ninety percent of the corridor is in public ownership and therefore is an easier lift to possibly identify and champion a fundable project. This feasibility study is funded by both DCNR and WPF and would also peripherally look at three to four alignments that would reach Stroudsburg.

- *Other related studies*

Many interrelated studies contribute a significant amount of knowledge to this specific study. A raft of open space and greenway plans was spun off the Monroe 2020 County Comprehensive Plan (updated ‘Monroe 2030’) and Monroe County Open Space, Greenway and Recreation Plans (updated 2014). Linking existing trail networks and open space and recreation resources is a valued community asset in Monroe County.

The update to the Monroe County Open Space, Greenway and Recreation Plan recommends a focus on the study and development of a central “spine” rail trail and the creation of critical linkages along the WB&E Trail and Glen to Glen Trail. While investigating the study corridor for this project in relation to the planning efforts of these two trails, it became clear that the Upper Brodhead and Paradise Trail has the potential to connect the two emerging greenway systems.

At the southern end of the proposed Upper Brodhead - Paradise Trail, the potential to connect ForEvergreen Nature Preserve into Pinebrook Park is being investigated as part of the Stroud Region Trail Gap Analysis. If this gap could be closed, the existing Brodhead Creek Greenway and Levee Loop Trail could be utilized to continue through Stroud Township, Stroudsburg Borough and East Stroudsburg Borough. The trail gap analysis is also exploring another small gap, from the end of the Levee Loop Trail, to make the connection to Glen Park and the emerging Glen-to-Glen Trail.

At the northern end of the proposed Upper Brodhead - Paradise Trail, the potential exists to connect into the emerging WB&E trail. To make this connection, a second phase of this study would be necessary to continue the trail southwest, traversing either Paradise Township, Barrett Township or Mount Pocono Borough to connect into the WB&E trail in Coolbaugh Township or Tobyhanna Township. Although a phase 2 study is not under way, it is important to note that the corridor includes a variety of public lands that can be utilized to help make the connection.

2.2 Physiographic analysis

- *Geology*

The study corridor primarily falls within the Glaciated Low Plateau Section of the Appalachian Plateaus Province. Bedrock geology and hydrologic mapping shows the Catskill formation dominated by the Long Run Member with alternating gray sandstone and red siltstone and shale. Near the confluence of the Brodhead and Paradise creeks and south through ForEvergreen Preserve is a band of the Blue Mountain Section of the Ridge and Valley Province.

Of particular interest from an interpretive standpoint is the black shale near the Stites Tunnel/Bridge on PA Route 191 and the railroad overpass. "Ithaca black shale" was brought into the area as a foundation during the construction of a wooded railroad trestle. The trestle no longer exists as the track was rerouted to its nearby position, but the supporting Ithaca black shale can still be observed.

The area was glaciated at least three times in the past million years. In addition to erosion, the most recent glacier also left behind a variety of glacial deposits that occur on the surface of the upland. Particularly notable is the abundance of sandstone boulders that litter the surface in many places.²

- *Steep slopes (greater than 15%)*

Switchback alignments will need to be created and maintained for trail segments where slopes are greater than 15%. Some walking paths may also need steps to traverse the terrain. In general, the proposed trail alignments follow the contour of the land or ridgetops to avoid excessive slopes.

² *Pennsylvania Geography Survey*, Pennsylvania Department of Conservation and Natural Resources.

- *Streams/waterways and wetlands*

The study corridor follows a general south-to-north alignment that parallels the creeks and the railroad corridor from ForEvergreen Nature Preserve in the south to the historic Cresco Station Museum in the north. ForEvergreen Nature Preserve is adjacent to the main stem of Brodhead Creek just south of its confluence with Paradise Creek. The confluence pool is where the Brodhead doubles and is a highly desired fishing site. At one time, the two creeks were together known as the “Brodheads.” The main stem of Brodhead Creek generally follows the same corridor as Route 447 in the study area. Paradise Creek follows the same general corridor as Route 191 to Henryville and is intercepted by Butz Run along the way. At Henryville, the corridor then generally follows Cranberry Creek, a tributary of Paradise Creek, to Cresco. All streams mentioned above are designated as high-quality (HQ) streams by the Pennsylvania Department of Environmental Protection (DEP) based in part on biological integrity.

Following the notorious 1955 flood, Brodhead Creek became a more managed stream system with flood control measures and structures that were put in place to “prevent a repeat of this unfortunate act of nature.” As a result, south of the preserve, the creek was grossly channelized without regard to fluvial dynamics and natural habitat considerations. In the urban areas of the Stroudsburgs, a levee was installed by the Army Corp of Engineers circa 1960 as a flood control measure.

In general, the proposed alternative trail alignments in the study corridor do not encroach on sensitive wetland or riparian areas and in many areas deliberately favor upland areas as a strategy to avoid conflicts of interest with fishing clubs.

- *Ecosystem analysis*

At present, the study area remains generally undeveloped and functions as an important wildlife corridor and a diverse habitat for plants. While development pressure is once again increasing, the ownership of large parcels is largely in the hands of conservation-minded owners, such as hunting and fishing clubs. However, its long-term preservation and protection is not guaranteed. A system of linked trails and conservation corridors can help ensure its long-term ecosystem protection and function as an important natural area supporting a diversity of plants and wildlife.

The Delaware State Forest District Office published a biodiversity snapshot for native plants and wildlife in the area. Identified native plants include 21 species of wildflowers, five ferns and 31 species of trees and shrubs. However, invasive species pose a serious management threat. Invasive, non-native plants crowd out the natives that indigenous creatures rely on for food, breeding and nesting, shelter, shade and more. The main stem of Brodhead Creek south of ForEvergreen Nature Preserve has been particularly hard hit by invasives. Some of the most prevalent invasives found are: Japanese knotweed, multiflora rose, Japanese barberry and purple loosestrife. These species reproduce quickly and can dominate a stream within just a few seasons. Invasive insect species pose a particularly challenging management threat. These species include: the gypsy moth (white oaks), woolly adelgid (which threaten the native hemlock, which

would consequently damage stream and water quality), the emerald ash borer, the Asian longhorn beetle, and, most recently, the spotted lantern fly. Identified native wildlife include 26 birds, 18 mammals, eight fishes, five insects and arthropods, and 13 reptiles and amphibians. One of the most challenging wildlife management issues is posed by an overpopulation of white-tailed deer and damage to the plant understory.

Of foremost note is the native trout population. Brodhead Creek is a fabled Monroe County watercourse where fly fishing began in America. It has been a destination of choice for more than two centuries for not only fly fishermen and outdoor enthusiasts, but dignitaries and celebrities alike and millions of visitors seeking refuge in nature.

- *Land cover*

The Upper Brodhead & Paradise Creeks Greenway Plan noted three major cover types, which holds true for this specific study corridor. The predominant land cover is mixed hardwood and evergreen forest. The hardwood forest is dominated by white and chestnut oaks on the ridgetops while red, scarlet, and black oaks are predominant in the lower elevations. Evergreen stands are composed of white pine and hemlock.

2.3 Political features

- *Municipalities*

The study area crosses five municipalities, all in Monroe County. Stroud Township is to the south along with a very small portion of Pocono Township. The largest portion of the study traverses Paradise and Price townships. Barrett Township is the northernmost municipality.

- *Land use*

Major land uses and ownership of lands within the corridor are composed of many large parcels greater than 50 acres. Included are municipal open space lands, state forests, private conservation areas, and a significant number of large parcels owned by private hunting and fishing clubs. Residential development within the corridor includes several large private holdings and one major subdivision that was built in conjunction with a currently nonoperational ski resort. Also, a defining spine of the study corridor is the right-of-way land owned by the Rail Authority. The origination/destination in the southern portion of the study corridor is ForEvergreen Nature Preserve and Brodhead Creek Heritage Center. This municipal open space land is positioned to serve as an important interpretive site for both the ecological and cultural assets of the region and as a transition from the more active recreational sites with which it ties to the south. The northern origination/destination for this study is the Cresco Station Museum, which is in the resort village of Cresco, which is adjacent to adjoining resort villages of Mountainhome and Canadensis. Combined, these communities are being considered as a potential “trail town.”

The Trail Town Program® is an initiative of The Progress Fund. The program revitalizes rural communities by growing outdoor tourism and small businesses. The Progress

Fund powers community development with outdoor tourism across Pennsylvania, West Virginia and Maryland, and helps trails around the nation follow their lead. It starts by thinking regionally: a world-class trail needs amenities along its entire stretch, and towns working together can create a much broader impact.

The Progress Fund identifies five keys to a successful Trail Town:

- Partnerships
- Assessment and research
- Connecting town to trail
- Business and real estate development
- Marketing

Not every project looks the same. Every region has its own strengths and challenges. Insights and lessons along the way are shared in The Progress Fund's *Trail Town guide*.³

- *Historic use*

Fundamentally, the corridor defines the “Pocono experience” and provides opportunities to understand and experience stories associated with its unique history and pristine environment. The story of the birthplace of trout fishing in America unfolds in this corridor near the confluence of the Brodhead and Paradise creeks – the “Brodheads.” There are still breeding native trout populations in these streams and tributaries and associated micro-climates. The Cresco Station is a key component to the story of early transportation and the birth of the summer vacation. The Phoebe Snow, a renowned passenger train, brought the first summer vacationers from Philadelphia and New York to the mountain paradise and early resort communities clustered around this terminal. The hamlet of Henryville has an interesting cultural heritage and is positioned about halfway through the corridor. Stories of natural disasters are also revealed in this corridor, most notably the flood of 1955.

- *Zoning*

Stroud Township – ForEvergreen Nature Preserve and areas west of the Brodhead are classed as S-1 (special and recreational), east of the Brodhead is classed C-1 (neighborhood commercial) in the area of the former Penn Hills resort. The remaining lands are classed as R-1 (low-density residential).

Pocono Township – The small portion of land lying in Pocono Township is classed R-1 (low-density residential).

³ The Trail Town guide and description of the program is available from the website www.trailtowns.org.

Price Township – The majority of the potential trail alignments through Price Township are in OSC (open space conservation) and R-1 (low-density residential) while skirting areas classed as R2 (moderate-density residential) in the southern reach. Coming out of Delaware State Forest, a short stretch of C-1 (commercial) is included near the Timber Hill Bridge over the Brodhead, then a short stretch of R-2 (moderate-density residential) before once again becoming lands classed OSC.

Paradise Township – The majority of the potential trail alignments through Paradise Township are in OSC and R-2 (moderate-density residential). A short stretch along Route 191 in Henryville is classed as B-1 (neighborhood business). An RR (rural residential) class occurs near Henry’s Crossing and continues into Nothstein Preserve.

Barrett Township – The potential trail alignments in Barrett Township come through an area classed R (residential) and then traverse through areas classed I (industrial) and MU-V (mixed use-village) to connect with the Cresco Station Museum.

- *Highways*

Two state highways pass through the study corridor along a north-south axis. In the south, PA Route 191 and PA Route 447 overlap until they reach the area proximate to the confluence of the two creeks whereby PA Route 191 goes westerly along the Paradise Creek and is intercepted by state highway Route 715 near Henryville and several municipal roads until it merges with state highway Route 390 near Cresco. The Stites Tunnel/Bridge over Paradise Creek on Route 191 about one mile south of Henryville is undergoing replacement. This work includes replacing the PA Route 191 Bridge over Paradise Creek and the bridge roadway approach structures, installing new guide rail and line paint, and concrete repairs to the roadway tunnel under the Delaware Lackawanna Railroad at a cost of \$8,087,885. The prime contractor is H&K Group Inc. of Skippack, PA. The project started January 7, 2019. Traffic has been detoured and will last through the completion of the project. PA Route 191 is closed and detoured between PA Route 447 and Stites Mountain Road. The posted passenger vehicle detour utilizes PA 715 and Clubhouse/Cherry Lane Road. A separate posted truck detour routes truck traffic on PA 447 and PA 390. ⁴

From the area of the confluence, PA Route 447 goes easterly along the Brodhead and is intercepted by several municipal roads on its way to Canadensis to the north.

- *Utility analysis*

No major utility corridors (electric distribution lines or natural gas pipelines) or rights-of-way traverse the study corridor where the potential trail alignments are proposed. However, potential ROW may be incurred on the key parcels identified and may require consideration and further research if additional alternatives are explored.

⁴ Pocono Record, December 27, 2018.

2.4 Demographics

According to the U.S. Census Bureau and the census of 2010⁵, there were 169,842 people, 49,454 households, and 36,447 families residing in the county, and the population density was 228 people per square mile. From 1980 until the housing market collapse in 2008, the county was the second fastest growing county in the state. The estimated population for 2018 was 169,507, representing a small decline. However, it's now apparent demographic pressure has been building since the housing crisis. Millennials are reaching the age at which previous generations had begun buying homes but had postponed home-buying. In 2016, millennials finally began to overcome the obstacles that kept them from homeownership.⁶

The DRWI Cluster Demographics Analysis was recently prepared for the Appalachian Trail Conservancy, by the Center for Land Use and Sustainability, sponsored by the Delaware River Watershed Initiative (DRWI), with financial support through the William Penn Foundation. The study focuses on the Poconos and Kittatinny Cluster and includes a summary of the demographic profile for the 28 municipalities included in the region. Of those 28, the five municipalities included in this study all fall within the cluster boundary. The following observations are from this analysis and are pertinent to the study herein.

- *Demographic profile*

Population represents a low-density, rural landscape with the exception of five municipalities: Wind Gap Borough, Stroud Township, Delaware Water Gap, Smithfield and Middle Smithfield townships.

Municipalities surrounding local urban centers of East Stroudsburg and Stroudsburg (Smithfield, Middle Smithfield, and Stroud townships) represent more densely populated, more diverse, and younger populations.

In general, population demographics of the study area indicate an aging population with an increasing age-dependency ratio. Trends also indicate an overall population increase of almost 10% across the eight counties, although three counties are forecasted to experience population decline: Carbon County in Pennsylvania, and Sussex and Warren counties in New Jersey.

At the county level, the median household income at most study area counties is higher than the state or national values, with the exception of Pennsylvania's Carbon and

⁵ The 2010 census established the first urbanized area in Monroe County (much of Stroud and a section of the Price/Middle Smithfield boundary are included in this area). With the upcoming census, these boundaries may change, causing both opportunities and challenges.

⁶ The Washington Post, March 11, 2019.

Schuylkill counties. Additionally, the municipalities generally have higher incomes relative to their county.

In general, owners occupy approximately 73% and renters occupy 17% of housing. Approximately 10% of housing is vacant. Relative to the study area, the highest proportions of rental housing are in Delaware Water Gap Borough and Wind Gap Borough. A higher proportion of vacant housing is observed in Walpack Township, N.J., and Smithfield Township.

In general, most (40%) of the population within the study area earned a high school diploma, while 32% of the population were college graduates (associate, bachelor's or graduate).

- *The electorate*

Political party registration at the county level indicates a Democratic majority for five out of six counties in Pennsylvania and a Republican majority for both counties in New Jersey; however, municipal and presidential election results from the 28 municipalities in the study area indicate a republican majority.

- *Recreational profile*

Across all watersheds within the study area, big game hunting recorded the highest recreation demand, followed by freshwater fishing, bird watching and migratory bird hunting.

In terms of hunting and fishing license sales, Pennsylvania counties show a decrease in fishing license sales between 2011 and 2017, although Berks County is among the top 10 counties statewide for fishing sales throughout this time period. New Jersey's combined hunting and fishing license sales show a slight decline between 2010 and 2017. While the overall number of local license sales often declined, when local license sales are normalized by the local population, the per-capita license sales reflect a less dramatic decline and occasionally show an increase.

2.5 Field reconnaissance

On April 18, 2018, a full-day field investigation and corridor orientation was led by Don Miller (PHLT, BWA, TU & OSAB) to orient consultant Gary Bloss to opportunities and constraints within the corridor. Other stakeholders on this initial field reconnaissance mission were Jeff Heberley (PHLT, TU) and Ray Moeller (SROSRC). The day began at Brodhead Creek Heritage Center and traversed the corridor up to the Cresco Station Museum and back.

ForEvergreen Nature Preserve provides an ideal transition from the lower Brodhead into this corridor, although trail expansion opportunities are confined between the still-active railroad and the Brodhead Creek physical barriers. Deliberate fire breaks or former service roads parallel the railroad and offer excellent opportunities for trail development. Except for the last connection into the Cresco Station, much of a

connecting trail opportunity has been provided by the exceptional work and diligence of the PHLT and Paradise Township.

A great deal of additional reconnaissance was accomplished through the use of county GIS map files and orthophotography. Field investigations were done on an impromptu basis throughout the study to verify and examine onsite details.

2.6 Mapping

Mapping for this study was provided by Monroe County Planning Commission (MCPC) utilizing Arc Map 10.6.1. Data is projected in NAD83 PA State Plane North Fips, and maps are set at a scale of 1:48,000 or 1:8,200.

Custom data created for the study include the following.

UBP Key Parcel - MCPC: This shapefile was created utilizing the Monroe County Tax Parcel data from February 2019.

UBP Trails Inventory - MCPC: This shapefile was created in July 2017 and maintained throughout the project. The existing trail data included in this layer was collected in the field by MCPC staff, recreated from various open space and greenway plans with geo-referencing tools, and/or received from various state, municipal and nonprofit partners. The potential trail data included in this layer was created utilizing a combination of local knowledge cross referenced with 2018 Monroe County Orthophotography to delineate the potential location of the trails.

UBP Features - MCPC: This shapefile was created by MCPC staff utilizing a combination of local knowledge cross-referenced with 2018 Monroe County Orthophotography to identify existing and potential features of relevance to the project.

Existing data included in the study include the following.

Monroe Country Conserved Parcels - MCPC: The data in this layer is maintained by MCPC staff and is updated regularly through a collaborative effort with the conservation partners utilizing the most current version of the county parcel data.

Monroe County Hydrology/ Streams Geodatabase - MCPC: Data in this geodatabase was created utilizing the 2018 Monroe County Aerial Photography, each stream centerline was manually produced by MCPC staff for the entire county. PaDEP Ch. 93 stream names were utilized to identify each stream.

Monroe Country 2019 Road Centerlines Geodatabase - Monroe County Office of Emergency Management: The data in this geodatabase is maintained by the Monroe County Control Center staff and is updated regularly in coordination with PennDOT and local municipal officials to correspond with E-911 addressing standards.

Monroe Country Municipal Boundaries - Monroe County Assessment Office: The data in this layer is maintained by the Monroe County Assessment Office staff and is updated regularly utilizing the most current version of the county parcel data.

Monroe County 2018 Orthophotography - Monroe County Assessment Office:

This layer is created utilizing high-definition imagery that is rectified to fit into a map grid. This imagery is updated every four years and is prepared for the county through a contract with Pictometry, an Eagle View Company.

2018 Shade Relief - ESRI: The shaded relief imagery was developed by ESRI using GTPO30, SRTM, and NED elevation data from the USGS.

2018 Rail Lines - PennDOT: This data was downloaded from the Pennsylvania Geospatial Data Clearinghouse, PASDA, and is maintained by the Pennsylvania Department of Transportation.

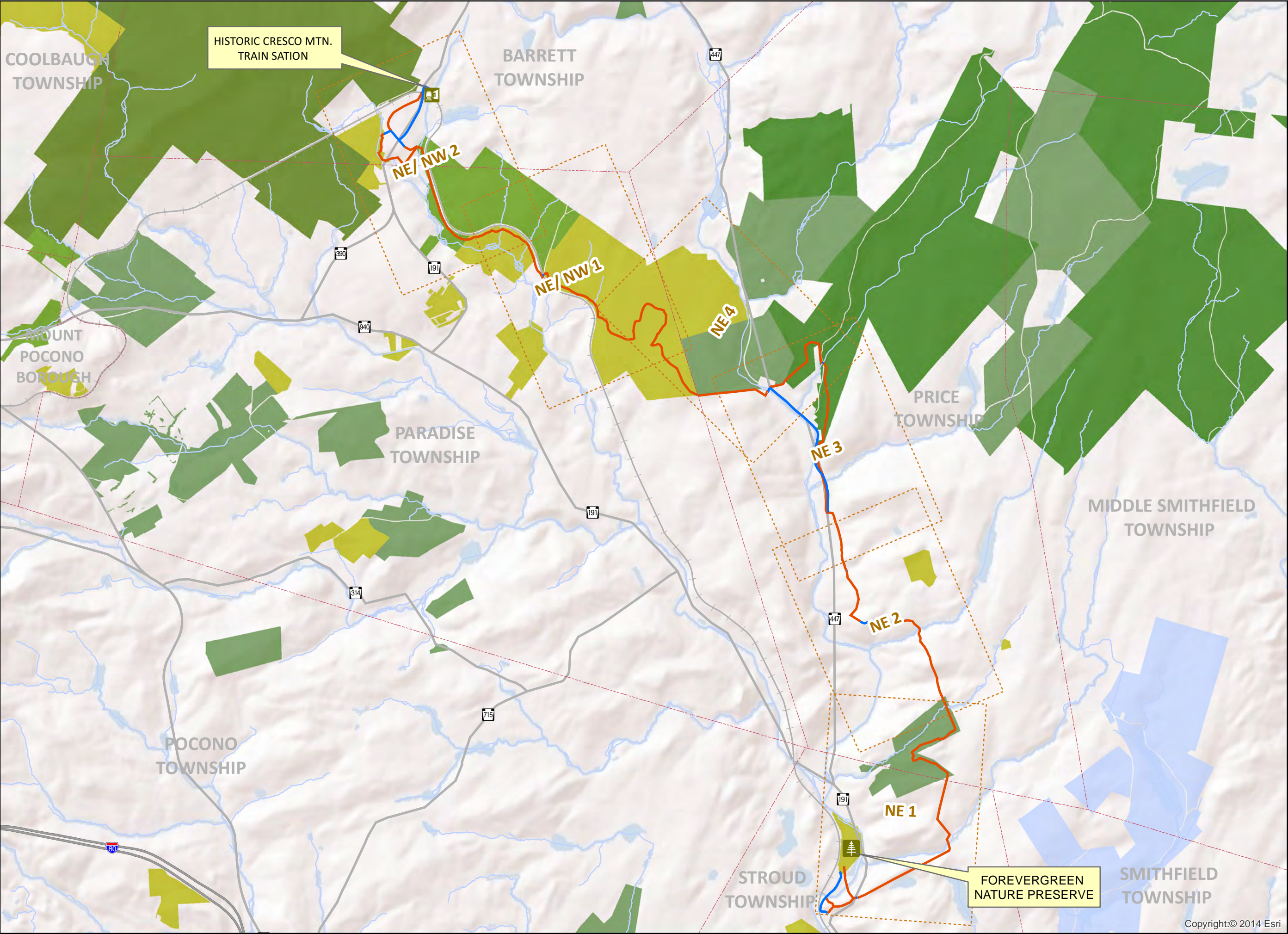
Monroe County makes no express or implied warranties concerning the release of this information. Monroe County is unaware of the use or uses to be made of this data. Consequently, the Monroe County does not warrant this data as fit for any particular purpose.

2.7 Description of potential trail alignments

As discussed above, the study corridor intended to parallel the PNRRA rail line, however, it expanded considerably from this basic alignment. Stakeholder input recommended that the alternatives being explored outside of the railroad ROW proper need to limit use largely to hiking footpaths in sensitive natural areas, given the environmental sensitivity within the corridor and the presence of numerous private fishing and hunting clubs with large land holdings. Some sections may provide for additional user groups as identified in the focus group meetings convened for the study. However, some vital connecting opportunities can only be realized through deference to the proclivities of the private fishing and hunting clubs. State forests and several municipal preserves have large land holdings in the corridor and provide opportunities to connect into their existing trail systems.

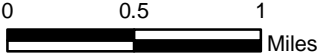
Overall, the alignments revealed in this study are more conducive to the enjoyment of the unique natural resources along a system of hiking paths linking resources rather than a multi-use trail system. Brodhead Creek Heritage Center at ForEvergreen Nature Preserve consequently provides an appropriate opportunity to transition from the more active recreation and multi-use trails provided along the Lower Brodhead.

The two major origination and destination (O&D) points for this study are Brodhead Creek Heritage Center (BCHC) at ForEvergreen Nature Preserve and the Cresco Station Museum. They are described below. Each provides an opportunity to serve as a major trailhead. Potential alignments connecting these points are described by discrete trail segments. A northeasterly route (NE) and northwesterly route (NW) are described using point-to-point segment designations corresponding to the section mapping.



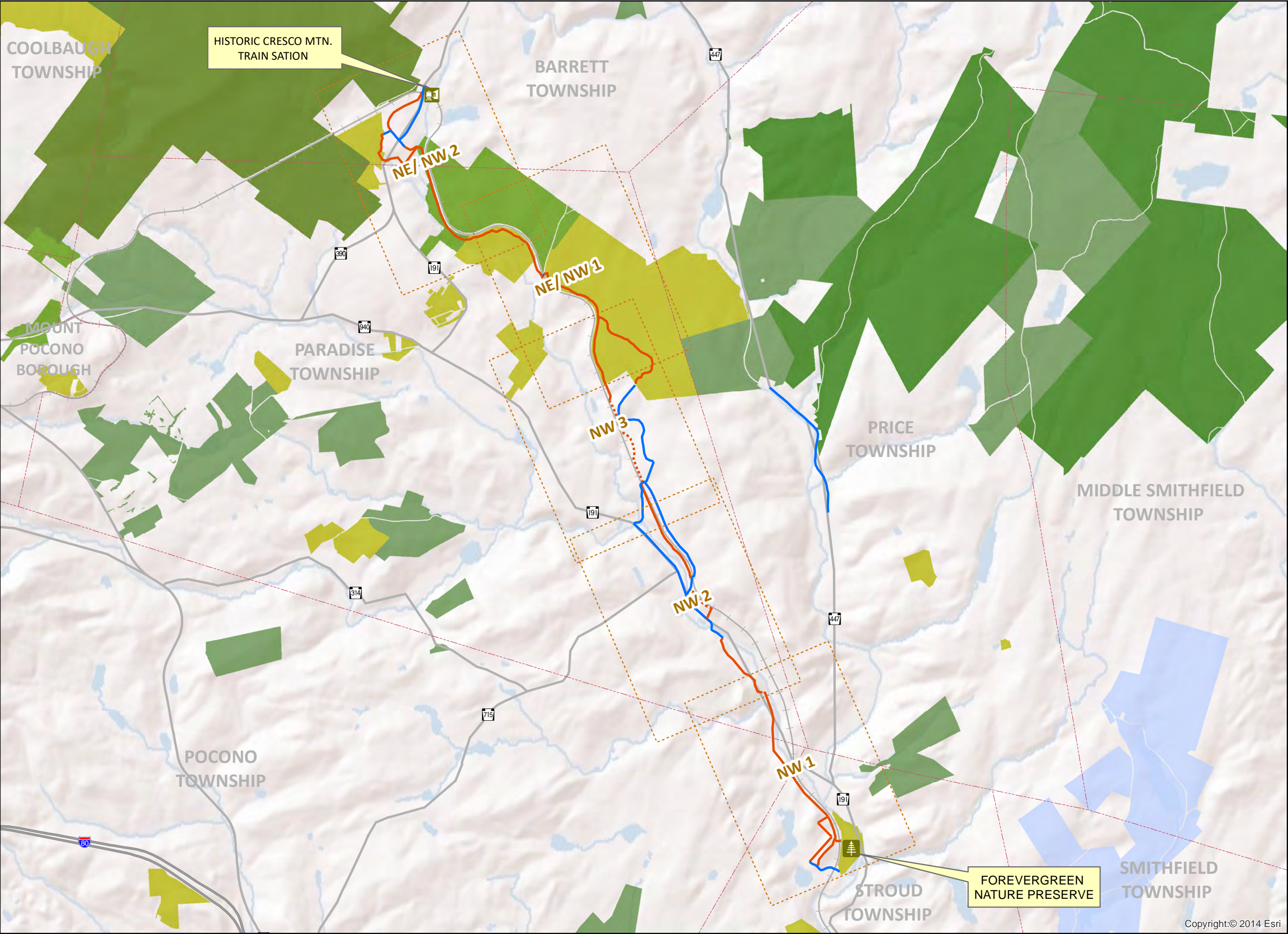
Upper Brodhead-Paradise Trail Feasibility

OVERVIEW
NE POTENTIAL
ALIGNMENT



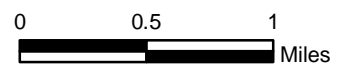
1:48,000

- Municipal Boundaries
- Arterial Roads
- Streams
- Active Rail
- Potential UBP Trail
- Potential UBP Road Alignment
- Section Maps
- Municipal Open Space
- Nature Preserve
- State Forests
- State Game Lands
- Private Conservation
- Water Authority Lands



Upper Brodhead-Paradise Trail Feasibility

**OVERVIEW
NW POTENTIAL
ALIGNMENT**



1:48,000

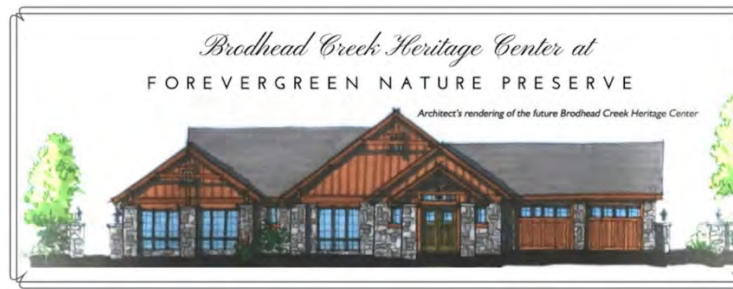
- Section Maps
- Municipal Boundaries
- Potential UBP Trail
- Potential Rail Trail
- Potential UBP Road Alignment
- Active Rail
- Arterial Roads
- Municipal Open Space
- Nature Preserve
- State Forests
- State Game Lands
- Private Conservation
- Water Authority Lands

- ***O&D Point 1 - Brodhead Creek Heritage Center (BCHC) at ForEvergreen Nature Preserve⁷***

In addition to providing much-needed office space for PHLT and BWA, Brodhead Creek Heritage Center will house space for educational displays of native birds, mammals, fish, reptiles, amphibians and plants, and currently houses a small museum featuring exhibits on the history of fly-fishing in the Brodhead watershed, the raptors at ForEvergreen Nature Preserve, a “flood wall” showing impacts of the Flood of 1955 on land and people, and a 3D map of Monroe County onto which stories about land, water and people can be projected. In addition, the building contains meeting space for hands-on science programs, and public and private talks, shows and events.

The life cycle of Pocono brook trout (the state fish) will be featured, and fly-tying and fly-fishing lessons will be offered. Kid-friendly displays of how water “recycles” will be installed, including the ever-popular chance to get wet! A planned exhibit will be “The Story of the Brodhead: Birthplace of American Fly Fishing,” highlighting this stretch of the Brodhead and its pivotal, historic role. A display “From Creek to Tap” will show how the Brodhead becomes drinking water for millions.

A planned eagle cam will give an up-close look at the preserve’s resident eagles as they maintain their nest and feed and raise their young, with monitors in the education center and a live feed that visitors can follow online.



Other outdoor resources planned will be geared to different age- and interest-groups, a natural-materials playground for toddlers and preschoolers, interpretive trail signage, trail cams to capture wildlife activities, habitat enhancement and interpretation, and pure water testing sites.

Brodhead Creek Heritage Center is designed to provide space for multiple uses:

- Rotating display space focusing on water science, the story of fly fishing, conservation exhibits and “how water works” education about creeks and groundwater, vernal pool demonstration, water quality art and photography.
- Water education class space available to local environmental education centers.
- “Streamwatcher” training in how to monitor and report water quality data.

⁷ The description of this site is taken from the website www.brodheadcreekheritage.org and promotional materials.

- ***O&D Point 2 - Cresco Station Museum***⁸

The Delaware, Lackawanna, and Western Railroad first came through Cresco in 1851. The peak use of the Cresco Station can be categorized into two periods: the Freight Period from 1851 to circa 1900, and the Passenger Period from 1900 to the 1950s. During the first period, goods such as hatchery fish, ice, railroad ties, railroad spikes, mining timber, and sprags were shipped. Hides were delivered by rail to the tanneries and sent to market as leather. Mountain resorts were built during the end of the 19th century and the beginning of the 20th century. Thousands of urban dwellers visited as summer vacations came into vogue as a means to escape city life. The nearby Buck Hill Falls resort and community were built in 1905 by a branch of Quakers and was known as “a settlement for Friends and friendly people.” A noted Quaker from Philadelphia, George Abbot of Abbott’s Dairy, was known to load his white horse and carriage on the train and transport his family from Cresco Station to this summer paradise community and enjoy the fresh mountain air and clean water.

The original station at Oakford (later named Oakland and then Cresco) was a pile of railroad ties with a canvas roof. The present station was built in the mid-1880s.

Cresco Station closed in 1967, partially due to the increase in automobile travel in the United States. Cresco Station remained abandoned until the Weiler Family Foundation began restoration of the building, replacing deteriorating floors and structural supports, painting, and restoring stained-glass windows. Other restorations continue.

The restored Cresco Station was made available to Barrett Township Historical Society in 1999 by the Weiler Family Foundation, and subsequently reopened to the community as a museum. The old baggage room was converted to an exhibit of a country store.



Figure 1 - Cresco Station c. 1930

⁸ Description of this site is in part derived from the Barrett Township Historical Society, www.barretthistory.org, and from the Buck Hill Falls archives.

Passenger traffic peaked during the 1930s and 1940s, when people from cities made the Poconos one of their desired tourist destinations. Later, with the increase in popularity of winter sports, tourism in the winter also began to rise. At its busiest, the Cresco Station saw more than 1,000 passengers arriving in a single day. The Cresco Station served as a multi-modal transportation node at this time for the adjacent villages of Cresco, Mountainhome, and Canadensis.

The following point-to-point segment descriptions correspond to the segment maps following this section:

Potential alignment – Northeast Route (from BCHC to Cresco Station)

- ***Point 1 / Origination-Destination 1 – BCHC***

ForEvergreen Nature Preserve and Brodhead Creek Heritage Center are bounded to the north and east by Brodhead Creek, to the south by Cherry Lane Road, and to the west by the Pennsylvania Northeast Regional Railroad Authority (PNRRA). Two routes were examined using Cherry Lane Road as the starting point for identifying both a Northern Route and a Southern Route to Cresco Station. Each route with alternative options is described below by individual segments progressing toward the Cresco Station destination. Two additional routes from BCHC were identified which could link to the Northeastern and Northwestern routes as described below. One would be via acquisition of a property adjacent to ForEvergreen Nature Preserve, the former Penn Hills property, and installation of a bridge over Brodhead Creek, which would then connect into Segment NE 1-2 or Segment NE 2-3 as described below. Another would be connecting to Segment NW 0-1A via a bicycle-pedestrian railroad crossing from the existing property of the preserve. ForEvergreen Nature Preserve provides a large parking lot at its entrance to serve BCHC and visitors. Upgrades to this parking area are being planned which could also provide for service as a trailhead facility.

The first segments for the two routes described below would start along Cherry Lane Road. If you turn left out of the driveway, you start the first leg of a potential Northeast Route (NR). If you turn right out of the driveway, you start the first leg of a potential Northwest Route (NW).

We begin with the Northeast Route.

Segment NE 0-1 - BCHC to Parcel 30: Leave parking area of Brodhead Creek Heritage Center and turn left onto Cherry Lane Road (on road trail), travel approximately 1,300 feet to cross over bridge (Brodhead Creek), then continue approximately 50 feet and turn left onto Parcel 30 (Strunk, Ronald C. Sr.). A stepped or ramped approach into the property would be required at this point. Alternatively, continue along Cherry Lane Road along a substantial rock-cut to an entry point at an existing dirt driveway into the property connecting to the ridge line.

- Trailhead improvements
- On road improvements and signage

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 1 POTENTIAL ALIGNMENT

Segment NE 1-2 – Parcel 30 to Route 191/447: Climb approximately 40 feet through wooded area and continue following the ridgeline through upland wooded area for approximately 2,000 feet to Route 191/447 and potential trail crossing.

- Negotiate missing rights-of-way with private owners - Parcel 30 (Strunk, Ronald C. Sr.)
- Potential trail crossing (Route 191/447)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 1 POTENTIAL ALIGNMENT

Segment NE 2-3 – Parcel 33-41 to Michael Creek: Cross Route 191/447 and continue along western boundary of Parcel 41 (Pocahontas Rod & Gun Club), traverse approximately 4,500 feet through primarily upland wooded area to potential stream crossing over Michael Creek in Parcel 41 following property boundary to easement property.

- Negotiate missing rights-of-way with private owner – Parcel 41
- Potential stream crossing (Michael Creek)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 1 POTENTIAL ALIGNMENT

Segment NE 3-4 – Michael Creek stream crossing to potential trailhead on Rogowicz conservation easement (PHLT): Continue for approximately 2,000 feet following upland contours through primarily wooded area along boundary of Parcel 41 to potential trailhead accessed off terminus of Brush Road (Rogowicz conservation easement, PHLT).

- Potential trailhead - Rogowicz conservation easement (PHLT)
- Negotiate missing rights-of-way with private owner – Parcel 41

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 1 POTENTIAL ALIGNMENT

Segment NE 4-5 – Potential trailhead on Rogowicz conservation easement (PHLT) to potential bridge over un-named tributary on conservation easement: Continue for approximately 4,000 feet across contours (approximate 100-foot rise) following northeast boundary of conservation easement through wooded (oak) forest to an additional potential trailhead at eastern corner of conservation easement, then continue for an additional approximate 875 feet to potential stream crossing over un-named tributary.

- Potential trailhead - Rogowicz conservation easement (PHLT)
- Potential stream crossing (unnamed tributary)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 2 POTENTIAL ALIGNMENT

Segment NE 5-6 – Unnamed tributary to Parcel 5 (Brodhead Forest & Stream Association): Traverse approximately 4,000 feet through wooded area crossing contours into Parcel 5 to a potential stream crossing (bridge) over Leas Run, then continue westerly for approximately 3,200 feet over flat terrain through mixed evergreen and hardwood forest which then descends to a potential trail crossing at Deer Path Road onto Rolling Hills Way.

- Potential stream crossing (Leas Run) – Note: may be able to utilize stepping stones over Leas Run.
- Potential trail crossing (Deer Path/Rolling Hills Way)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 2 POTENTIAL ALIGNMENT

Segment NE 6-7 – Rolling Hills Way to Parcel 5: Stay on the left side of Deer Path Road and turn left onto south side of Rolling Hills Way (on road alignment) for approximately 1,600 feet to once again connect to Parcel 5 (Brodhead Forest & Stream Association).

- On-road improvements and signage

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 2 POTENTIAL ALIGNMENT

Segment NE 7-8 – Parcel 5 (Brodhead Forest & Stream Association) to Parcel 10 (DeSeve, Karren A.): Traverse westerly downhill through Parcel 5 to approximate 500-foot contour, then follow contour northerly through wooded evergreen forest on the high side away from Brodhead Creek for approximately 2,200 feet to Parcel 10 and potential trail crossing over Circle H Road.

- Negotiate missing rights-of-way with private owner – Parcel 5
- Negotiate missing rights-of-way with private owner – Parcel 10
- Potential trail crossing (Circle H Road)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 2 POTENTIAL ALIGNMENT

Segment NE 8-9 – Parcel 10 (DeSeve, Karren) to Delaware State Forest: Continue through Parcel 10 for approximately 2,800 feet to opposite Parcel 25 (Parkside Angling Association) and cross Route 447 to west side (potential trail crossing), then continue on west side northerly for approximately 1,500 feet over Pine Mountain Run, which drains Manzanedo Lake (potential stream crossing), then an additional approximate 300 feet to T-intersection with Manzanedo Road/T529. Cross back to the east side (potential trail crossing) into Delaware State Forest. Alternatively or in conjunction with, develop an on-road alternative on Route 447 to Segment NE 11-12.

- Negotiate missing rights-of-way with private owner – Parcel 10
- Negotiate missing rights-of-way with private owner – Parcel 25
- Negotiate trail development with Delaware State Forest (DCNR)
- Two potential trail crossings (Route 447)

- Negotiate trail development with PennDOT

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 3 POTENTIAL ALIGNMENT

Segment NE 9-10 – Delaware State Forest to Route 447: Traverse approximately 5,000 feet through Delaware State Forest Lands climbing to the approximate 800-foot contour, then following contour to bridge over Popular Run (potential stream crossing) near conserved areas at Laurel Run Road (existing trail crossing), then traverse another approximate 900 feet northerly before turning west and south back toward Route 447 for approximately 2,800 feet through lands of Delaware State Forest to Parcel 21 (Meeker, Michael) and Parcel 28 (Pocono Mountain Bluestone Co.).

- Negotiate trail development with Delaware State Forest (DCNR)
- Potential trail crossing (Laurel Run Road) – existing bridge
- Potential stream crossing (Popular Run)
- Negotiate missing rights-of-way with private owner – Parcel 28

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 3 POTENTIAL ALIGNMENT

Segment NE 10-11 – Parcel 21-25 to Route 447 crossing: Traverse approximately 700 feet to Route 447 (potential trail crossing), then continue an additional 200 feet over an existing private bridge (potential stream crossing) to Timber Hill Road.

- Negotiate missing rights-of-way with private owner – Parcel 28
- Negotiate missing rights-of-way with private owner – Parcel 25
- Negotiate missing rights-of-way with private owner – Parcel 21
- Potential trail crossing (Route 447)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 3 POTENTIAL ALIGNMENT

Segment NE 11-12 – Route 447 crossing to Parcel 28: From Timber Hill Road, turn westerly into wooded area along boundary of Parcels 25 (Parkside Angling Association) and Parcel 19 (JLF JJ LLC) for a distance of approximately 650 feet to Parcel 28 (Pocono Mountain Bluestone Co.).

- Negotiate missing rights-of-way with private owner – Parcel 19
- Negotiate missing rights-of-way with private owner – Parcel 25
- Potential stream crossing over existing bridge (Brodhead)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 3 POTENTIAL ALIGNMENT

Segment NE 12-13 – Parcel 28 to Browns Hill Preserve: Continue approximately 2,600 feet westerly across contours (200-foot rise) to Browns Hill Preserve, recently acquired by Paradise Township.

- Negotiate missing rights-of-way with private owner – Parcel 28

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 3 POTENTIAL ALIGNMENT & NE 4 POTENTIAL ALIGNMENT

Segment NE 13-14 – Browns Hill Preserve to Paradise Price Nature Preserve: Continue approximately 3,000 feet northerly through upland forest of Browns Hill Preserve across relatively flat and high terrain (highpoint elevation 1,100 feet) to connect with the existing trail system of Paradise-Price Nature Preserve.

Paradise-Price Preserve is 777 acres straddling the watershed ridge of the two townships with hunting and wild trout, catch-and-release fishing encouraged. There is a view of Targa Falls on Brodhead Creek and 6.7 miles of wilderness trails.

- Work with Paradise Township to establish an extension to its trail system

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE 4 POTENTIAL ALIGNMENT & NE/NW 1 POTENTIAL ALIGNMENT



Upper Brodhead-Paradise Trail Feasibility

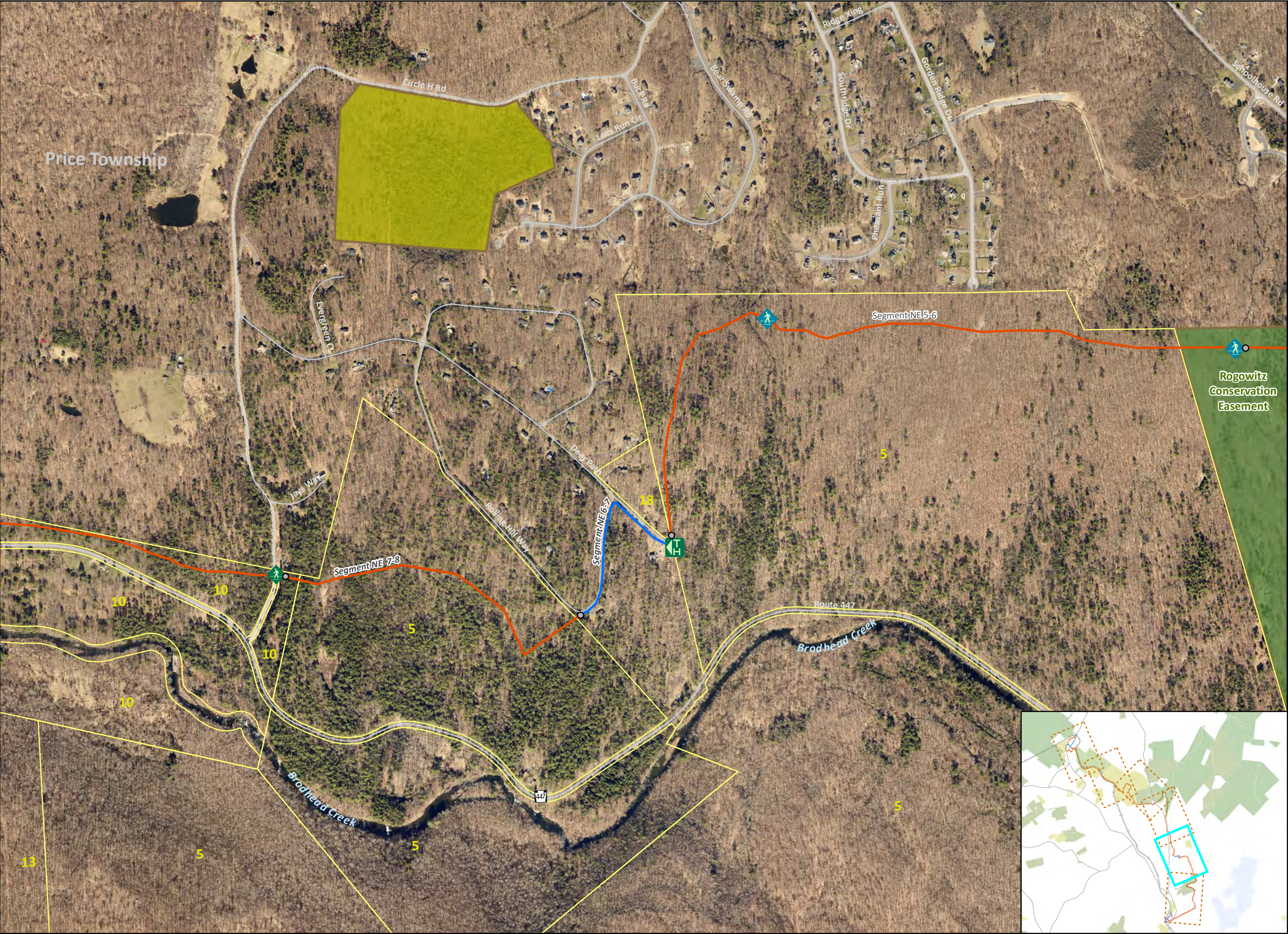
NE 1 POTENTIAL ALIGNMENT



0 300 600 900 Feet

1:8,200

- Bridge
- Potential Stream Crossing
- Potential Trail Crossing
- Potential Trailhead
- Municipal Boundaries
- Active Rail
- Existing Trail
- Potential UBP Trail
- Potential UBP Road Alignment
- Key Parcels
- MC Rail Authority
- Municipal Open Space
- Private Conservation



Price Township

Circle H Rd

Lees Run Cir

Buck Rd

Bear Swamp Rd

Ridge Xing

Southridge Dr

Gordon Ridge Dr

Schoolhouse Rd

Evergreen Cr

Jays Way

Deer path

Rolling Hill Way

Segment NE 5-6

Rogowitz
Conservation
Easement

Segment NE 7-3

Segment NE 6-7

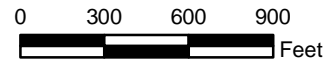
Route 447

Brodhead Creek

Brodhead Creek

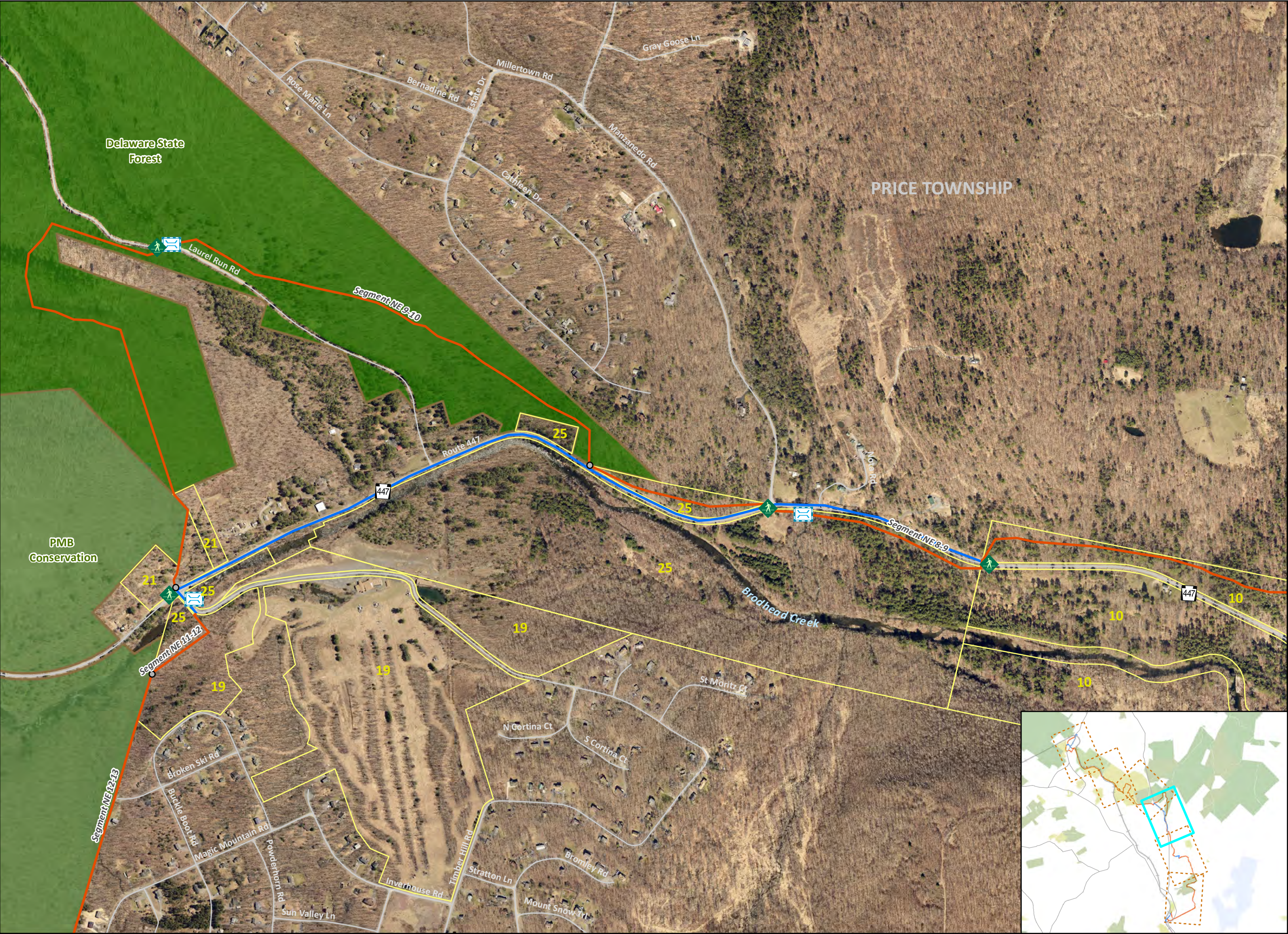
Upper Brodhead-Paradise Trail Feasibility

NE 2 POTENTIAL ALIGNMENT



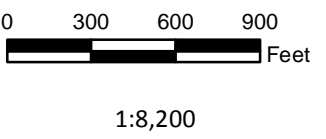
1:8,200

- Potential Stream Crossing
- Potential Trail Crossing
- Potential Trailhead
- Potential UBP Trail
- Potential UBP Road Alignment
- Key Parcels
- Municipal Open Space
- Private Conservation

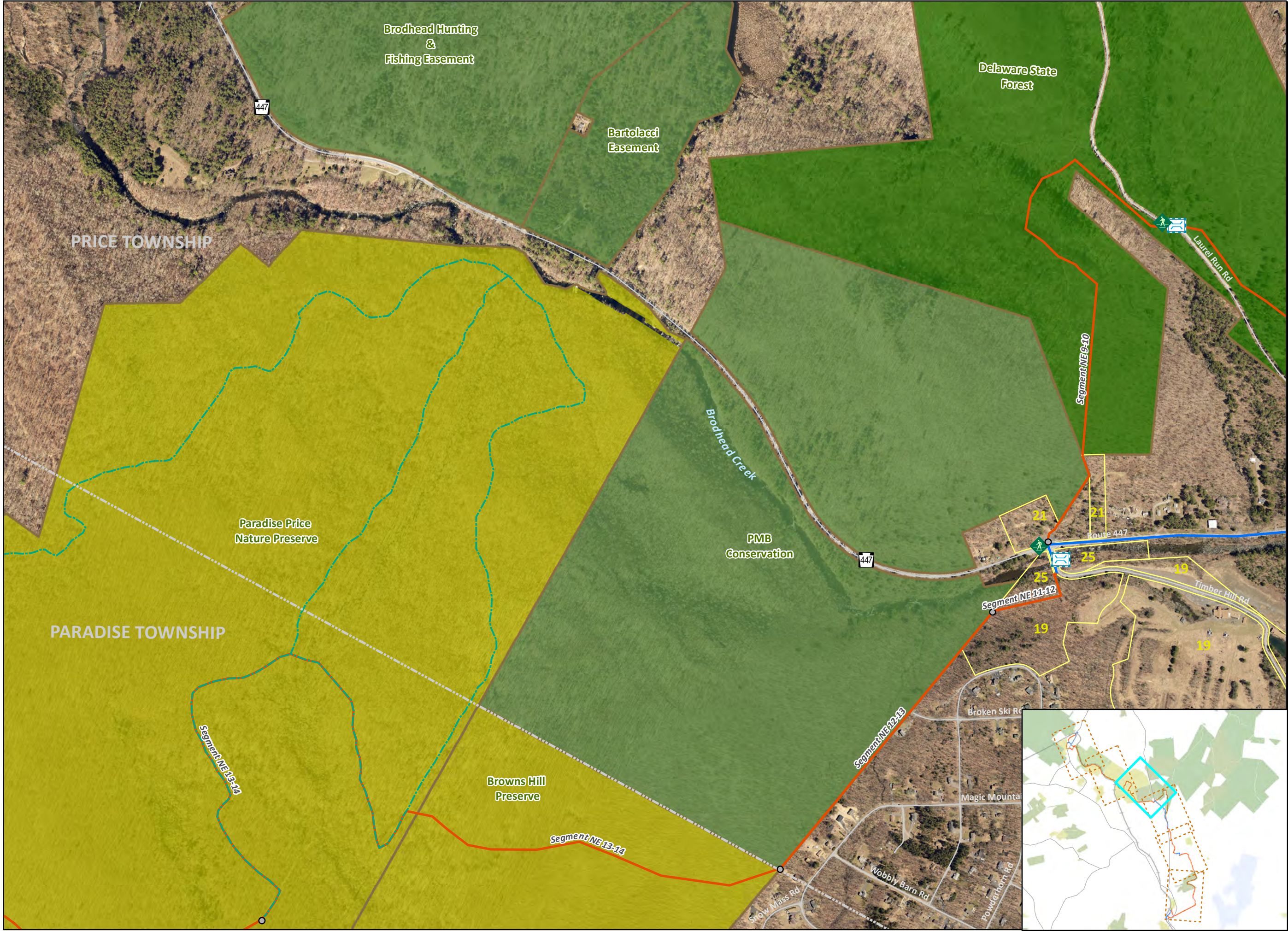


Upper Brodhead-Paradise Trail Feasibility

NE 3 POTENTIAL ALIGNMENT



- Bridge
- Potential Trail Crossing
- Potential UBP Trail
- Potential UBP Road Alignment
- NE 3 Key Parcels
- State Forests
- Private Conservation



Upper Brodhead-Paradise Trail Feasibility

NE 4 POTENTIAL ALIGNMENT



1:8,200

- Bridge
- Potential Trail Crossing
- Municipal Boundaries
- Potential UBPs
- Potential UBPs Road Alignment
- Existing Trails
- Key Parcels
- Municipal Open Space
- State Forests
- Private Conservation

The remaining segment descriptions for the Northeast Potential Alignment correlate with those of the Northwest Potential Alignment to Cresco Station:

Segment NE/NW 0-1 – Paradise-Price Nature Preserve to Henry's Crossing Road:

Traverse approximately 2,500 feet through existing trails of Paradise-Price Nature Preserve to potential stream crossing (bridge) over unnamed tributary of Cranberry Creek; then an additional 2,000 feet to another potential stream crossing (bridge) over another unnamed tributary of Cranberry Creek; then an additional approximate 800 feet on Paradise-Price Nature Preserve existing trail to railroad crossing on Henry's Crossing Road.

- Two potential stream crossings (unnamed tributaries of Cranberry Creek)
- Railroad crossing (Henry's Crossing Road)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT

Segment NE/NW 1-2 – Henry's Crossing Road to Nothstein Preserve: Head northwesterly through Parcel 16 (Henry, William S. and Christine E.) and Parcel 29 (Spratley, John Joselyn) for approximately 900 feet to join existing trail system of Nothstein Preserve.

Nothstein Preserve has more than 100 acres with hunting and wild trout catch-and-release fishing and 3.4 miles of wilderness trails.

- Negotiate missing rights-of-way with private owner – Parcel 16
- Negotiate missing rights-of-way with private owner – Parcel 29

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT

Segment NE/NW 2-3 – Nothstein Preserve to Cranberry Creek Nature Preserve: Continue another approximate 3,800 feet through Nothstein Preserve along an existing pathway (old service road) paralleling the active railroad and crossing two unnamed tributaries of Cranberry Creek to connect with Cranberry Creek Nature Preserve.

- Two potential stream crossings (unnamed tributaries of Cranberry Creek)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT & NE/NW 2 POTENTIAL ALIGNMENT



Figure 2- Falls along tributary of Cranberry Creek

Segment NE/NW 3-4 – Cranberry Creek Nature Preserve to Parcel 31 (The Shepherds residential complex): Continue another approximate 4,700 feet through Cranberry Creek Nature Preserve/Upper Paradise Preserve on path paralleling the railroad (old service road), then turn west crossing unnamed tributary of Cranberry Creek (potential stream crossing) and an additional 100 feet to Parcel 31 (The Shepherds in Monroe County).

- Potential stream crossing (unnamed tributary of Cranberry Creek)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT



Figure 3 - Potential stepping-stone stream crossing

Segment NE/NW 4-5A – Parcel 31 (The Shepherds) to intersection of Grace Avenue and Chipmunk Court: Continue another approximate 650 feet paralleling the southeastern boundary with Evergreen Community Charter School through Parcel 31 to Grace Avenue. Turn right on Grace Road and continue 300 feet to Route 191 (potential road crossing). Then continue on Grace Avenue another 500 feet to intersection with Chipmunk Court.

- Negotiate missing rights-of-way with private owner – Parcel 31
- On-road improvements and signage
- Potential trail crossing (Route 191/390)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT

Segment NE/NW 4-5 B – Parcel 31 (The Shepherds) to intersection of Grace Avenue and Chipmunk Court: Continue approximately 1,000 feet along the southeastern boundary of Parcel 31, then turn westerly through wooded area along contour of Parcel 31 for another approximate 600 feet to Ice Lake Natural Area parcel on eastern side of Route 191/390, follow stream corridor along its northern side for approximately 300 feet to Route 191/390, cross road (potential road crossing) into Ice Lake Natural Area, continue for approximately 400 feet to existing parking area of natural area (potential trailhead), then follow existing trail system for approximately 1,000 feet to cul-de-sac of Chipmunk Court, then an additional 350 feet to intersection with Grace Avenue.

Ice Lake Natural Area is a 65-acre preserve in Barrett Township with a small manmade lake. Walking, contemplation, birding are encouraged on 1.1 miles of wilderness trail.

- Negotiate missing rights-of-way with private owner – Parcel 31
- Potential trail crossing (Route 191/390)
- Potential trailhead (Develop a one-acre parcel at Ice Lake on Route 390/191 that will include a parking area for at least 20 spaces.)
- On-road improvements and signage

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT

Segment NE/NW 5-6 A – Grace Avenue and Chipmunk Court to Route 191/390 overpass: Travel 2,600 feet along existing pathway to intersection with Route 390 road crossing and Route 390 overpass.

- Negotiate missing rights-of-way with private owner – Parcel 9 (Clark, Roy R. and Sheila A.)
- Potential trail crossing (Route 191/390 overpass)
- On-road improvements and signage

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT

Segment NE/NW 5-6 B – Grace Avenue to Route 191/390 overpass: From intersection of Grace Avenue with Route 191/390, turn left and travel approximately 2,400 feet along roadway to Route 191/390 overpass.

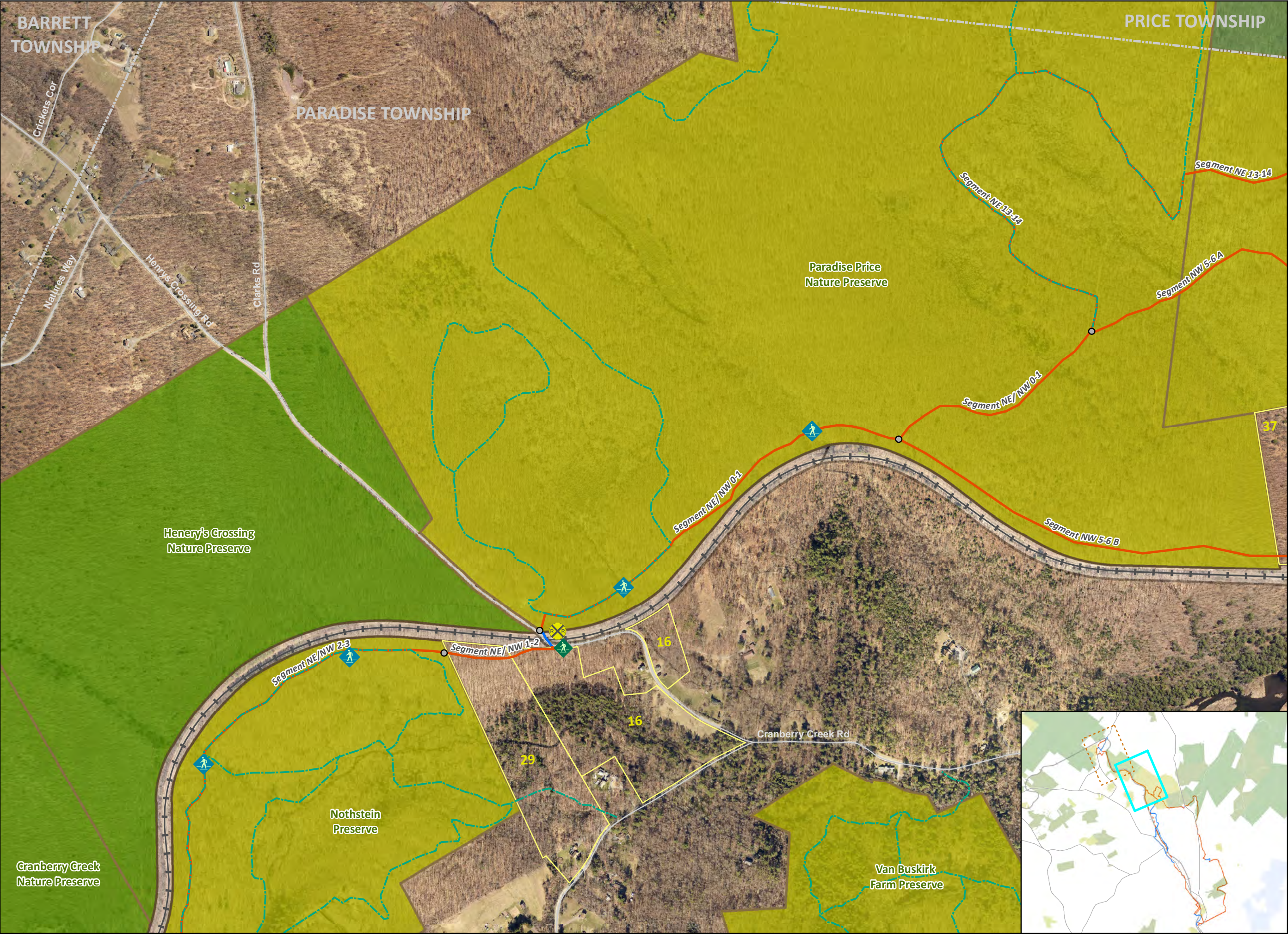
- On-road improvements and signage
- “Trail town” – Bike/pedestrian-friendly streetscape design
- Potential trail crossing (Route 191/390 overpass)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT

Segment NE/NW 6-7 – Route 191/390 overpass to Cresco Station Museum: Continue 350 feet to Hardytown Road, then turn right onto Hardytown Road for 500 feet to connect with Cresco Station Museum.

- On-road improvements and signage
- “Trail town” – Bike/pedestrian-friendly streetscape design

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NE/NW 1 POTENTIAL ALIGNMENT



Upper Brodhead-
Paradise
Trail Feasibility

NE/ NW 1
POTENTIAL
ALIGNMENT



1:8,200

- Potential Stream Crossing
- Potential Trail Crossing
- Railroad Crossing
- Municipal Boundaries
- Active Rail
- Potential UBP Trail
- Potential UBP Road Alignment
- Existing Trails
- MC Rail Authority
- Key Parcels
- Municipal Open Space
- Nature Preserve
- Private Conservation



Upper Brodhead-
Paradise
Trail Feasibility

NE/ NW 2
POTENTIAL
ALIGNMENT



0 300 600 900
Feet

1:8,200

- Potential Stream Crossing
- Potential Trail Crossing
- Railroad Bridge
- Cresco Mtn Station
- Municipal Boundaries
- Active Rail
- Potential UBP Trail
- Potential UBP Road Alignment
- Existing Trail
- MC Rail Authority
- Key Parcels
- Municipal Open Space
- Nature Preserve
- State Game Lands

Potential alignment – Northwest Route (from BCHC to Cresco Station Museum)

Segment NW 0-1A - BCHC to Parcel 6 (Brodhead Forest and Stream Association): Leave parking area of Brodhead Creek Heritage Center and turn right onto Cherry Lane Road (on road trail), travel approximately 250 feet, then pass through railroad tunnel and continue approximately another 1,200 feet and turn right into Parcel 23 (Ohara, Gard H. Jr.) onto existing dirt road, continue northerly for approximately 2,000 feet then turn westerly to parallel the railroad corridor opposite ForEvergreen Nature Preserve into Parcel 1. From here, traverse Parcel 1 following the contour through wooded area paralleling the railroad corridor into Parcel 6.

- On-road improvements and signage
- Railroad crossing (Cherry Lane Road) - underpass
- Negotiate missing rights-of-way with private owner – Parcel 23
- Negotiate missing rights-of-way with private owner – Parcel 1

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 1 POTENTIAL ALIGNMENT

Segment NW 0-1B - BCHC to Parcel 6 (Brodhead Forest and Stream Association): Leave parking area of Brodhead Creek Heritage Center and turn right onto Cherry Lane Road (on road trail), travel approximately 250 feet, then pass through railroad tunnel and continue approximately another 1,900 feet and turn right into Parcel 1, then follow property boundary for approximately 3,000 feet to point just opposite the railroad corridor. From here, traverse Parcel 1 following the contour through wooded area paralleling the railroad corridor into Parcel 6.

- On-road improvements and signage
- Railroad crossing (Cherry Lane Road) - underpass
- Negotiate missing rights-of-way with private owner – Parcel 1

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 1 POTENTIAL ALIGNMENT

Segment NW 1-2 - Parcel 6 (Brodhead Forest and Stream Association) to Sylvan Cascade Road: Continue approximately 3,500 feet through Parcel 6 parallel to the southwest side of the railroad ROW, Paradise Creek, and Route 191 (near railroad tunnel) following contours along the high side – about 50 feet in elevation – above the stream, then crossing over Butz Run (potential stream crossing) along existing dirt road to Sylvan Cascade Road (potential trail crossing).

Alternatively, a new pedestrian and bicycle crossing (tunnel) at the railroad tracks could provide access from a trailhead at the ForEvergreen parking area to Parcel 1.

- Negotiate missing rights-of-way with private owner – Parcel 6
- Potential trail crossing (Sylvan Cascade Road)
- Potential stream crossing (Butz Run)

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 1 POTENTIAL ALIGNMENT

Segment NW 2-3 - Parcel 6 (Brodhead Forest and Stream Association) to bridge over Paradise (Sylvan Cascade Road): Cross Sylvan Cascade Road and continue another approximately 3,000 feet through Parcel 6 following the contours along the high side to meet Sylvan Cascade Road once again near its existing bridge crossing of Paradise Creek. Approximately 600 feet prior to the bridge, either drop down to the road or pass through Parcel 2 (Au, Allen M. and Lois K).

- Negotiate missing rights-of-way with private owner – Parcel 6
- Negotiate missing rights-of-way with private owner – Parcel 2
- Potential trail crossing (Sylvan Cascade Road)
- Potential stream crossing over existing bridge (Paradise Creek)
- On-road improvements and signage

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 1 POTENTIAL ALIGNMENT / NW 2 POTENTIAL ALIGNMENT

Segment NW 3-4 A – Sylvan Cascade Bridge over Paradise Creek to Station Hill Railroad Crossing: After crossing bridge, continue approximately 150 feet on Sylvan Cascade Road to Route 191 (potential trail crossing), turn left onto Route 191 and traverse approximately 1,600 feet, turning right before existing bridge over Paradise Creek onto abandoned township road (Station Hill Road) to abandoned at-grade railroad crossing near the former Henryville Station.

- Potential trail crossing (Route 191/Paradise Valley Road)
- On-road improvements and signage
- Old road bed improvement (Station Hill Road)
- Railroad crossing (Station Hill Road) – at grade, not signalized

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT



The former Henryville Station

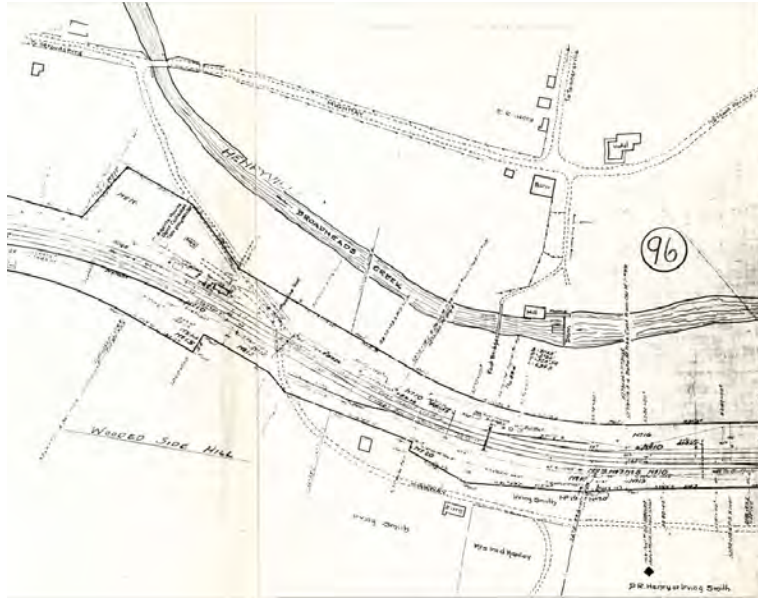


Figure 4- Railroad valuation map (VAL map) showing Station Hill Road along Paradise Creek/"Brodheads," circa 1919

Segment NW 3-4 B – Sylvan Cascade Bridge over Paradise Creek to Station Hill Rail Road Crossing: After crossing bridge continue approximately 150 feet on Sylvan Cascade Road to Route 191 (potential trail crossing), turn left onto Route 191 and traverse approximately 300 feet, turning right into wooded area and crossing contours upslope along boundary between Parcel 24 (PP&L Co.) and Parcel 17 (Henryville Conservation Club), for approximately 500 feet (100-foot elevation change) to railroad ROW, turn left and parallel railroad for approximately 1,400 feet to Station Hill Crossing.

- Potential trail crossing (Route 191/Paradise Valley Road)
- On-road improvements and signage
- Negotiate missing rights-of-way with private owner – Parcel 17
- Negotiate missing rights-of-way with private owner – Parcel 24
- Railroad crossing (Station Hill Road) – at grade, not signalized

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT

Segment NW 4-5 A – Station Hill Crossing to Browns Hill Crossing: Staying on the west side of Station Hill Crossing (not crossing) continue approximately 4,800 feet through Parcel 17 (Henryville Conservation Club) and Parcel 40 (Paradise Valley Woodlands Inc.) adjacent and paralleling the railroad to Browns Hill Road and existing at-grade railroad crossing.

- Negotiate missing rights-of-way with private owner – Parcel 17
- Negotiate missing rights-of-way with private owner – Parcel 40
- Railroad crossing (Station Hill Road) – at grade, signalized

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT / NW 3 POTENTIAL ALIGNMENT

Segment NW 4-5 B – Station Hill Crossing to Browns Hill Crossing: Cross railroad continuing on Station Hill Road unimproved section for approximately 500 feet, then continue on Station Hill Road (low volume) for 4,500 feet to Browns Hill Road 100 feet east of the crossing.

- Railroad crossing (Station Hill Road) – at grade, not signalized
- Old road bed improvement (Station Hill Road)
- On-road improvements and signage

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT / NW 3 POTENTIAL ALIGNMENT

Segment NW 4-5 C – Station Hill Crossing to Browns Hill Crossing: This alternative continues on road (Route 191/Paradise Valley Road) crossing over the existing bridge from its intersection with Station Hill Road for a distance of approximately 4,000 feet to another existing bridge to connect with Browns Hill Road (T591). After crossing bridge, turn right onto Browns Hill Road and continue approximately 2,000 feet upslope to Browns Hill Crossing.

- On-road improvements and signage
- Railroad Crossing (Station Hill Road) – at grade, signalized

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT / NW 3 POTENTIAL ALIGNMENT

Segment NW 5-6 A – Browns Hill Road to Browns Hill Preserve: An on-road option continues on Browns Hill Road for approximately 1,000 feet to Alpine Road, then turns right onto Alpine Road following contours for approximately 4,800 feet to the end of the cul-de-sac where a rough existing trail leads into Browns Hill Preserve and potential improved trailhead could be established. Note that approximately an additional 2,000 feet of trail improvements would connect this trailhead through the Browns Hill Preserve to Segment NE 13-14 described above.

- On-road improvements and signage
- Potential trailhead improvement

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT / NW 3 POTENTIAL ALIGNMENT

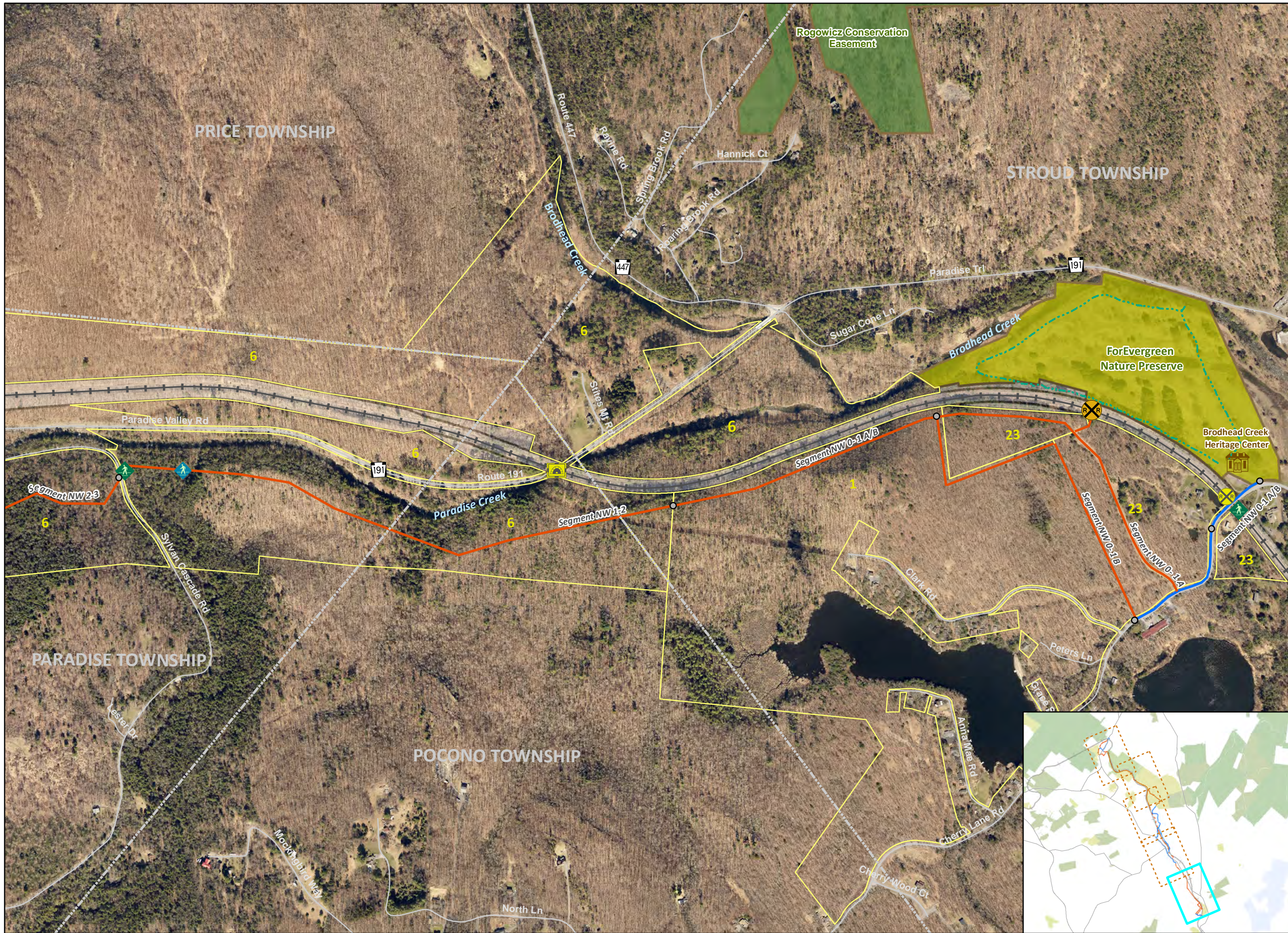
Segment NW 5-6 B – Browns Hill Road to Browns Hill Preserve: This option would parallel the railroad on its eastern side utilizing exceptionally wide ROW areas mixed with private lands, picking up the old service road where possible to reach the Browns Hill Preserve in its southernmost reach, tying into the existing trail system along the old service road for approximately 3,500 feet to meet with Segment NE14-15 described above.

- Negotiate missing rights-of-way with private owner – Parcel 37
- Negotiate missing rights-of-way with private owner – PNRRA

Map Reference: Upper Brodhead-Paradise Trail Feasibility Study NW 2 POTENTIAL ALIGNMENT / NW 3 POTENTIAL ALIGNMENT

Not shown but worth mentioning is another challenging potential alignment from Station Hill Road on the west side of the railroad paralleling the ROW south to Stites Tunnel/Bridge and ForEvergreen Nature Preserve. This potential alignment would need to pass through two privately owned large parcels of land (Parcel 6 - *Brodhead Forest and Stream Association* and Parcel 13 – *Femminella, Charles J., et. al.*). The more significant challenge is finding an alignment to ForEvergreen Nature Preserve on this side of the tracks, which would either involve an additional bridge over the Brodhead or crossing atop the tunnel for a distance of approximately 3,500 feet to link the gap.

Continue to Cresco Station via NE/NW segments that correlate to the NE route described above.



Upper Brodhead-Paradise Trail Feasibility

NW 1 POTENTIAL ALIGNMENT



0 300 600 900 Feet

1:8,200

- Potential Rail Crossing
- Potential Stream Crossing
- Potential Trail Crossing
- Railroad Crossing
- Railroad Tunnel
- Municipal Boundaries
- Active Rail
- Potential UBP Trail
- Potential UBP Road Alignment
- Existing Trails
- MC Rail Authority
- Key Parcels
- Municipal Open Space
- Private Conservation













Upper Brodhead-
Paradise
Trail Feasibility

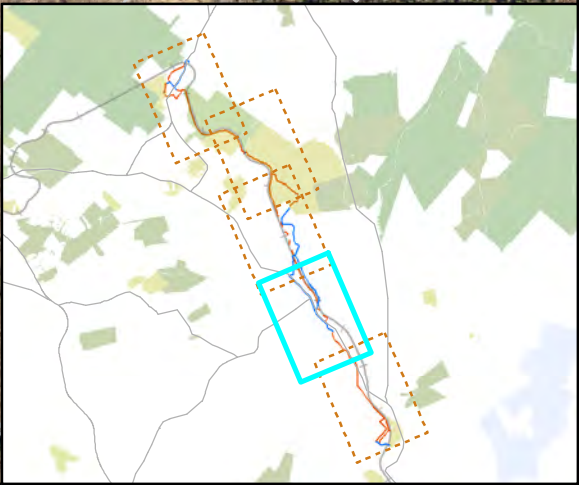
NW 2 POTENTIAL
ALIGNMENT

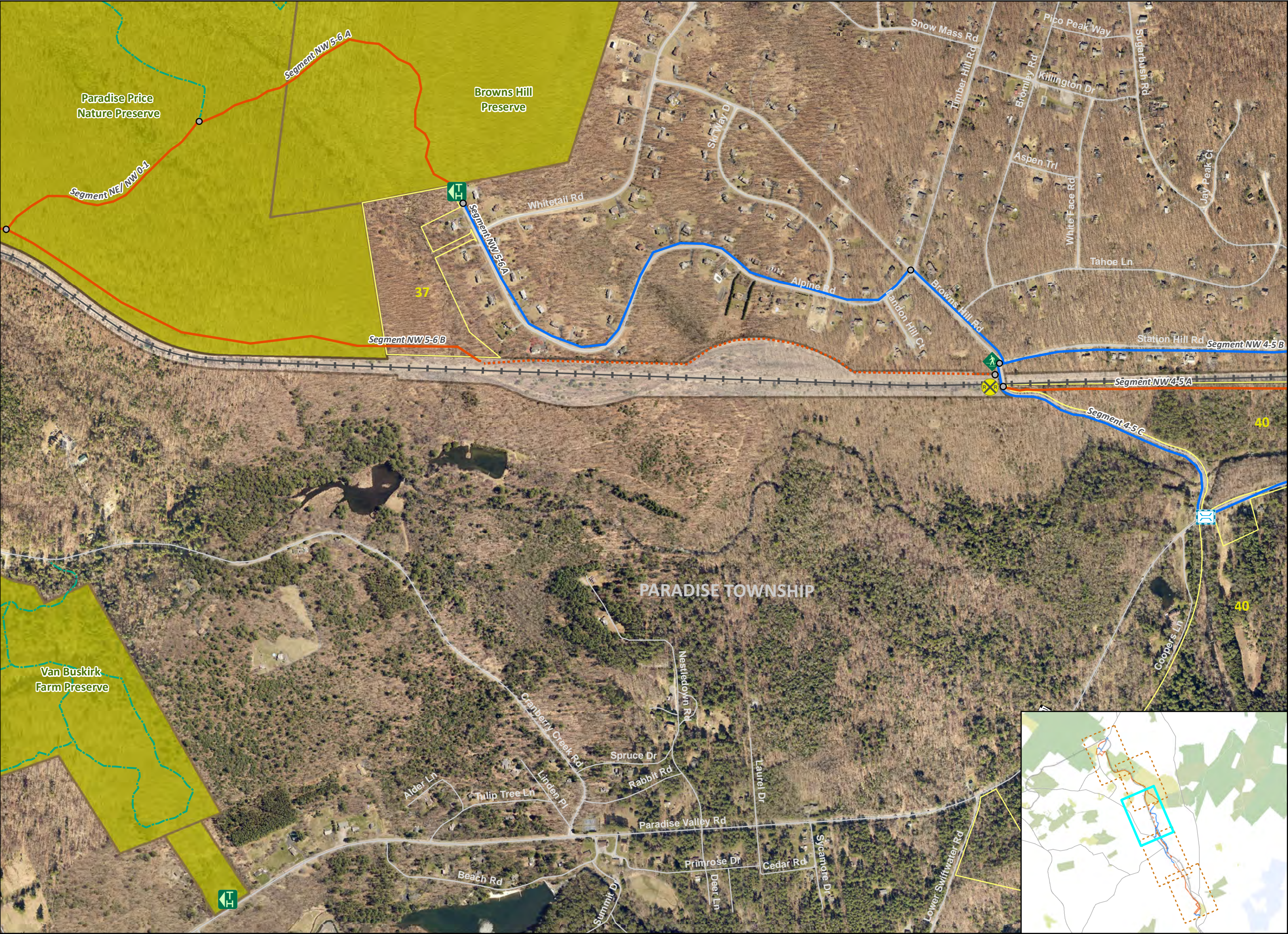


0 300 600 900
Feet

1:8,200

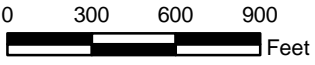
-  Bridge
-  Potential Trail Crossing
-  Railroad Crossing
-  Municipal Boundaries
-  Active Rail
-  Potential UBP Trail
-  Potential Rail Trail
-  Potential UBP Road Alignment
-  MC Rail Authority
-  Key Parcels





Upper Brodhead-
Paradise
Trail Feasibility

NW 3 POTENTIAL
ALIGNMENT



1:8,200

- Bridge
- Potential Trail Crossing
- Potential Trailhead
- Railroad Crossing
- Active Rail
- Potential UBPs Trail
- Potential Rail Trail
- Potential UBPs Road Alignment
- Existing Trails
- Key Parcels
- Municipal Open Space

CHAPTER 3 – FEASIBILITY OF ALTERNATIVES

3.1 Physical Feasibility

Potential trails through the study area are primarily suitable for hiking footpaths or wilderness-style trails, given the ecological sensitivity, topography and existing recreational usage. The corridor is a picturesque landscape as recognized in the Upper Brodhead & Paradise Greenway Plan. State Routes 447, 191, 940, and 390 were all recommend for consideration for both scenic byways and bikeways.

The proposed connecting trail network utilizes sections across public lands with trails along existing developed or developing trails. Motorized uses were specifically deemed unsuitable. Conditions required to achieve the connection and linkages principally involve easement acquisitions. This effort has been spearheaded to date by Pocono Heritage Land Trust (PHLT) in partnership with municipalities and other conservation organizations. Multiple phases will be required to complete this project.

While the challenges outlined in the described alternatives are in some cases significant, they are not necessarily insurmountable. Therefore, a connected trail alignment is possible if multiple partners can work together and discussion with landowners is respectful and handled appropriately. Most needed: advocacy by a capable trail builder and steward, whether nonprofit or governmental or a combination of both, to champion the project and to ultimately shepherd agreements to maintain and sustain the envisioned through-trail system.

3.2 Usage Feasibility

Uses identified during the focus group meetings and summarized in Chapter 5 correspond to the physical constraints in the corridor as described above and its ecological character and sensitivity. In general, hiking trail development throughout the corridor is appropriate and allows for many of the other user groups identified in the focus group meetings, such as: birding, dog walking, snowshoeing, hunting and fishing, and even equestrian use if access is planned and managed to avoid user conflicts. These trails could also be utilized for interpretive use, highlighting significant environmental and natural resources and what they mean in addition to the many cultural and historical resources that can be interpreted in the corridor.

Biking trails may also be appropriate in some areas but would need to be planned and managed to avoid user conflicts. Near the two origin/destination points identified in this study, special trail segments designed to meet Americans with Disabilities (ADA) standards may be fittingly considered. Development of the three adjacent communities around the historic Cresco Station as a unified “Trail Town” could breathe a new quality of life into their fabric while realizing new economic opportunities and adhere to their historic function and character. This would also provide an important component for regional community connections and for an Inn-to-Inn Trail System, as recognized in the Upper Brodhead & Paradise Greenway Plan: “An inn-to-inn trail system is a program that would allow people to travel between two inns via foot trails or bike paths while

their luggage would be delivered to the destination by vehicle. This program could potentially increase revenue for those inns/resorts participating in the program and any other business along the trail route.”

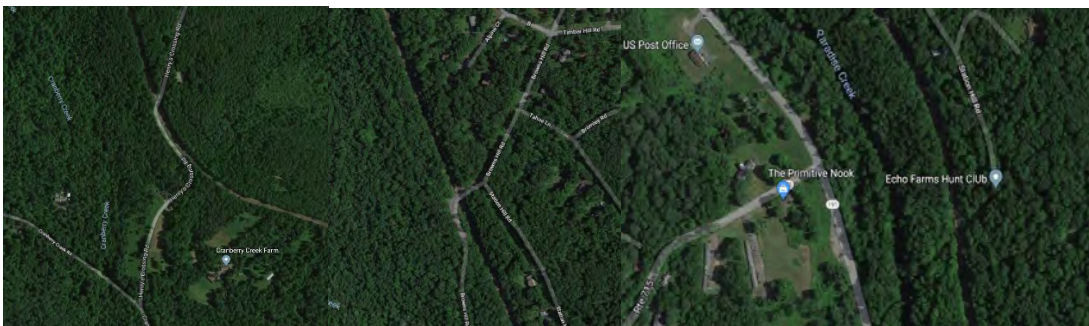
3.4 Legal Feasibility

There are two particular potential actions that require additional study in order to realize their potential to help develop a fully linked trail system in the corridor. Additionally, negotiations with private landowners will be critical to development of the trail. The overall issues related to a follow-up course of action are described below.

- *Railroad crossings*

First, there are three (3) potential railroad crossings that come in to play on the alternative alignments (all in Paradise Township): Henry’s Crossing, Browns Hill Road, and Station Hill Road.

To help determine the feasibility to utilize these crossings on the trail alignment, **Michael A. Sorbo, P.E.**, director of PennDOT’s Bureau of Rail Freight, Ports, and Waterways, was first consulted. Mr. Sorbo’s first piece of advice was to always strive to utilize an existing crossing. Railroads are more on-board with these since there is already a known risk; adding a pedestrian trail, does not add much more risk. Whether it is a state or local roadway, in essence there is already pedestrian access (walking or biking). The two active crossings, Browns Hill Road and Henry’s Crossing Road, were noted along with an inactive crossing at Station Hill Road. Per Mr. Sorbo’s request, he was emailed an outline of the proposed pedestrian crossings. Mr Sorbo stated that his Grade Crossing Unit has a database of all crossings and ownership data. After further investigation, it was confirmed that all three proposed crossings intersect the Delaware and Lackawanna Railroad, and it was strongly suggested that Rodney Bender at the Pennsylvania Public Utility Commission be contacted for further guidance.



Henry's Crossing Browns Hill Road Station Hill Road.

Rodney D. Bender, P.E., manager of the Transportation Division of the Pennsylvania Public Utility Commission, noted that if a trail crosses at the same location as a highway crossing, some of the existing warning devices can be utilized as they are, and improvements would be considered in altering a public crossing. One consideration: What level of warning devices are needed to make it safe for all users?

The Station Hill Road crossing is a former roadway that was washed out by a flood and has not been maintained as a roadway. No warning devices are in place. Mr. Bender stated that if it is still a street and nobody came to the PUC and asked for that crossing to be “abolished,” it may still be considered a public crossing. If it was abolished, it might need to be re-established; even though the roadway has not been used it could be reactivated as a trail crossing for pedestrians and bicyclists. Note, however, that the PUC does not have jurisdiction over a pedestrian-only crossing, but cyclists fall under the motor vehicle law. Also, the PUC would have had to approve an abolished crossing.

Again comes the question: What level of warning devices are needed to make the crossing safe for all users? The PUC has exclusive jurisdiction over the crossings themselves. The PUC must approve all improvements, including anything from establishing a new crossing that did not exist before to modifying an existing crossing, which may include: widening the roadway, specification of the type of warning devices, the type of crossing surface, the addition of a sidewalk or trail, underground water and aerial wire installations. Ultimately, the PUC can tell the parties what needs to happen there.

The PUC would also look out for the interest of all parties. A PUC engineer would attend a scoping meeting and recommend what the PUC would like to see. If all other parties agree, then the PUC can approve the crossing. If there is disagreement, then the parties would need to come before an administrative law judge for the commission to resolve the conflict. Protecting safety of the traveling public or users is the ultimate objective. Ron Hall is PUC’s engineering supervisor for this district.

Where there is no history of a crossing, it may still be possible to construct a new crossing and obtain a right-of-way. The PUC would consider sight distance, liability, and keeping people off the tracks and crossing where they are supposed to, e.g., it may be safer with a designated crossing. Other factors include appropriate signage and warning devices, how fast trains travel there, how many trains operate per day or per week, and time of day. An open dialogue with the railroad is imperative, and conversations must address the concerns and expectations of both parties. In some cases, rail authorities may not permit a new crossing unless another one is being eliminated, i.e. trade off.

Lawrence C. Malski, Esq., president of railroad owner Pennsylvania Northeast Regional Railroad Authority (PNRRA), reiterated its longstanding policy of not having any trails next to active track for a number of reasons, including fatalities and personal injury suits from people who were trespassing along the tracks. Regarding at-grade crossings, PNRRA would have to see what this project would propose, e.g. new sidewalk or existing pavement, etc. PNRRA does have specific standards for any type of crossing, including pedestrian and bicycle crossings, and specifications for the same. When this project reaches a trail master planning stage, the plans would need to be presented to PNRRA for review.

Regarding any encroachment in the railroad right-of-way, even in areas where the ROW is significantly wider, Mr. Malski stated that PNRRA’s insurance carriers do not permit

trails anywhere on their property because of liability issues and pending lawsuits. The insurance carrier's view is that anyone on any part of the railroad property would be regarded as an "invitee," and that could negate insurance coverage. Mr. Malski cited a recent derailment in nearby Dickson City, where rail cars and track flipped 30-40 feet from the rail line. Even at slower speeds, when cars go off, they can flip up to 100 feet from the rail line, especially with high and wide freight shipments. Mr. Malski made an interesting point: There is a reason that not many trail groups propose trails along interstate highways. He again stated that PNRRRA is at the mercy of its insurance carriers. Referencing Liberty Trail in Delaware Water Gap, Mr. Malski noted that the most reasonable place to locate the trail was along Route 611, above the rail line, where it does not impact the active rail.

Referencing back to the three crossings identified, the only ones that he is aware of are the active ones. They do not consider the inactive ones a crossing. The public ones are on PUC order, and that is why they are maintaining flashers, bells and gates at those crossings. Mr. Malski stated that the Station Hill Road crossing, from his perspective, has been long abolished.

- *Historical service roads*

Another issue which may warrant additional study and action is the legal status of the historical service roads used by the Forest District, which were parallel to the rail line. **Jim Connor**, retired district forester for the Pennsylvania Department of Conservation and Recreation, referenced a corridor that ran along the railroad that dates back to the 1960s. He did not remember a particular agreement regarding the railroad right-of-way there, but the Bureau of Forestry at the time always had a conditional use there to access that road for fire prevention. This action was implemented to provide a burned area along the tracks as a safety zone to reduce wildfires during the spring wildfire season. Fires had historically been started as trains descended the mountain. The rail car brakes would overheat and throw sparks. Also, northbound locomotives would throw embers from their engines.

Historically, they would go in annually in the spring and burn off that corridor between the service road upslope of the railroad tracks and down to the tracks. They would do that from Stites Tunnel/Bridge through and near the Cresco Station and possibly up to Mount Pocono. These service roads accommodated 6-foot by 6-foot vehicles used at that time and were easily traveled by a four-wheel-drive pickup truck along that corridor (at least 10 to 12 feet wide). This practice continued until about the early 1980s.

Eventually, likely due to different liability issues (prescribed burns/fires) especially with the development of homes on private lands on the upslope side of the burns, the district made a policy to discontinue these types of operations (burns) both locally and statewide. Mr. Connor knows the corridor is there but is not sure of its current condition or legal status. Agreement could have been with the railroad or with the adjoining landowners. The district office in Swiftwater may have kept some records on the disposition of these agreements. Mr. Connor knows that Tim Balch, current assistant

district forester, handled the fire program there. The central office in Harrisburg has most of the historical information (in the archives for 1950s and '60s) for wildfires in Pennsylvania. Mr. Connor asked if the county has any historical documents regarding these agreements; the deeds may provide a record of these agreements. The service roads were maintained not only for doing the prescribed burns but also for putting fires out in the 1970s and '80s because it was an active line. Additional legal research could prove useful.

- *Privately held lands*

While a significant length of the potential trail alignments identified utilize existing public lands, a substantial portion requires access across private lands. Most of the individual landowners within the corridor own rather large tracts of land. Also, large tracts of land are in private or quasi-private ownership – mainly hunting and fishing clubs. These properties offer vital connecting opportunities, but those opportunities may only be realized through respect to the proclivities of the clubs' vital interests.

In general, the proposed alternative trail alignments in the study corridor do not encroach on sensitive wetland or riparian areas, and in many areas deliberately favor upland areas away from streams as a strategy to avoid conflicts of interest with fishing clubs. With development pressure once again increasing, conservation-minded owners such as hunting and fishing clubs may therefore not guarantee long-term preservation and protection of the resources and may be willing to work collaboratively to achieve shared goals. In general, trail easement agreements over fee-simple acquisitions are the likely preferred vehicle to accomplish necessary trail connections.

The Pennsylvania Land Trust Association (PALTA) provides essential tools for customizing a trail easement agreement with individual landowners in its *Model Trail Easement Agreement* – available along with other very useful guidance on its website, www.conservationtools.org – and as noted therein: “The creation of a trail easement mainly requires a meeting of minds between the owners and the holder as to the character of the intended trail and the rights each will hold in the land. Then, the understanding they have reached is incorporated into an easement document prepared or, if a model document is used, at least reviewed by an attorney to ensure that the document is customized to the particular facts and circumstances of the project.”

3.5 Financial feasibility

Given the emphasis on exploring and maximizing the potential alignments and the realization that no one alignment is preferred at this time, a concept-level estimate of cost for individual trail segments was considered beyond the original anticipated scope of the project. However, some cost considerations for development of a trail in this corridor include the following deliberations:

- *Access acquisitions*

As mentioned above, grants of trail access easements, covenants and restrictions are customized for each property based on the needs of each landowner and the proposed

pathway. For the anticipated walking pathway, a 10-foot-wide easement may be all that is required. While an easement is the likely best option to obtain public access, fee-simple ownership of a property may be more attractive to the landowner. Such costs are as uniquely different as the agreements themselves. In this conservation landscape, some properties can be more sensitive in terms of who approaches or negotiates with the owner. In these cases where a lead organization is established, it needs to be respected by all parties. In this corridor, more than one grantee is anticipated, so a joint agreement for the acquisition, development, and maintenance of the through-trail needs to be established.

Also, as noted in the Upper Brodhead and Paradise Creeks Greenway Plan, many properties within the watershed are owned by hunting and fishing clubs, which may be willing to place land into a conservation easement but are unwilling to allow full public access to their lands. An alternative approach: Find ways to allow for “partial” public access to these parcels, which would require only a percentage of the funds needed to purchase the land.

- *Railroad crossing improvements*

Ballpark costs for crossing improvements vary and depend on what the railroad requires. With existing signals and bells, nothing else may be needed except for a channelization device to make sure trail users are crossing where you want them to cross. This may include signs for bikers to dismount or pedestrians to look in both directions. There are no definitive standards, but highway design manuals are a good start. Something simple like channelization devices to slow trail users outside an existing signal may be as low as \$20,000. If, however, additional flashing lights, etc., and pedestrian gates are required, then upgrade costs could range from \$50,000 to \$100,000.

- *Trailhead improvements*

At least seven potential trailheads have been identified along the potential alignments. At BCHC, it has already been noted by Stroud Township that improvements have been planned, budgeted for, and slated for implementation. A trailhead into Browns Hill Preserve, already existing off a cul-de-sac, may be improved by expanding into the property and providing additional parking, trail signage and an interpretive kiosk. Others may be considered specifically to cater to a desired user group, such as equestrians, who require distinct needs beyond walking pathways. The specific designs would be part of a master plan when a fundable project and champion is identified, or, if occurring on existing public lands, be given consideration in terms of its usage as part of the envisioned connected trail system.

- *Stream crossing improvements*

Again, given the number and type of stream crossing improvements identified in the alternative alignments, this is a cost that can vary widely. Some potential crossings may pass over an intermittent stream channel and require very little in terms of crossing implementation and rather be a part of general trail maintenance. Others could utilize a

more formal stepping-stone approach similar to that installed in nearby Delaware Water Gap Borough, an accepted and improved means by the state DCNR. A few may require improvements to existing infrastructure, while others may need a more formal custom design. On-road trail sections identified on extant bridges may simply flag the needed improvement as part of a bridge replacement. Again, the specific design would be part of a master plan when a fundable project and champion is identified.

CHAPTER 4 – RECOMMENDATIONS FOR ACTION

Phased implementation actions:

Administration

- Use this study to encourage potential implementors, such as municipalities and land trusts, to pursue potential alignments and the development of appropriate trail segments.
- A phased approach may be the best strategy and is the likely best approach to capitalize on opportunities as they arise from deliberate efforts to accomplish the same, while also realizing that “work-arounds” in some cases may provide the best opportunity to establish a needed link until a future opportunity can be realized.
- Partner with municipalities, DCNR, NEPA, PennDOT and the PUC.
- Maintain active contacts with Monroe County Planning Commission, PennDOT, DCNR, PUC, PEC, and WPF.
- Establish a good working relationship with the Rail Authority.
- Seek to expand the potential trail network through additional studies that build on this one to achieve the long-term goal.
- Promote recognition of values revealed in the study.
- Especially consider who would be responsible for coordination efforts and how to seek potential funding for implementation efforts.
- Establish and agree upon a joint agreement for the acquisition, development, and maintenance of the through-trail by the parties championing the trail.
- Promote development of the “Trail Town” concept.

Acquisition

- Partner with local municipalities and land trusts for acquisitions.
- Negotiate missing rights-of-way with private owners.
- Negotiate preferred easements, rights-of-way, and/or fee-simple purchases for alignments through private properties and other agreements required for public properties. Initial priorities at this time may include:
 - ✓ Brodhead Forest and Stream Association
 - ✓ Analomink Rod and Gun Club
 - ✓ Karren A. DeSeve
 - ✓ Parkside Angling Association

- ✓ Pocono Mountain Bluestone Co.
- ✓ The Shepherds

Planning (next steps)

- Development guidelines for a master Wayfaring and Signage plan to provide for a branded overall trail system connecting individual trails with various local names as part of regional “extended circuit trail system” and providing for uniform interpretive signs for cultural sites and assets.
- Collaborate with the district forester to expand the existing trail system in the Delaware State Forest to provide the needed through-linkages.
- Identify fundable projects as ownership is secured and a champion is identified to secure funding.
- Master plan for specific sections of trail as ownership is acquired.
- Master plan for the development of a “Trail Town” for the adjacent communities of Cresco, Mountainhome and Canadensis.
- Conduct an additional feasibility study to identify potential trail alignments extending southwesterly to Pocono Pines and Route 940 from Cresco Station, filling an identified gap in the expanded regional trail network as envisioned.

Action schedule

To advance the trail system as envisioned in this study, a generalized schedule tied to the above actions needs to be developed by BWA and its potential partner organizations. Due to the flexibility needed to negotiate easements and to develop partnerships and funding, this schedule can help suggest a reasonable and thought-out approach, but not one that is predetermined.

Funding strategies

- Next steps with regard to trail options and implementation of potential alignments would require a trail champion such as PHLT, SROSRC, or individual municipalities. Potential funding partners include:
 - ✓ WPF
 - ✓ State DCNR
 - ✓ PennDOT
 - ✓ State DCED
 - ✓ Pocono Forest and Waters Conservation - PEC mini-grants
 - ✓ Municipal match
 - ✓ Visitors Bureau/hotel tax (promotional efforts)
 - ✓ Federal Highway Administration (FHWA)
 - ✓ National Park Service (DEWA)
 - ✓ Corporate/non-profit/foundation (banking, educational, medical, etc.)
 - ✓ The Progress Fund

APPENDICES

A – Public participation

B – Key contacts

C – Pocono Bike & Hike Trail (Tobyhanna Township – Wilkes-Barre & Eastern Railroad)
– contact Julia Heilakka, Tobyhanna Township community engagement coordinator

APPENDIX A – PUBLIC PARTICIPATION

A.1 Study/Steering Committee meetings (4)

The Study Committee was made up of a cross-section of stakeholders and community members who provided advice on outcomes, concerns, ideas, and opportunities and who acted as liaisons to other interest groups and individuals and served an advisory role throughout the study process.

- *Committee meeting 1 – March 6, 2018*

This initial meeting held at the Monroe County Planning Commission office served to kick off project and focused on a review of roles and responsibilities, a discussion of public participation and outreach (the identification of potential focus group participants and key person interviews), and a review of the timeline and schedule for the project. In addition to tying into the *“Expanded” Regional Trail Scan – a Report to the William Penn Foundation*, done as an addendum to the *Circuit Trails – Greater Philadelphia’s Regional Trail Network* (a vast regional network of hundreds of miles of multi-use trails that is growing each year), it was also noted that ultimately trail connections such as those being examined in this study could be made from the McDade Trail in the DWGNRA to the WB&E abandoned rail corridor which would then connect to the Lehigh and Lackawanna Heritage Corridor trail system. Also, these smaller trail segment studies can give more credence to a county-wide trail system – one that deals with crossings over stream, rail and road systems. For example, bridge replacements that include widenings for a pedestrian and bicycle crossing (plans need to show trail plans to justify widenings). The study corridor mapping prepared by MCPC was presented as nine one-mile segments with overlaps.

- *Committee meeting 2 – May 2, 2018*

The purpose of this meeting was to provide a check-in on progress that had been made, and observe priorities and concerns moving forward. Some key properties that present challenges were discussed. MCPC identified an issue regarding updating the status of parcels relative to conservation easements and deed restrictions and the need for a process for partner organizations to share updates, e.g. the recorder of deeds and the accessors office does not link to the MCPC office database. However, current “owner” is reflected in the file database but does not distinguish easement and fee-simple information, which requires the planning commission to contact conservation partners or conduct in-depth deed research to assess easement language and deed restrictions. Thus, there may be information regarding property status of lands in the corridor that needs to be updated on the commission’s *Conserved Parcels* layer. An interesting historical note revealed that Brodhead Creek and Paradise Creek were originally collectively known as the “Brodheads.”

- *Committee meeting 3 – September 20, 2018*

This meeting provided another check-in and progress update. A significant change in the scope of the project was revealed, related to the need to widen the study corridor from the nine section maps originally anticipated. Public involvement via the focus group meeting and key person interviews conducted to this date tagged areas outside the nine section maps. This was warranted to avoid the need to conduct yet another study to identify the connections within this reach. However, new section maps needed to be developed to capture and maximize the potential opportunities for the conceptual alignments. It was also agreed to conduct an additional Study Committee meeting to review the potential alternatives generated from a consolidation of information gained from outreach and field reconnaissance efforts. Concerns and issues were discussed related to specific private property negotiations that may be required to realize trail development. Some natural divisions created by steep slopes along property boundaries were noted. Updates to parcels related to recent easement and property acquisitions in the corridor and additional key person interviews were identified.

- *Committee meeting 4 – March 1, 2019*

This meeting was held at the MCPC office and focused on round-table discussion regarding potential alignments with the aid of projected mapping using the GIS mapping files for the project. Recent acquisitions in the study area were noted. A working draft of the study report was shared to show the layout. The committee was asked to focus and comment primarily on the trail alignments and segments as presented at the meeting. What problems and challenges need to be addressed? Is there a preferred alternative? Comments on other sections of the report were also welcome and were requested to be received by March 15.

A.2 Focus group meetings

These groups were convened to help formulate and evaluate alternative concepts for the feasibility of trail development. Participants in the discussions represent a mix of recreation and environmental interests.

- *Focus group meeting 1 – March 20, 2018*

This meeting was held in the upper corridor at Evergreen Community Charter School in Cresco. The purpose of this meeting was to help formulate and evaluate the potential for a greenway and trail through the study corridor extending from ForEvergreen Nature Preserve in Stroud Township to the Cresco Station in Barrett Township. Participants in this discussion represented a mix of recreation and environmental interests in the upper reach of the study corridor. Fourteen attendees also represented the following stakeholder groups: Barrett Township EAC, Timber Creek Stables, local residents, Monroe County Open Space Advisory Board, Brodhead Watershed Association, Pocono

Heritage Land Trust, the Brodhead Chapter of Trout Unlimited, fishermen, and a Paradise Township supervisor.

Recreational uses to be considered for the corridor identified the following:

- a. Hiking trails.
- b. Biking trails.
- c. Motorized trails were not viewed as appropriate for this corridor.
- d. Horse trails. (Where do you park a horse trailer?)
- e. Nature trails.
- f. Trails with wayfinding/wayfaring signage: directional and interpretive.
- g. ADA accessible trails in some locations would be welcomed.
- h. Cross-country skiing.
- i. Kayaking (if appropriate).
- j. Snowshoeing.
- k. Birding.
- l. Dog walking.
- m. Historical markers and interpretation, and historic preservation.
- n. Hunting and fishing.
- o. Origin and destination use (connecting places and communities).
- p. Through-trails, e.g. significant hiking routes.
- q. Cultural features.
- r. Information and interpretive – highlighting significant environmental and natural resources and what they mean in addition to cultural and historical resources.

Environmental issues and other concerns important to consider in this corridor include:

- a. Access issues to stream.
- b. Width of trails.
- c. “Do no harm” approach to the environment.
- d. Limited access to streams.
- e. Water quality issues.
- f. Dog and horse feces, especially near the streams.
- g. Dog walking (on leash or off leash?)

- h. Railroad started in 1850 and completed in 1856. To accommodate the railroad, a 2% grade needed to be maintained and not exceeded and therefore significantly altered the landscape:
 - i. Major cuts and fills.
 - ii. Used and still use ballast to fill (stone crusher site was a source of local rock for ballast).
 - iii. Non-local ballast is used today to repair and fill in (sources not known).
 - iv. The railroad was also the first major alteration to the water drainage pattern and major alteration to landscape.
 - v. Culverts were not installed at every stream crossing, resulting in diversions of small streams (which today are dried up).
 - vi. First major alterations to streams.
- i. Concern with invasive species, especially Japanese knotweed along the creeks – prevent spread and remediate.
- j. Erosion concerns with trail building.
- k. Hemlock decline.
- l. Tree falls.
- m. Human waste and trash issues.
- n. Overuse issues and out-of-state users/visitors (lack of concern for the resources).
- o. Signage to educate users.
- p. Noted that horse manure is nonbacterial and great for the environment.
- q. Conflicting uses between user groups and “social trails.”
- r. Avoid unintended use by trail placement.
- s. Consider designated trails for specific uses and clarification of allowed uses on multi-use trails and yield protocols.
- t. Manufacturing property issue (between Best Ways Lumber or Barry property) – need for alternative passage.
- u. Rail crossings/choke points (access to Cresco Station?)
- v. Water quality, invasives, and litter major environmental issues.
- w. Trail management and ownership questions.
- x. Emergency vehicle access issues, e.g. width of trail impacts.

- y. Single track trails for wilderness/natural experience that loop off larger trails.
- z. Paradise Township position on bike use on open space trails?
- aa. Which side of the tracks will be worked on?
- bb. Right to Recreation Act.
- cc. Agreements with private landowners.
- dd. About a third of the corridor under restriction; Cranberry Creek is a proposed EV classification stream designated as Class A wild trout waters with special regulations – artificial lures and catch-and-release only. The other two-third runs along Paradise Creek, which is also a Class A wild trout waters designation primarily under the control of two fishing clubs.

Special places in the corridor include:

- a. Red Rocks bridge (historic swimming hole).
- b. Water crossings.
- c. Henryville hamlet.
- d. Open space properties/opportunities for linkages.
- e. Stream access (for fishing or viewing).
- f. Glacial rocks by Henry's Crossing.
- g. Old-growth hemlock.
- h. Many culverts under the tracks are Ithaca black shale (brought here from Ithaca because it is hard and resistant to weathering but also had straight grains and could be hand cut. The shale was back hauled from Bethlehem steel deliveries to upstate New York (potential interpretive sign at culvert). Good example of Ithaca black shale is near tunnel embankment north of Brodhead Forest & Stream Association. It was a footer for the bridge crossing.
- i. Some of the culverts could be opportunities to cross under the tracks.
- j. Old foundation on Nothstein property that sits down in the wetland area along the stream associated with raceways built by the Henrys along Cranberry Creek.
- k. Anytime you can see or cross a stream is something to take advantage of.
- l. The "peat bog" is mined (hard to get a permit to do that now). A big black thing. Requires reclamation.
- m. Cresco Station Museum.
- n. Henryville Station (if anything left).

- o. The building of the railroad.
- p. The stripping of the hills for the building of the railroad.
- q. VAL maps to identify railroad remnants
- r. Stripping of hill for railroad.
- s. Barrett Historical Society Museum by Cresco Station (was the old general store and post office). Could be bike repair shop and place for snacks.
- t. Wilier wellness books.
- u. History of Cresco (a resort station).
- v. Buck Hills Quaker resort.
- w. Sagans ice storage off Ice Lake – old foundation.
- x. Tunnel history (refer to historian John Layton’s presentation to historical society of building of the tunnel).
- y. Low head dam at headwaters of Cranberry Creek. Built on top of “drop falls.” Why was it built and what done there? It is in a glacial drift area with large glacial boulder field which has both erratic and local boulders. Good place to explore which should be on part of the trail.
- z. Scenic views, especially from high points – need topo to help identify.
- aa. Brodhead Creek Heritage Center

Opportunities identified for linking a trail through this corridor include:

- a. Need for opportunities to link trails and open space together (noted in planning document).
- b. If located through stream corridors, trails can benefit by establishing riparian buffers and wildlife corridors in addition to recreational use.
- c. Connecting corridors should be a priority.
- d. Also, economic benefits of connecting places and destinations.
- e. Linkage of all open space properties.
- f. WPF Circuit Trails initiative was noted and fit to Lehigh Gap as an extension of the circuit trail system.
- g. Wildlife corridors, if linked.
- h. Potential linkage to Liberty to Water Gap Trail (Millennium Trail/911 Trail system)
- i. Potential opportunity to help realize a cross-county trail – linking Delaware River at McDade Trail to the Lehigh River across the top half of the county. A single track, hiking through-trail loop off Appalachian Trail to the Delaware

River then across wild and scenic (escarpment) trail through Monroe County to Lehigh Gap.

- j. Linkage to the Lehigh Heritage and the Lackawanna Heritage corridors, which tie Philadelphia to Allentown to Scranton.
- k. Active study for a trail along the abandoned WB&E abandoned corridor from Route 940 to Pocono Summit that could eventually help establish a link to the Lehigh.
- l. Log Cabin Trail in Lehigh County is unique.
- m. Driving trails may also be considered as a trail component. This corridor could also be interpreted from a driving experience.
- n. This area is the “Central Park” of the “Bos-Wash Megalopolis.”
- o. Linkage to Delaware State Forest lands.
- p. Ice Lake connection.
- q. Old “service” roads on either side of the railroad tracks.

A half-hour at the end of the meeting was reserved for discussion and the marking up of the corridor maps.

- *Focus group meeting 2 – April 10, 2018*

This meeting was held in the lower portion of the corridor at the Stroud Region Open Space & Recreation Commission office, East Stroudsburg. The purpose of this meeting was to help formulate and evaluate the potential for a greenway and trail through the study corridor extending from ForEvergreen Nature Preserve in Stroud Township to the Cresco Station in Barrett Township. Participants in this discussion represented a mix of recreation and environmental interests in the lower reach of the study corridor. Nine attendees also represented the following stakeholder groups: East Stroudsburg Borough, Stroud Region Open Space & Recreation Commission, Stroud Township Zoning Board, East Stroudsburg University, local residents, Brodhead Watershed Association, Pocono Heritage Land Trust, and the Brodhead Chapter of Trout Unlimited.

The first half-hour of the meeting was devoted to a presentation, overview, and update on the Trail Gap Analysis project by Sherry Acevedo, executive director of Stroud Region Open Space & Recreation Commission.

Maps of the corridor were laid out on tables before the group to provide a means to spatially identify opportunities and concerns within the specific corridor being examined. Four key questions were presented for consideration with results summarized below.

Recreational uses to be considered for the corridor identified the following:

- a. Biking trails.

- b. Bird watching – eagle watching.
- c. Enjoying nature and photography.
- d. Fishing.
- e. Environmental education.
- f. Cross-country skiing.
- g. Snowshoeing.
- h. Through-hiking, perception of a long corridor connecting “places.”
- i. Kayaking, but the waters in Paradise Creek are very difficult, while Brodhead Creek is kayaked only by advanced whitewater kayakers.
- j. Outdoor classroom activities and stream monitoring activities.
- k. Creek walking (creek stomper) and swimming.
- l. Areas for meditation.
- m. Motorized trails were not viewed as appropriate for this corridor, especially due to the potential destruction that could be caused.
- n. Places for ADA access.
- o. Horse trails (trailer parking, mounting blocks, stable nearby).

Environmental issues and other concerns important to consider in this corridor include:

- a. Public access to streams due to private fishing club ownership.
- b. Promotion of stewardship by developing connecting trails.
- c. Issues developing safe kayaking with appropriate levels of difficulty and encouraging fish habitat.
- d. Preserving what we have and working together to achieve that.
- e. Ambivalence regarding mountain biking trails in this particular corridor.
- f. Difficult terrain for cross-country skiing.
- g. Erosion concerns with different trail types (sustainability issues).
- h. More suitable for single-track trails in much of the corridor.
- i. Preventing unsanctioned uses.
- j. Inappropriate use and how it is monitored and managed.
- k. Physical impacts of sanctioned uses.
- l. Volume of use/traffic.
- m. Littering.
- n. Squatters/homeless/fires/litter.

- o. Emergency access/cell phone coverage.
- p. If you build it, they will come – including undesirable users.
- q. Stream and wetland crossings.
- r. Effects of nature on built environment.
- s. Protecting inherent qualities of “preserved landscapes.”
- t. Riparian buffers.
- u. Trail bases (natural or applied surface).
- v. Identification of species of concern and sensitive areas where not yet known.
- w. Overuse concerns.
- x. Not suitable for a uniform single type of trail, i.e. different designations.
- y. Elevation change.
- z. Maintenance issues/volunteers.
- aa. Restroom facilities.
- bb. Unleashed dogs and cleanup.
- cc. For Evergreen Nature Preserve sets the tone for trail development in this corridor, i.e. nature-based trail system.
- dd. Old railroad tunnel reconstruction.

Special places in the corridor include:

- a. Beautiful rills above the railroad tunnel.
- b. Confluence of Brodhead and Paradise.
- c. Others identified on maps during the mark-up session.

Opportunities identified for linking a trail through this corridor include:

- a. Working with fishing clubs in a positive and mutually beneficial manner, e.g. Pohoqualine example and easement agreements.
- b. Making connections to all the unique and beautiful assets we have and creating opportunities to enjoy them.
- c. Fishing – get your boots on and you are right in nature.
- d. Developed trailheads and access points and parking.
- e. Note that horse trail users help with trail maintenance and trail etiquette, e.g. Jacobsburg State Park.
- f. Inherent quality of connectivity and elimination of “gaps.”
- g. Unifying signage

- h. Need for opportunities to link trails and open space together (noted in planning document).
- i. Expand outside the defined study corridor to catch all appropriate opportunities.
- j. Note additional PHLT land acquisitions.
- k. Rail corridor (note prior study).
- l. Improve in-stream habitats.

A half-hour at the end of the meeting was reserved for discussion and the marking up of the corridor maps.

- *Focus group meeting 3 – July 25, 2018*

A special meeting with land protection and conservation organizations with potential overlapping interests in the study corridor was held at Stroud Township Municipal Building to inform them of the purpose and focus of this study and to identify any apprehensions and or any potential overlapping opportunities. In addition to the extensive work of the Pocono Heritage Land Trust within the corridor, several other land trusts have ongoing relationships with landowners within and surrounding the corridor. Long-term conservation and land protection measures and activities within and around the corridor were highlighted. The critical nature of land trust efforts was also emphasized. A goal of working together to address overlapping interests was established.

A.3 Key person interviews

Twenty key person interviews were conducted by Gary David Bloss, writer of this trail feasibility study, with the following individuals and groups to seek input from a broad cross-section of stakeholders and interested parties. The interviews were used to collect information, determine issues and opportunities, explore partnership potential, and seek out others who should be interviewed. The interviews were conducted in person and by telephone. The list of interviewees was determined with the help of the Study Committee. In general, interviewees were informed of the purpose of the study, and that some of the potential alignments will be on public lands while others may require private easements.

Don Miller – Pocono Heritage Land Trust, BWA, retired teacher and naturalist

Mr. Bloss spent a half day with Don Miller in April 2018. Several follow-up meetings were also held with Mr. Miller to help map out potential trail alignment options. Mr. Miller's knowledge and interest greatly benefited this study. He shared extensive on-the-ground knowledge. Mr. Miller is a retired educator and naturalist and serves on the boards of both PHLT and BWA. He is also an active member of the local Trout Unlimited

chapter and served on the Monroe County Open Space Advisory Board for many years. During field reconnaissance, Mr. Miller shared his knowledge about Brodhead Creek from the recently protected ForEvergreen Nature Preserve and home of the new Brodhead Creek Heritage Center upstream to view the confluence pool and then along the Brodhead and Paradise creeks to Cresco Station and through the preserved lands in Paradise and Barrett townships.

Doug Swift and Dave Morine – *members, Brodhead Forest and Stream Association*

Mr. Bloss and Mr. Miller conducted an on-site interview on April 26, 2018. Maps of the study area were laid out, and Mr. Swift and Mr. Morine shared their knowledge and insights of the corridor and for the large land holdings of the association. Mr. Morine used to work with the New Jersey Conservation Fund and has also recently taken over the presidency of Parkside Anglers. In general, communications with members of other private fishing clubs within the corridor, including Brodhead Flyfishers, indicate support and an openness to a hiking footpath trail on their property, albeit distanced from the creeks. This knowledge served to guide potential alignments within their land holdings.

Ed DeSeve - *Henryville Club, Parkside Anglers*

Mr. Bloss and Edie Stevens conducted an on-site interview on May 11, 2018, with Mr. DeSeve, who conveyed an openness to a hiking footpath trail on a property owned by his wife and on club property, provided it is upslope and distanced from the stream proper.

Sherri Acevedo – *Executive director of Stroud Region Open Space & Recreation Commission (SROSRC)*

Mr. Bloss and Ms. Acevedo discussed the Stroud Region Trail Gap Analysis project and her participation and offer to present a status update prior to the focus group session scheduled for the southern reach. She agreed to host and present at the meeting and keep in touch as both projects advance.

Timothy R. Dugan - *District forester, Pennsylvania Department of Conservation and Recreation*, and **Julian Maza**, *recreation forester*

Mr. Bloss spent a half day at the Delaware Forest District Office in February 2019. Maps of the study area were laid out. The district was receptive to a proposed alignment tying into their existing trail system and grateful that we shared our progress and intentions.

Michael A. Sorbo, PE - *director of PennDOT's Bureau of Rail Freight, Ports & Waterways, Multimodal Transportation*

Mr. Bloss contacted Mr. Sorbo regarding potential railroad at-grade crossings being examined in the study. It was determined that all three proposed crossings intersect the Delaware and Lackawanna Railroad. It was strongly suggested that Rodney Bender at the Pennsylvania Public Utility Commission be contacted for further guidance. *(See Page 46 for more information from this interview.)*

Rodney D. Bender, PE – *manager, Transportation Division, Pennsylvania Public Utility Commission, Bureau of Technical Utility Services*

Mr. Bloss contacted Mr. Bender regarding potential railroad at-grade crossings being examined in the study. PUC has exclusive jurisdiction over the crossings themselves, anything from establishing a new crossing that did not exist before to modifying an existing crossing, widening the roadway, type of warning devices, type of crossing surface, adding a sidewalk, adding a trail, underground water installation, aerial wires installation – all are considered altering the existing crossing and needs approval by the PUC. Ultimately, PUC can tell the parties what needs to happen there. *(See page 46 for more information from this interview.)*

Jim Connor – *retired district forester, Pennsylvania Department of Conservation and Recreation*

Mr. Connor reached out to Pocono Heritage Land Trust and was contacted by Mr. Bloss to discuss his knowledge of a corridor that ran along the railroad that dates back to the 1960s. He did not remember a particular agreement regarding the railroad right-of-way there, but the Bureau of Forestry at the time always had a conditional use there to access that road for fire prevention. Mr. Connor knows the corridor is there but is not sure of its current condition or legal status. *(See page 48 for more information from this interview.)*

David Parker, *past president of Analomink Rod & Gun Club*, and **Dave Kratz**, *president* David Parker lives in the lake community and was a past board president of the club. Mr. Parker referred Mr. Bloss' inquiry regarding the club's potential interest in trail easement through their property to the club's secretary, who forwarded his inquiry to the current club president, Dave Kratz. Mr. Kratz stated that he did not see a problem if an easement were to run along the boundary; however, he preferred not using Clark Road into the community. He said a proposal could be brought up at a membership meeting. They meet the second Saturday of each month.

Lawrence C. Malski, Esq., *president of Pennsylvania Northeast Regional Railroad Authority*

PNRRA is the railroad owner. Mr. Bloss informed Mr. Malski of the study, and Mr. Malski reiterated their longstanding policy of not having any trails next to active track for a number of reasons, including fatalities and personal injury suits from people who were trespassing along the tracks. Regarding at-grade crossings, they would have to see what we would be proposing, e.g. new sidewalk or existing pavement, etc. They do have specific standards for any type of crossing, including pedestrian and bicycle crossings and specifications for the same. When this project reaches a trail master planning stage, the plans would need to be presented to PNRRA for review. *(See page 47 for more information from this interview.)*

Nate Oiler, PE, RKR Hess, and member of Pocohontas Rod & Gun Club

Mr. Bloss made a follow-up call to SROSRC and confirmed Sheri Acevedo left her position as executive director. Acting Executive Director Samantha Holbert referred to Nate Oiler, noting that RKR Hess and the Monroe County Planning Commission are completing the Stroud Region Trail Gap Analysis. The study needs to wrap up soon, Mr. Oiler said. They have not focused much on the ForEvergreen Connector Trail, since it is a difficult yet important connection, i.e. no easy solution. Basically, there are two options, one along the railroad and one on the Stone Crusher high side. Mr. Oiler will provide a statement regarding this connection. He also noted an issue with the county tax map IDs in this area. He is focusing on closing identified GAPS for potential early implementation projects, e.g. who would be responsible for coordination efforts and potential funding.

Regarding the Pocohontas Rod & Gun Club, he confirmed that he is a member and noted that while they are a conservative bunch, he could approach them with our interests when appropriate.

Mike Mader, Paradise Township roadmaster, and Gary Konrath, Paradise Township supervisor

Mike Mader was contacted by Mr. Bloss about Station Hill Road, a township road that had crossed the railroad tracks and connected to PA Route 191 near Henryville. Mr. Mader noted that a section had been washed out during a flood event and has not been rebuilt or maintained since (about 20 years ago). While it dead ends on the east side of the tracks, the street right-of-way still continues to Route 191. Mike noted that the road may need to be extended to accommodate a proposed dwelling on a lot (former hotel site) in that area. The trail concept was explained to Mr. Mader, highlighting the potential to utilize the old railroad crossing. Other railroad crossings on township roads were discussed. Browns Hill Road is now used more heavily since the bridge into Timber Hill has been closed. It is the only way in and out of the Timber Hill community. Henry's Crossing Road was also discussed. A follow-up call from Mr. Konrath stated that

he and Mr. Mader had explored the terrain of the abandoned portion of Station Hill Road and noted current conditions challenged even hiking access due to the steepness of the terrain since the former road was washed out.

Daryl Eppley, *Stroud Township manager*, and **Donna Acker**, *PE, township engineer*

Mr. Bloss meet with Mr. Eppley and Ms. Acker on April 17 and presented potential alternate trail alignments for the Stroud Township area. Mr. Eppley noted that they have plans to improve the parking area around BCHC and suggested an additional alignment that would utilize the adjacent property to the east along Brodhead Creek and tie to the described NE alignment. Another interesting potential alignment might tie to the NW potential alignment using a new railroad crossing.

Paul Canevari, *member of Henryville Conservation Club*

Mr. Bloss informed Mr. Canevari about the study and some concepts for potential trail alignments. Mr. Canevari asked how the project would get around the railroad bridge on PA Route 191. Mr. Bloss noted an option west of the bridge and Paradise Creek. While not saying no, Mr. Canevari noted that the club owns more of a corridor and always have issues with trespassing and poaching, and expressed a concern that granting access for walking could exacerbate those issues. Mr. Canevari said he and the board would take a look at a map provided by this study. He would also be willing to meet at a mutually agreeable time. Mr. Canevari cautioned that at his initial reaction is that he does not think the club would be interested, especially if it is going along the length of its stream corridor, but club members are willing to take a look and discuss. Mr. Canevari was also familiar with a piece of land in this area owned by PPL Utilities that was originally purchased for a substation many years ago.

Contacted but no reply to date: Don Cramer, Price Township supervisor

5.4 Public Meetings

- *Public meeting 1 – May 15, 2019*

A public meeting was held May 15, 2019, at 5 p.m. at the Paradise Township Municipal Building. There were 12 attendees. Mr. Bloss presented findings and recommendations in a PowerPoint presentation. Those in attendance were generally supportive of the study plan and its findings and recommendations.

In addition, the following written comments were received at the BWA office in regard to this presentation:

Commenter # 1:

"Equine traffic is rarely permitted on groomed biking trails (rail/trails/packed cinder) due to the destructive nature of the beast. I hope groomed rail trails will eventually be considered as these generate the most public interest and use by far. You have a few folks (names redacted) who can and will ride mountain bikes on the more rugged trails, but if the purpose is to serve the greater population of the area instead of a select few, groomed rail trails are the way to go. Some folks even use them for their daily commute (Easton to Bethlehem). These are true connector trails that serve to connect communities and offer an alternative mode of transportation (the bike).

"Of note, parts of the proposed trail border or bisect Delaware State Forest. Delaware State Forest trails are open to equine riding ... <https://delawareriver.natgeotourism.com/content/delaware-state-forest-pike-county-pa/del85524bdfc0fb584c6>

"One possible solution is to have equine trailer-friendly trailheads in areas near the Delaware State Forest and have a short, specific portion of this proposed trail system built and designated as a 'connector' trail to the already existing equine-friendly trail systems in Delaware State Forest.

"My comments on dogs and trash gathered from my personal experiences:

"Dogs ALWAYS on leash ... off leash they chase bikers, spook horses, not a good scene. Adequate signage is needed along the trail system to indicate this.

"Trash ... people are pigs and are cheap. Garbage containers at trailheads are often used as dumping ground for personal trash. D&L trail got rid of many of theirs just for this purpose. Their trail is littered with discarded Dunkin' Donut cups and plastic bottles (which I routinely gather). Adequate and very specific signage indicating 'Pack it In, Pack it Out' will be needed ... See, this leaves no doubt."

Commenter # 2:

"Two comments:

"1) A railroad spur that went from Cresco station to behind what is now Steele's hardware existed. It is now privately owned. A portion of it is owned by either Weiler Corporation or Karl Weiler. Where that ends, it was owned by Mary Ann &/or Warren (Mickey) Miller behind Theo B. Price. I don't know whether the ownership of the spur property went with the sale of the Theo B. to Steele's. Several years ago Karl had no problem with a trail along the spur & neither did Mickey. It doesn't get folks quite to the diner, but it is a very short hop from there.

"2) A friend in attendance tonight is color blind. The red used to highlight the trails was completely invisible to my friend. Can [project coordinators] find a color that a color-blind person can see and follow?"

Commenter # 3:

"I wanted to get back to you so you are aware of my thoughts and can also pass this on to others involved with the discussed trail corridor from Stroudsburg to Cresco.

"I looked at the plans which have been prepared which shows a trail option running along/on my property near Analomink.

"I am not interested in having the trail on my property and will not grant any easements for it.

"I purchased the property for my family to enjoy and use for camping and hunting. Having the eastern end of my property located far away from roads and regular disturbances, allows it to remain in as much of a natural state as possibly for being as close to a populated area as it is.

"To have constant disturbance by people and their pets using a trail, along with the inevitable trespassing from users not staying within a designated corridor, will only destroy the property as far as for the reasons I purchased it.

"Again, please share my thoughts on the trail option along/on my property with the others on the trail committee and remove this option from this and any future drafts."

- *Public meeting 2 – May 28, 2019*

A second public meeting was held May 28, 2019, at 6 p.m. at Brodhead Creek Heritage Center. There were four attendees and a reporter from WNEP Channel 16. Mr. Bloss presented findings and recommendations using a PowerPoint presentation. Again, those in attendance were generally supportive of the study plan and its findings and recommendations.

No public comments were received subsequent to this meeting.

APPENDIX B – KEY CONTACTS

1. The railroad owner is: **Pennsylvania Northeast Regional Railroad Authority (PNRRA)**, Lawrence C. Malski, Esq., president. (570) 963-6676, Ext. 11; lmalski@pnrra.com

2. The railroad operator is: **The Delaware-Lackawanna RR Company Inc. (DL)**, David J. Monte Verde, president. (585) 343-5398; lransom@gvtrail.com. The Grade Crossing Electronic Document Management System ([GCEDMS](#)) can be a useful tool to locate crossings.

3. **Pennsylvania Land Trust Association (PALTA)**, Andrew Loza, executive director
119 Pine Street, 1st floor
Harrisburg PA 17101
Phone: 717-230-8560
Email: info@conserveland.org

4. **The Trail Town Program** is an initiative of The Progress Fund.

David Kahley, dkahley@progressfund.org

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APPENDIX C – POCONO BIKE & HIKE TRAIL

